CITY OF ONTARIO

Regular City Council/Housing Authority Meeting
OCTOBER 17, 2023

City Hall
303 East B Street, Ontario, CA 91764

MAYOR PAUL S. LEON • MAYOR PRO TEM DEBRA DORST-PORADA
COUNCIL MEMBERS ALAN D. WAPNER, JIM W. BOWMAN AND RUBEN VALENCIA

CITY CLERK SHEILA MAUTZ • TREASURER JAMES R. MILHISER
CITY MANAGER SCOTT OCHOA • CITY ATTORNEY RUBEN DURAN

WELCOME TO A MEETING OF THE ONTARIO CITY COUNCIL

All documents for public review are on file with the Records Management/City Clerk's Department located at 303 East B Street, Ontario, CA 91764.

Anyone wishing to speak in person during public comment or on a particular item will be required to fill out a blue slip. Blue slips must be turned in prior to public comment beginning or before an agenda item is taken up. The Clerk will not accept blue slips after that time. To comment by email, submit your comments no later than 4:00 p.m. on the day of the meeting by emailing your name, agenda item you are commenting on and your comments to publiccomments@ontarioca.gov. All comments received by the deadline will be forwarded to the City Council for consideration before action is taken on the matter and will be entered into the record.

Comments will be limited to 3 minutes. Speakers will be alerted when they have 1 minute remaining and when their time is up. Speakers are then to return to their seats and no further comments will be permitted.

In accordance with State Law, remarks during public comment are to be limited to subjects within Council's jurisdiction. Remarks on other agenda items will be limited to those items.

Remarks from those seated or standing in the back of the chamber will not permitted. All those wishing to speak including Council and Staff need to be recognized by the Chair before speaking.

ACCOMODATIONS

If you need special assistance or accommodations to participate in this meeting, please contact the City Clerk's office at 909-395-2009. Notification of 48 hours prior to the meeting will help the City make reasonable arrangements. Equipment for the hearing impaired is available in the Records Management Office.

ORDER OF BUSINESS

The regular City Council and Housing Authority meeting begins with Public Comment at 6:30 p.m. immediately followed by the Regular Meeting and Public Hearings. No agenda item will be introduced for consideration after 10:00 p.m. except by majority vote of the City Council.

CALL TO ORDER *(OPEN SESSION)*

ROLL CALL

Dorst-Porada, Wapner, Bowman, Valencia, Mayor/Chairman Leon

PLEDGE OF ALLEGIANCE

Council Member Bowman

INVOCATION

Heather Freeman, The Church of Jesus Christ of Latter-Day Saints

PUBLIC COMMENTS 6:30 P.M.

The Public Comment portion of the Council/Housing Authority meeting is limited to 30 minutes with each speaker given a maximum of 3 minutes. An opportunity for further Public Comment may be given at the end of the meeting. Under provisions of the Brown Act, Council is prohibited from taking action on oral requests.

To comment by email, submit your comments by email no later than 4:00 p.m. on the day of the meeting by emailing your name, agenda item you are commenting on and your comment to publiccomments@ontarioca.gov. All Comments received by the deadline will be forwarded to the City Council for consideration before action is taken on the matter and entered into the record. As previously noted -- if you wish to address the Council, fill out one of the blue slips at the rear of the chambers and give it to the City Clerk.

AGENDA REVIEW/ANNOUNCEMENTS

The City Manager will go over all updated materials and correspondence received after the Agenda was distributed to ensure Council Members have received them. He will also make any necessary recommendations regarding Agenda modifications or announcements regarding Agenda items to be considered.

INFORMATION RELATIVE TO POSSIBLE CONFLICT OF INTEREST

Agenda item contractors, subcontractors and agents may require member abstentions due to conflict of interests and financial interests. Council Member abstentions shall be stated under this item for recordation on the appropriate item.

CONSENT CALENDAR

All matters listed under CONSENT CALENDAR will be enacted by one motion in the form listed below – there will be no separate discussion on these items prior to the time Council votes on them, unless a member of the Council requests a specific item be removed from the Consent Calendar for a separate vote.

Each member of the public wishing to address the City Council on items listed on the Consent Calendar will be given a total of 3 minutes.

---

1. APPROVAL OF MINUTES

Minutes for the regular meetings of the City Council and Housing Authority of September 19, 2023, and approving same as on file in the Records Management Department.

ATTACHMENT: 20230919 Minutes (Not Official Until Approved).pdf

2. BILLS & PAYROLL

Bills September 15, 2023 through September 28, 2023, and Payroll August 28, 2023 through September 23, 2023.

3. AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF ONTARIO, CALIFORNIA, AMENDING SECTION 4-6.1020 TO ARTICLE 10 OF CHAPTER 6 OF TITLE 4 OF THE ONTARIO MUNICIPAL CODE PERTAINING TO OVERSIZED VEHICLE PARKING ON PUBLIC STREETS

That the City Council adopt an Ordinance to amend Section 4-6.1020 to Article 10 of Chapter 6 of Title 4 of the Ontario Municipal Code pertaining to standards for oversized vehicle parking on public streets.

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF ONTARIO, CALIFORNIA, AMENDING SECTION 4-6.1020 TO ARTICLE 10 OF CHAPTER 6 OF TITLE 4 OF THE ONTARIO MUNICIPAL CODE PERTAINING TO OVERSIZED VEHICLE PARKING ON PUBLIC STREETS.

ATTACHMENT: Amendment to OMC Pertaining to Oversized Vehicle Parking^ORD^RM

4. A RESOLUTION FOR PLACEMENT OF SPECIAL ASSESSMENTS ON THE SAN BERNARDINO COUNTY TAX ROLLS

That the City Council adopt a Resolution for recovery of fees and costs incurred in abating property and dangerous building violations, as well as administrative citations and civil penalties associated with property maintenance violations and placing assessments on the San Bernardino County Tax Rolls.

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF ONTARIO, CALIFORNIA, ADOPTING A REPORT REQUESTING THE PLACEMENT OF SPECIAL ASSESSMENTS ON PROPERTY TAX BILLS FOR CIVIL PENALTIES OR RECOVERY OF COSTS INCURRED FOR ABATEMENT OF VIOLATIONS OF CITY CODES AND ORDINANCES.

ATTACHMENT: Comm Imp Special Assessments for County Tax Rolls^01^RESO^RM
ATTACHMENT: Special Assessments^02 - Exhibit A.pdf
ATTACHMENT: Special Assessments^03 - Exhibit B.pdf
ATTACHMENT: Special Assessments^04 - Exhibit C.pdf

5. PURCHASE OF EXPLOSIVES STORAGE UNITS FROM KL SECURITY ENTERPRISES, INC. FOR THE ONTARIO FIRE DEPARTMENT BOMB SQUAD

That the City Council authorize the City Manager or designee to execute the purchase of explosives storage units from KL Security Enterprises, Inc., of Lafayette, IN, in the amount of $170,000.

6. A LEASE AGREEMENT WITH CHAFFEY COMMUNITY ART ASSOCIATION

That the City Council authorize the City Manager, or designee, to execute a Lease Agreement (on file with Records Management) with the Chaffey Community Art Association, dba Chaffey Community Museum of Art (CCAA), of Ontario, California, for use of a City-owned building and adjacent property located at 217 South Lemon for the purpose of exhibiting and promoting local art and artists.

7. AN AMENDMENT TO THE PROFESSIONAL SERVICES AGREEMENT WITH PARSONS CORPORATION FOR ENGINEERING AND DESIGN SERVICES FOR THE I-10 FREEWAY AT GROVE AVENUE AND FOURTH STREET INTERCHANGE AND GROVE AVENUE CORRIDOR PROJECT

That the City Council approve Amendment No. 9 to the Professional Services Agreement (on file in the Records Management Department) with Parsons Corporation (Parsons) of Illinois, for additional engineering and design services for the I-10 Freeway at Grove Avenue and Fourth Street Interchange and Grove Avenue Corridor Project in the amount of $485,507, for a total

not-to-exceed amount of $5,049,698; and authorize the City Manager, or his designee, to execute said Agreement and future amendments within the authorization limits.

8. A SOLE SOURCE PURCHASE OF MOBILE SURVEILLANCE UNITS (MSUS) FROM ECAMSECURE

That the City Council approve and authorize the City Manager or his designee to execute all documents necessary for the sole source purchase of 15 Mobile Surveillance Units (MSUs) from ECAMSECURE, of Long Beach, California in the amount of $512,000.

9. A CONSTRUCTION CONTRACT WITH CHAPMAN COAST ROOF CO., INC. FOR THE DOROTHY A. QUESADA COMMUNITY CENTER ROOF REPLACEMENT PROJECT

That the City Council take the following actions:

A. Authorize the City Manager or his designee to complete and execute Construction Contract No. D&C23-016 with Chapman Coast Roof Co., Inc., located in Fullerton, California, for the Dorothy A. Quesada Community Center Roof Replacement Project in the amount of $284,987;
B. Authorize a 10% contingency of $28,499 to address any unforeseen issues that arise during construction for a total contract amount not-to-exceed $313,486; and
C. Authorize the City Manager or his designee to execute all documents required for the completion of the project including, but not limited to, contracts, agreements, assessments, easements, reduction of retention accounts, and filing a notice of completion at the conclusion of all construction related activities.

10. AN AMENDMENT TO THE MAINTENANCE SERVICES AGREEMENT WITH BAY ALARM COMPANY FOR THE ONTARIO POLICE DEPARTMENT FIRE NOTIFICATION SYSTEM DESIGN

That the City Council take the following actions:

A. Authorize the City Manager or his designee to execute Amendment No. 7 to the Maintenance Services Agreement with Bay Alarm Company, located in Concord, California, for the Ontario Police Department Fire Notification System Design in an amount of $11,925 for a total not-to-exceed contract amount of $1,022,272; and
B. Authorize the City Manager or his designee to execute all documents required for the completion of the project including, but not limited to, contracts, agreements, assessments, easements, reduction of retention accounts, and filing a notice of completion at the conclusion of all construction related activities.

11. AMENDMENTS TO THE DESIGN SERVICES AGREEMENT WITH HOLT ARCHITECTS, INC. FOR ON-CALL ARCHITECTURAL SERVICES FOR THE ONTARIO POLICE DEPARTMENT MASTER PLAN, REAL TIME INFORMATION CENTER, AND TRAINING DIVISION

That the City Council take the following actions:

A. Authorize the City Manager or his designee to execute Amendment No. 6 to the On-Call Design Services Agreement with Holt Architects, Inc., located in Palm Desert, California, for the Ontario Police Department Real Time Information Center and Training Division Design for an amount of $338,970;
B. Authorize the City Manager or his designee to execute Amendment No. 7 to the On-Call

Design Services Agreement with Holt Architects, Inc., located in Palm Desert, California, for the Ontario Police Department Master Plan Design for an amount of $143,582 for a total contract not-to-exceed amount of $1,055,066; and

C. Authorize the City Manager or his designee to execute all documents required for the completion of the project including, but not limited to, contracts, agreements, assessments, easements, reduction of retention accounts, and filing a notice of completion at the conclusion of all construction related activities.

12. AN AMENDMENT TO THE MAINTENANCE SERVICES AGREEMENT WITH WESTERN AUDIO VISUAL FOR THE ONTARIO POLICE DEPARTMENT GYM EXPANSION PROJECT

That the City Council take the following actions:

A. Authorize the City Manager or his designee to execute Amendment No. 3 to the Maintenance Services Agreement with Western Audio Visual, located in Orange, California, for the Ontario Police Department (OPD) Gym Expansion Project for an amount of $67,622; and

B. Authorize the City Manager or his designee to execute all documents required for the completion of the project including, but not limited to, contracts, agreements, assessments, easements, reduction of retention accounts, and filing a notice of completion at the conclusion of all construction related activities.

13. AN AMENDMENT TO THE PROFESSIONAL SERVICES AGREEMENT WITH AMERICAN THREAT ASSESSMENT CONSULTING INC. (A.T.A.C.)

That City Council authorize the City Manager or his designee to execute Amendment No. 7 to the Professional Services Agreement (on file in the Records Management Department) with American Threat Assessment Consulting Inc. (A.T.A.C.) of Rancho Cucamonga, California to add the purchase of additional equipment for the Civic Center remodel project and the Real Time Information Center in the amount of $71,521, for a total contract not-to-exceed amount of $1,604,021.

14. ACCEPTANCE OF PRIORITY LEGISLATIVE BUDGET PROJECT (PLBP) EARMARK FUNDS FROM THE CALIFORNIA DEPARTMENT OF TRANSPORTATION (CALTRANS) FOR THE DE ANZA PARK LIGHTING IMPROVEMENTS PROJECT, MISSION BOULEVARD MEDIAN IMPROVEMENTS PROJECT, AND RECREATION YOUTH ACTIVITIES AND YOUTH SPORTS PROGRAM

That the City Council authorize the City Manager or his designee to execute all documents necessary to accept the Priority Legislative Budget Project (PLBP) earmark funds in the amount of $4,500,000 from the California Department of Transportation (Caltrans) for the De Anza Park Lighting Improvements Project, Mission Boulevard Median Improvements Project, and Recreation Youth Activities and Youth Sports Program.

15. AUTHORIZE THE PURCHASE OF OUTDOOR FITNESS EQUIPMENT WITH GREENFIELDS OUTDOOR FITNESS FOR VINEYARD PARK

That the City Council authorize the cooperative purchase of Outdoor fitness equipment with

Greenfields Outdoor Fitness for Vineyard Park in the amount of $171,081 plus a 10% contingency of $17,109 to mitigate any unforeseen issues with supply chain surcharges and manufactory price increases for a total not-to-exceed contract amount of $188,190 from Greenfields Outdoor Fitness, of Anaheim, California, consistent with the terms and conditions of the Sourcewell Cooperative Contract No. 010721-GRN.

ATTACHMENT: Greenfields Outdoor Fitness -Exhibit A and B

16. A PROFESSIONAL SERVICES AGREEMENT WITH ROBERT COFFEE & ASSOCIATES FOR THE ANTHONY MUNOZ COMMUNITY CENTER GYMNASIUM

That the City Council take the following actions:

A. Authorize the City Manager or his designee to execute a Professional Services Agreement D&C23-015 Anthony Munoz Gymnasium (on file with the Records Management Department) to Robert Coffee & Associates, of Newport Beach, California, for the Anthony Munoz Community Center Gymnasium Project, for a total not-to-exceed contract amount of $971,820; and

B. Authorize the City Manager or his designee to execute all documents required for the completion of the project including, but not limited to agreements, assessments, easements, reduction of retention accounts, contracts amendments within the authorization limits, and filing a notice of completion at the conclusion of all construction related activities.

PUBLIC HEARINGS

Pursuant to Government Code Section 65009, if you challenge the City's zoning, planning or any other decision in court, you may be limited to raising only those issues you or someone else raised at the public hearing described in this notice, or in written correspondence delivered to the City Council at, or prior to the public hearing. Affidavits of posting compliance, for all items below, are on file with the Records Management Department.

---

17. A PUBLIC HEARING TO CONSIDER ADOPTION OF THE EUCLID WALNUT PLANNED UNIT DEVELOPMENT (FILE NO. PUD22-004) TO ESTABLISH DEVELOPMENT STANDARDS AND DESIGN GUIDELINES FOR A 10.6-ACRE PROJECT SITE LOCATED AT THE NORTHWEST CORNER OF EUCLID AVENUE AND WALNUT STREET

That the City Council adopt a Resolution approving the use of an Addendum to The Ontario Plan 2050 Supplemental Environmental Impact Report, and introduce and waive further reading of an Ordinance approving the Euclid Walnut Planned Unit Development (File No. PUD22-004).

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF ONTARIO, CALIFORNIA, APPROVING THE USE OF AN ADDENDUM TO THE ONTARIO PLAN 2050 SUPPLEMENTAL ENVIRONMENTAL IMPACT REPORT, PURSUANT TO THE REQUIREMENTS OF THE CALIFORNIA ENVIRONMENTAL QUALITY ACT, AS AMENDED, FOR FILE NOS. PUD22-004, PDEV22-027, AND PHP22-015.

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF ONTARIO, CALIFORNIA, ADOPTING FILE

NO. PUD22-004, THE EUCLID WALNUT PLANNED UNIT DEVELOPMENT, ESTABLISHING DEVELOPMENT STANDARDS AND DESIGN GUIDELINES FOR A 10.6-ACRE PROJECT SITE GENERALLY LOCATED AT THE NORTHWEST CORNER OF EUCLID AVENUE AND WALNUT STREET, AND MAKING FINDINGS IN SUPPORT THEREOF - APNS: 1051-271-67, 1051-271-06, AND 1051-271-66.

ATTACHMENT: File PUD22-004 PC Back-up
ATTACHMENT: 20230919 File No. PUD22-004 Euclid Walnut Mixed Use CC^03 AR Attach A - Addendum^RESO^RM
ATTACHMENT: File No. PUD22-004 Euclid Walnut Mixed Use CC^04 Addendum Reso Attach A - Addendum Doc
ATTACHMENT: File No. PUD22-004 Euclid Walnut Mixed Use CC^05 Addendum Doc Appendices A-G
ATTACHMENT: File No. PUD22-004 Euclid Walnut Mixed Use CC^06 Addendum Doc Appendices - HRA Backup Data
ATTACHMENT: 20231017 File No. PUD22-004 Euclid Walnut Mixed Use CC^07 AR Attach B - PUD^ORD^RM
ATTACHMENT: File No. PUD22-004 Euclid Walnut Mixed Use CC^08 PUD Ordinance Attach A - PUD Doc
ATTACHMENT: File No. PUD22-004 Euclid Walnut Mixed Use CC^09 PUD Ordinance Attach B - COAs

STAFF MATTERS

City Manager Ochoa

COUNCIL MATTERS

Mayor Leon
Mayor pro Tem Dorst-Porada
Council Member Wapner
Council Member Bowman
Council Member Valencia

ADJOURNMENT

ONTARIO CITY COUNCIL/
ONTARIO HOUSING AUTHORITY
MINUTES
SEPTEMBER 19, 2023
(Not Official Until Approved)

JOINT MEETINGS

The regular meetings of the Ontario City Council and the Housing Authority were held on Tuesday, September 19, 2023 at Ontario City Hall, 303 E. B Street Ontario, California.

CALL TO ORDER

Mayor Leon called the joint meetings to order at 6:31 p.m.

ROLL CALL

PRESENT:	Mayor/Chairman:	Paul S. Leon
	Mayor pro Tem/Vice Chair:	Debra Dorst-Porada
	Council/Authority Members:	Alan D. Wapner, Jim W. Bowman and Ruben Valencia
ABSENT:	Council/Authority Members:	None

.
Also present were Assistant City Manager / Assistant Executive Director Darlene Sanchez, Assistant City Attorney/Legal Counsel Ryan Guiboa, and City Clerk / Secretary Sheila Mautz.

INFORMATION RELATIVE TO POSSIBILE CONFLICTS OF INTEREST

There were no conflicts of interest announced by the City Council.

PLEDGE OF ALLEGIANCE

The Pledge of Allegiance was led by Council Member Valencia.

INVOCATION

The invocation was led by Pastor Richard Hernandez, The Church of God Ontario

SPECIAL CEREMONIES

A PROCLAMATION RECOGNIZING CALIFORNIA NATIVE AMERICAN DAY

The City Council proclaimed and recognized September 22, 2023, as California Native American Day.

PUBLIC COMMENTS

Assistant City Clerk Isbell announced there was one written public comment: *Loree Masonis,* questions regarding Measure Q.

Mayor Leon called upon the first speaker:

Kiara Valdez Garcia, invited Council to participate in National Walk to School Day.

Ralph Linderman, spoke regarding oversized vehicles Ordinance.

Robert Luguori, spoke on homelessness in the community.

Maria Molina, spoke on homelessness in the community.

Ana Hernandez, spoke on homelessness in the community.

Leticia Rosales, spoke on homelessness in the community.

Mayor Leon continued public comment to the end of the meeting.

AGENDA REVIEW/ANNOUNCEMENTS

Assistant City Manager Sanchez announced Staff's request to continue Item No. 15 of the consent calendar.

CONSENT CALENDAR

MOTION: Moved by Council Member Bowman seconded by Council Member Valencia and carried by a unanimous vote 5-0, to approve the Consent Calendar with the exception of Item No. 15.

1. APPROVAL OF MINUTES

Approved minutes for the regular meetings of the City Council and Housing Authority of August 15, 2023, approving same as on file in the Records Management Department.

2. BILLS & PAYROLL

Approved bills August 11, 2023 through August 31, 2023 in the amount of $27,180,777.89, and Payroll August 13, 2023 through August 26, 2023 in the amount of $4,815,109.08.

3. AN AMENDMENT TO THE PROFESSIONAL SERVICES AGREEMENT WITH JSB FIRE PROTECTION, LLC. FOR FIRE CODE PLAN REVIEW SERVICES

The City Council approved and authorized the City Manager, or his designee, to execute Amendment No. 1 to the Professional Services Agreement with JSB Fire Protection, LLC., of Downey, California, for a two year term extension for a new end term of June 30, 2027 and an increase to the existing Agreement by $30,000 annually, for a total not-to-exceed amount of $1,960,000.

4. A RESOLUTION ADOPTING THE MEASURE I FIVE-YEAR CAPITAL PROJECT NEEDS ANALYSIS FOR FISCAL YEARS 2024-25 TO 2028-29

The City Council considered and adopted a Resolution approving the Fiscal Year 2024-25 through Fiscal Year 2028-29 Measure I Five-Year Capital Project Needs Analysis (CPNA) and authorized the City Manager to approve changes to the plan as may be required by the City and/or San Bernardino County Transportation Authority (SBCTA).

RESOLUTION NO. 2023-140 A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF ONTARIO, CALIFORNIA, ADOPTING THE MEASURE I FIVE-YEAR CAPITAL PROJECT NEEDS ANALYSIS FOR FISCAL YEARS 2024-25 TO 2028-29.

5. AN AMENDMENT TO THE DESIGN SERVICES AGREEMENT WITH RJM DESIGN GROUP FOR ON-CALL LANDSCAPE ARCHITECTURAL SERVICES FOR THE ONTARIO SPORTS COMPLEX PROJECT

The City Council authorized the City Manager or his designee to execute Amendment No. 4 to the Design Services Agreement for contract No. PM 1819-1 with RJM Design Group, of San Juan Capistrano, California, to provide on-call landscape architectural services for the Ontario Sports Complex Project in the amount of $160,000 for a total not-to-exceed contract amount of $425,000.

6. A CONSTRUCTION CONTRACT WITH CT&T CONCRETE PAVING, INC. FOR AMERICANS WITH DISABILITIES ACT (ADA) CONCRETE RAMP CONSTRUCTION SERVICES

The City Council authorized the City Manager or his designee to execute a one-year Construction Contract with CT&T Concrete Paving, Inc., of Diamond Bar, California, for ADA Concrete Ramp Construction Services for a not-to-exceed contract amount of $175,000.

7. AN AMENDMENT TO THE PROFESSIONAL SERVICES AGREEMENT WITH CAPO PROJECTS GROUP, LLC FOR INTEGRATED PROJECT CONTROLS, ASSESSMENT, AND REPORTING SERVICES

The City Council approved and authorized the City Manager, or designee, to execute

Amendment No. 3 to the Professional Services Agreement with CAPO Projects Group, LLC, of San Clemente, California, for integrated project controls, assessment, and reporting services for $47,976, for a total not-to-exceed amount of $347,811, and a term extension to September 30, 2024.

8. AUTHORIZE A SOLE SOURCE PURCHASE OF FIRE APPARATUS AND APPROVE A GOODS AND SERVICES AGREEMENT WITH FIRE APPARATUS SOLUTIONS

The City Council took the following actions:

A. Approved Fire Apparatus Solutions (FAS), of Rialto, California as the sole source provider for current and future procurements of Kovatch Mobile Equipment (KME) fire apparatus and fire equipment parts and services associated with the routine maintenance and repair of fire equipment;
B. Authorized the sole source purchase and delivery of two (2) KME Fire Pumpers in the amount of $2,524,000 and one (1) KME Fire Aerial Tractor in the amount of $2,351,000 from FAS for a total not-to-exceed amount $4,875,000; and
C. Authorized the City Manager or his designee to execute a three-year Goods and Services Agreement with FAS for an annual cost of $300,000 for a total not-to-exceed contract amount of $900,000 and authorize the City Manager or his designee to extend the agreement for one (1) additional two-year term.

9. A CONSTRUCTION CONTRACT WITH FLEMING ENVIRONMENTAL, INC. AND AN AMENDMENT TO THE ON-CALL DESIGN SERVICES AGREEMENT WITH ROBERT BORDERS AND ASSOCIATES FOR THE SAM ALBA PARK RESTROOM RENOVATION PROJECT

The City Council took the following actions:

A. Rejected bids from KNC Construction, Inc., HZS Engineering and Construction, and Wakeco, Inc. for the Sam Alba Park Restroom Renovation Project as being non-responsive;
B. Authorized the City Manager or his designee to complete and execute Construction Contract No. D&C20-017 with Fleming Environmental, Inc., of Fullerton, California, for the Sam Alba Park Restroom Renovation Project in the amount of $642,687 plus a 7% contingency of $44,989 to address any unforeseen issues that may arise during construction for a total contract not-to-exceed amount of $687,676;
C. Authorized the City Manager or his designee to complete and execute Amendment No. 17 to the On-Call Design Services Agreement with Robert Borders and Associates (Robert Borders), of Costa Mesa, California, for the Sam Alba Park Restroom Renovation Project in the amount of $12,373; and
D. Authorized the City Manager or his designee to execute all documents required for the completion of the project including, but not limited to, contracts, agreements, assessments, easements, reduction of retention

accounts, and filing a notice of completion at the conclusion of all construction related activities.

10. AN AMENDMENT TO THE MAINTENANCE SERVICES AGREEMENT WITH RED HAWK SERVICES, INC. FOR ON-CALL FENCE REPAIR AND INSTALLATION FOR LATIMER BALLFIELD AND PUBLIC WORKS CITY YARD

The City Council authorized the City Manager or his designee to execute Amendment No. 1 to the Maintenance Services Agreement for Contract No. PM 2023-3 with Red Hawk Services, Inc., of Perris, California, to provide fence repair and installation for the Latimer Ballfield and Public Works City Yard in the amount of $329,823 for a total contract not-to-exceed amount of $479,823.

11. AN AMENDMENT TO THE PROFESSIONAL SERVICES AGREEMENT WITH STOEL RIVES LLP FOR LEGAL AND TECHNICAL SERVICES PERTAINING TO WATER MATTERS

The City Council approved and authorized the City Manager, or his designee, to execute Amendment No. 2 to the Professional Services Agreement with Stoel Rives LLP, of Sacramento, California, in the amount of $225,000 for Fiscal Year 2023-24 and $100,000, for Fiscal Year 2024-25, for a new total not-to-exceed amount of $714,000, and extend the term until June 30, 2025, for legal and technical services with respect to matters relating to water supply and water rights.

12. AUTHORIZE A SOLE SOURCE PURCHASE OF AN INTEGRATED BALLISTIC IDENTIFICATION SYSTEM (IBIS) FROM FORENSIC TECHNOLOGY INC.

The City Council approved and authorized the City Manager or his designee to execute all documents necessary for the sole source purchase of an Integrated Ballistic Identification System (IBIS) from Forensic Technology Inc., of Largo, Florida, in the amount of $369,133.

13. AUTHORIZE THE PURCHASE OF PLAYGROUND EQUIPMENT WITH INNOVATIVE PLAYGROUNDS FOR BON VIEW PARK

The City Council authorized the cooperative purchase of playground equipment for Bon View Park in the amount of $343,786 plus a 10% contingency of $34,379 to mitigate any unforeseen issues with supply chain surcharges and manufactory price increases for a total not to exceed amount of $378,165 from Innovative Playgrounds, of Whittier, California, consistent with the terms and conditions of the Sourcewell Cooperative Contract No. 010521-BUR.

14. AN ORDINANCE AMENDING SECTION 5-11.02 OF CHAPTER 11 OF TITLE 5 OF THE ONTARIO MUNICIPAL CODE RELATING TO THE PUBLIC CONSUMPTION AND POSSESSION OF ALCOHOLIC BEVERAGES ON OR IN PUBLIC FACILITIES

The City Council adopted an Ordinance amending Section 5-11.02 of Chapter 11 of

Title 5 of the Ontario Municipal Code relating to the public consumption and possession of alcoholic beverages on or in public facilities. Introduction and first reading took place at a regular meeting on September 5, 2023.

ORDINANCE NO. 3260 AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF ONTARIO, CALIFORNIA, AMENDING SECTION 5-11.02 OF CHAPTER 11 OF TITLE 5 OF THE ONTARIO MUNICIPAL CODE RELATING TO THE PUBLIC CONSUMPTION AND POSSESSION OF ALCOHOLIC BEVERAGES ON OR IN PUBLIC FACILITIES.

15. ACCEPTANCE OF STATE OF CALIFORNIA HOMELESS HOUSING, ASSISTANCE AND PREVENTION ROUND 3 (HHAP-3) FUNDING ADMINISTERED BY THE COUNTY OF SAN BERNARDINO TO RAPIDLY REHOUSE HOMELESS FAMILIES AND INDIVIDUALS

The City Council continued this item to a future meeting.

PUBLIC HEARINGS

16. A PUBLIC HEARING TO RECEIVE TESTIMONY AND ADOPT THE CONSOLIDATED ANNUAL PERFORMANCE AND EVALUATION REPORT (CAPER) FOR THE 2022-23 FISCAL YEAR

The City Council took the following actions:

A. Held a public hearing to receive testimony on the draft Consolidated Annual Performance and Evaluation Report (CAPER) for the Fiscal Year 2022-23;
B. Directed Staff to prepare and transmit to the U.S. Department of Housing and Urban Development (HUD) the final CAPER, which will address all public comments received on the draft CAPER; and
C. Authorized the City Manager to revise for accuracy and execute any and all documents necessary and/or desirable to transmit the CAPER to HUD.

Notice of public hearing was duly given and affidavits of compliance are on file in the Records Management Department. There were no written communications.

Mayor Leon opened the public hearing and inquired if anyone was interested in speaking to the item. Hearing no one, Mayor Leon closed the public hearing and opened the item for Council discussion.

MOTION: Moved by Council Member Bowman seconded by Mayor pro Tem Dorst-Porada and carried by a unanimous vote 5-0, to adopt the Consolidated Annual Performance and Evaluation Report for the 2022-23 Fiscal Year.

17. A PUBLIC HEARING TO CONSIDER AN APPEAL OF THE PLANNING COMMISSION'S APPROVAL FOR FILE NO. PDEV21-035, A DEVELOPMENT PLAN TO CONSTRUCT A 59,984 SQUARE FOOT INDUSTRIAL BUILDING, LOCATED AT THE SOUTHEAST CORNER OF SULTANA AVENUE AND BELMONT STREET (APNS: 1049-491-01, 1049-491-02, AND 1049-491-03)

The City Council considered and adopted a Resolution upholding the Planning Commission's approval of the Development Plan (File No. PDEV21-035) and denying the appeal.

RESOLUTION NO. 2023-141 A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF ONTARIO, CALIFORNIA, DENYING AN APPEAL AND UPHOLDING THE PLANNING COMMISSION DECISION TO APPROVE FILE NO. PDEV21-035, A DEVELOPMENT PLAN TO CONSTRUCT A 59,984 SQUARE FOOT INDUSTRIAL BUILDING ON 3.15 GROSS ACRES OF LAND LOCATED AT THE SOUTHEAST CORNER OF SULTANA AVENUE AND BELMONT STREET, WITHIN THE IL (LIGHT INDUSTRIAL) ZONING DISTRICT, AND MAKING FINDINGS IN SUPPORT THEREOF - APNS: 1049-491-01, 1049-491-02 AND 1049-491-03.

Notice of public hearing was duly given and affidavits of compliance are on file in the Records Management Department. There was one written communication in opposition from the Center for Community Action and Environmental Justice.

Mayor Leon opened the public hearing and inquired if anyone was interested in speaking to the item.

Executive Director of Community Development Scott Murphy provided a presentation.

The appellant, Celina Lopez was given additional time to present her case and spoke in opposition of the Planning Commission's decision.

Director of Development at Charter Real Estate Christine Ather presented the applicant's case and spoke in support of the Planning Commission's decision.

PUBLIC COMMENTS

Raymond Smith, spoke in support of the appeal.

Tina Silva, spoke in support of the appeal.

Martha Aragon, spoke in support of the appeal.

Heleena Lopez, spoke in support of the appeal.

Juana Gamez, spoke in support of the appeal

Xochitl Escamilla, spoke in support of the appeal.

Maria Galvan, spoke in support of the appeal.

Hearing no one else, Mayor Leon closed the public hearing and opened the item for Council discussion. City Council discussed the matter and came to the consensus to support the Planning Commission's decision.

MOTION: Moved by Council Member Wapner seconded by Council Member Bowman and carried by a unanimous vote 5-0, to adopt Resolution No. 2023-141.

Mayor Leon continued Public Comments

Xochitl Escamilla, spoke on California Native American Day.

Maria Galvan, spoke on various issues.

Mario Huante, spoke on citizens' civic responsibilities.

Stephanie, spoke on feral cats.

Jesse Fonseca, was not present when called upon.

Juana Gamez, spoke of her experience with the My Ontario application.

STAFF MATTERS

Assistant City Manager Sanchez provided alternative methods for reporting issues to the City of Ontario.

COUNCIL MATTERS

Mayor pro Tem Dorst-Porada expressed her condolences regarding Los Angeles County Sheriff Deputy Ryan Clinkunbroomer and asked for Council concurrence to adjourn in his memory.

Council Member Wapner supported the consensus to adjourn in Deputy Clinkunbroomer's memory.

Council Member Bowman made no comments.

Council Member Valencia supported the adjournment in memory of Deputy Clinkunbroomer.

Mayor Leon expressed concern regarding feral cats and expressed his excitement of drone laser shows in the future.

ADJOURNMENT

Mayor Leon adjourned the meetings of the Joint Agencies at 7:02 p.m. in memory of Los Angeles Sheriff Deputy Ryan Clinkunbroomer and announced the next regular meeting was scheduled for October 3, 2023.

Respectfully submitted,

_____
SHEILA MAUTZ, CITY CLERK/SECRETARY

APPROVED:

_____
PAUL S. LEON, MAYOR/CHAIRMAN

CITY OF ONTARIO *Agenda Report* **October 17, 2023**	**SECTION:** **CONSENT CALENDAR**
Department: Police Department Prepared By: Peak Approver Staff Member Presenting: Mike Lorenz, Chief of Police Approved By:	Submitted To: Council/OHA Approved: _____ Continued To: _____ Denied: _____ Item No: 3

SUBJECT: **AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF ONTARIO, CALIFORNIA, AMENDING SECTION 4-6.1020 TO ARTICLE 10 OF CHAPTER 6 OF TITLE 4 OF THE ONTARIO MUNICIPAL CODE PERTAINING TO OVERSIZED VEHICLE PARKING ON PUBLIC STREETS**

RECOMMENDATION: That the City Council adopt an Ordinance to amend Section 4-6.1020 to Article 10 of Chapter 6 of Title 4 of the Ontario Municipal Code pertaining to standards for oversized vehicle parking on public streets.

THE FOLLOWING COUNCIL GOALS ARE BEING ACHIEVED:
Maintain the Current High Level of Public Safety
Focus Resources in Ontario's Commercial and Residential Neighborhoods

FISCAL IMPACT: There is no direct fiscal impact associated with this action.

BACKGROUND & ANALYSIS: On December 20, 2022, the City Council passed and adopted Ordinance No. 3231, adding Section 4-6.1020 to the Ontario Municipal Code to specifically address oversized vehicle parking on public streets. Since its adoption, the Ontario Police Department has found that OMC Section 4-6.1020 has inadvertently made certain large family sized vehicles (e.g. Chevrolet Suburban, Ford Excursion, Toyota Sequoia, etc.) subject to the prohibitions and enforcement of Section 4-6.1020 of the Ontario Municipal Code.

Consequently, an amendment of Section 4-6.1020 of the Ontario Municipal Code is necessary to correct this unintended result.

ORDINANCE NO. _____

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF ONTARIO, CALIFORNIA, AMENDING SECTION 4-6.1020 TO ARTICLE 10 OF CHAPTER 6 OF TITLE 4 OF THE ONTARIO MUNICIPAL CODE PERTAINING TO OVERSIZED VEHICLE PARKING ON PUBLIC STREETS.

WHEREAS, California Vehicle Code Section 22507 authorizes the City of Ontario ("City") to restrict or prohibit the stopping, parking, or standing of vehicles on local streets during all or certain hours of the day; and

WHEREAS, the general provisions governing stopping, standing, or parking for certain purposes or in certain places within the City are set forth in Article 10 of Chapter 6 of Title 4 of the Ontario Municipal Code; and

WHEREAS, on December 20, 2022, the City Council passed and adopted Ordinance No. 3231, adding Section 4-6.1020 to the Ontario Municipal Code to specifically address oversized vehicle parking on public streets; and

WHEREAS, the Police Department has found that the current regulations related to oversized vehicle parking have inadvertently made certain large family sized vehicles (e.g. Chevrolet Suburban, Ford Excursion, Toyota Sequoia, etc.) subject to the prohibitions and enforcement of Section 4-6.1020 of the Ontario Municipal Code; and

WHEREAS, the City wishes to amend Section 4-6.1020 of the Ontario Municipal Code to correct this unintended result.

NOW THEREFORE, THE CITY COUNCIL OF THE CITY OF ONTARIO DOES ORDAIN AS FOLLOWS:

SECTION 1. The recitals above are true and correct and are hereby incorporated herein by this reference.

SECTION 2. Section 4-6.1020(b)(1) of the Ontario Municipal Code is hereby amended to state, in full, as follows:

"(1) Oversized Vehicle: Any vehicle, motorized or non-motorized, that exceeds 25 feet in length, or exceeds 8.5 feet in width, or exceeds 7 feet in height. Oversized vehicles shall include all buses, truck tractors, semitrailers, motor trucks, trailers, campers, camp trailers, house cars, trailer coaches, and other equipment or machinery, regardless or width, length, or height.

Notwithstanding the length, width, and height requirements for an oversized vehicle, the following vehicles shall also be considered oversized vehicles subject to the prohibitions contained in § 4-6.1020(a) of this article:

(i) Buses as defined in the California Vehicle Code;

(ii) Trailers, including boat trailers, and semitrailers, as these are defined in the California Vehicle Code, and standalone boats not connected to trailers;

(iii) Trailer coaches as defined in the California Vehicle Code; and

(iv) Recreational vehicles as defined in this article."

SECTION 3. Posting of Notice. Pursuant to California Vehicle Code Section 22507, and relevant case law, the City Traffic Engineer is hereby directed to place, or cause to be placed appropriate signs and/or markings giving adequate notice of the parking restrictions contained within this Ordinance.

SECTION 4. If any section, subsection, subdivision, sentence, clause, or phrase in this Ordinance or any part thereof is for any reason held to be unconstitutional, invalid or ineffective by any court of competent jurisdiction, such decision shall not affect the validity or effectiveness of the remaining portions of this ordinance or any part thereof. The City Council hereby declares that it would have adopted each section irrespective of the fact that any one or more subsections, subdivisions, sentences, clauses, or phrases be declared unconstitutional, invalid or ineffective.

SECTION 5. This Ordinance shall become effective thirty (30) days after its adoption by the City Council.

SECTION 6. CEQA. The City Council finds that adoption of this Ordinance is exempt from the California Environmental Quality Act ("CEQA") pursuant to Section 15358 (the activity will not result in a direct or reasonably foreseeable indirect physical change in the environment) of the CEQA Guidelines, California Code of Regulations, Title 14, Chapter 3, because it has no potential for resulting in physical change to the environment, directly or indirectly. Moreover, the City Council finds that this Ordinance is also exempt under CEQA pursuant to Guidelines Section 15061(b)(3) (there exists no possibility that the activity will have a significant adverse effect on the environment).

SECTION 7. The Mayor shall sign this Ordinance and the City Clerk shall certify as to the adoption and shall cause a summary thereof to be published at least once, in a newspaper of general circulation in the City of Ontario, California within fifteen (15) days of the adoption. The City Clerk shall post a certified copy of this Ordinance, including the vote for and against the same, in the Office of the City Clerk, in accordance with Government Code Section 36933.

PASSED, APPROVED, AND ADOPTED this day of October 2023.

_____

PAUL S. LEON, MAYOR

ATTEST:

_____
SHEILA MAUTZ, CITY CLERK

APPROVED AS TO FORM:

_____
BEST BEST & KRIEGER LLP
CITY ATTORNEY

STATE OF CALIFORNIA)
COUNTY OF SAN BERNARDINO)
CITY OF ONTARIO)

I, SHEILA MAUTZ, City Clerk of the City of Ontario, DO HEREBY CERTIFY that foregoing Ordinance No. ____ was duly introduced at a regular meeting of the City Council of the City of Ontario held October 3, 2023 and adopted at the regular meeting held _____, 2023 by the following roll call vote, to wit:

AYES: MAYOR/COUNCIL MEMBERS:

NOES: COUNCIL MEMBERS:

ABSENT: COUNCIL MEMBERS:

_____
SHEILA MAUTZ, CITY CLERK

(SEAL)

I hereby certify that the foregoing is the original of Ordinance No. ____ duly passed and adopted by the Ontario City Council at their regular meeting held _____, 2023 and that Summaries of the Ordinance were published on _____, 2023 and _____, 2023, in the Inland Valley Daily Bulletin newspaper.

_____
SHEILA MAUTZ, CITY CLERK

(SEAL)

CITY OF ONTARIO *Agenda Report* **October 17, 2023**	**SECTION:** **CONSENT CALENDAR**
Department: Community Improvement Prepared By: Douglas J Sorel Staff Member Presenting: Scott Murphy, Executive Director Community Development Approved By: 	Submitted To: Council/OHA Approved: _____ Continued To: _____ Denied: _____ Item No: 4

SUBJECT: A RESOLUTION FOR PLACEMENT OF SPECIAL ASSESSMENTS ON THE SAN BERNARDINO COUNTY TAX ROLLS

RECOMMENDATION: That the City Council adopt a Resolution for recovery of fees and costs incurred in abating property and dangerous building violations, as well as administrative citations and civil penalties associated with property maintenance violations and placing assessments on the San Bernardino County Tax Rolls.

THE FOLLOWING COUNCIL GOALS ARE BEING ACHIEVED:
Operate in a Businesslike Manner
Focus Resources in Ontario's Commercial and Residential Neighborhoods

FISCAL IMPACT: The levy of special assessments will result in the recovery of $45,078.76 in costs that the City has expended for inspection or abatement of property violations, as well as the collection of $109,800.00 associated with civil penalties and/or fines for continued violations, for a total of $154,878.76 related to 119 parcels. When received, these reimbursements will be deposited into the General Fund. The special assessment revenue is included in the Fiscal Year 2023-24 Adopted Budget.

BACKGROUND & ANALYSIS: As a result of Community Improvement activities, the costs for abatement of property and dangerous building violations are included in the Fiscal Year 2024-25 Proposed Budget. Additionally, the City has established administrative citations and fines for property maintenance violations and fees and penalties associated with the Systematic Health and Safety Inspection Program, Abandoned and Distressed Property Program, and Weed and Refuse Abatement Program. These costs, fines, fees, and penalties are recovered through placement of special tax assessments upon the properties. The placement of special assessments and collection of revenue is done under Ordinance 3046, Property Appearance (Title 5, Chapter 22 of the Ontario Municipal Code); Chapter 9 of the Uniform Code for the Abatement of Dangerous Buildings; and Ordinance 2920 for civil penalties for continued violations of the Ontario Municipal Code and fines associated with administrative citations (Title 1, Chapters 2 and 5 of the Ontario Municipal Code). The City and County currently have a contractual agreement regarding implementation of special assessments; however, a Resolution authorizing the placement of the specific assessments is

required. During this assessment cycle, the Community Improvement Department has billed property owners for: the abatement of violations; the issuance of fines associated with administrative citation; the issuance of fees and penalties associated with the Systematic Health and Safety Inspection Program; the issuance of registration fees and civil penalties associated with the Abandoned and Distressed Property Program; the issuance of notice and re-inspection fees; and, civil penalties for the Weed and Refuse Abatement Program on 598 parcels. Of these, there are remaining amounts due on 119 parcels. Attached are itemized accounts of: 1) costs associated with inspection or abatement as shown in Exhibit A of the Resolution; 2) civil penalties and/or fines for continued violations as shown in Exhibit B of the Resolution; and 3) total amounts per parcel as shown in Exhibit C of the Resolution. All affected property owners were given notice of the imposition of special assessments via certified mail as provided in Ontario Municipal Code Section 1-4.05(a) and have either not requested an appeal or have exhausted the appellate procedure in Ontario Municipal Code Section 1-4.05(b).

RESOLUTION NO. _____

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF ONTARIO, CALIFORNIA, ADOPTING A REPORT REQUESTING THE PLACEMENT OF SPECIAL ASSESSMENTS ON PROPERTY TAX BILLS FOR CIVIL PENALTIES OR RECOVERY OF COSTS INCURRED FOR ABATEMENT OF VIOLATIONS OF CITY CODES AND ORDINANCES.

WHEREAS, Ordinance No. 3046, Property Appearance (Title 5, Chapter 22, of the Ontario Municipal Code) and Chapter 9 of the Uniform Code for the Abatement of Dangerous Buildings provide for the abatement of property nuisances by repair, rehabilitation, demolition or removal; and

WHEREAS, under Resolution 94-112, Resolution ORA-499, and the Cooperation and Reimbursement Agreement entered into on the 15th day of November, 1994, by the City of Ontario and the Ontario Redevelopment Agency, the Ontario Redevelopment Agency made a one-time advance to the City of One Hundred Fifty Thousand Dollars ($150,000) to repair or abate dangerous buildings and properties throughout the City; and

WHEREAS, under a first amendment to the Cooperation and Reimbursement Agreement entered into on the 16th day of July 1996, by the City of Ontario and the Ontario Redevelopment Agency, the Ontario Redevelopment Agency made an additional advance to the City of One Hundred Thousand Dollars ($100,000) to continue to repair or abate dangerous buildings and properties throughout the City; and

WHEREAS, under Resolution 94-113, Resolution ORA-500, and the Cooperation and Reimbursement Agreement entered into on the 15th day of November 1994, by the City of Ontario and the Ontario Redevelopment Agency, the Ontario Redevelopment Agency made a one-time advance to the City of Thirty Thousand Dollars ($30,000) to repair or abate dangerous buildings and properties in the 6th and Grove area; and

WHEREAS, under Resolution 94-12, Resolution ORA-464, and the Cooperation and Reimbursement Agreement entered into on the 22nd day of February 1994, by the City of Ontario and the Ontario Redevelopment Agency, the Ontario Redevelopment Agency made a one-time advance to the City of One Hundred Fifty Thousand Dollars ($150,000) to repair or demolish dangerous buildings throughout the City; and

WHEREAS, Ordinance No. 2894, Systematic Health and Safety Inspection Program (Title 8, Chapter 17, of the Ontario Municipal Code), provides for the collection of unpaid service fees, plus any penalties and accrued interest by Special Assessment; and

WHEREAS, Ordinance No. 2920, provides for the assessment of civil penalties for continued violations of the Ontario Municipal Code (Title 1, Chapter 2 of the Ontario Municipal Code), and for fines associated with administrative citations to be collected by Special Assessment (Title 1, Chapter 5 of the Ontario Municipal Code), and establishes a uniform procedure before imposing such Special Assessments (Title 1, Chapter 4 of the Ontario Municipal Code); and

WHEREAS, the above said ordinances, resolutions and agreements provide for recovery of costs incurred in the abatement of violations by means of a Special Assessment placed on the tax rolls; and

WHEREAS, the City has incurred costs involved in the abatement of violations under the Ontario Municipal Code and Uniform Code for the Abatement of Dangerous Buildings, issuing Notices of Violation, and administering the Systematic Health and Safety Program and wishes to recover said costs; and

WHEREAS, the owners of all parcels listed in Exhibit A, B, and C were given notice of imposition of such Special Assessment as provided in Ontario Municipal Code Section 1-4.05(a), and either have not requested an appeal, or have exhausted the appellate procedure provided in Ontario Municipal Code Section 1-4.05(b); and

WHEREAS, the City has an executed contract with the San Bernardino County Board of Supervisors for collection of said assessments;

NOW, THEREFORE, BE IT RESOLVED by the City Council of the City of Ontario as follows:

SECTION 1. Confirmed the costs associated with inspection or abatement on the properties as set forth in the report in Exhibit A.

SECTION 2. Confirmed the civil penalties and/or fines for continued violations on the properties as set forth in the report in Exhibit B.

SECTION 3. Confirmed that Exhibit C contains the total amount assessed for both confirmed costs and confirmed civil penalties and/or fines for each of the properties.

SECTION 4. Found and determined that the report, and Exhibits contained therein are true and accurate.

SECTION 5. Adopts the above said report and finds that the costs of inspection or abatement on the properties listed are the costs set forth in Exhibit A, the civil penalties and/or fines for continued violations are the penalties and/or fines as set forth in Exhibit B, and the same are hereby charged and placed as special assessments upon the respective properties.

SECTION 6. Directs Exhibit C shall be sent to the Auditor-Controller of San Bernardino County and shall be collected on the County tax roll.

SECTION 7. The Resolution shall take effect immediately upon its adoption.

The City Clerk of the City of Ontario shall certify as to the adoption of this Resolution.

PASSED, APPROVED, AND ADOPTED this 17th day of October 2023.

_____
PAUL S. LEON, MAYOR

ATTEST:

_____
SHEILA MAUTZ, CITY CLERK

APPROVED AS TO LEGAL FORM:

_____
BEST BEST & KRIEGER LLP
CITY ATTORNEY

STATE OF CALIFORNIA)
COUNTY OF SAN BERNARDINO)
CITY OF ONTARIO)

I, SHEILA MAUTZ, City Clerk of the City of Ontario, DO HEREBY CERTIFY that foregoing Resolution No. 2023- was duly passed and adopted by the City Council of the City of Ontario at their regular meeting held October 17, 2023, by the following roll call vote, to wit:

AYES: COUNCIL MEMBERS:

NOES: COUNCIL MEMBERS:

ABSENT: COUNCIL MEMBERS:

_____
SHEILA MAUTZ, CITY CLERK

(SEAL)

The foregoing is the original of Resolution No. 2023- duly passed and adopted by the Ontario City Council at their regular meeting held October 17, 2023.

_____
SHEILA MAUTZ, CITY CLERK

(SEAL)

City of Ontario
Community Improvement Department
2024/2025 Tax Roll Year Special Assessments
Exhibit A - Costs Associated with Inspection or Abatement

Parcel Number	Address	Amount Due
0108-511-37	1456 E FIFTH ST, Unit:3, Ontario, CA 91764	15.51
0110-061-01	1375 E HOLT BL, Ontario, CA 91761	239.00
0110-161-19	903 N CALAVERAS AV, Ontario, CA 91764	699.00
0110-332-01	1802 E FOURTH ST, Unit:A, Ontario, CA 91764	534.00
0110-332-02	1808 E FOURTH ST, Unit:A, Ontario, CA 91764	438.00
0113-581-12	1710 E MONTICELLO CT, Building:1, Ontario, CA 91761	47.00
0210-041-58	1434 N SAN DIEGO PL, Ontario, CA 91764	91.00
0210-192-21	2955 E GUASTI RD, Ontario, CA 91761	91.00
0210-192-22	2975 E GUASTI RD, Ontario, CA 91761	91.00
0210-204-07	0 E CONCOURS ST, Ontario, CA 91764	91.00
0216-312-04	8455 E SCHAEFER AV, Ontario, CA 91761	4,331.50
0216-371-18	2522 S SANDPIPER PL, Ontario, CA 91761	91.00
0218-101-03	0 E RIVERSIDE DR, Ontario, CA 91761	148.00
0218-101-04	0 E RIVERSIDE DR, Ontario, CA 91761	148.00
0218-101-05	0 E RIVERSIDE DR, Ontario, CA 91761	148.00
0218-101-06	0 E RIVERSIDE DR, Ontario, CA 91761	148.00
0218-202-03	3071 E SILVER SKY DR, Building:, Unit:, Ontario, CA 91762	2,402.85
0218-714-12	3104 E LAVENDER DR, Ontario, CA 91762	91.00
0218-843-18	3501 S CLOVER WY, Ontario, CA 91761	91.00
0218-911-01	2943 E THOROUGHBRED ST, Ontario, CA 91761	2,890.22
0238-152-05	2025 S MILLIKEN AV, Building:1, Ontario, CA 91761	91.00
1008-291-10	1553 N HELEN CT, Ontario, CA 91762	91.00
1008-431-23	1133 W SIXTH ST, Ontario, CA 91762	578.32
1008-503-04	947 W YALE ST, Ontario, CA 91762	46.00
1008-571-34	1550 W HARVARD PL, Ontario, CA 91762	69.00
1010-141-09	920 N MOUNTAIN AV, Building:1, Ontario, CA 91762	47.00
1010-151-14	914 W ROSEWOOD CT, Ontario, CA 91762	282.00
1010-182-04	737 N PALMETTO AV, Ontario, CA 91762	48.75
1010-191-20	1048 W H ST, Ontario, CA 91762	91.00
1010-191-30	1025 W I ST, Ontario, CA 91762	321.56
1010-191-45	1048 W H ST, Ontario, CA 91762	91.00
1010-201-11	1119 W I ST, Unit:A, Ontario, CA 91762	91.00
1010-522-07	1131 W STONERIDGE CT, Unit:1, Ontario, CA 91762	127.00
1010-531-04	1341 W D ST, Ontario, CA 91762	46.00
1010-551-13	1536 W STONERIDGE CT, Unit:A, Ontario, CA 91762	276.00
1010-552-21	1505 W STONERIDGE CT, Unit:A, Ontario, CA 91762	368.00
1011-111-21	1511 W HOLT BL, Building:1, Unit:O, Ontario, CA 91762	91.00
1011-122-22	1203 W BROOKS ST, Ontario, CA 91762	853.08
1011-141-06	967 W HOLT BL, Ontario, CA 91762	91.00
1011-361-19	1411 W MISSION BL, Ontario, CA 91762	91.00
1011-382-65	1045 W MISSION BL, Ontario, CA 91762	3,197.80
1011-391-69	941 W MISSION BL, Building:2, Unit:G, Ontario, CA 91762	483.00
1011-421-11	0 S ELDERBERRY AV, Ontario, CA 91762	148.00
1011-421-12	0 S ELDERBERRY AV, Ontario, CA 91762	148.00

City of Ontario
Community Improvement Department
2024/2025 Tax Roll Year Special Assessments
Exhibit A - Costs Associated with Inspection or Abatement

Parcel Number	Address	Amount Due
1014-591-04	1608 W PHILADELPHIA ST, Ontario, CA 91762	91.00
1014-591-05	1624 W PHILADELPHIA ST, Ontario, CA 91762	91.00
1047-294-08	706 W SIXTH ST, Ontario, CA 91762	415.00
1047-311-23	609 W LA DENEY DR, Ontario, CA 91762	20.00
1047-321-72	667 W HAWTHORNE ST, Ontario, CA 91762	61.51
1047-411-20	1015 E FIFTH ST, Ontario, CA 91764	106.51
1047-473-15	1054 E PRINCETON ST, Ontario, CA 91764	3,243.00
1047-492-03	712 E YALE ST, Ontario, CA 91764	46.00
1048-091-01	1050 N SULTANA AV, Ontario, CA 91764	683.00
1048-093-04	622 E FOURTH ST, Ontario, CA 91764	91.00
1048-362-03	124 E F ST, Ontario, CA 91764	20.00
1048-392-14	647 E E ST, Building:1, Unit:101, Ontario, CA 91764	501.24
1048-471-22	1087 E HOLT BL, Ontario, CA 91761	91.00
1048-481-07	935 E HOLT BL, Ontario, CA 91761	707.00
1048-481-27	907 E HOLT BL, Ontario, CA 91761	747.77
1048-564-10	108 W HOLT BL, Building:1, Ontario, CA 91762	91.00
1048-566-07	303 N EUCLID AV, Building:1, Ontario, CA 91762	367.00
1048-574-03	319 W B ST, Ontario, CA 91762	62.76
1049-021-08	555 W HOLT BL, Ontario, CA 91762	91.00
1049-101-31	815 E EMPORIA ST, Ontario, CA 91761	91.00
1049-102-18	824 E EMPORIA ST, Ontario, CA 91761	491.00
1049-131-03	914 E HOLT BL, Ontario, CA 91761	91.00
1049-231-11	552 E STATE ST, Ontario, CA 91761	91.00
1049-232-20	560 E PARK ST, Ontario, CA 91761	1,143.00
1049-232-21	617 E SUNKIST ST, Ontario, CA 91761	688.05
1049-242-11	516 S LEMON AV, Ontario, CA 91761	91.00
1049-245-04	318 E STATE ST, Ontario, CA 91761	544.52
1049-246-08	514 S CHERRY AV, Ontario, CA 91761	7,192.53
1049-253-09	215 E NEVADA ST, Ontario, CA 91761	140.00
1049-303-29	601 S CYPRESS AV, Ontario, CA 91762	594.69
1049-312-05	745 W MISSION BL, Ontario, CA 91762	148.00
1049-312-16	754 W CARLTON ST, Ontario, CA 91762	383.00
1049-334-03	919 S VINE AV, Ontario, CA 91762	91.00
1049-392-02	1026 S GROVE AV, Ontario, CA 91761	92.00
1049-442-06	1113 S GREENWOOD AV, Ontario, CA 91761	91.00
1049-481-12	698 E BELMONT ST, Ontario, CA 91761	46.00
1049-582-04	754 W BELMONT ST, Ontario, CA 91762	91.00
1049-591-29	622 W PHILLIPS ST, Ontario, CA 91762	230.00
1050-071-06	122 E DE ANZA CI, Ontario, CA 91761	91.00
1050-271-04	1628 S LAUREL AV, Ontario, CA 91762	91.00
1050-272-01	1658 S EUCLID AV, Ontario, CA 91762	231.00
1050-624-15	2115 S SAN ANTONIO AV, Ontario, CA 91762	300.88
1051-041-03	527 W PHILADELPHIA ST, Ontario, CA 91762	127.00
1051-051-72	2238 S EUCLID AV, Building:1, Unit:E, Ontario, CA 91762	91.00

City of Ontario
Community Improvement Department
2024/2025 Tax Roll Year Special Assessments
Exhibit A - Costs Associated with Inspection or Abatement

Parcel Number	Address	Amount Due
1051-171-44	2460 S GROVE AV, Building:1, Ontario, CA 91761	470.50
1051-271-66	2502 S EUCLID AV, Building:1, Unit:C, Ontario, CA 91762	821.57
1052-151-05	1162 E RIVERSIDE DR, Ontario, CA 91761	91.00
1073-051-19	2761 E WICKFORD ST, Ontario, CA 91762	91.00
1073-281-28	2717 E MURDOCK LN, Ontario, CA 91762	1,004.64
1083-061-05	2633 E RIVERSIDE DR, Ontario, CA 91761	91.00
1083-361-07	0 S MILLIKEN AV, Ontario, CA 91761	1,127.00
		45,078.76

City of Ontario
Community Improvement Department
2024/2025 Tax Roll Year Special Assessments
Exhibit B - Civil Penalties and/or Fines for Continued Violations

Parcel Number	Address	Amount Due
0108-381-30	1347 E FOURTH ST, Building:3, Ontario, CA 91764	420.00
0110-061-01	1375 E HOLT BL, Ontario, CA 91761	500.00
0110-101-12	1840 E HOLT BL, Ontario, CA 91761	120.00
0110-152-19	815 N AMADOR AV, Ontario, CA 91764	220.00
0110-161-19	903 N CALAVERAS AV, Ontario, CA 91764	520.00
0110-261-14	425 N VINEYARD AV, Ontario, CA 91764	760.00
0113-564-27	1945 E RIVERSIDE DR, Building:1, Unit:19, Ontario, CA 91761	15,000.00
0210-211-36	3998 E INLAND EMPIRE BL, Building:1, Unit:400, Ontario, CA 91764	340.00
0216-082-05	1456 E PHILADELPHIA ST, Unit:10, Ontario, CA 91761	340.00
0216-173-02	13151 S WALKER AV, Ontario, CA 91761	760.00
0216-371-18	2522 S SANDPIPER PL, Ontario, CA 91761	120.00
0218-101-03	0 E RIVERSIDE DR, Ontario, CA 91761	500.00
0218-101-04	0 E RIVERSIDE DR, Ontario, CA 91761	500.00
0218-101-05	0 E RIVERSIDE DR, Ontario, CA 91761	500.00
0218-101-06	0 E RIVERSIDE DR, Ontario, CA 91761	500.00
0218-444-37	3927 S TRINITAS WY, Ontario, CA 91761	20.00
0238-152-05	2025 S MILLIKEN AV, Building:1, Ontario, CA 91761	120.00
1010-191-30	1025 W I ST, Ontario, CA 91762	420.00
1010-201-11	1119 W I ST, Unit:A, Ontario, CA 91762	120.00
1010-482-05	839 W F ST, Unit:A, Ontario, CA 91762	120.00
1010-521-30	151 N MOUNTAIN AV, Ontario, CA 91762	640.00
1011-111-21	1511 W HOLT BL, Building:1, Unit:O, Ontario, CA 91762	340.00
1011-141-14	905 W BROOKS ST, Ontario, CA 91762	640.00
1011-141-31	905 W BROOKS ST, Ontario, CA 91762	640.00
1011-421-11	0 S ELDERBERRY AV, Ontario, CA 91762	500.00
1011-421-12	0 S ELDERBERRY AV, Ontario, CA 91762	500.00
1014-181-13	1710 S BRIAR AV, Ontario, CA 91762	760.00
1047-294-08	706 W SIXTH ST, Ontario, CA 91762	760.00
1047-511-08	558 E PRINCETON ST, Ontario, CA 91764	170.00
1048-061-15	131 E ROSEWOOD CT, Ontario, CA 91764	220.00
1048-091-01	1050 N SULTANA AV, Ontario, CA 91764	520.00
1048-123-17	1023 E I ST, Ontario, CA 91764	320.00
1048-132-08	952 E ROSEWOOD CT, Ontario, CA 91764	490.00
1048-211-20	859 E GRANADA CT, Ontario, CA 91764	520.00
1048-343-07	421 N FERN AV, Ontario, CA 91762	120.00
1048-362-03	124 E F ST, Ontario, CA 91764	100.00
1048-564-10	108 W HOLT BL, Building:1, Ontario, CA 91762	120.00
1049-021-08	555 W HOLT BL, Ontario, CA 91762	120.00
1049-094-02	654 E HOLT BL, Ontario, CA 91761	120.00
1049-095-05	225 S SULTANA AV, Building:3, Ontario, CA 91761	120.00
1049-102-18	824 E EMPORIA ST, Ontario, CA 91761	640.00
1049-212-13	612 S HOPE AV, Ontario, CA 91761	120.00
1049-312-05	745 W MISSION BL, Ontario, CA 91762	500.00
1049-312-16	754 W CARLTON ST, Ontario, CA 91762	420.00

City of Ontario
Community Improvement Department
2024/2025 Tax Roll Year Special Assessments
Exhibit B - Civil Penalties and/or Fines for Continued Violations

Parcel Number	Address	Amount Due
1049-334-03	919 S VINE AV, Ontario, CA 91762	120.00
1050-071-06	122 E DE ANZA CI, Ontario, CA 91761	120.00
1051-051-72	2238 S EUCLID AV, Building:1, Unit:E, Ontario, CA 91762	340.00
1073-281-28	2717 E MURDOCK LN, Ontario, CA 91762	77,800.00
1083-011-13	2550 S ARCHIBALD AV, Unit:A, Ontario, CA 91761	120.00
		109,800.00

City of Ontario
Community Improvement Department
2024/2025 Tax Roll Year Special Assessments
Exhibit C - Total Amounts per Parcel

Parcel Number	Address	Amount Due
0108-381-30	1347 E FOURTH ST, Building:3, Ontario, CA 91764	420.00
0108-511-37	1456 E FIFTH ST, Unit:3, Ontario, CA 91764	15.51
0110-061-01	1375 E HOLT BL, Ontario, CA 91761	739.00
0110-101-12	1840 E HOLT BL, Ontario, CA 91761	120.00
0110-152-19	815 N AMADOR AV, Ontario, CA 91764	220.00
0110-161-19	903 N CALAVERAS AV, Ontario, CA 91764	1,219.00
0110-261-14	425 N VINEYARD AV, Ontario, CA 91764	760.00
0110-332-01	1802 E FOURTH ST, Unit:A, Ontario, CA 91764	534.00
0110-332-02	1808 E FOURTH ST, Unit:A, Ontario, CA 91764	438.00
0113-564-27	1945 E RIVERSIDE DR, Building:1, Unit:19, Ontario, CA 91761	15,000.00
0113-581-12	1710 E MONTICELLO CT, Building:1, Ontario, CA 91761	47.00
0210-041-58	1434 N SAN DIEGO PL, Ontario, CA 91764	91.00
0210-192-21	2955 E GUASTI RD, Ontario, CA 91761	91.00
0210-192-22	2975 E GUASTI RD, Ontario, CA 91761	91.00
0210-204-07	0 E CONCOURS ST, Ontario, CA 91764	91.00
0210-211-36	3998 E INLAND EMPIRE BL, Building:1, Ontario, CA 91764	340.00
0216-082-05	1456 E PHILADELPHIA ST, Unit:10, Ontario, CA 91761	340.00
0216-173-02	13151 S WALKER AV, Ontario, CA 91761	760.00
0216-312-04	8455 E SCHAEFER AV, Ontario, CA 91761	4,331.50
0216-371-18	2522 S SANDPIPER PL, Ontario, CA 91761	211.00
0218-101-03	0 E RIVERSIDE DR, Ontario, CA 91761	648.00
0218-101-04	0 E RIVERSIDE DR, Ontario, CA 91761	648.00
0218-101-05	0 E RIVERSIDE DR, Ontario, CA 91761	648.00
0218-101-06	0 E RIVERSIDE DR, Ontario, CA 91761	648.00
0218-202-03	3071 E SILVER SKY DR, Building:, Unit:, Ontario, CA 91762	2,402.85
0218-444-37	3927 S TRINITAS WY, Ontario, CA 91761	20.00
0218-714-12	3104 E LAVENDER DR, Ontario, CA 91762	91.00
0218-843-18	3501 S CLOVER WY, Ontario, CA 91761	91.00
0218-911-01	2943 E THOROUGHBRED ST, Ontario, CA 91761	2,890.22
0238-152-05	2025 S MILLIKEN AV, Building:1, Ontario, CA 91761	211.00
1008-291-10	1553 N HELEN CT, Ontario, CA 91762	91.00
1008-431-23	1133 W SIXTH ST, Ontario, CA 91762	578.32
1008-503-04	947 W YALE ST, Ontario, CA 91762	46.00
1008-571-34	1550 W HARVARD PL, Ontario, CA 91762	69.00
1010-141-09	920 N MOUNTAIN AV, Building:1, Ontario, CA 91762	47.00
1010-151-14	914 W ROSEWOOD CT, Ontario, CA 91762	282.00
1010-182-04	737 N PALMETTO AV, Ontario, CA 91762	48.75
1010-191-20	1048 W H ST, Ontario, CA 91762	91.00
1010-191-30	1025 W I ST, Ontario, CA 91762	741.56
1010-191-45	1048 W H ST, Ontario, CA 91762	91.00
1010-201-11	1119 W I ST, Unit:A, Ontario, CA 91762	211.00
1010-482-05	839 W F ST, Unit:A, Ontario, CA 91762	120.00
1010-521-30	151 N MOUNTAIN AV, Ontario, CA 91762	640.00
1010-522-07	1131 W STONERIDGE CT, Unit:1, Ontario, CA 91762	127.00

City of Ontario
Community Improvement Department
2024/2025 Tax Roll Year Special Assessments
Exhibit C - Total Amounts per Parcel

Parcel Number	Address	Amount Due
1010-531-04	1341 W D ST, Ontario, CA 91762	46.00
1010-551-13	1536 W STONERIDGE CT, Unit:A, Ontario, CA 91762	276.00
1010-552-21	1505 W STONERIDGE CT, Unit:A, Ontario, CA 91762	368.00
1011-111-21	1511 W HOLT BL, Building:1, Unit:O, Ontario, CA 91762	431.00
1011-122-22	1203 W BROOKS ST, Ontario, CA 91762	853.08
1011-141-06	967 W HOLT BL, Ontario, CA 91762	91.00
1011-141-14	905 W BROOKS ST, Ontario, CA 91762	640.00
1011-141-31	905 W BROOKS ST, Ontario, CA 91762	640.00
1011-361-19	1411 W MISSION BL, Ontario, CA 91762	91.00
1011-382-65	1045 W MISSION BL, Ontario, CA 91762	3,197.80
1011-391-69	941 W MISSION BL, Building:2, Unit:G, Ontario, CA 91762	483.00
1011-421-11	0 S ELDERBERRY AV, Ontario, CA 91762	648.00
1011-421-12	0 S ELDERBERRY AV, Ontario, CA 91762	648.00
1014-181-13	1710 S BRIAR AV, Ontario, CA 91762	760.00
1014-591-04	1608 W PHILADELPHIA ST, Ontario, CA 91762	91.00
1014-591-05	1624 W PHILADELPHIA ST, Ontario, CA 91762	91.00
1047-294-08	706 W SIXTH ST, Ontario, CA 91762	1,175.00
1047-311-23	609 W LA DENEY DR, Ontario, CA 91762	20.00
1047-321-72	667 W HAWTHORNE ST, Ontario, CA 91762	61.51
1047-411-20	1015 E FIFTH ST, Ontario, CA 91764	106.51
1047-473-15	1054 E PRINCETON ST, Ontario, CA 91764	3,243.00
1047-492-03	712 E YALE ST, Ontario, CA 91764	46.00
1047-511-08	558 E PRINCETON ST, Ontario, CA 91764	170.00
1048-061-15	131 E ROSEWOOD CT, Ontario, CA 91764	220.00
1048-091-01	1050 N SULTANA AV, Ontario, CA 91764	1,203.00
1048-093-04	622 E FOURTH ST, Ontario, CA 91764	91.00
1048-123-17	1023 E I ST, Ontario, CA 91764	320.00
1048-132-08	952 E ROSEWOOD CT, Ontario, CA 91764	490.00
1048-211-20	859 E GRANADA CT, Ontario, CA 91764	520.00
1048-343-07	421 N FERN AV, Ontario, CA 91762	120.00
1048-362-03	124 E F ST, Ontario, CA 91764	120.00
1048-392-14	647 E E ST, Building:1, Unit:101, Ontario, CA 91764	501.24
1048-471-22	1087 E HOLT BL, Ontario, CA 91761	91.00
1048-481-07	935 E HOLT BL, Ontario, CA 91761	707.00
1048-481-27	907 E HOLT BL, Ontario, CA 91761	747.77
1048-564-10	108 W HOLT BL, Building:1, Ontario, CA 91762	211.00
1048-566-07	303 N EUCLID AV, Building:1, Ontario, CA 91762	367.00
1048-574-03	319 W B ST, Ontario, CA 91762	62.76
1049-021-08	555 W HOLT BL, Ontario, CA 91762	211.00
1049-094-02	654 E HOLT BL, Ontario, CA 91761	120.00
1049-095-05	225 S SULTANA AV, Building:3, Ontario, CA 91761	120.00
1049-101-31	815 E EMPORIA ST, Ontario, CA 91761	91.00
1049-102-18	824 E EMPORIA ST, Ontario, CA 91761	1,131.00
1049-131-03	914 E HOLT BL, Ontario, CA 91761	91.00

City of Ontario
Community Improvement Department
2024/2025 Tax Roll Year Special Assessments
Exhibit C - Total Amounts per Parcel

Parcel Number	Address	Amount Due
1049-212-13	612 S HOPE AV, Ontario, CA 91761	120.00
1049-231-11	552 E STATE ST, Ontario, CA 91761	91.00
1049-232-20	560 E PARK ST, Ontario, CA 91761	1,143.00
1049-232-21	617 E SUNKIST ST, Ontario, CA 91761	688.05
1049-242-11	516 S LEMON AV, Ontario, CA 91761	91.00
1049-245-04	318 E STATE ST, Ontario, CA 91761	544.52
1049-246-08	514 S CHERRY AV, Ontario, CA 91761	7,192.53
1049-253-09	215 E NEVADA ST, Ontario, CA 91761	140.00
1049-303-29	601 S CYPRESS AV, Ontario, CA 91762	594.69
1049-312-05	745 W MISSION BL, Ontario, CA 91762	648.00
1049-312-16	754 W CARLTON ST, Ontario, CA 91762	803.00
1049-334-03	919 S VINE AV, Ontario, CA 91762	211.00
1049-392-02	1026 S GROVE AV, Ontario, CA 91761	92.00
1049-442-06	1113 S GREENWOOD AV, Ontario, CA 91761	91.00
1049-481-12	698 E BELMONT ST, Ontario, CA 91761	46.00
1049-582-04	754 W BELMONT ST, Ontario, CA 91762	91.00
1049-591-29	622 W PHILLIPS ST, Ontario, CA 91762	230.00
1050-071-06	122 E DE ANZA CI, Ontario, CA 91761	211.00
1050-271-04	1628 S LAUREL AV, Ontario, CA 91762	91.00
1050-272-01	1658 S EUCLID AV, Ontario, CA 91762	231.00
1050-624-15	2115 S SAN ANTONIO AV, Ontario, CA 91762	300.88
1051-041-03	527 W PHILADELPHIA ST, Ontario, CA 91762	127.00
1051-051-72	2238 S EUCLID AV, Building:1, Unit:E, Ontario, CA 91762	431.00
1051-171-44	2460 S GROVE AV, Building:1, Ontario, CA 91761	470.50
1051-271-66	2502 S EUCLID AV, Building:1, Unit:C, Ontario, CA 91762	821.57
1052-151-05	1162 E RIVERSIDE DR, Ontario, CA 91761	91.00
1073-051-19	2761 E WICKFORD ST, Ontario, CA 91762	91.00
1073-281-28	2717 E MURDOCK LN, Ontario, CA 91762	78,804.64
1083-011-13	2550 S ARCHIBALD AV, Unit:A, Ontario, CA 91761	120.00
1083-061-05	2633 E RIVERSIDE DR, Ontario, CA 91761	91.00
1083-361-07	0 S MILLIKEN AV, Ontario, CA 91761	1,127.00
119		**154,878.76**

CITY OF ONTARIO *Agenda Report* **October 17, 2023**	**SECTION:** **CONSENT CALENDAR**
Department: Fire Department Prepared By: Janny Phan Staff Member Presenting: Ray Gayk, Fire Chief Approved By:	Submitted To: Council/OHA Approved: _____ Continued To: _____ Denied: _____ Item No: 5

SUBJECT: PURCHASE OF EXPLOSIVES STORAGE UNITS FROM KL SECURITY ENTERPRISES, INC. FOR THE ONTARIO FIRE DEPARTMENT BOMB SQUAD

RECOMMENDATION: That the City Council authorize the City Manager or designee to execute the purchase of explosives storage units from KL Security Enterprises, Inc., of Lafayette, IN, in the amount of $170,000.

THE FOLLOWING COUNCIL GOALS ARE BEING ACHIEVED:
Maintain the Current High Level of Public Safety

FISCAL IMPACT: The Fiscal Year 2023-24 Adopted Operating Budget includes appropriations in the General Fund for the purchase of explosives storage units.

BACKGROUND & ANALYSIS: For decades the Ontario Fire Department Bomb Squad has relied on regional bomb squad partners to securely store explosives and explosive tools used in the Fire Department's render safe operations. As a Federal Bureau of Investigations certified Bomb Squad, these explosives and explosive tools are vital to operations. Additionally, the large quantities of fireworks confiscated on a yearly basis are stored for future disposal with the California State Fire Marshall.

On July 2023, the City solicited proposals on PlanetBids for explosives storage units and notified 239 potential bidders. One bid was received from KL Security Enterprises, Inc., of Lafayette, IN. Staff recommends purchasing explosives storage units from KL Security Enterprises, Inc. for the storage of explosives, explosive tools, and fireworks. These explosives storage units will increase the Bomb Squad's operational effectiveness by providing storage of small quantities of explosives used in daily operations at a location closer to the operational area. Lastly, the explosives storage units will provide a safe, secure, and rated storage location for explosives and fireworks.

CITY OF ONTARIO *Agenda Report* **October 17, 2023**	**SECTION:** **CONSENT CALENDAR**
Department: Management Services Prepared By: Jordan T Villwock Staff Member Presenting: Darlene M. Sanchez, Assistant City Manager Approved By:	Submitted To: Council/OHA Approved: _____ Continued To: _____ Denied: _____ Item No: 6

SUBJECT: A LEASE AGREEMENT WITH CHAFFEY COMMUNITY ART ASSOCIATION

RECOMMENDATION: That the City Council authorize the City Manager, or designee, to execute a Lease Agreement (on file with Records Management) with the Chaffey Community Art Association, dba Chaffey Community Museum of Art (CCAA), of Ontario, California, for use of a City-owned building and adjacent property located at 217 South Lemon for the purpose of exhibiting and promoting local art and artists.

THE FOLLOWING COUNCIL GOALS ARE BEING ACHIEVED:
Operate in a Businesslike Manner
Encourage, Provide or Support Enhanced Recreational, Educational, Cultural and Healthy City Programs, Policies and Activities

FISCAL IMPACT: The recommended Agreement calls for a 30-year term. In return for the use of City-owned property, the Chaffey Community Museum of Art will make annual rental payments of $1.00.

BACKGROUND & ANALYSIS: The Chaffey Community Museum of Art (CCMA) was founded in 1941 and is among the oldest organization in the Inland Empire dedicated to stimulating and fostering an interest in art. CCMA has leased this facility from the City since 2011 and maintains a museum collection and displays the work of current artists who are well-known in the region. The mission of CCAA includes the display and restoration of the CCMA art collection, operation of a local Museum of Art; and the stimulation and fostering of art interest, education, and enjoyment for the general public by conducting, maintaining and establishing art exhibitions, programs and classes.

CITY OF ONTARIO *Agenda Report* **October 17, 2023**	**SECTION:** **CONSENT CALENDAR**
Department: Engineering Prepared By: Jaime Maciel-Carrera Staff Member Presenting: Scott Murphy, Executive Director Community Development Approved By:	Submitted To: Council/OHA Approved: _____ Continued To: _____ Denied: _____ Item No: 7

SUBJECT: **AN AMENDMENT TO THE PROFESSIONAL SERVICES AGREEMENT WITH PARSONS CORPORATION FOR ENGINEERING AND DESIGN SERVICES FOR THE I-10 FREEWAY AT GROVE AVENUE AND FOURTH STREET INTERCHANGE AND GROVE AVENUE CORRIDOR PROJECT**

RECOMMENDATION: That the City Council approve Amendment No. 9 to the Professional Services Agreement (on file in the Records Management Department) with Parsons Corporation (Parsons) of Illinois, for additional engineering and design services for the I-10 Freeway at Grove Avenue and Fourth Street Interchange and Grove Avenue Corridor Project in the amount of $485,507, for a total not-to-exceed amount of $5,049,698; and authorize the City Manager, or his designee, to execute said Agreement and future amendments within the authorization limits.

THE FOLLOWING COUNCIL GOALS ARE BEING ACHIEVED:
Operate in a Businesslike Manner
Pursue City's Goals and Objectives by Working with Other Governmental Agencies
Invest in the City's Infrastructure (Water, Streets, Sewers, Parks, Storm Drains and Public Facilities)

FISCAL IMPACT: The proposed Amendment No. 9 increases the Agreement amount by $441,370, plus an additional ten percent (10%) contingency of $44,137 for a revised not-to-exceed total of $5,049,698. The City's share of the Intersection Project is 44.4%, funded from General City Street Development Impact Fees. The balance of 55.6% is funded from SBCTA's Measure I Program. Upon approval, the appropriations from the General City Street Development Impact Fees and from Measure I Valley, will be included in the next Quarterly Budget Update as needed.

BACKGROUND & ANALYSIS: The scope of the I-10 Freeway at Grove Avenue and Fourth Street Interchange ("Interchange") and Grove Avenue Corridor ("Corridor") Projects includes widening of the intersection of Grove Avenue and Holt Boulevard. The existing agreement with Parsons covers the Project Approval and Environmental Document (PA&ED) phase for the Interchange and Corridor, as well as the design of the Intersection improvements. The Interchange is currently in the PA&ED phase with completion of the Project Report and Environmental Document scheduled for 2026. The Corridor and Intersection PA&ED phase was completed in July 2021. The Intersection

currently operates at unacceptable levels of service during the morning and evening peak hours. In an effort to alleviate this current deficiency, improvements at the Intersection are being advanced ahead of the Interchange and Corridor Project. Amendment No. 9 will provide funding for final design of the Grove Ave/Holt Blvd intersection, additional construction coordination support, and right-of-way acquisition coordination.

CITY OF ONTARIO *Agenda Report* **October 17, 2023**	**SECTION:** **CONSENT CALENDAR**
Department: Police Department Prepared By: Nicole Alvarez Staff Member Presenting: Mike Lorenz, Chief of Police Approved By:	Submitted To: Council/OHA Approved: _____ Continued To: _____ Denied: _____ Item No: 8

SUBJECT: A SOLE SOURCE PURCHASE OF MOBILE SURVEILLANCE UNITS (MSUS) FROM ECAMSECURE

RECOMMENDATION: That the City Council approve and authorize the City Manager or his designee to execute all documents necessary for the sole source purchase of 15 Mobile Surveillance Units (MSUs) from ECAMSECURE, of Long Beach, California in the amount of $512,000.

THE FOLLOWING COUNCIL GOALS ARE BEING ACHIEVED:
Maintain the Current High Level of Public Safety
Pursue City's Goals and Objectives by Working with Other Governmental Agencies

FISCAL IMPACT: The Fiscal Year 2023-24 Adopted Budget includes appropriations in the amount of $512,000 from the Capital Improvement Projects-Measure Q Fund for the purchase of pole cameras from ECAMSECURE of Long Beach, California.

BACKGROUND & ANALYSIS: To ensure the safety of City Staff, La Verne students, residents and the downtown Civic Center project, the Ontario Police Department is requesting to purchase ECAMSECURE MSUs. The MSU pole cameras will be strategically placed throughout the project for an in-depth look at the corridors, parking, and project areas. The MSUs will provide a layer of security and awareness, helping deter crime and give Staff and residents peace of mind when parking and walking through the Civic Center area.

The MSUs are highly versatile and can be incorporated with existing security systems. In addition, a variety of lights and cameras can be used to create a custom security solution that will help Police Department staff monitor the Civic Center through the Real Time Information Center. They are also built to withstand extreme weather conditions and are solar-powered.

CITY OF ONTARIO *Agenda Report* **October 17, 2023**	**SECTION:** **CONSENT CALENDAR**
Department: Public Works Prepared By: Adrian Escamilla Staff Member Presenting: Tito Haes, Executive Director Public Works Reviewed By: Bonnie Tam, Andrea Ampig Approved By:	Submitted To: Council/OHA Approved: _____ Continued To: _____ Denied: _____ Item No: 9

SUBJECT: A CONSTRUCTION CONTRACT WITH CHAPMAN COAST ROOF CO., INC. FOR THE DOROTHY A. QUESADA COMMUNITY CENTER ROOF REPLACEMENT PROJECT

RECOMMENDATION: That the City Council take the following actions:

A. Authorize the City Manager or his designee to complete and execute Construction Contract No. D&C23-016 with Chapman Coast Roof Co., Inc., located in Fullerton, California, for the Dorothy A. Quesada Community Center Roof Replacement Project in the amount of $284,987;
B. Authorize a 10% contingency of $28,499 to address any unforeseen issues that arise during construction for a total contract amount not-to-exceed $313,486; and
C. Authorize the City Manager or his designee to execute all documents required for the completion of the project including, but not limited to, contracts, agreements, assessments, easements, reduction of retention accounts, and filing a notice of completion at the conclusion of all construction related activities.

THE FOLLOWING COUNCIL GOALS ARE BEING ACHIEVED:
Invest in the City's Infrastructure (Water, Streets, Sewers, Parks, Storm Drains and Public Facilities)

FISCAL IMPACT: The Fiscal Year 2023-24 Adopted Budget includes appropriations in the Capital Projects-Measure Q Fund. The proposed contract amount for the roof replacement at Dorothy A. Quesada Community Center is $284,987. Staff is requesting a 10% contingency of $28,499 for a total contract amount not-to-exceed $313,486, funded by Measure Q. If additional appropriations are needed, they will be included at a future quarterly budget update.

BACKGROUND & ANALYSIS: The roof at the Dorothy A. Quesada Community Center has exceeded its recommended lifespan and has required increased maintenance due to multiple leaks and deterioration. The recommended repair is a topcoat thermoplastic roof with a 30-year warranty. The re-roof will provide faster evaporation and lower roof-top temperatures to reduce interior building temperatures and increase product life cycle.

On September 7, 2023, five bids were received for Dorothy A. Quesada Community Center Roof

Replacement Project. The bid results are listed below.

VENDOR	LOCATION	AMOUNT
Chapman Coast Roof Co., Inc.	Fullerton, CA	$284,987
Danny Letner, Inc.	Orange, CA	$298,900
Southland Roofing, Inc.	Los Angeles, CA	$334,000
Rite-Way Roof Corporation	Fontana, CA	$377,937
Best Contracting Services, Inc.	Gardena, CA	$434,570

Chapman Coast Roof Co., Inc., located in Fullerton, California, was the lowest responsive bidder that met all the required specifications with a cost of $284,987. Based on credentials, pricing, and favorable reference checks, Staff recommends awarding Construction Contract No. D&C23-016 to Chapman Coast Roof Co., Inc. The project's estimated completion date is March 2024.

CITY OF ONTARIO *Agenda Report* **October 17, 2023**	**SECTION:** **CONSENT CALENDAR**
Department: Public Works Prepared By: Adrian Escamilla Staff Member Presenting: Tito Haes, Executive Director Public Works Reviewed By: Bonnie Tam, Andrea Ampig Approved By:	Submitted To: Council/OHA Approved: _____ Continued To: _____ Denied: _____ Item No: 10

SUBJECT: **AN AMENDMENT TO THE MAINTENANCE SERVICES AGREEMENT WITH BAY ALARM COMPANY FOR THE ONTARIO POLICE DEPARTMENT FIRE NOTIFICATION SYSTEM DESIGN**

RECOMMENDATION: That the City Council take the following actions:

A. Authorize the City Manager or his designee to execute Amendment No. 7 to the Maintenance Services Agreement with Bay Alarm Company, located in Concord, California, for the Ontario Police Department Fire Notification System Design in an amount of $11,925 for a total not-to-exceed contract amount of $1,022,272; and

B. Authorize the City Manager or his designee to execute all documents required for the completion of the project including, but not limited to, contracts, agreements, assessments, easements, reduction of retention accounts, and filing a notice of completion at the conclusion of all construction related activities.

THE FOLLOWING COUNCIL GOALS ARE BEING ACHIEVED:

Invest in the City's Infrastructure (Water, Streets, Sewers, Parks, Storm Drains and Public Facilities)

FISCAL IMPACT: The proposed Amendment No. 7 to the Maintenance Services Agreement with Bay Alarm Company increases the contract amount by $11,925, for a new total contract amount not-to-exceed $1,022,272. The Fiscal Year 2023-24 Adopted Budget includes appropriations in the Facilities and Parks Maintenance Fund for the design of the Ontario Police Department Fire Notification System.

BACKGROUND & ANALYSIS: The current fire alarm notification system at the Ontario Police Department located at 2500 S. Archibald Avenue is due for an upgrade based on its age, range of covers, and communication. The design services provided by Bay Alarm Company will add the appropriate devices per occupancy type and comply with the latest Fire Code Regulations for occupant safety.

CITY OF ONTARIO *Agenda Report* **October 17, 2023**	**SECTION:** **CONSENT CALENDAR**
Department: Public Works Prepared By: Adrian Escamilla Staff Member Presenting: Tito Haes, Executive Director Public Works Reviewed By: Bonnie Tam, Andrea Ampig Approved By:	Submitted To: Council/OHA Approved: _____ Continued To: _____ Denied: _____ Item No: 11

SUBJECT: **AMENDMENTS TO THE DESIGN SERVICES AGREEMENT WITH HOLT ARCHITECTS, INC. FOR ON-CALL ARCHITECTURAL SERVICES FOR THE ONTARIO POLICE DEPARTMENT MASTER PLAN, REAL TIME INFORMATION CENTER, AND TRAINING DIVISION**

RECOMMENDATION: That the City Council take the following actions:

A. Authorize the City Manager or his designee to execute Amendment No. 6 to the On-Call Design Services Agreement with Holt Architects, Inc., located in Palm Desert, California, for the Ontario Police Department Real Time Information Center and Training Division Design for an amount of $338,970;

B. Authorize the City Manager or his designee to execute Amendment No. 7 to the On-Call Design Services Agreement with Holt Architects, Inc., located in Palm Desert, California, for the Ontario Police Department Master Plan Design for an amount of $143,582 for a total contract not-to-exceed amount of $1,055,066; and

C. Authorize the City Manager or his designee to execute all documents required for the completion of the project including, but not limited to, contracts, agreements, assessments, easements, reduction of retention accounts, and filing a notice of completion at the conclusion of all construction related activities.

THE FOLLOWING COUNCIL GOALS ARE BEING ACHIEVED:
Invest in the City's Infrastructure (Water, Streets, Sewers, Parks, Storm Drains and Public Facilities)

FISCAL IMPACT: The Fiscal Year 2023-24 Adopted Budget includes appropriations in the Capital Improvement Projects-Measure Q Fund and Law Enforcement Impact Fund for design services. The recommended actions will increase the contract amount by $482,552 for a total contract amount not-to-exceed $1,055,066. The total contract amount of $1,055,066 includes on-call work performed for various citywide projects, including the Ontario Police Department Master Plan, Real Time Information Center, and Training Division design.

BACKGROUND & ANALYSIS: The Real Time Information Center and Training Division designs will include interior renovations for private offices, workstations, mechanical improvements, data, visual, audio communication, and a specialized training room. The Real Time Information Center will be a hub for the City of Ontario to bring together data, video, audio and real time information into one centralized place for monitoring. Staff recommends authorizing Amendment No. 6 to the existing Design Services Agreement with Holt Architects, Inc., in the amount of $338,970 for a total contract amount not-to-exceed $911,484.

The Ontario Police Department Master Plan will be based upon facilitating the needs of each operational program. Facility improvements will be identified within the existing building. Holt Architects, Inc., will coordinate with other City Departments and any outside vendor whose efforts are currently in progress to ensure all facility improvements are identified and incorporated during the documentation as necessary. Staff recommends authorizing Amendment No. 7 to the existing Design Services Agreement with Holt Architects, Inc., in the amount of $143,582 for a total contract amount not-to-exceed $1,055,066.

CITY OF ONTARIO *Agenda Report* **October 17, 2023**	**SECTION:** **CONSENT CALENDAR**
Department: Public Works Prepared By: Adrian Escamilla Staff Member Presenting: Tito Haes, Executive Director Public Works Reviewed By: Bonnie Tam, Andrea Ampig Approved By:	Submitted To: Council/OHA Approved: _____ Continued To: _____ Denied: _____ Item No: 12

SUBJECT: **AN AMENDMENT TO THE MAINTENANCE SERVICES AGREEMENT WITH WESTERN AUDIO VISUAL FOR THE ONTARIO POLICE DEPARTMENT GYM EXPANSION PROJECT**

RECOMMENDATION: That the City Council take the following actions:

A. Authorize the City Manager or his designee to execute Amendment No. 3 to the Maintenance Services Agreement with Western Audio Visual, located in Orange, California, for the Ontario Police Department (OPD) Gym Expansion Project for an amount of $67,622; and

B. Authorize the City Manager or his designee to execute all documents required for the completion of the project including, but not limited to, contracts, agreements, assessments, easements, reduction of retention accounts, and filing a notice of completion at the conclusion of all construction related activities.

THE FOLLOWING COUNCIL GOALS ARE BEING ACHIEVED:
Invest in the City's Infrastructure (Water, Streets, Sewers, Parks, Storm Drains and Public Facilities)

FISCAL IMPACT: The proposed Amendment No. 3 to the Maintenance Services Agreement with Western Audio Visual, will increase the contract amount by $67,622, for a new total contract amount not-to-exceed $151,322. The Fiscal Year 2023-24 Adopted Budget includes appropriations in the Capital Projects Fund for this project.

BACKGROUND & ANALYSIS: The current Ontario Police Department locker and gym space plan needs remodeling and rehabilitation to accommodate operational and staffing needs. Western Audio Visual, will provide the audio-visual materials and installation for the OPD Gym Expansion project. The project's estimated completion date is November 2023.

CITY OF ONTARIO *Agenda Report* **October 17, 2023**	**SECTION:** **CONSENT CALENDAR**
Department: Police Department Prepared By: Nicole Alvarez Staff Member Presenting: Mike Lorenz, Chief of Police Approved By:	Submitted To: Council/OHA Approved: _____ Continued To: _____ Denied: _____ Item No: 13

SUBJECT: AN AMENDMENT TO THE PROFESSIONAL SERVICES AGREEMENT WITH AMERICAN THREAT ASSESSMENT CONSULTING INC. (A.T.A.C.)

RECOMMENDATION: That City Council authorize the City Manager or his designee to execute Amendment No. 7 to the Professional Services Agreement (on file in the Records Management Department) with American Threat Assessment Consulting Inc. (A.T.A.C.) of Rancho Cucamonga, California to add the purchase of additional equipment for the Civic Center remodel project and the Real Time Information Center in the amount of $71,521, for a total contract not-to-exceed amount of $1,604,021.

THE FOLLOWING COUNCIL GOALS ARE BEING ACHIEVED:
Maintain the Current High Level of Public Safety
Pursue City's Goals and Objectives by Working with Other Governmental Agencies

FISCAL IMPACT: The Fiscal Year 2023-24 Adopted Budget includes appropriations from the Capital Projects Fund (Measure Q) for the purchase of CCTV Cameras for the Real Time Information Center from American Threat Assessment Consulting Inc. The proposed Amendment increases the authorized contract amount of $1,532,500 by $71,521 for a new not-to-exceed contract amount of $1,604,021.

BACKGROUND & ANALYSIS: On June 6th, 2023, the City of Ontario and A.T.A.C entered Amendment No. 6 adding additional compensation and terms. Amendment No. 7 will increase funding for an additional $71,521 for the purchase of CCTV cameras to help with security around the Civic Center as well as establish more active cameras for the Real Time Information Center.

CITY OF ONTARIO *Agenda Report* **October 17, 2023**	**SECTION:** **CONSENT CALENDAR**
Department: Public Works Prepared By: Bonnie Tam Staff Member Presenting: Tito Haes, Executive Director Public Works Approved By:	Submitted To: Council/OHA Approved: _____ Continued To: _____ Denied: _____ Item No: 14

SUBJECT: **ACCEPTANCE OF PRIORITY LEGISLATIVE BUDGET PROJECT (PLBP) EARMARK FUNDS FROM THE CALIFORNIA DEPARTMENT OF TRANSPORTATION (CALTRANS) FOR THE DE ANZA PARK LIGHTING IMPROVEMENTS PROJECT, MISSION BOULEVARD MEDIAN IMPROVEMENTS PROJECT, AND RECREATION YOUTH ACTIVITIES AND YOUTH SPORTS PROGRAM**

RECOMMENDATION: That the City Council authorize the City Manager or his designee to execute all documents necessary to accept the Priority Legislative Budget Project (PLBP) earmark funds in the amount of $4,500,000 from the California Department of Transportation (Caltrans) for the De Anza Park Lighting Improvements Project, Mission Boulevard Median Improvements Project, and Recreation Youth Activities and Youth Sports Program.

THE FOLLOWING COUNCIL GOALS ARE BEING ACHIEVED:
Invest in the City's Infrastructure (Water, Streets, Sewers, Parks, Storm Drains and Public Facilities)
Encourage, Provide or Support Enhanced Recreational, Educational, Cultural and Healthy City Programs, Policies and Activities
Pursue City's Goals and Objectives by Working with Other Governmental Agencies

FISCAL IMPACT: The City has been awarded $4,500,000 in PLBP earmark funds from Caltrans to fund the De Anza Park Lighting Improvements and Mission Boulevard Median Improvements projects scheduled to be completed by the Public Works Agency during Fiscal Years 2023-25. The earmark funds also fund the programming costs of the Recreation Youth Activities and Youth Sports Program managed by the Community Life & Culture Agency for three years. The associated revenue and expenditure for the De Anza Park Lighting Improvements and Mission Boulevard Median Improvements projects are budgeted in the Fiscal Year 2023-24 Adopted Budget in the Grants Fund. The Recreation Youth Activities and Youth Sports Program will need an increase of appropriations of $500,000 from the Grants Fund that will be included in the next quarterly budget update.

BACKGROUND & ANALYSIS: The California Legislature has authorized funding for PLBP. These projects have been authorized by State legislation, specifically Assembly Bill 179. Caltrans is the authorizing agency for the proper distribution of the funding provided by this legislation. On

December 14, 2022, the City was confirmed for the award of $4,500,000 in PLBP funds to fund the De Anza Park Lighting Improvements Project with a total project cost of $2,000,000, Mission Boulevard Median Improvements Project with a total project cost of $2,000,000, and Recreation Youth Activities and Youth Sports Program with a total programming cost of $500,000 to provide safety improvements for parks, road safety, and youth services in the City of Ontario.

De Anza Park Lighting Improvements

De Anza Park is located at 1405 South Fern Avenue, in west/central Ontario primarily within a residential neighborhood. The proposed project includes replacing 14 existing 50' tall wooden sport field lights with new steel poles. The new sport field lighting will include lighting controls that provide 24/7 light monitoring and the ability to control and manage the lighting system remotely. The sport field lighting will include directed LED lighting focused on the sport fields, reducing the amount of ambient light to the residential neighborhood neighboring the park. In addition to the sport field lighting improvements, the project will install additional King light standards and wall packs throughout the park to improve safety lighting. All new lighting will be energy efficient LED lighting.

Mission Boulevard Median Improvements

Mission Boulevard is a major east-west arterial that runs the length of the City of Ontario. Mission Boulevard is an important corridor that is heavily utilized by commuters and designated as one of the main truck routes in the City. The existing medians are an underutilized public space in an underserved community due to lack of shade trees and lack of features to represent the culture or history of the community. Filling in the existing empty spaces with decorative and natural materials will greatly enhance the appearance of the corridor. New shade trees will be planted in empty tree wells on the medians. These improvements will allow the medians on Mission Boulevard between Mountain Avenue and Grove Avenue to better serve as land area for water capture and infiltration, supporting groundwater recharge.

Recreation Youth Activities and Youth Sports Program

The Recreation Youth Activities and Youth Sports Program is a free program geared for youth ages 10-15. The program is managed by the Recreation & Community Services Department within the Community Life & Culture Agency and provides youths with an opportunity to experience lasting, positive relationships through mentoring. The earmark funds fund the expansion of the program, including staffing costs associated with planning, implementing, and executing all programmatic elements, program supplies, and expenses related to events and excursions. This program will offer specialized programs at the Dorothy A. Quesada Community Center multiple days a week. Sports clinics and camps will occur once a year. Total program costs will cover a three-year program implementation period.

CITY OF ONTARIO *Agenda Report* **October 17, 2023**	**SECTION:** **CONSENT CALENDAR**
Department: Recreation & Community Services Prepared By: Danielle Guevara Staff Member Presenting: Helen McAlary, Executive Director Community Life and Culture Reviewed By: Nicholas S Gonzalez Approved By: 	Submitted To: Council/OHA Approved: _____ Continued To: _____ Denied: _____ Item No: 15

SUBJECT: AUTHORIZE THE PURCHASE OF OUTDOOR FITNESS EQUIPMENT WITH GREENFIELDS OUTDOOR FITNESS FOR VINEYARD PARK

RECOMMENDATION: That the City Council authorize the cooperative purchase of Outdoor fitness equipment with Greenfields Outdoor Fitness for Vineyard Park in the amount of $171,081 plus a 10% contingency of $17,109 to mitigate any unforeseen issues with supply chain surcharges and manufactory price increases for a total not-to-exceed contract amount of $188,190 from Greenfields Outdoor Fitness, of Anaheim, California, consistent with the terms and conditions of the Sourcewell Cooperative Contract No. 010721-GRN.

THE FOLLOWING COUNCIL GOALS ARE BEING ACHIEVED:
Operate in a Businesslike Manner
Encourage, Provide or Support Enhanced Recreational, Educational, Cultural and Healthy City Programs, Policies and Activities

FISCAL IMPACT: The Fiscal Year 2023-24 Adopted Budget includes appropriations of $100,000 from the Capital Projects-Measure Q Funds to purchase outdoor fitness equipment with Greenfields Outdoor Fitness for Vineyard Park. The total cost of the recommended fitness equipment is $188,190. If approved, the additional $88,190 will be paid from the Fiscal Year 2023-24 Adopted Operating Budget for Community Life & Culture.

BACKGROUND & ANALYSIS: The outdoor fitness equipment provides free, accessible fitness equipment to the public. It is designed for users of all ages and fitness levels. The outdoor fitness equipment includes a variety of exercise stations that can be used for strength training cardio workouts, and more. The equipment is easy to use and does not require special training, making it accessible to everyone in the community. It is a fun and exciting way to exercise and fosters a sense of community around fitness and wellness. The shade structure in the design ensures a comfortable environment regardless of weather or time of day. The selected fitness equipment vendor is Greenfields Outdoor Fitness (Exhibit A & B).

In general conformation with the provisions of Government Code Section 54201 through 54202, Ontario Municipal Code Section 2-6.29 allows for the purchase of supplies and equipment through cooperative purchasing programs. Cooperative purchasing allows the City to pool its procurement power with other public agencies to obtain lower pricing than otherwise might be possible.

On August 28, 2023, the Recreation & Parks Commission approved the design for the outdoor fitness equipment with Greenfields Outdoor Fitness to be installed at Vineyard Park with a vote of 6-0 and recommends that the City Council authorize the cooperative purchase.

Exhibit A

Greenfields Outdoor Fitness

CA - Ontario - Vineyard Park
VERSION4 REV1 - 2023-08-31
GREENFIELDS PROPOSED OUTDOOR FITNESS ZONE

ONTARIO

Functional Fitness Rig
SHP515



This unit offers the following:

1. Split Squats
2. Incline Ladder
3. Sit-Ups
4. S-Ladder
5. Lat Pull-Ups
6. Ball Target*
7. Stretching Post
8. S-Shaped Pull-Ups
9. Leg Raises
10. Dips
11. Swedish Ladder
12. Cannonball Pull-Ups
13. Ring Rows
14. Battle Ropes*
15. High Rings
16. Suspension Trainers

*This feature requires an optional add-on accessory for use

A fall-attenuating surface is recommended for this unit.

Exhibit B



CITY OF ONTARIO *Agenda Report* **October 17, 2023**	**SECTION:** **CONSENT CALENDAR**
Department: Public Works Prepared By: Gil H Mars Staff Member Presenting: Tito Haes, Executive Director Public Works Reviewed By: Bonnie Tam, Andrea Ampig Approved By:	Submitted To: Council/OHA Approved: _____ Continued To: _____ Denied: _____ Item No: 16

SUBJECT: A PROFESSIONAL SERVICES AGREEMENT WITH ROBERT COFFEE & ASSOCIATES FOR THE ANTHONY MUNOZ COMMUNITY CENTER GYMNASIUM

RECOMMENDATION: That the City Council take the following actions:

A. Authorize the City Manager or his designee to execute a Professional Services Agreement D&C23-015 Anthony Munoz Gymnasium (on file with the Records Management Department) to Robert Coffee & Associates, of Newport Beach, California, for the Anthony Munoz Community Center Gymnasium Project, for a total not-to-exceed contract amount of $971,820; and

B. Authorize the City Manager or his designee to execute all documents required for the completion of the project including, but not limited to agreements, assessments, easements, reduction of retention accounts, contracts amendments within the authorization limits, and filing a notice of completion at the conclusion of all construction related activities.

THE FOLLOWING COUNCIL GOALS ARE BEING ACHIEVED:

Invest in the City's Infrastructure (Water, Streets, Sewers, Parks, Storm Drains and Public Facilities)

Encourage, Provide or Support Enhanced Recreational, Educational, Cultural and Healthy City Programs, Policies and Activities

FISCAL IMPACT: The proposed amount for the design of the Anthony Munoz Community Center Gymnasium is $971,820. If approved, additional Capital Projects-Measure Q appropriations will be requested at the next quarterly budget update as needed.

BACKGROUND & ANALYSIS: Adult and youth sports programs have maximized the use and capacity of the two (2) existing City gymnasiums, causing waitlists to form. Additional gymnasium space is needed due to the growth and expansion of the City in recent years.

In April of 2018, Robert Coffee & Associates was awarded the contract to design the Anthony Munoz Community Center Renovation project with construction being completed July 7, 2021. During the planning phase in February 2019, Robert Coffee & Associates was tasked to add this Gymnasium

scope. However, it was cut from the plans at that time for budgetary reasons. Because Robert Coffee & Associates had investigated the necessary site preparations, building costs, design, and planning, utilizing their services for the final design of this gymnasium would reduce the turnaround time since they have retained files and information on this project and already have conceptual plans.

Staff recommends awarding the Professional Services Agreement to Robert Coffee & Associates based on the expertise and design work they have already retained for the Anthony Munoz Community Center. The project has an estimated completion date of March 1, 2026.

CITY OF ONTARIO *Agenda Report* **October 17, 2023**	**SECTION:** **PUBLIC HEARINGS**
Department: Planning Prepared By: Alexis Vaughn Staff Member Presenting: Scott Murphy, Executive Director Community Development Reviewed By: Edmelynne V Hutter, Kimberly Ruddins, Rudy Zeledon Approved By:	Submitted To: Council/OHA Approved: _____ Continued To: _____ Denied: _____ Item No: 17

SUBJECT: **A PUBLIC HEARING TO CONSIDER ADOPTION OF THE EUCLID WALNUT PLANNED UNIT DEVELOPMENT (FILE NO. PUD22-004) TO ESTABLISH DEVELOPMENT STANDARDS AND DESIGN GUIDELINES FOR A 10.6-ACRE PROJECT SITE LOCATED AT THE NORTHWEST CORNER OF EUCLID AVENUE AND WALNUT STREET**

RECOMMENDATION: That the City Council adopt a Resolution approving the use of an Addendum to The Ontario Plan 2050 Supplemental Environmental Impact Report, and introduce and waive further reading of an Ordinance approving the Euclid Walnut Planned Unit Development (File No. PUD22-004).

THE FOLLOWING COUNCIL GOALS ARE BEING ACHIEVED:
Invest in the Growth and Evolution of the City's Economy
Operate in a Businesslike Manner
Focus Resources in Ontario's Commercial and Residential Neighborhoods

FISCAL IMPACT: There is not a direct fiscal impact associated with this action. The proposed Euclid Walnut Planned Unit Development (PUD) establishes development standards and guidelines to facilitate a mixed-use commercial and residential development. Implementation of the PUD would result in an increase in property taxes from future development and the one-time payment to the City for plan check fees and development impact fees.

BACKGROUND & ANALYSIS: On August 16, 2022, the Ontario City Council certified The Ontario Plan 2050 (TOP 2050) Supplemental Environmental Impact Report (SEIR, State Clearinghouse No. 2021070364) in conjunction with File No. PGPA20-002. The SEIR analyzed the Project site and 5.4 acres of land to the north of the Project site, also located within the same mixed-use district, and established guidelines for development. These guidelines include, but are not limited to, general land use (mixed-use residential and commercial), maximum density and development intensity (20-75 dwelling units per acre and 1.0 non-residential floor area ratio (FAR), respectively), and assumed dwelling units and commercial square footage (369 and 142,840, respectively). An Addendum to the SEIR was submitted in conjunction with the Project and is explained in detail within the

Environmental Review section of this report.

On May 25, 2022, the Applicant filed a Development Plan application (File No. PDEV22-027) to construct Phase 1 of the Planned Unit Development (PUD), consisting of 346 dwelling units and 5,400 square feet of ground-floor commercial space on 9.4 acres of the overall 10.6-acre Project site. The request was submitted in conjunction with a Certificate of Appropriateness application (File No. PHP22-015), to determine whether the Project site was a historic resource, and the subject PUD application (File No. PUD22-004) to establish the development standards and design guidelines for the Project site to facilitate its two phases of development.

PLANNED UNIT DEVELOPMENT: The MU-NH 8e zoning district and the Euclid Avenue (EA) Overlay district require the preparation and approval of a PUD to establish the development standards and design guidelines for the site. The proposed Euclid Walnut PUD, attached to the City Council Ordinance as Attachment A, identifies the following components:

(a) Chapter 2: Objectives – The Objectives component of the PUD outlines the Project's consistency with The Ontario Plan, including its Vision, Governance Manual, and Policy Plan (General Plan). The PUD also outlines how the Project will be consistent with the EA Overlay district, which was established to recognize, protect, and enhance the visual character and quality of Euclid Avenue as a major scenic and historic resource in Ontario, as well as its position on the National Register of Historic Places;

(b) Chapter 3: Land Use Plan – The Land Use Plan chapter briefly describes the Project, including zoning and land use districts, development phasing, demolition activities, and permitted land uses. The PUD aligns with the Project site's zoning and TOP 2050 land use districts by allowing for horizontal and vertical mixed-use development and associated facilities. The chapter also outlines various permitted land uses, activities, and facilities for the PUD site, along with the process required to get certain uses approved;

(c) Chapter 4: Development Regulations – The Development Regulations chapter sets forth standards that govern development of the site, including the following topics: intensity; density; building envelope; vehicle access; parking facilities, supply, and design; residential open space and common amenities; service facilities; signs; landscape and hardscape; fences and walls; public right-of-way improvements; and infrastructure. Development standards for the Project site are also provided in a summary table (see Figure 4-1: Summary of Development Standards located on page 32 of the PUD, included herein as Attachment A of the City Council Ordinance for File No. PUD22-004, attached to this report);

(d) Chapter 5: Design Criteria – New development implemented under the PUD will generate new uses and design aesthetics to fulfill the design goals and policies of TOP and will be guided by design criteria to provide articulation, dynamic materials and colors, and avoidance of bulky and monotonous elevations. The proposed development will be subject to and governed by policies and goals regarding building orientation, access and parking facilities, service facilities, pedestrian linkages, architectural character, massing and scale, articulation and fenestration, architectural details, storefronts, materials and colors, roofs and rooftop equipment, non-residential outdoor dining areas, residential outdoor spaces and common recreational amenities, and landscape and

hardscape elements; and

(e) Chapter 6: Administration – Lastly, the PUD establishes that applications for Development Plans and other entitlement proposals are subject to the Ontario Development Code submittal, review and processing requirements.

COMPLIANCE WITH THE ONTARIO PLAN: The proposed Project is consistent with the principles, goals and policies contained within the Vision, Governance, Policy Plan (General Plan), and City Council Priorities components of The Ontario Plan 2050.

HOUSING ELEMENT COMPLIANCE: The Project is consistent with the Housing Element of the Policy Plan (General Plan) component of The Ontario Plan 2050, as the project site is not one of the properties in the Available Land Inventory contained in Table A-3 (Available Land by Planning Area) of the Housing Element Technical Report Appendix.

AIRPORT LAND USE COMPATIBILITY: The California State Aeronautics Act (Public Utilities Code Section 21670 et seq.) requires that an Airport Land Use Compatibility Plan be prepared for all public use airports in the State; and requires that local land use plans and individual development proposals must be consistent with the policies set forth in the adopted Airport Land Use Compatibility Plan.

Ontario International Airport: On April 19, 2011, the Ontario City Council approved and adopted the Ontario International Airport Land use Compatibility Plan (ALUCP), establishing the Airport Influence Area for Ontario International Airport, which encompasses lands within parts of San Bernardino, Riverside, and Los Angeles Counties, and limits future land uses and development within the Airport Influence Area as they relate to noise, safety, airspace protection, and overflight impacts of current and future airport activity. The proposed Project is located within the Airport Influence Area of Ontario International Airport and was evaluated and found to be consistent with the policies and criteria of the ALUCP. Any special conditions of approval associated with uses in close proximity to the airport are included in the conditions of approval provided with the attached ordinance.

ENVIRONMENTAL REVIEW: The environmental impacts of this Project were reviewed in conjunction with an Addendum to The Ontario Plan 2050 Supplemental Environmental Impact Report (State Clearinghouse No. 2021070364), certified by the Ontario City Council on August 16, 2022, in conjunction with File No. PGPA20-002. This Application introduces no new significant environmental impacts. All previously adopted mitigation measures are a condition of Project approval and are incorporated herein by this reference.

NEIGHBORHOOD MEETING: A neighborhood meeting regarding File No. PZC22-001, a Policy Plan (General Plan) zoning consistency project that included the Project site, was held on February 22, 2023. Several members of the public attended and requested additional information about the Project, including the Project's scope of work, conceptual site planning, building design, and traffic. City Staff provided additional information to the community members at the meeting and considered their input during Project review. Further, a community member who provided contact information was added to the public notification list for the Project.

PUBLIC COMMENTS: As of the preparation of this Agenda Report, Planning Department Staff received the following written or verbal communications from the owners or occupants of properties surrounding the Project site or from the public in general:

- At the neighborhood meeting described above, a community member requested additional information about the Project's scope of work, conceptual site planning and building design, and traffic. The requested information was provided and the commenter was added to the public notification list.
- James L. Camarillo, a representative of Caltrans, reviewed and provided preliminary comments and recommendations about the Project. He requested additional information to be able to provide a more in-depth review. His correspondence was forwarded to the appropriate Staff for review and response.
- On August 7, 2023, Mitchell M. Tsai, Attorney at Law, representing the Southwest Mountain States Regional Council of Carpenters, submitted a letter (See Attachment A-1 of the attached Planning Commission Backup File, Mitchell M. Tsai letter) contesting the Project based on the following claims:

1. The City should require the use of a local workforce to benefit the community's economic development and environment.

Staff Response: As discussed in the Addendum, the Project will not result in any new, increased or substantially different air quality, GHG, or VMT impacts not previously considered and addressed in TOP 2050 SEIR. Therefore, mitigation beyond what was required in TOP 2050 S EIR to further reduce air quality, GHG, and VMT impacts is not required for the proposed Project. The comment does not affect the analysis completed or conclusions provided in the Addendum, does not provide new information or evidence related to the analysis completed in the Addendum, and does not reflect on the adequacy or content of the Addendum. No changes to the Addendum are required.

2. The Project would be approved in violation of CEQA.

Staff Response: The commenter claims a Project-specific EIR should be prepared and that new mitigation measures, specifically related to EV-capable parking spaces, are required and were not considered in the prior environmental analysis of the Project site. The comment does not appear to recognize the City's recent adoption of TOP 2050 and certification of TOP 2050 SEIR on August 16, 2022. As recognized in the Addendum, the Project will be required to comply with the CALGreen Building Code (CBC) commercial and residential requirements in effect at the time of development. Further, the Project will be required to implement Mitigation Measure AQ 3-3 from TOP 2050 SEIR, which provides a list of potential mitigation measures which may be included as conditions of approval should operational air quality impacts exceed South Coast AQMD-adopted thresholds of significance. Such measures include, but are not limited to: Provide bicycle parking facilities per Section A4.106.9 of CALGreen (Residential Voluntary Measures); Provide preferential parking spaces for low-emitting, fuel-efficient, and carpool/van vehicles per Section A5.106.5.1 of CALGreen (Nonresidential Voluntary Measures); Provide facilities to support electric charging stations per Section A5.106.5.3 and Section A5.106.8.2 of CALGreen (Nonresidential Voluntary Measures; Residential Voluntary Measures).

3. CEQA requires the City to prepare a tiered EIR for the Project instead of an Addendum.

Staff Response: The City has properly prepared an Addendum to TOP 2050 SEIR for the Project and a tiered EIR, as claimed by the commenter, is not required. The City has discretion to determine whether a subsequent or supplemental EIR is necessary under Public Resources Code Section 21166 and State CEQA Guidelines Section 15162, so long as its decision is supported by substantial evidence. Similarly, whether an activity is within the scope of a program EIR "is a factual question that the lead agency determines based on substantial evidence in the record." (State CEQA Guidelines, §15168(c)(2)). The City has prepared an Addendum to the TOP 2050 SEIR for the Project, finding that all impacts of the Project have been adequately addressed in TOP 2050 SEIR. The CEQA Guidelines provide that an agency may prepare an addendum to a prior EIR to document its decision that a subsequent EIR is not required. (State CEQA Guidelines, §15164(b), (e)). As such, the Addendum is appropriate in this case and no further environmental review is required.

The City has also followed all procedural requirements, including public disclosure requirements, in its preparation of the Addendum. While CEQA requires notice to the public and an opportunity to comment in connection with adoption of a negative declaration or preparation of an EIR, an addendum is not required to be circulated for public review (State CEQA Guidelines, § 15164(c)). The Addendum, and all supporting technical studies, has been provided to the Planning Commission and the public prior to any decision by the City, in compliance with CEQA. The City has also complied with the requirements of the Public Records Act. The Project, along with the Development Advisory Board Staff Report and Addendum, was posted on the City's website 72 hours prior to the meeting, consistent with the California Brown Act. Regarding the Planning Commission hearing, the Project has been advertised in the newspaper, notices have been sent to all property owners within 300 feet of the project and the Staff Report and Addendum was posted 72 hours prior to the hearing. Accordingly, a tiered EIR is not required for the Project.

4. The City cannot issue an Addendum because the Project was not addressed with the TOP 2050 Update SEIR and therefore an EIR must be prepared for the Project.

Staff Response: As discussed in the Addendum, the Project was addressed in TOP 2050 SEIR, and the commenter did not provide any evidence of Project impacts that are outside of the scope of TOP 2050 SEIR. TOP 2050 shows a total of five locations within the City with the MU-NH land use designation. The Future Buildout Projections Table of the Land Use Element provides further details for each of these five MU-NH sub-areas. The three parcels subject to this PUD Project make up 10.6 acres ("PUD site") of the overall 16 acres that comprise the "MU-NH" sub-area. The remaining 5.4 acres of the MU-NH area include approximately 28,000 square feet of existing businesses (gas station, pre-school, and 2 small businesses) and 15 single family homes between the PUD site and the SR-60 Freeway to the north.

TOP 2050 SEIR evaluated the development of a maximum of 369 residential units and approximately 142,840 square feet of non-residential development on the Overlay Planning Area (including the PUD site). The Project proposes 369 units and approximately 12,000 square feet of non-residential development in Phases 1 and 2, leaving 130,840 square feet of non-residential development to be built in the remainder of the MU-NH area adjacent to the SR-60 Freeway. Development of the proposed Project would slightly exceed the total number of residential units for this area under TOP 2050 (369 proposed units +15 existing units = 384 total units vs. 369 TOP 2050 projected total units, or a 5 percent increase). However, development of the Project would substantially reduce the amount of anticipated non-residential growth

in this sub-area (12,000 SF in the Project area plus 28,000 SF existing = 40,000 SF vs. 142,840 SF, or a 72 percent decrease). The Addendum analyzed the impacts of the new residential and commercial uses currently proposed under the Project, but included this analysis demonstrating that the anticipated impacts of growth in this MU-NH sub-area with the Project are considered to be equivalent or less than those identified in TOP 2050 SEIR for this sub-area. Accordingly, the Project is within the scope of TOP 2050 and the preparation of an Addendum is appropriate.

TOP 2050 SEIR did identify several significant and unavoidable impacts. However, as TOP 2050 SEIR contemplated the Project, the City properly applied the subsequent review provisions in Public Resources Code Section 21166 and State CEQA Guidelines Sections 15162 and 15164. The Project will not result in any new significant environmental effects or a substantial increase in the severity of impacts identified in TOP 2050 SEIR, nor are there any changes in circumstances under which the Project is undertaken that would result in new significant environmental effects or a substantial increase in the severity of previously identified significant effects. There is also no new information that exists that shows the project will have one or more significant effects not discussed in TOP 2050 SEIR; significant effects previously examined will be substantially more severe than shown in the previous SEIR; or mitigation measures or alternatives previously found not to be feasible would in fact be feasible and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or mitigation measures or alternatives which are considerably different from those analyzed in the previous SEIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative. As such, an Addendum is appropriate.

- On August 16, 2023, Dale J. Goldsmith, on behalf of the applicant Legacy/Collier Residential LLC, submitted a letter in response to the comment letter submitted by Mitchell Tsai (see Attachment A2 of the attached Planning Commission Backup File: Applicant Response Letter). The letter discussed the project and contested the claims made by Mr. Tsai.
- On August 22, 2023, Mitchell M. Tsai, Attorney at Law, representing the Southwest Mountain States Regional Council of Carpenters, submitted a second letter (See Attachment A-3 of the attached Planning Commission Backup File, Mitchell M. Tsai Letter 2) contesting the Project based on the following claims:

1. The City should require the use of a local workforce to benefit the community's economic development and environment.

Staff Response: The commenter reiterates comments made in its August 7, 2023, letter. As provided in Staff's response above and discussed in the Addendum, the Project will not result in any new, increased or substantially different air quality, GHG, or VMT impacts not previously considered and addressed in TOP 2050 SEIR. Therefore, mitigation beyond what was required in the TOP 2050 S EIR to further reduce air quality, GHG, and VMT impacts is not required for the proposed Project. The comment does not affect the analysis completed or conclusions provided in the Addendum, does not provide new information or evidence related to the analysis completed in the Addendum, and does not reflect on the adequacy or content of the Addendum. No changes to the Addendum are required.

2. The Project would be approved in violation of CEQA.

Staff Response: After initially citing State CEQA Guidelines section 15088.5 which does not apply to the Project, the commenter now claims that the TOP 2050 SEIR and the Addendum fail to adequately address environmental impacts or provide adequate mitigation measures relating to the sensitive receptors close to the Project site. As acknowledged in the Addendum, the Project will require implementation of TOP 2050 SEIR Mitigation Measures AQ 3-1 through AQ 3-3, and therefore would not result in any new impacts beyond those identified in TOP 2050 SEIR. (Addendum, p. 30.) In compliance with TOP 2050 SEIR Mitigation Measure AQ 3-1, MIG, Inc. prepared a memorandum which concludes the construction and operational emissions from proposed Project would not exceed any applicable SCAQMD-recommended CEQA thresholds of significance and is consistent with TOP 2050 with mitigation incorporated. As evidenced in the MIG memorandum, the Project would not result in a new or substantially greater significant air quality impact than identified in the TOP 2050 SEIR. As such, none of the factors listed in State CEQA Guidelines section 15162 are satisfied and an Addendum is appropriate.

Additionally, the commenter claims there may be impacts on sensitive receptors related to the demolition of the structures on site and that there may be a significant impact related to cumulative GHG emissions from vehicle exhaust as well as other sources.

The Addendum notes the TOP 2050 SEIR determined that implementation of the policies in the Safety Element, in addition to existing regulations, would ensure less than significant impacts from transport, use, and/or disposal of hazardous materials. It further concluded TOP 2050 would have less than significant direct, indirect, and cumulative impacts relating to transport, use, and disposal of hazardous materials, release of hazardous materials, and emission and handling of hazardous materials, substances, or waste. (Addendum, p. 40.) TOP 2050 SEIR analysis, cited in the Addendum, states "demolition activities that have the potential to expose construction workers and/or the public to asbestos-containing materials or lead-based paint will be conducted in accordance with applicable regulations, including, but not limited to: South Coast Air Quality Management District's Rule 1403; California Health and Safety Code (Section 39650 et seq.); California Code of Regulations (Title 8, Section 1529); California Occupational Safety and Health Administration regulations (California Code of Regulations, Title 8, Section 1529 [Asbestos] and Section 1532.1 [Lead]); and Code of Federal Regulations (Title 40, Part 61 [asbestos], Title 40, Part 763 [asbestos], and Title 29, Part 1926 [asbestos and lead]"; concluding impacts related to disposal of hazardous materials would be less than significant. (TOP SEIR, p. 5.9-37.) Demolition of structures, such as those contemplated by the Project, were considered and analyzed in TOP 2050 SEIR and no subsequent or supplemental EIR is warranted.

As to GHG emissions, the commenter has provided no evidence to support its claim that any substantial impacts related to GHG emissions or global climate change would occur as a result of Project implementation. The Addendum found developing the site with mixed residential and commercial uses will not create significantly greater impacts than were identified in TOP 2050 SEIR (Addendum, p. 39.). MIG, Inc. prepared a memorandum evidencing the Project's consistency with the City's CCAP and the analysis in TOP 2050 SEIR. The Project would result in the net <u>reduction</u> of approximately 4,405 MTCO2e per year and is consistent with the CCAP. Therefore, the Project would not result in a new or substantially more adverse GHG impact than identified in the TOP 2050 SEIR or CCAP and no subsequent or supplemental EIR is required.

The commenter restates its prior claim that a Project-specific EIR should be prepared and that new mitigation measures, specifically related to EV-capable parking spaces, are required and were not

considered in the prior environmental analysis of the Project site. The comment does not recognize the City's recent adoption of TOP 2050 and certification of TOP 2050 SEIR on August 16, 2022. As recognized in the Addendum, the Project will be required to comply with the CALGreen Building Code (CBC) commercial and residential requirements in effect at the time of development. Further, the Project will be required to implement Mitigation Measure AQ 3-3 from TOP 2050 SEIR, which provides a list of potential mitigation measures that may be included as conditions of approval should operational air quality impacts exceed South Coast AQMD-adopted thresholds of significance. Such measures include, but are not limited to: Provide bicycle parking facilities per Section A4.106.9 of CALGreen (Residential Voluntary Measures); Provide preferential parking spaces for low-emitting, fuel-efficient, and carpool/van vehicles per Section A5.106.5.1 of CALGreen (Nonresidential Voluntary Measures); Provide facilities to support electric charging stations per Section A5.106.5.3 and Section A5.106.8.2 of CALGreen (Nonresidential Voluntary Measures; Residential Voluntary Measures).

Finally, the commenter claims the Project description is inadequate. The Project description contains a clear statement of objectives, list of characteristics and list of approvals sought. (Addendum, pp. 1-9.)

3. CEQA requires the City to prepare a tiered EIR for the Project instead of an Addendum.

Staff Response: The City has properly prepared an Addendum to TOP 2050 SEIR for the Project and a tiered EIR, as claimed by the commenter, is not required. The City has discretion to determine whether a subsequent or supplemental EIR is necessary under Public Resources Code Section 21166 and State CEQA Guidelines Section 15162, so long as its decision is supported by substantial evidence. Similarly, whether an activity is within the scope of a program EIR "is a factual question that the lead agency determines based on substantial evidence in the record." (State CEQA Guidelines, §15168(c)(2)). The City has prepared an Addendum to TOP 2050 SEIR for the Project, finding that all impacts of the Project have been adequately addressed in TOP 2050 SEIR. The CEQA Guidelines provide that an agency may prepare an addendum to a prior EIR to document its decision that a subsequent EIR is not required. (State CEQA Guidelines, §15164(b), (e)). As such, the Addendum is appropriate in this case and no further environmental review is required.

The City has also followed all procedural requirements, including public disclosure requirements, in its preparation of the Addendum. While CEQA requires notice to the public and an opportunity to comment in connection with adoption of a negative declaration or preparation of an EIR, an addendum is not required to be circulated for public review (State CEQA Guidelines, § 15164(c)). The Addendum, and all supporting technical studies has been provided to the Planning Commission and the public prior to any decision by the City, in compliance with CEQA. The City has also complied with the requirements of the Public Records Act. The Project, along with the Development Advisory Board Staff Report and Addendum, was posted on the City's website 72 hours prior to the meeting, consistent with the California Public Records Act. Regarding the Planning Commission hearing, the Project has been advertised in the newspaper, notices have been sent to all property owners within 300 feet of the project and the Staff Report and Addendum were posted 72 hours prior to the hearing. Accordingly, a tiered EIR is not required for the Project.

4. The City cannot issue an Addendum because the Project was not addressed with TOP 2050 SEIR and therefore an EIR must be prepared for the Project.

Staff Response: As discussed in the Addendum, the Project was addressed in TOP 2050 SEIR, and the

commenter did not provide any evidence of Project impacts that are outside of the scope of TOP 2050 SEIR. The TOP 2050 shows a total of five locations within the City with the MU-NH land use designation. The Future Buildout Projections Table of the Land Use Element provides details for each of these five MU-NH sub-areas. The three parcels subject to this PUD Project make up 10.6 acres ("PUD site") of the overall 16 acres that comprise the "MU-NH" sub-area. The remaining 5.4 acres of the MU-NH area include approximately 28,000 square feet of existing businesses (gas station, pre-school, and two small businesses) and 15 single family homes between the PUD site and the SR-60 Freeway to the north.

TOP 2050 SEIR evaluated the development of a maximum of 369 residential units and approximately 142,840 square feet of non-residential development on the Overlay Planning Area (including the PUD site). The Project proposes 369 units and approximately 12,000 square feet of non-residential development in Phases 1 and 2, leaving 130,840 square feet of non-residential development to be built in the remainder of the MU-NH area adjacent to the SR-60 Freeway. Development of the proposed Project would slightly exceed the total number of residential units for this area under TOP 2050 (369 proposed units +15 existing units = 384 total units vs. 369 TOP 2050 projected total units, or a 5 percent increase). However, development of the Project would substantially reduce the amount of anticipated non-residential growth in this sub-area (12,000 SF in the Project area plus 28,000 existing = 40,000 SF vs. 142,840 SF, or a 72 percent decrease). The Addendum analyzed the impacts of the new residential and commercial uses currently proposed under the Project, but included this analysis demonstrating that the anticipated impacts of growth in this MU-NH sub-area with the Project are considered to be equivalent or less than those identified in TOP 2050 SEIR for this sub-area. Accordingly, the Project is within the scope of TOP 2050 and the preparation of an Addendum is appropriate.

TOP 2050 SEIR did identify several significant and unavoidable impacts. However, the commenter misstates the significant and unavoidable impacts included in TOP 2050 SEIR. TOP 2050 SEIR found significant and unavoidable impacts related to air quality, cultural resources (historic resources), noise and transportation (VMT) (TOP 2050 SEIR pp. 2-5 – 2-5.) The Addendum analyzes impacts at the Project level and for each of these areas concludes Project specific mitigation was not required. Notably, Project-specific analyses, prepared by MIG, Inc., an expert consulting firm, found the Project's air quality and GHG impacts to be less than significant with the mitigation imposed in TOP 2050 EIR (air quality) and, in the case of GHG emissions, Project emissions would actually be <u>less</u> than existing levels. In both instances, Project impacts were consistent (or less) than those analyzed for the site in TOP 2050 EIR. They are therefore properly addressed in the Addendum.

As TOP 2050 SEIR contemplated the Project, the City properly applied the subsequent review provisions in Public Resources Code Section 21166 and State CEQA Guidelines Sections 15162 and 15164. The Project will not result in any new significant environmental effects or a substantial increase in the severity of impacts identified in TOP 2050 SEIR, nor are there any changes in circumstances under which the Project is undertaken that would result in new significant environmental effects or a substantial increase in the severity of previously identified significant effects. There is also no new information that exists that shows the project will have one or more significant effects not discussed in TOP 2050 SEIR; significant effects previously examined will be substantially more severe than shown in the previous SEIR; or mitigation measures or alternatives previously found not to be feasible would in fact be feasible and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or mitigation measures or alternatives which are considerably different from those analyzed in the previous SEIR would substantially reduce one or more

significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative. As such, an Addendum is appropriate.

On September 14, 2023, Dale J. Goldsmith, on behalf of the applicant Legacy/Collier Residential LLC, submitted a letter in response to the second comment letter submitted by Mitchell Tsai (see Attachment A4 of the attached Planning Commission Backup File: Applicant Response Letter 2). The letter discussed the project and contested the claims made by Mr. Tsai.

PLANNING COMMISSION REVIEW: On September 26, 2023, the Planning Commission conducted a public hearing and voted 4-0 to recommend that the City Council consider and approve File No. PUD22-004 and adopt an Addendum to The Ontario Plan 2050 Supplemental Environmental Impact Report, pursuant to the facts and reasons contained in the staff report and attached ordinance, and subject to the conditions of approval.

CITY OF ONTARIO PLANNING DEPARTMENT

PLANNING COMMISSION AGENDA REPORT

September 26, 2023

303 East B Street, Ontario, California 91764 Phone: 909.395.2036 / Fax: 909.395.2420

FILE NOS: PUD22-004, PHP22-015, and PDEV22-027

SUBJECT: A public hearing to consider the use of an Addendum to The Ontario Plan 2050 Supplemental Environmental Impact Report ("Certified SEIR") for the following: [1] a Planned Unit Development (File No. PUD22-004) to establish development standards and design guidelines for the overall 10.6-acre Project site; [2] a Certificate of Appropriateness (File No. PHP22-015) to determine whether the Project site is a historic resource; and [3] a Development Plan (File No. PDEV22-027) to construct 346 apartment units and 5,400 square feet of commercial space on 9.4 acres of the Project site, located at the northwest corner of Euclid Avenue and Walnut Street, within the Mixed Use – Neighborhood Hub 8e – Euclid and Walnut (MU-NH 8e) zoning district. **Submitted by Legacy/Collier Residential LLC. City Council action is required for File No. PUD22-004.**

PROPERTY OWNER: Series III, Ontario Enterprises, of the Wolf Family Series, LP

RECOMMENDED ACTION: That the Planning Commission, 1) consider and approve File Nos. PHP22-025 and PDEV22-027, and 2) recommend that the City Council adopt File No. PUD22-004 and the accompanying Addendum to the TOP 2050 Subsequent Certified Environmental Impact Report, pursuant to the facts and reasons contained in the staff report and attached resolutions, and subject to the conditions of approval appended to the attached resolutions as "Attachment A" for File No. PHP22-015, and as "Attachment B" for File Nos. PUD22-004 and PDEV22-027. A summary of the resolution attachments has been provided in the Agency/Department Reviews and Resolutions Section below.



Figure 1: Project Location

PROJECT SETTING: The Project site is comprised of 10.6 acres of land located

Case Planner:	Alexis Vaughn
Planning Director Approval:	
Submittal Date:	May 25, 2022

Hearing Body	*Date*	*Decision*	*Action*
DAB	08/07/2023	Approval	Recommend
PC	09/26/2023	Approval Approved	Recommend, Final (PHP22-015, PDEV22-027)
CC	10/17/2023		Final (PUD22-004)

at the northwest corner of Euclid Avenue and Walnut Street, within the Mixed Use – Neighborhood Hub 8e – Euclid and Walnut (MU-NH 8e) zoning district and the Euclid Avenue (EA) Overlay district. The site is currently developed with commercial uses. The properties to the north of the Project site are within the Medium-Density Residential (MDR-18), the MU-NH 8e zoning districts, and the EA Overlay district, and are developed with multi-family residential units, single-family dwellings, and commercial land uses. The properties to the east are within the Neighborhood Commercial (CN) zoning and EA Overlay districts and are developed with commercial land uses. The properties to the south are within the Low-Density Residential (LDR-5) zoning district and the EA Overlay district and are developed with single-family dwellings. The property to the west is within the MDR-18 zoning district and is developed with multi-family residential units. The existing surrounding land uses, zoning, and Policy Plan (general plan) and specific plan land use designations are summarized in the "Surrounding Zoning & Land Uses" table located in the Technical Appendix of this report.

PROJECT ANALYSIS:

(1) Background — On August 16, 2022, the Ontario City Council certified The Ontario Plan 2050 ("TOP 2050") Supplemental Environmental Impact Report ("SEIR", State Clearinghouse No. 2021070364) in conjunction with File No. PGPA20-002. The SEIR analyzed the Project site and 5.4 acres of land to the north of the Project site, also located within the same mixed-use district, and established guidelines for development. These guidelines include, but are not limited to, general land use (mixed-use residential and commercial), maximum density and development intensity (20-75 dwelling units per acre and 1.0 non-residential floor area ratio ("FAR"), respectively), and assumed dwelling units and commercial square footage (369 and 142,840, respectively). An Addendum to the SEIR was submitted in conjunction with the Project and is explained in detail within the Environmental Review section of this report.

On May 25, 2022, the Applicant filed a Development Plan application (File No. PDEV22-027) to construct 346 dwelling units and 5,400 square feet of ground-floor commercial space on 9.4 acres of the overall 10.6-acre Project site. The request was submitted in conjunction with a Certificate of Appropriateness application (File No. PHP22-015), to determine whether the Project site was a historic resource, and a Planned Unit Development ("PUD") application (File No. PUD22-004), to establish the development standards and design guidelines for the Project site to facilitate its two phases of development.

On August 7, 2023, the Development Advisory Board considered the subject Development Plan application and recommended approval to the Planning Commission with the Project conditions of approval.

On August 9, 2023, the Historic Preservation Subcommittee considered the subject Certificate of Appropriateness and recommended approval to the Planning/Historic Preservation Commission.

On August 22, 2023, the Planning Commission continued the item to the September 26, 2023, public hearing to allow staff and the Applicant appropriate time to address a public comment received.

(2) Planned Unit Development (File No. PUD22-004) – The MU-NH 8e zoning district and the EA Overlay district require the preparation and approval of a PUD to establish the development standards and design guidelines for the site. The proposed Euclid Walnut PUD, appended to the attached resolution as "Attachment A," identifies the following components:

(a) Chapter 1: Introduction – A brief introduction of the Project site and intent of the Planned Unit Development document.

(b) Chapter 2: Objectives – The Objectives component of the PUD outlines the Project's consistency with The Ontario Plan, including its Vision, Governance Manual, and Policy Plan (General Plan).

(i) Vision – The Ontario Vision was adopted by the City Council envisioning a sustained, community-wide prosperity which continuously adds value and yields benefits. Value is expressed in land, revenue, infrastructure, businesses, education, employment, health, community services, recreation, and more. The PUD helps the City realize its specific Points of Vision for the Project site and beyond, as outlined in the Distinctive Development section, by means of contributing to:

- A system of vibrant retail, town, and neighborhood centers responsive to market demands and woven into the fabric of the community.
- A demonstrated ability to attract housing in pursuit of our acknowledged responsibility to balance housing with the job growth that drives our quality of life.
- Superior quality and design of the built environment and open spaces through careful attention to detail at every scale, including public and private spaces and structures.

Additionally, from an economic development standpoint, the City of Ontario views this as a critical project to further serve the Ontario Vision and boost economic development activity in the City. The City has been taking a targeted approach to revitalize underutilized shopping centers in an effort to bring in much needed housing units as well as high-quality retail for our residents. The Project will replace dated retail space and provide a high-quality housing product with in-line retail spaces to provide the residents and surrounding community with premier food, beverage, service, and miscellaneous retail.

(ii) Policy Plan (General Plan) – The Policy Plan (General Plan) includes the Land Use Element, which designates the subject parcels within the PUD as "MU – Mixed-Use" to facilitate a horizontal and/or vertical mix of retail, service, office, restaurant, entertainment, cultural, and residential uses. The MU – Mixed-Use designation

is further broken down into sub-categories to refine the type of mixed-use development desired by the City. The Project site is located within sub-area MU-NH – Mixed Use Neighborhood Activity Hub. This designation envisions low-rise buildings (three to five stories) with a mix of retail and residential land uses that will create identity and place and serve surrounding residents. This category allows for residential densities ranging from 20 to 75 dwelling units per acre and non-residential development intensity of 1.00 FAR. The build-out of the full 16-acre sub-area is projected to be 369 dwelling units and 142,840 square feet of non-residential development.

The PUD regulates the redevelopment of 10.6 acres of this sub-area with the intent to create a mixed-use project providing a total of 369 dwelling units and 12,000 non-residential square feet. The remaining 5.4 acres of the sub-area is located north of the PUD's boundary and is currently developed with 15 single-family dwelling units and approximately 28,000 square feet of non-residential development. The PUD would allow the total number of residential units to exceed the 369 units identified in the TOP 2050 build-out projection within this sub-area, resulting from the combination of existing single-family units and the proposed units within the boundaries of this PUD. However, the exceedance is offset by a significant reduction in the build-out of non-residential square footage should the existing uses/buildings north of the Project site remain unchanged. Implementation of this PUD would still allow for redevelopment of the 5.4-acre portion of the sub-area, of up to 130,000 non-residential square footage, consistent with the TOP 2050 build-out projections for this sub-area.

Implementation of the PUD will achieve numerous City goals and policies as outlined in the Policy Plan (General Plan). Briefly, these goals are listed in the *"Compliance with the Ontario Plan"* section of the report, below.

The PUD also outlines how the Project will be consistent with the EA Overlay district, which was established to recognize, protect, and enhance the visual character and quality of Euclid Avenue as a major scenic and historic resource in Ontario as well as its position on the National Register of Historic Places. More information about the Project's integration to the Euclid Avenue corridor is provided in section *"(3) Certificate of Appropriateness (File No. PHP22-015),"* below.

The PUD lists the following objectives that will facilitate redevelopment of the Project site with structures and related improvements that support residential and non-residential land uses within the same Project site:

- Develop and provide new, high-quality rental housing combined with a mixed-use component.
- Provide transition between new mixed-use development and surrounding residential neighborhoods and commercial properties.
- Provide areas of private and passive open space for each residential unit, as well as community gathering and active open spaces.

- Promote development that is consistent with the MU-NH – Mixed Use Neighborhood Activity Hub land use designation.
- Promote revitalization of commercial uses on the Project site by establishing new ground-floor retail and similar uses that serve on-site residents and those in surrounding neighborhoods.
- Provide outdoor gathering places adjacent to commercial storefronts, such as outdoor patio or bench seating with inviting/attractive landscape elements.
- Orient non-residential, ground-floor uses towards Euclid Avenue.
- Incorporate site design solutions to allow for phased development.
- Satisfy the build-out projections for residential dwelling units within the MU-NH (Euclid-Walnut) sub-area, as defined in TOP 2050.

(c) Chapter 3: Land Use Plan – The Land Use Plan chapter briefly describes the Project, including zoning and land use districts, development phasing, demolition activities, and permitted land uses. The PUD aligns with the Project site's zoning and TOP 2050 land use districts by allowing for horizontal and vertical mixed-use development and associated facilities. Development will occur in two phases. The first phase will be developed with two four-story and six three-story buildings, providing a combined total of 346 dwelling units and 5,400 square feet of commercial space. Phase 2 will implement the remaining build-out for the PUD, with an additional 23 dwelling units and up to 6,600 square feet of ground-floor commercial. While no details are available yet on the specific design of Phase 2, development will be required to meet all PUD and Ontario Development Code standards. Phase 1 will retain the existing 4,100 square-foot fast food drive-thru building (Carl's Jr.), which will be demolished in the future as part of Phase 2. Demolition of approximately 100,950 square feet of older commercial buildings will occur prior to Phase 1 construction (see *Exhibit 3-2: Phase 1 Conceptual Site Plan* located on page 23 of the PUD, included herein as "Attachment A" of the Planning Commission Resolution for File No. PUD22-004, attached to this report). The chapter outlines various permitted land uses, activities, and facilities for the PUD site, along with the process required to get certain uses approved.

(d) Chapter 4: Development Regulations – The Development Regulations chapter sets forth standards that govern development of the site, including the following topics: intensity; density; building envelope; vehicle access; parking facilities, supply, and design; residential open space and common amenities; service facilities; signs; landscape and hardscape; fences and walls; public right-of-way improvements; and infrastructure. Development standards for the Project site are also provided in a summary table (see *Figure 4-1: Summary of Development Standards* "Attachment A" of the Planning Commission Resolution for File No. PUD22-004, attached to this report). The PUD proposes a maximum FAR of 0.50 and density of 20.1-40 dwelling units per acre; a maximum building height of 60 feet for four-story buildings and 50 feet for three-story buildings; minimum building street setbacks of 10 feet to the street, 50 feet to adjacent residential, 5 feet to non-residential, and 5 feet to carports or trash enclosures; minimum 1.2 parking spaces per bedroom for residential uses and 1 space per 250 square feet of non-residential uses; a minimum 50 square feet of private open space and 175 square

feet of common amenities per dwelling unit; and a minimum 150 cubic-foot storage area per dwelling unit.

(e) Chapter 5: Design Criteria – New development implemented under the PUD will generate new uses and design aesthetics to fulfill the design goals and policies of TOP and will be guided by design criteria to provide articulation, dynamic materials and colors, and avoidance of bulky and monotonous elevations. Street trees and landscaped street setback areas will provide opportunities to frame the street, create and prioritize safe, attractive, and well-shaded pedestrian access from the public rights-of-way, and minimize building bulk from the public right-of-way. The proposed development will be subject to and governed by policies and goals regarding building orientation, access and parking facilities, service facilities, pedestrian linkages, architectural character, massing and scale, articulation and fenestration, architectural details, storefronts, materials and colors, roofs and rooftop equipment, non-residential outdoor dining areas, residential outdoor spaces and common recreational amenities, and landscape and hardscape elements.

(f) Chapter 6: Administration – The PUD establishes that applications for Development Plans and other entitlement proposals are subject to the Ontario Development Code submittal, review and processing requirements.

(3) Certificate of Appropriateness (File No. PHP22-015) – Section 6.01.035 (Overlay Zoning Districts) of the Ontario Development Code requires Certificate of Appropriateness approval for Development Plans located within the EA Overlay district. The intent of the EA Overlay district is not to create a false sense of history with any new development along the Euclid Avenue corridor, but rather to ensure that new development does not cause an adverse effect on the character-defining features of the Euclid Avenue Historic District. Additionally, all new construction should be compatible with the surrounding developments in site design, massing, and scale.

The public right-of-way of Euclid Avenue from Philadelphia Street to the I-10 was designated as Local Landmark No. 67 on January 16, 2001. On August 10, 2005, the public right-of-way of Euclid Avenue from Philadelphia Street in Ontario to 24th Street in Upland was listed on the National Register of Historic Places as a cultural landscape historic district. Contributing character-defining features of the historic district includes the 60-foot wide median, historic rock curb, scored sidewalks, King standard light posts, double planting of California pepper trees (Schinus molle), silk oaks trees (Grevillea robusta), and other mature vegetation such as deodar trees (Cedrus deodara) and Canary Island palms (Phoenix canariensis). Non-contributing features include the bridge which crosses the I-10 freeway and the bridge railroad crossings at Emporia and State Streets.

Commercial properties located on Euclid Avenue adjacent to the Project site have been developed with landscape planters or parking lots along the corridor, with the building placement setback from Euclid Avenue. The Project is consistent with that of the surrounding area. The design, site configuration and landscaping of the mixed-use

building is appropriate in scale and massing for the infill construction and will not detract or adversely affect the historic character of Euclid Avenue. Impacts to the Euclid Avenue Historic District are not likely to occur because the Project site is located approximately one-half mile south of the designated historic district. Furthermore, the Project site does not contain historic resources, is not located adjacent to any historic properties, and does not propose any alterations to the designated-historic portions of Euclid Avenue.

In reviewing a Certificate of Appropriateness, certain findings must be met. The Project meets each of these findings, as follows:

- The proposed alteration, restoration, relocation, or construction, in whole or in part, will not:

  - *Detrimentally change, destroy, or adversely affect any significant architectural feature of the historic resource* - because no significant architectural feature exists on or adjacent to the Project site. While the Project site has frontage along Euclid Avenue and is within the EA Overlay district, there are no identified historic resources within the immediate surrounding area of the proposed Project.
  - *Detrimentally change, destroy, or adversely affect the historic character or value of the resource* - because no notable historical resource is located on or adjacent to the Project site and, although the Project fronts Euclid Avenue, the Project is separated by one-half mile from the southernmost boundary (Philadelphia Street) of the designated historic portion of Euclid Avenue. The Project does not propose to alter or affect character-defining features of the historic district.
  - *Be incompatible with the exterior character-defining features of other improvements within the historic district* - because, although the parcels within the Project site have Euclid Avenue frontage and are subject to requirements of the EA Overlay district, the site is separated from the closest boundary of an historic district by a distance of approximately one-half mile. The Project's exterior features and other improvements will be regulated under a Planned Unit Development that includes criteria to ensure that site and building design is appropriate generally to the site's relationship, location, and the overall compatibility with the Euclid Avenue corridor.
  - *Adversely affect or detract from the character of the historic district* - because, while the Project is located within the EA Overlay district, it is physically separated from the nearest historic district boundary by a distance of one-half mile to the north. Further, there are no modifications proposed as part of this Project that would alter the predominant character of the 60-foot-wide median within Euclid Avenue. Through enhanced architectural elements and design complementary to the existing residential and commercial neighboring development, and through

compliance with the proposed PUD and Ontario Development Code, the proposed Project will not detract from the character of Euclid Avenue.

(4) Development Plan (File No. PDEV22-027) – A Development Plan was submitted in conjunction with the PUD to facilitate construction of Phase 1 of the Project. A comprehensive Development Plan set, including the site plan, elevations, floor plans, landscape plan, renderings, colors and materials, and development summary sheet, is attached to this report as "Attachment A – Development Plan Set."

(a) Site Design/Building Layout — The Project proposes the construction of eight buildings consisting of 346 apartment units, at a density of 36.7 dwelling units per acre and 5,400 square feet of ground-floor commercial, at an intensity of 0.01 FAR. Buildings 1 and 2 are four-stories and will be oriented toward Euclid Avenue and Walnut Street, respectively, and Buildings 3 through 8 are three-story buildings and will be located interior to the site. The buildings are largely oriented in a linear north-south direction, aside from Building 1, which is an L-shaped building and Building 2, which is a C-shaped building. Four of the three-story buildings face onto a courtyard/paseo with active and passive recreational facilities such as cornhole and patio furniture. The major recreational facilities are located within or adjacent to Building 1, toward the northeast corner of the Project site. The Project will provide a range of dwelling types, including studio, one-bedroom, and two-bedroom apartments. See Attachment A – Development Plan Set, page 1 for the site plan; pages 4, 5, 6, 8, 10, 11, and 12 for the floor plans; and pages 13 and 14 for the landscape plan and courtyard/paseo sample.

(b) Site Access/Circulation — The commercial portion of the Project will have direct access from Euclid Avenue, and the residential portion of the Project will have gated entry access points for both vehicles and pedestrians from Euclid Avenue and Walnut Street. Pedestrian circulation is provided throughout the Project site via sidewalks and decorative drive aisle crossings. Vehicular circulation is provided throughout the site to serve both the residential and commercial land uses. Residents and their guests will have access to assigned private parking facilities, including garages, carports, and uncovered spaces. Commercial circulation is limited to the easterly Project boundary, along Euclid Avenue, and includes shared vehicular access to the existing Carl's Jr. drive-thru restaurant located at the Project site's southeast corner.

(c) Parking —The number of off-street parking spaces provided exceeds the minimum parking requirement for the Project. The off-street parking calculations and provisions for the Project are provided in detail in the table located on page 19 of Attachment A – Development Plan Set and are summarized below.

Table 1: Parking Summary

Type of Use	*Number of Bedrooms*	*Building Area (in SF)*	*Parking Ratio*	*Spaces Required*	*Spaces Provided*
Residential Units	483	N/A	1.2 spaces per bedroom (inclusive of guest spaces)	580	582

Table 1: Parking Summary

Type of Use	*Number of Bedrooms*	*Building Area (in SF)*	*Parking Ratio*	*Spaces Required*	*Spaces Provided*
Commercial	N/A	5,400 SF	1 space/250 sq. ft.	22	24
TOTAL				**602**	**606**

The Project is designed to provide a total of 582 private residential parking spaces on-site (including 18 tandem uncovered spaces behind garage spaces for assignment to the same user), and 24 retail public spaces. The tandem spaces provided account for 3 percent of the total required parking, which is substantially less than the 12 percent maximum allowed by the Development Code. No on-street parking is permitted adjacent to the Project site. Per the provisions of the PUD, a parking management plan shall be submitted for Planning Department review and approval, to accompany a rental/lease agreement for the site's residents and businesses.

(d) Architecture — The buildings are designed in a contemporary architectural style, as depicted in the elevations, renderings, and materials summary provided in Attachment A – Development Plan Set on sheets 2, 3, 7, 9 (elevations), 15 through 17 (renderings), and 18 (materials summary). An assortment of complementary colors, materials, and textures are proposed, including exterior plaster, fiber cement lap siding, fiber cement trim boards, stone veneer, metal awnings and trellises, and aluminum storefront windows. The color palette largely consists of neutral earth tones but also includes a pop of vibrant color accent panels for each building in orange, yellow, or green. The residential units feature balconies and a rooftop deck will be provided for Building 1, located at the northeast corner of the Project site.

Building 1, which fronts onto Euclid Avenue, will be unique in that it will feature ground-floor retail storefronts. The storefronts will include metal awnings and trellises to provide visual interest at the retail tenant entries. Buildings 2 through 8 will be consistent with and complementary to Building 1, featuring stone veneer accents along the ground floor and stucco and fiber cement siding along the upper floors. The residential balconies will also feature contemporary metal railings.

(e) Common Open Space, Amenities, and Landscaping — Approximately 67,404 square feet of common open space and indoor and outdoor recreation amenities are provided throughout the site, including a pool court, dog park, landscaped paseos, courtyards, club, fitness room, sports lounge, roof deck, and leasing lounge. Additional on-site amenities for residential tenants include private open space (minimum of 50 square feet per dwelling unit for a total of 21,156 square feet) and private storage units (minimum of 150 cubic feet per dwelling unit). Common and private open space exceed the minimum requirements with 67,404 square feet of common open space and 21,156 square feet of private open space.

Pursuant to Ontario Development Code Sections 6.01.010 and 6.05, all areas of a multiple-family development project not covered by structures, drive aisles, off-street parking facilities, or hardscape shall be fully landscaped and provided with a permanent automatic irrigation system prior to Certificate of Occupancy issuance. As such, landscaping is provided for these unpaved areas, including the full length of the Project street frontages, along pedestrian walkways and recreation areas, and throughout the parking lot where possible, for a total of 52,971 square feet (12.9 percent) of landscape coverage for the Project site. A variety of accent and shade trees in 24- to 60-inch box sizes, as well as one- to five-gallon shrubs, groundcovers, and vines, will be planted throughout the site. Decorative paving and lighting will be provided at entries, pedestrian walkways, and other key locations throughout the Project site, as depicted in Attachment A – Development Plan Set, pages 13 and 14.

(f) Signage — All Project signage is required to comply with the sign regulations provided in Ontario Development Code Division 8.1 as well as in the PUD. Prior to the issuance of a Building Permit for the installation of any new on-site signage, the Applicant is required to submit a Master Sign Program for the Project site and Sign Plans for the proposed signs for Planning Department review and approval.

(g) Utilities (drainage, sewer) — Public utilities (water and sewer) are available to serve the Project. Furthermore, the Applicant has submitted a Preliminary Water Quality Management Plan ("PWQMP"), which establishes the Project's compliance with storm water discharge/water quality requirements. The PWQMP includes site design measures that capture runoff and pollutant transport by minimizing impervious surfaces and maximizes low impact development ("LID") best management practices ("BMPs"), such as retention and infiltration, biotreatment, and evapotranspiration. The PWQMP proposes the minimized use of impervious hardscape in conjunction with on-site biotreatment basins/trenches with underdrains, where the soil type is poorly draining. Any overflow drainage will be conveyed to the public street by way of parkway drains and culverts.

NEIGHBORHOOD MEETING: A neighborhood meeting regarding File No. PZC22-001, a Policy Plan (General Plan) zoning consistency project that included the Project site, was held on February 22, 2023. Several members of the public attended and requested additional information about the Project, including the Project's scope of work, conceptual site planning and building design, and traffic. City staff provided additional information to the community members at the meeting and considered their input during Project review. Further, a community member who provided contact information was added to the public notification list for the Project.

PUBLIC NOTIFICATION: The subject application was advertised as a public hearing in at least one newspaper of general circulation in the City of Ontario (the Inland Valley Daily Bulletin newspaper). In addition, the Project site was posted with one or more large public notification signs and notices were mailed to all owners of real property located within a

minimum of 300 feet of the exterior boundaries of the property that is the subject of the hearing, as shown on the records of the County Assessor.

CORRESPONDENCE: As of the preparation of this Agenda Report, Planning Department staff received the following written or verbal communications from the owners or occupants of properties surrounding the Project site or from the public in general:

- At the neighborhood meeting described above, a community member requested additional information about the Project's scope of work, conceptual site planning and building design, and traffic. The requested information was provided, and the commenter was added to the public notification list.

- James L. Camarillo, a representative of Caltrans, reviewed and provided preliminary comments and recommendations about the Project. He requested additional information to be able to provide a more in-depth review. His correspondence was forwarded to the appropriate staff for review and response.

- On August 7, 2023, Mitchell M. Tsai, Attorney at Law, representing the Southwest Mountain States Regional Council of Carpenters, submitted a letter (See Attachment A-1, Mitchell M. Tsai letter) contesting the Project based on the following claims:

    1. The City should require the use of a local workforce to benefit the community's economic development and environment.

        Staff Response: As discussed in the Addendum, the Project will not result in any new, increased or substantially different air quality, GHG, or VMT impacts not previously considered and addressed in TOP 2050 SEIR. Therefore, mitigation beyond what was required in TOP 2050 SEIR to further reduce air quality, GHG, and VMT impacts is not required for the proposed Project. The comment does not affect the analysis completed or conclusions provided in the Addendum, does not provide new information or evidence related to the analysis completed in the Addendum, and does not reflect on the adequacy or content of the Addendum. No changes to the Addendum are required.

    2. The Project would be approved in violation of CEQA.

        Staff Response: The commenter claims a Project-specific EIR should be prepared and that new mitigation measures, specifically related to EV-capable parking spaces, are required and were not considered in the prior environmental analysis of the Project site. The comment does not appear to recognize the City's recent adoption of TOP 2050 and certification of TOP 2050 SEIR on August 16, 2022. As recognized in the Addendum, the Project will be required to comply with the CALGreen Building Code (CBC)

commercial and residential requirements in effect at the time of development. Further, the Project will be required to implement Mitigation Measure AQ 3-3 from TOP 2050 SEIR, which provides a list of potential mitigation measures which may be included as conditions of approval should operational air quality impacts exceed South Coast AQMD-adopted thresholds of significance. Such measures include, but are not limited to: Provide bicycle parking facilities per Section A4.106.9 of CALGreen (Residential Voluntary Measures); Provide preferential parking spaces for low-emitting, fuel-efficient, and carpool/van vehicles per Section A5.106.5.1 of CALGreen (Nonresidential Voluntary Measures); Provide facilities to support electric charging stations per Section A5.106.5.3 and Section A5.106.8.2 of CALGreen (Nonresidential Voluntary Measures; Residential Voluntary Measures).

3. CEQA requires the City to prepare a tiered EIR for the Project instead of an Addendum.

Staff Response: The City has properly prepared an Addendum to TOP 2050 SEIR for the Project and a tiered EIR, as claimed by the commenter, is not required. The City has discretion to determine whether a subsequent or supplemental EIR is necessary under Public Resources Code Section 21166 and State CEQA Guidelines Section 15162, so long as its decision is supported by substantial evidence. Similarly, whether an activity is within the scope of a program EIR "is a factual question that the lead agency determines based on substantial evidence in the record." (State CEQA Guidelines, §15168(c)(2)). The City has prepared an Addendum to the TOP 2050 SEIR for the Project, finding that all impacts of the Project have been adequately addressed in TOP 2050 SEIR. The CEQA Guidelines provide that an agency may prepare an addendum to a prior EIR to document its decision that a subsequent EIR is not required. (State CEQA Guidelines, §15164(b), (e)). As such, the Addendum is appropriate in this case and no further environmental review is required.

The City has also followed all procedural requirements, including public disclosure requirements, in its preparation of the Addendum. While CEQA requires notice to the public and an opportunity to comment in connection with adoption of a negative declaration or preparation of an EIR, an addendum is not required to be circulated for public review (State CEQA Guidelines, § 15164(c)). The Addendum, and all supporting technical studies, has been provided to the Planning Commission and the public prior to any decision by the City, in compliance with CEQA. The City has also complied with the requirements of the Public Records Act. The Project, along with the Development Advisory Board Staff Report and Addendum, was posted on the City's website 72 hours prior to the meeting, consistent with the California Brown Act. Regarding the Planning

Commission hearing, the Project has been advertised in the newspaper, notices have been sent to all property owners within 300 feet of the project and the Staff Report and Addendum was posted 72 hours prior to the hearing. Accordingly, a tiered EIR is not required for the Project.

4. The City cannot issue an Addendum because the Project was not addressed with the TOP 2050 Update SEIR and therefore an EIR must be prepared for the Project.

   Staff Response: As discussed in the Addendum, the Project was addressed in TOP 2050 SEIR, and the commenter did not provide any evidence of Project impacts that are outside of the scope of TOP 2050 SEIR. TOP 2050 shows a total of five locations within the City with the MU-NH land use designation. The Future Buildout Projections Table of the Land Use Element provides further details for each of these five MU-NH sub-areas. The three parcels subject to this PUD Project make up 10.6 acres ("PUD site") of the overall 16 acres that comprise the "MU-NH" sub-area. The remaining 5.4 acres of the MU-NH area include approximately 28,000 square feet of existing businesses (gas station, pre-school, and 2 small businesses) and 15 single family homes between the PUD site and the SR-60 Freeway to the north.

   TOP 2050 SEIR evaluated the development of a maximum of 369 residential units and approximately 142,840 square feet of non-residential development on the Overlay Planning Area (including the PUD site). The Project proposes 369 units and approximately 12,000 square feet of non-residential development in Phases 1 and 2, leaving 130,840 square feet of non-residential development to be built in the remainder of the MU-NH area adjacent to the SR-60 Freeway. Development of the proposed Project would slightly exceed the total number of residential units for this area under TOP 2050 (369 proposed units +15 existing units = 384 total units vs. 369 TOP 2050 projected total units, or a 5 percent increase). However, development of the Project would substantially reduce the amount of anticipated non-residential growth in this sub-area (12,000 SF in the Project area plus 28,000 existing = 40,000 SF vs. 142,840 SF, or a 72 percent decrease). The Addendum analyzed the impacts of the new residential and commercial uses currently proposed under the Project, but included this analysis demonstrating that the anticipated impacts of growth in this MU-NH sub-area with the Project are considered to be equivalent or less than those identified in TOP 2050 SEIR for this sub-area. Accordingly, the Project is within the scope of TOP 2050 and the preparation of an Addendum is appropriate.

   TOP 2050 SEIR did identify several significant and unavoidable impacts. However, as TOP 2050 SEIR contemplated the Project, the City properly

applied the subsequent review provisions in Public Resources Code Section 21166 and State CEQA Guidelines Sections 15162 and 15164. The Project will not result in any new significant environmental effects or a substantial increase in the severity of impacts identified in TOP 2050 SEIR, nor are there any changes in circumstances under which the Project is undertaken that would result in new significant environmental effects or a substantial increase in the severity of previously identified significant effects. There is also no new information that exists that shows the project will have one or more significant effects not discussed in TOP 2050 SEIR; significant effects previously examined will be substantially more severe than shown in the previous SEIR; or mitigation measures or alternatives previously found not to be feasible would in fact be feasible and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or mitigation measures or alternatives which are considerably different from those analyzed in the previous SEIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative. As such, an Addendum is appropriate.

- On August 16, 2023, Dale J. Goldsmith, on behalf of the applicant Legacy/Collier Residential LLC, submitted a letter in response to the comment letter submitted by Mitchell Tsai (see Attachment A2: Applicant Response Letter). The letter discussed the project and contested the claims made by Mr. Tsai.

- On August 22, 2023, Mitchell M. Tsai, Attorney at Law, representing the Southwest Mountain States Regional Council of Carpenters, submitted a second letter (See Attachment A-3, Mitchell M. Tsai Letter 2) contesting the Project based on the following claims:

  1. The City should require the use of a local workforce to benefit the community's economic development and environment.

     Staff Response: The commenter reiterates comments made in its August 7, 2023 letter. As provided in Staff's response above and discussed in the Addendum, the Project will not result in any new, increased or substantially different air quality, GHG, or VMT impacts not previously considered and addressed in TOP 2050 SEIR. Therefore, mitigation beyond what was required in the TOP 2050 SEIR to further reduce air quality, GHG, and VMT impacts is not required for the proposed Project. The comment does not affect the analysis completed or conclusions provided in the Addendum, does not provide new information or evidence related to the analysis completed in the Addendum, and does not reflect on the adequacy or content of the Addendum. No changes to the Addendum are required.

2. The Project would be approved in violation of CEQA.

Staff Response: After initially citing State CEQA Guidelines section 15088.5 which does not apply to the Project, the commenter now claims that the TOP 2050 SEIR and the Addendum fail to adequately address environmental impacts or provide adequate mitigation measures relating to the sensitive receptors close to the Project site. As acknowledged In the Addendum, the Project will require implementation of TOP 2050 SEIR Mitigation Measures AQ 3-1 through AQ 3-3, and therefore would not result in any new impacts beyond those identified in TOP 2050 SEIR. (Addendum, p. 30.) In compliance with TOP 2050 SEIR Mitigation Measure AQ 3-1, MIG prepared a memorandum which concludes the construction and operational emissions from proposed Project would not exceed any applicable SCAQMD-recommended CEQA thresholds of significance and is consistent with TOP 2050 with mitigation incorporated. As evidenced in the MIG memorandum, the Project would not result in a new or substantially greater significant air quality impact than identified in the TOP 2050 SEIR. As such, none of the factors listed in State CEQA Guidelines section 15162 are satisfied and an Addendum is appropriate.

Additionally, the commenter claims there may be impacts on sensitive receptors related to the demolition of the structures on site and that there may be a significant impact related to cumulative GHG emissions from vehicle exhaust as well as other sources.

The Addendum notes the TOP 2050 SEIR determined that implementation of the policies in the Safety Element, in addition to existing regulations, would ensure less than significant impacts from transport, use, and/or disposal of hazardous materials. It further concluded TOP 2050 would have less than significant direct, indirect, and cumulative impacts relating to transport, use, and disposal of hazardous materials, release of hazardous materials, and emission and handling of hazardous materials, substances, or waste. (Addendum, p. 40.) The TOP 2050 SEIR analysis, cited in the Addendum, states "demolition activities that have the potential to expose construction workers and/or the public to asbestos-containing materials or lead-based paint will be conducted in accordance with applicable regulations, including, but not limited to: South Coast Air Quality Management District's Rule 1403; California Health and Safety Code (Section 39650 et seq.); California Code of Regulations (Title 8, Section 1529); California Occupational Safety and Health Administration regulations (California Code of Regulations, Title 8, Section 1529 [Asbestos] and Section 1532.1 [Lead]); and Code of Federal Regulations (Title 40, Part 61 [asbestos], Title 40, Part 763 [asbestos], and Title 29, Part 1926 [asbestos and lead]"; concluding impacts related to disposal of hazardous materials would be less than significant. (TOP SEIR, p. 5.9-37.) Demolition of structures,

such as those contemplated by the Project, were considered and analyzed in the TOP 2050 SEIR and no subsequent or supplemental EIR is warranted.

As to GHG emissions, the commenter has provided no evidence to support its claim that any substantial impacts related to GHG emissions or global climate change would occur as a result of Project implementation. The Addendum found developing the site with mixed residential and commercial uses will not create significantly greater impacts than were identified in TOP 2050 SEIR. (Addendum, p. 39.) MIG, Inc. prepared a memorandum evidencing the Project's consistency with the City's CCAP and the analysis in the TOP 2050 SEIR. The Project would result in the net reduction of approximately 4,405 MTCO2e per year and is consistent with the CCAP. Therefore, the Project would not result in a new or substantially more adverse GHG impact than identified in the TOP 2050 SEIR or CCAP and no subsequent or supplemental EIR is required.

The commenter restates its prior claim that a Project-specific EIR should be prepared and that new mitigation measures, specifically related to EV-capable parking spaces, are required and were not considered in the prior environmental analysis of the Project site. The comment does not recognize the City's recent adoption of TOP 2050 and certification of TOP 2050 SEIR on August 16, 2022. As recognized in the Addendum, the Project will be required to comply with the CALGreen Building Code (CBC) commercial and residential requirements in effect at the time of development. Further, the Project will be required to implement Mitigation Measure AQ 3-3 from TOP 2050 SEIR, which provides a list of potential mitigation measures that may be included as conditions of approval should operational air quality impacts exceed South Coast AQMD-adopted thresholds of significance. Such measures include, but are not limited to: Provide bicycle parking facilities per Section A4.106.9 of CALGreen (Residential Voluntary Measures); Provide preferential parking spaces for low-emitting, fuel-efficient, and carpool/van vehicles per Section A5.106.5.1 of CALGreen (Nonresidential Voluntary Measures); Provide facilities to support electric charging stations per Section A5.106.5.3 and Section A5.106.8.2 of CALGreen (Nonresidential Voluntary Measures; Residential Voluntary Measures).

Finally, the commenter claims the Project description is inadequate. The Project description contains a clear statement of objectives, list of characteristics and list of approvals sought. (Addendum, pp. 1-9.)

3. CEQA requires the City to prepare a tiered EIR for the Project instead of an Addendum.

Staff Response: The City has properly prepared an Addendum to TOP 2050 SEIR for the Project and a tiered EIR, as claimed by the commenter, is not required. The City has discretion to determine whether a subsequent or supplemental EIR is necessary under Public Resources Code Section 21166 and State CEQA Guidelines Section 15162, so long as its decision is supported by substantial evidence. Similarly, whether an activity is within the scope of a program EIR "is a factual question that the lead agency determines based on substantial evidence in the record." (State CEQA Guidelines, §15168(c)(2)). The City has prepared an Addendum to TOP 2050 SEIR for the Project, finding that all impacts of the Project have been adequately addressed in TOP 2050 SEIR. The CEQA Guidelines provide that an agency may prepare an addendum to a prior EIR to document its decision that a subsequent EIR is not required. (State CEQA Guidelines, §15164(b), (e)). As such, the Addendum is appropriate in this case and no further environmental review is required.

The City has also followed all procedural requirements, including public disclosure requirements, in its preparation of the Addendum. While CEQA requires notice to the public and an opportunity to comment in connection with adoption of a negative declaration or preparation of an EIR, an addendum is not required to be circulated for public review (State CEQA Guidelines, § 15164(c)). The Addendum, and all supporting technical studies has been provided to the Planning Commission and the public prior to any decision by the City, in compliance with CEQA. The City has also complied with the requirements of the Public Records Act. The Project, along with the Development Advisory Board Staff Report and Addendum, was posted on the City's website 72 hours prior to the meeting, consistent with the California Public Records Act. Regarding the Planning Commission hearing, the Project has been advertised in the newspaper, notices have been sent to all property owners within 300 feet of the project and the Staff Report and Addendum were posted 72 hours prior to the hearing. Accordingly, a tiered EIR is not required for the Project.

4. The City cannot issue an Addendum because the Project was not addressed with TOP 2050 SEIR and therefore an EIR must be prepared for the Project.

Staff Response: As discussed in the Addendum, the Project was addressed in TOP 2050 SEIR, and the commenter did not provide any evidence of Project impacts that are outside of the scope of TOP 2050 SEIR. The TOP shows a total of five locations within the City with the MU-NH land use designation. The Future Buildout Projections Table of the Land Use Element provides details for each of these five MU-NH sub-areas. The three parcels subject to this PUD Project make up 10.6 acres ("PUD site") of the overall 16 acres that comprise the "MU-NH" sub-area. The remaining 5.4 acres of the

MU-NH area include approximately 28,000 square feet of existing businesses (gas station, pre-school, and two small businesses) and 15 single family homes between the PUD site and the SR-60 Freeway to the north.

TOP 2050 SEIR evaluated the development of a maximum of 369 residential units and approximately 142,840 square feet of non-residential development on the Overlay Planning Area (including the PUD site). The Project proposes 369 units and approximately 12,000 square feet of non-residential development in Phases 1 and 2, leaving 130,840 square feet of non-residential development to be built in the remainder of the MU-NH area adjacent to the SR-60 Freeway. Development of the proposed Project would slightly exceed the total number of residential units for this area under TOP 2050 (369 proposed units +15 existing units = 384 total units vs. 369 TOP 2050 projected total units, or a 5 percent increase). However, development of the Project would substantially reduce the amount of anticipated non-residential growth in this sub-area (12,000 SF in the Project area plus 28,000 existing = 40,000 SF vs. 142,840 SF, or a 72 percent decrease). The Addendum analyzed the impacts of the new residential and commercial uses currently proposed under the Project, but included this analysis demonstrating that the anticipated impacts of growth in this MU-NH sub-area with the Project are considered to be equivalent or less than those identified in TOP 2050 SEIR for this sub-area. Accordingly, the Project is within the scope of TOP 2050 and the preparation of an Addendum is appropriate.

TOP 2050 SEIR did identify several significant and unavoidable impacts. However, the commenter misstates the significant and unavoidable impacts included in the TOP 2050 SEIR. The TOP 2050 SEIR found significant and unavoidable impacts related to air quality, cultural resources (historic resources), noise and transportation (VMT) (TOP 2050 SEIR pp. 2-5 – 2-5.) The Addendum analyzes impacts at the Project level and for each of these areas concludes Project specific mitigation was not required. Notably, Project-specific analyses, prepared by MIG, Inc., an expert consulting firm, found the Project's air quality and GHG impacts to be less than significant with the mitigation imposed in the TOP 2050 EIR (air quality) and, in the case of GHG emissions, Project emissions would actually be <u>less</u> than existing levels. In both instances, Project impacts were consistent (or less) than those analyzed for the site in the TOP 2050 EIR. They are therefore properly addressed in the Addendum.

As TOP 2050 SEIR contemplated the Project, the City properly applied the subsequent review provisions in Public Resources Code Section 21166 and State CEQA Guidelines Sections 15162 and 15164. The Project will not result in any new significant environmental effects or a substantial increase in the severity of impacts identified in TOP 2050 SEIR, nor are there any changes in

circumstances under which the Project is undertaken that would result in new significant environmental effects or a substantial increase in the severity of previously identified significant effects. There is also no new information that exists that shows the project will have one or more significant effects not discussed in TOP 2050 SEIR; significant effects previously examined will be substantially more severe than shown in the previous SEIR; or mitigation measures or alternatives previously found not to be feasible would in fact be feasible and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or mitigation measures or alternatives which are considerably different from those analyzed in the previous SEIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative. As such, an Addendum is appropriate.

- On September 14, 2023, Dale J. Goldsmith, on behalf of the applicant Legacy/Collier Residential LLC, submitted a letter in response to the second comment letter submitted by Mitchell Tsai (see Attachment A4: Applicant Response Letter 2). The letter discussed the project and contested the claims made by Mr. Tsai.

AGENCY/DEPARTMENT REVIEWS AND RESOLUTIONS: Each City agency/department has been provided the opportunity to review and comment on the subject application and recommend conditions of approval to be imposed upon the application. At the time of the Resolution preparation, recommended conditions of approval were provided and a summary of attachments to the attached Resolutions, including supplemental documents and Project Conditions of Approval is as follows:

- Addendum to the SEIR:
  - "Attachment A" – Addendum
- Planned Unit Development:
  - "Attachment A" – Euclid Walnut Planned Unit Development
  - "Attachment B" – File No. PUD22-004 Conditions of Approval
- Certificate of Appropriateness:
  - "Attachment A" – File No. PHP22-015 Conditions of Approval
- Development Plan:
  - "Attachment A" – Development Plan Set
  - "Attachment B" – File No. PDEV22-027 Conditions of Approval

AIRPORT LAND USE COMPATIBILITY PLAN (ALUCP) COMPLIANCE: The California State Aeronautics Act (Public Utilities Code Section 21670 et seq.) requires that an Airport Land Use Compatibility Plan be prepared for all public use airports in the State; and requires that local land use plans and individual development proposals must be consistent with the policies set forth in the adopted Airport Land Use Compatibility Plan.

On April 19, 2011, the City Council of the City of Ontario approved and adopted the ONT ALUCP, establishing the Airport Influence Area for Ontario International Airport, which encompasses lands within parts of San Bernardino, Riverside, and Los Angeles Counties, and limits future land uses and development within the Airport Influence Area, as they relate to noise, safety, airspace protection, and overflight impacts of current and future airport activity. As the decision-making body for File Nos. PHP22-015 and PDEV22-027, and as the recommending body for File No. PUD22-004 for the Project, the Planning Commission has reviewed and considered the facts and information contained in the Application and supporting documentation against the ONT ALUCP compatibility factors, including [1] Safety Criteria (ONT ALUCP Table 2-2) and Safety Zones (ONT ALUCP Map 2-2), [2] Noise Criteria (ONT ALUCP Table 2-3) and Noise Impact Zones (ONT ALUCP Map 2-3), [3] Airspace protection Zones (ONT ALUCP Map 2-4), and [4] Overflight Notification Zones (ONT ALUCP Map 2-5). As a result, the Planning Commission, therefore, finds and determines that the Project, when implemented in conjunction with the conditions of approval, will be consistent with the policies and criteria set forth within the ONT ALUCP.

COMPLIANCE WITH THE ONTARIO PLAN: The proposed Project is consistent with the principles, goals and policies contained within the Vision, Governance, Policy Plan (general plan), and City Council Priorities components of The Ontario Plan ("TOP 2050"). More specifically, the goals and policies of TOP 2050 that are furthered by the proposed Project are as follows:

(1) City Council Goals.

- Invest in the Growth and Evolution of the City's Economy
- Operate in a Businesslike Manner
- Focus Resources in Ontario's Commercial and Residential Neighborhoods

(2) Vision.

Distinctive Development:

- Commercial and Residential Development

➢ Development quality that is broadly recognized as distinctive and not exclusively tied to the general suburban character typical of much of Southern California.

(3) Governance.

Decision Making:

- Goal G1: Sustained decision-making that consistently moves Ontario towards its Vision by using The Ontario Plan as a framework for assessing choices.

➢ G 1-2. Long-term Benefit. We require decisions to demonstrate and document how they add value to the community and support the Ontario Vision.

(4) Policy Plan (General Plan).

Land Use Element:

▪ Goal LU-1 Balance. A community that has a spectrum of housing types and price ranges that match the jobs in the City and that make it possible for people to live and work in Ontario and maintain a quality of life.

➢ LU-1.1 Strategic Growth. We concentrate growth in strategic locations that help create place and identity, maximize available and planned infrastructure, foster the development of transit, and support the expansion of the active and multimodal transportation networks throughout the City.

➢ LU-1.5 Jobs-Housing Balance. We coordinate land use, infrastructure, and transportation planning and analysis with regional, county, and other local agencies to further regional and sub-regional goals for jobs-housing balance.

➢ LU-1.6 Complete Community. We incorporate a variety of land uses and building types in our land use planning efforts that result in a complete community where residents at all stages of life, employers, workers, and visitors have a wide spectrum of choices of where they can live, work, shop and recreate within Ontario.

▪ Goal LU-2 Compatibility. Compatibility between a wide range of uses and a resultant urban patterns and forms.

➢ LU-2.1 Land Use Decisions. We minimize adverse impacts on adjacent properties when considering land use and zoning requests.

➢ LU-2.2 Buffers. We require new uses to provide mitigation or buffers between existing uses where potential adverse impacts could occur. Additional mitigation is required when new uses could negatively impact environmental justice areas.

➢ LU-2.6 Infrastructure Compatibility. We require infrastructure to be aesthetically pleasing and in context with the community character.

▪ Goal LU-4 Phased Growth. Development that provides short-term value only when the opportunity to achieve our Vision can be preserved.

➢ LU-4.2 Interim Development. We allow development in urban, mixed use, and transit-oriented Place Types that is not immediately reflective of our ultimate Vision for the Place Type, provided it can be modified or replaced when circumstances are

right to support development aligned with the Place Type Vision. We will not allow development that impedes, precludes, or compromises our ability to achieve our Vision.

- LU-4.3 Infrastructure Timing. We require that the necessary infrastructure and services be in place prior to or concurrently with development.

- LU-4.4 Shared Infrastructure. We encourage and facilitate the use of shared infrastructure (including shared or managed parking) in urban, mixed use, and transit-oriented Place Types.

Housing Element:

- Goal H-2 Housing Supply & Diversity. Diversity of types of quality housing that are affordable to a range of household income levels, accommodate changing demographics, and support and reinforce the economic sustainability of Ontario.

  - H-2.1 Corridor Housing. We revitalize transportation corridors by encouraging the production of higher density residential and mixed-uses that are architecturally, functionally, and aesthetically suited to corridors.

  - H-2.5 Housing Design. We require architectural excellence through adherence to City design guidelines, thoughtful site planning, environmentally sustainable practices, and other best practices.

  - H-2.6 Infill Development. We support the revitalization of neighborhoods through the construction of higher-density residential developments on underutilized residential and commercial sites.

- Goal H-3 Governmental Regulations. A City regulatory environment that balances the need for creativity and excellence in residential design, flexibility and predictability in the project approval process, and the provision of an adequate supply and prices of housing.

  - H-3.2 Flexible Standards. We allow flexibility in the application of residential and mixed-use development standards in order to gain benefits such as exceptional design quality, economic advantages, sustainability, or other benefits that would otherwise be unrealized.

- Goal H-5 Special Needs. A full range of housing types and community services that meet the special housing needs for all individuals and families in Ontario, regardless of income level, age, or other status.

  - H-5.2 Family Housing. We support the development of larger rental apartments that are appropriate for families with children, including, as feasible, the provision of services, recreation, and other amenities.

Environmental Resources Element:

- Goal ER-1 Water & Wastewater. A reliable and cost-effective system that permits the City to manage its diverse water resources and needs.

  - ER-1.4 Supply-Demand Balance. We require that available water supply and demands be balanced.

  - ER-1.6 Urban Run-off Quantity. We encourage the use of low impact development strategies, including green infrastructure, to intercept run-off, slow the discharge rate, increase infiltration, and ultimately reduce discharge volumes to traditional storm drain systems.

  - ER-1.7 Urban Run-off Quality. We require control and management of urban run-off, consistent with Regional Water Quality Control Board regulations.

  - ER-1.8 Wastewater Management. We require the management of wastewater discharge and collection consistent with waste discharge requirements adopted by the Regional Water Quality Control Board.

Energy Element:

- Goal ER-3 Energy. Cost-effective and reliable energy system sustained through a combination of low-impact buildings, site and neighborhood energy conservation, and diverse sources of energy generation that collectively helps to minimize the region's carbon footprint.

  - ER-3.3 Building and Site Design. We require new construction to incorporate energy-efficient building and site design strategies, which could include appropriate solar orientation, maximum use of natural daylight, passive solar, and natural ventilation.

- Goal ER-4 Air Quality. Improved indoor and outdoor air quality and reduced locally-generated pollutant emissions.

  - ER-4.1 Land Use. We reduce GHG and other local pollutant emissions through compact, mixed use, and transit-oriented development and development that improves the regional jobs-housing balance.

Community Economics Element:

- Goal CE-1 Complete Community. A complete community that provides for all incomes and stages of life.

  - CE-1.6 Diversity of Housing. We collaborate with residents, housing providers, and the development community to provide housing opportunities for every

stage of life; we plan for a variety of housing types and price points to encourage the development of housing supportive of our efforts to attract business in growing sectors of the community while being respectful of existing viable uses.

➢ CE-1.7 Retail Goods and Services. We seek to ensure a mix of retail businesses that provide the full continuum of goods and services for the community.

▪ Goal CE-2 Placemaking. A City of distinctive neighborhoods, districts, corridors, and centers where people choose to be.

➢ CE-2.1 Development Projects. We require new development and redevelopment to create unique, high-quality places that add value to the community.

➢ CE-2.2 Development Review. We require those proposing new development and redevelopment to demonstrate how their projects will create appropriately unique, functional, and sustainable places that will compete well with their competition within the region.

➢ CE-2.4 Protection of Investment. We require that new development and redevelopment protect existing investment by providing architecture and urban design of equal or greater quality.

➢ CE-2.5 Private Maintenance. We require adequate maintenance, upkeep, and investment in private property because proper maintenance on private property protects property values.

Safety Element:

▪ Goal S-1 Seismic & Geologic Hazards. Minimized risk of injury, loss of life, property damage, and economic and social disruption caused by earthquake-induced and other geologic hazards.

➢ S-1.1 Implementation of Regulations and Standards. We require that all new habitable structures be designed in accordance with the most recent California Building Code adopted by the City, including provisions regarding lateral forces and grading.

➢ S-1.2 Entitlement and Permitting Process. We follow state guidelines and the California Building Code to determine when development proposals must conduct geotechnical and geological investigations.

▪ Goal S-2 Flood Hazards. Minimized risk of injury, loss of life, property damage, and economic and social disruption caused by flooding and inundation hazards.

➢ S-2.5 Stormwater Management. We maintain the storm drain system to convey a 100-year storm, when feasible, and encourage environmental site design

practices to minimize flooding and increase groundwater recharge, including natural drainage, green infrastructure, and permeable ground surfaces.

- Goal S-3 Fire & Rescue Hazards. Reduced risk of death, injury, property damage, and economic loss due to fires, accidents and normal everyday occurrences through prompt and capable emergency response.

  - S-3.1 Prevention Services. We proactively mitigate or reduce the negative effects of fire, hazardous materials release, and structural collapse by implementing the regularly-adopted California Fire Code and California Building Code.

  - S-3.8 Fire Prevention. through Environmental Design. We require new development to incorporate fire prevention consideration in the design of streetscapes, sites, open spaces, and buildings.

- Goal S-4 Noise Hazards. An environment where noise does not adversely affect the public's health, safety, and welfare.

  - S-4.1 Noise Mitigation. We utilize the City's Noise Ordinance, building codes, and subdivision and development codes to mitigate noise impacts.

- Goal S-5 Wind-Related Hazards. Minimize the risk of injury, property damage, and economic loss resulting from windstorms and wind-related hazards.

  - S-5.1 Dust Control Measures. We require the implementation of Best Management Practices for dust control at all excavation and grading projects.

- Goal S-7 Law Enforcement. Residential neighborhoods, commercial areas, and industrial districts that are kept safe through a multi-faceted approach of prevention, suppression, and community involvement in public safety.

  - S-7.4 Crime Prevention through Environmental Design (CPTED). We require new development to incorporate CPTED in the design of streetscapes, sites, open spaces, and buildings.

Community Design Element:

- Goal CD-1 Image & Identity. A dynamic, progressive city containing distinct and complete places that foster a positive sense of identity and belonging among residents, visitors, and businesses.

  - CD-1.1 City Identity. We take actions that are consistent with the City being a leading urban center in Southern California while recognizing, enhancing, and preserving the character of our existing viable neighborhoods.

➢ CD-1.2 Place Types. We establish Place Types in urban, mixed use, and transit-oriented areas to foster the City's identity as a premier community and require new development within each Place Type to incorporate prescribed urban patterns, forms, and placemaking priorities.

➢ CD-1.3 Existing Neighborhoods. We require the existing character of viable residential and non-residential neighborhoods be preserved, protected, and enhanced.

▪ Goal CD-2 Design Quality. A high level of design quality resulting in neighborhoods, public spaces, parks, and streetscapes that are attractive, safe, functional, human-scale, and distinct.

➢ CD-2.1 Quality Building Design and Architecture. We encourage all development projects to convey visual interest and character through:

- Building volume, massing, and height to provide context-appropriate scale and proportion;
- A true architectural style which is carried out in plan, section, and elevation through all aspects of the building and site design and appropriate for its setting; and
- Exterior building materials that are articulated, high quality, durable, and appropriate for the architectural style.

➢ CD-2.2 Neighborhood Design. We create distinct residential neighborhoods that promote a sense of community and identity by emphasizing access, connectivity, livability, and social interaction through such elements as:

- A pattern of smaller, walkable blocks that promote activity, safety, and access to nearby amenities and services;
- Varied parcel sizes and lot configurations to accommodate a diversity of housing types;
- Traffic calming measures to slow traffic and promote walkability while maintaining acceptable traffic flows and emergency evacuation access;
- Floor plans that encourage views onto the street and de-emphasize the visual and physical dominance of garages (introducing the front porch as the "outdoor living room"), as appropriate; and
- Landscaped parkways, with sidewalks separated from the curb and designed to maximize safety, comfort, and aesthetics for all users.

➢ CD-2.4 Urban, Mixed Use, and Transit-oriented Areas. We establish Place Types to require mixed use, urban, and transit-oriented areas to be designed and developed as pedestrian-oriented areas that are integrated with adjacent neighborhoods and promote a vibrant, comfortable, and functional environment, as defined for each Place Type.

- CD-2.7 Sustainability. We collaborate with the development community to design and build neighborhoods, streetscapes, sites, outdoor spaces, landscaping, and buildings to reduce energy demand through solar orientation, maximum use of natural daylight, passive solar and natural ventilation, building form, mechanical and structural systems, building materials, and construction techniques.

- CD-2.8 Safe Design. We incorporate defensible space design into new and existing developments to ensure the maximum safe travel and visibility on pathways, corridors, and open space and at building entrances and parking areas by avoiding physically and visually isolated spaces, maintaining visibility and accessibility, and using lighting.

- CD-2.9 Landscape Design. We encourage durable, sustainable, and drought-tolerant landscaping materials and designs that enhance the aesthetics of structures, create and define public and private spaces, and provide shade and environmental benefits.

- CD-2.10 Parking Areas. We require all development, including single-family residential, to minimize the visual impact of surface, structured, and garage parking areas visible from the public realm in an aesthetically pleasing, safe and environmentally sensitive manner. Examples include:

  - Surface parking: Shade trees, pervious surfaces, urban run-off capture and infiltration, and pedestrian paths to guide users through the parking field;
  - Structured parking: facade articulation, screening, appropriate lighting, and landscaping; and
  - Garage parking: providing access to single-family residential garages through alley access, recessing garages from the frontage to emphasize front doors or active living spaces.

- CD-2.11 Entry Statements. We encourage the inclusion of amenities, signage, and landscaping at the entry to neighborhoods, commercial centers, mixed use areas, industrial developments, and public places that reinforce them as uniquely identifiable places.

- CD-2.12 Site and Building Signage. We encourage the use of sign programs that utilize complementary materials, colors, and themes. Project signage should be designed to effectively communicate and direct users to various aspects of the development and complement the character of the structures.

- CD-2.13 Entitlement Process. We work collaboratively with all stakeholders to ensure a high degree of certainty in the efficient review and timely processing of all development plans and permits.

- Goal CD-3 Urban, Mixed Use, and Transit-Oriented Place Types. Vibrant urban environments that are organized around intense buildings, pedestrian and transit areas, public plazas, and linkages between and within developments that are conveniently located, visually appealing and safe during all hours.

  - CD-3.1 Unique Identity. We promote development that heightens the unique character and identity of each Place Type by requiring compatible land uses and land planning, site design, and building design that promotes an active public realm.

  - CD-3.4 Context-Aware and Appropriate Design. We require appropriate building and site design that complements existing development, respects the intent and identity of the Place Type, and provides appropriate transitions and connections between adjacent uses to ensure compatibility of scale, maintain an appropriate level of privacy for each use, and minimize potential conflicts.

  - CD-3.5 Active Frontages. We create lively pedestrian streetscapes by requiring primary building, business, and residential entrances, outdoor dining, and storefronts be located on ground floors adjacent to sidewalks or public spaces and designed to maximize safety, comfort, aesthetics, and the intended functionality (as defined by the Place Type).

- Goal CD-5 Protection of Investment. A sustained level of maintenance and improvement of properties, buildings, and infrastructure that protects the property values and encourages additional public and private investments.

  - CD-5.1 Maintenance of Buildings and Property. We require all public and privately-owned buildings and property (including trails and easements) to be properly and consistently maintained.

  - CD-5.2 Maintenance of Infrastructure. We require the continual maintenance of infrastructure.

HOUSING ELEMENT COMPLIANCE: The Project is consistent with the Housing Element of the Policy Plan (general plan) component of The Ontario Plan, as the Project site is not one of the properties in the Housing Element Sites contained in Tables B-1 and B-2 (Housing Element Sites Inventory) of the Housing Element Technical Report.

ENVIRONMENTAL REVIEW: The environmental impacts of this Project were reviewed in conjunction with an Addendum to The Ontario Plan 2050 Supplemental Environmental Impact Report (State Clearinghouse No. 2021070364, certified by the Ontario City Council on August 16, 2022, in conjunction with File No. PGPA20-002). TOP 2050 SEIR, certified by the City Council on August 16, 2022, was prepared as a Program EIR in accordance with CEQA, the CEQA Guidelines section 15121(a), and the City's Rules for the Implementation of CEQA. TOP 2050 SEIR considered the direct physical changes and reasonably foreseeable indirect physical changes in the environment that would be

caused by implementation of TOP 2050. Consequently, TOP 2050 SEIR focused on impacts from changes to land use associated with buildout of the City and impacts from the resulting population and employment growth in the City. The proposed Project is consistent and compatible with existing and planned uses in the surrounding area and would only differ by having 5 percent more units but 72 percent less non-residential square footage with the PUD. While no additional specific information on Phase 2 construction is presented at this time, overall development and construction of the 10.6-acre MU-NH sub-area would be similar with or without the PUD in terms of land area developed. The overall construction of the PUD project is generally consistent with the level of development outlined in TOP 2050 and its SEIR. The amount of development anticipated at PUD project buildout as shown in the previous Table 1 and outlined in the Project Description will be equivalent to the development analyzed in TOP 2050 SEIR.

The proposed PUD differs from the TOP 2050's assumptions for this project site, so this addendum and supplemental studies are required to ensure the project introduces no new significant environmental impacts that were identified in TOP 2050 SEIR. The City's "Guidelines for the Implementation of the California Environmental Quality Act (CEQA)" provide for the use of a single environmental assessment in situations where the impacts of subsequent projects are adequately analyzed. Should no new significant environmental impacts arise as a result of this project and related analyses, all previously adopted mitigation measures shall be a condition of project approval.

Accordingly, and based on the conclusions of the previously certified TOP 2050 SEIR, the analysis in this document, CEQA and the CEQA Guidelines, including Sections 15164 and 15162, the PUD project will not result in any new, increased or substantially different impacts not previously considered and addressed in TOP 2050 SEIR. No changes or additions to TOP 2050 SEIR analyses are necessary, nor is there a need for additional mitigation with implementation of the number of conditions of approval required by the City based on the results of the site-specific technical studies,

All previously adopted mitigation measures of TOP 2050 SEIR are a condition of Project approval and are incorporated herein by this reference.

TECHNICAL APPENDIX:

Surrounding Zoning and Land Use:

	Existing Land Use	*Policy Plan Designation*	*Zoning Designation*	*Specific Plan Land Use*
Site	Commercial	Mixed Use – Neighborhood Activity Hub, 20.0 – 75.0 du/ac; 1.0 FAR office/retail (MU-NH)	Mixed Use – Neighborhood Hub 8e – Euclid and Walnut (MU-NH 8e) and Euclid Avenue Overlay	N/A
North	Single-family and multi-family residential, and commercial	Mixed Use – Neighborhood Activity Hub, 20.0 – 75.0 du/ac; 1.0 FAR office/retail (MU-NH); Medium Density, 11.1-25 du/ac (MDR)	Mixed Use – Neighborhood Hub 8e – Euclid and Walnut (MU-NH 8e) and Euclid Avenue Overlay	N/A
South	Single-family residential	Low-Density Residential, 2/1-5.0 du/ac (LDR)	Low-Density Residential (LDR-5)	N/A
East	Commercial	Neighborhood Commercial, 0.4 FAR (NC)	Neighborhood Commercial (CN)	N/A
West	Multi-family residential	Medium Density, 11.1-25 du/ac (MDR)	Medium-Density Residential (MDR-18)	N/A

General Site & Building Statistics

Item	*Required Min./Max.*	*Provided (Ranges)*	*Meets Y/N*
Project area (in acres):	None	10.6 acres (PUD); 9.4 acres (PDEV)	Y
Floor Area Ratio (commercial land use):	0.50 maximum	0.01	Y
Maximum project density (dwelling units/ac):	20.1 – 40 du/ac	36.7 du/ac	Y
Right-of-Way setback (in FT):	10 ft. minimum	10-76 feet	Y
Interior setback at buildings adjacent to non-residential land uses (in FT):	5 ft. minimum	71 ft.	Y
Interior setback at buildings adjacent to residential land uses (in FT):	50 ft. minimum	54-57 ft.	Y
Interior setbacks to carports or trash enclosures	5 ft. minimum	5-6.5 ft.	Y
Maximum dwelling units/building:	None	32-81 units	Y

Item	*Required Min./Max.*	*Provided (Ranges)*	*Meets Y/N*
Maximum height (in FT):	60 ft. (4 stories); 50 ft. (3 stories)	39 ft. (3-story) – 55 ft. (4-story) max	Y
Parking – resident/guest:	580 stalls minimum	582 stalls	Y
Parking – commercial:	22 stalls minimum	24 stalls	Y
Open space – private:	17,300 sf. minimum	21,156 sf.	Y
Open space – common:	60,550 sf. minimum	67,404 sf.	Y

Dwelling Unit Count (Development Plan):

Item	*Required Min./Max.*	*Provided (Ranges)*	*Meets Y/N*
Total no. of units	189 – 376 units	346 units	Y
Total no. of buildings	N/A	8	Y
No. units per building	N/A	32-81 units	Y

Dwelling Unit Statistics:

Unit Type	*Unit Size (in SF)*	*No. Bedrooms*	*No. Bathrooms*	*No. Stories*	*Private Open Space (in SF)*
Studio	596 sf.	0	1	1	54 sf.
1-bedroom	637-991 sf.	1	1	1	56-71 sf.
2-bedroom	989-1,284 sf.	2	2	1	50-71 sf.

File No. PDEV22-027
Attachment A: Development Plan Set

(Attachment to follow this page)



TRASH SUMMARY

RESIDENTIAL

REFUSE CALCUALTIONS

UNITS	C.Y./WK/UNIT	TOTAL C.Y. (50%)	TOTAL UNCOMPACTED	4 CU. YD. BINS REQ'D	(3) PICK-UP/WK. - BINS REQ'D
346	0.5	87	87	22	8

RECYCLING CALCULATIONS

UNITS	C.Y./WK/UNIT	TOTAL C.Y. (50%)	TOTAL UNCOMPACTED	4 CU. YD. BINS REQ'D	(3) PICK-UP/WK. - BINS REQ'D
346	0.5	87	87	22	7

ORGANICS CALCULATIONS

UNITS	GALLONS/WEEK	TOTAL(GAL/WK)	NUMBER OF 64 GALLON CART	# PICK-UPS/WK	64 GALL CARTS REQ'D
346	3	1038	16	2	8

RETAIL

REQUIRED

REFUSE BINS	4 C.Y. PER 4 UNITS
RECYCLING BINS	4 C.Y. PER 4 UNITS
ORGANICS BINS	1.5 C.Y. PER 10,000 S.F.

PROVIDED

TENANT QTY	REFUSE	RECYCLING	ORGANICS
2	1	1	1

LEGEND

CARPORT

TRANSFORMER

NORTH

1"=40'-0" 0 20' 40' 80' 120'

SITE PLAN SHALL MEET ALL ENGINEERING & NPDES REQUIREMENTS

SITE PLAN

PAGE 1

EUCLID AND WALNUT

ONTARIO, CA

DATE: 06-29-23
JOB NO.: 2021-544

LEGACY PARTNERS
5141 CALIFORNIA AVENUE, SUITE 100, IRVINE, CA 92617
949.930.7712

AO ARCHITECTS
144 NORTH ORANGE ST., ORANGE, CA 92866
(714) 639-9860
Architecture. Design. Relationships.

Tuesday, July 11, 2023 11:46:40 AM
R:\2021\2021-544 LEGACY EUCLID & WALNUT ONTARIO\03 DESIGN\SCHEMATIC\CAD\21-544_A1.2 SITE PLAN.DWG

MATERIAL / COLOR LEGEND

1	EXTERIOR PLASTER
2	METAL AWNING
3	VINYL WINDOW
4	FIBER CEMENT LAP SIDING
5	FIBER CEMENT TRIM BOARDS
6	FOAM TRIM
7	METAL RAILING
8	SECTIONAL GARAGE DOOR
9	STOREFRONT GLAZING SYSTEM
10	STONE VENEER

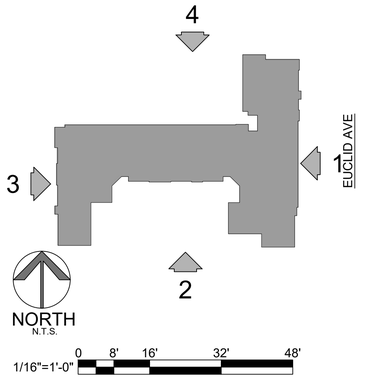


EAST ELEVATION 1



SOUTH ELEVATION 2

KEY MAP



PAGE 2

BUILDING "A" ELEVATIONS

EUCLID AND WALNUT

ONTARIO, CA

DATE: 06-29-23
JOB NO.: 2021-544

LEGACY PARTNERS
5141 CALIFORNIA AVENUE, SUITE 100, IRVINE, CA 92617
949.930.7712

AO ARCHITECTS
144 NORTH ORANGE ST., ORANGE, CA 92866
(714) 639-9860

Architecture. Design. Relationships.

Wednesday, June 28, 2023 1:39:35 PM
R:\2021\2021-544 LEGACY EUCLID & WALNUT ONTARIO\03 DESIGN\SCHEMATIC\CAD\21-544_A2.3 - A2.4 BUILDING A ELEVATIONS.DWG

MATERIAL / COLOR LEGEND

1	EXTERIOR PLASTER
2	METAL AWNING
3	VINYL WINDOW
4	FIBER CEMENT LAP SIDING
5	FIBER CEMENT TRIM BOARDS
6	FOAM TRIM
7	METAL RAILING
8	SECTIONAL GARAGE DOOR
9	STOREFRONT GLAZING SYSTEM
10	STONE VENEER

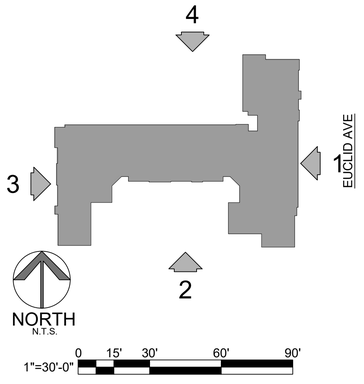


WEST ELEVATION 3



NORTH ELEVATION 4

KEY MAP



PAGE 3

BUILDING "A" ELEVATIONS

EUCLID AND WALNUT

ONTARIO, CA

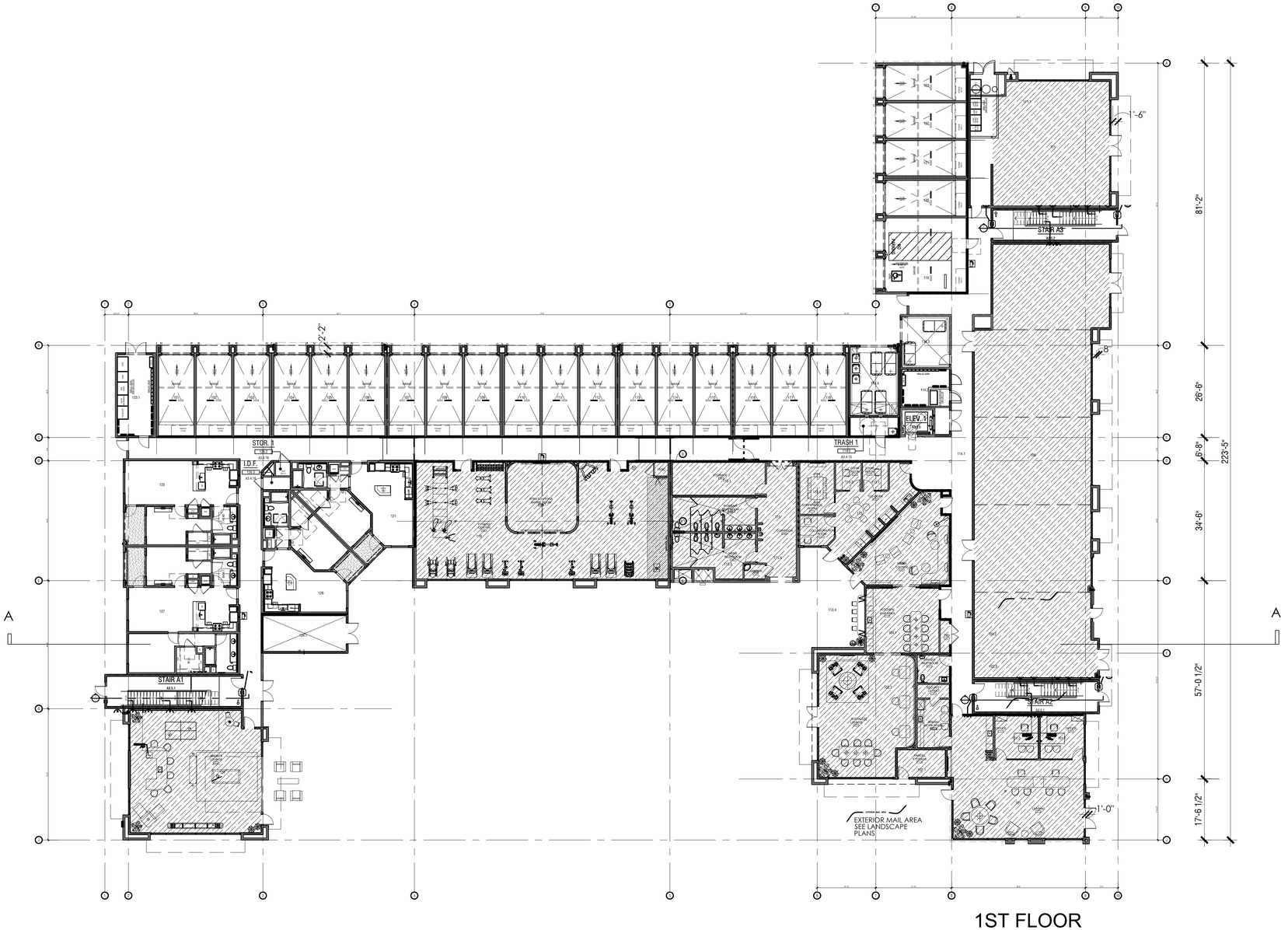
DATE: 06-29-23
JOB NO.: 2021-544

LEGACY PARTNERS
5141 CALIFORNIA AVENUE, SUITE 100, IRVINE, CA 92617
949.930.7712

AO ARCHITECTS
144 NORTH ORANGE ST., ORANGE, CA 92866
(714) 639-9860

Architecture. Design. Relationships.

Wednesday, June 28, 2023 1:39:45 PM
R:\2021\2021-544 LEGACY EUCLID & WALNUT ONTARIO\03 DESIGN\SCHEMATIC\CAD\21-544_A2.3 - A2.4 BUILDING A ELEVATIONS.DWG



1ST FLOOR

NORTH

1/16"=1'-0" 0 8' 16' 32' 48'

PAGE 4

BUILDING "A" COMPOSITE PLANS

EUCLID AND WALNUT

ONTARIO, CA

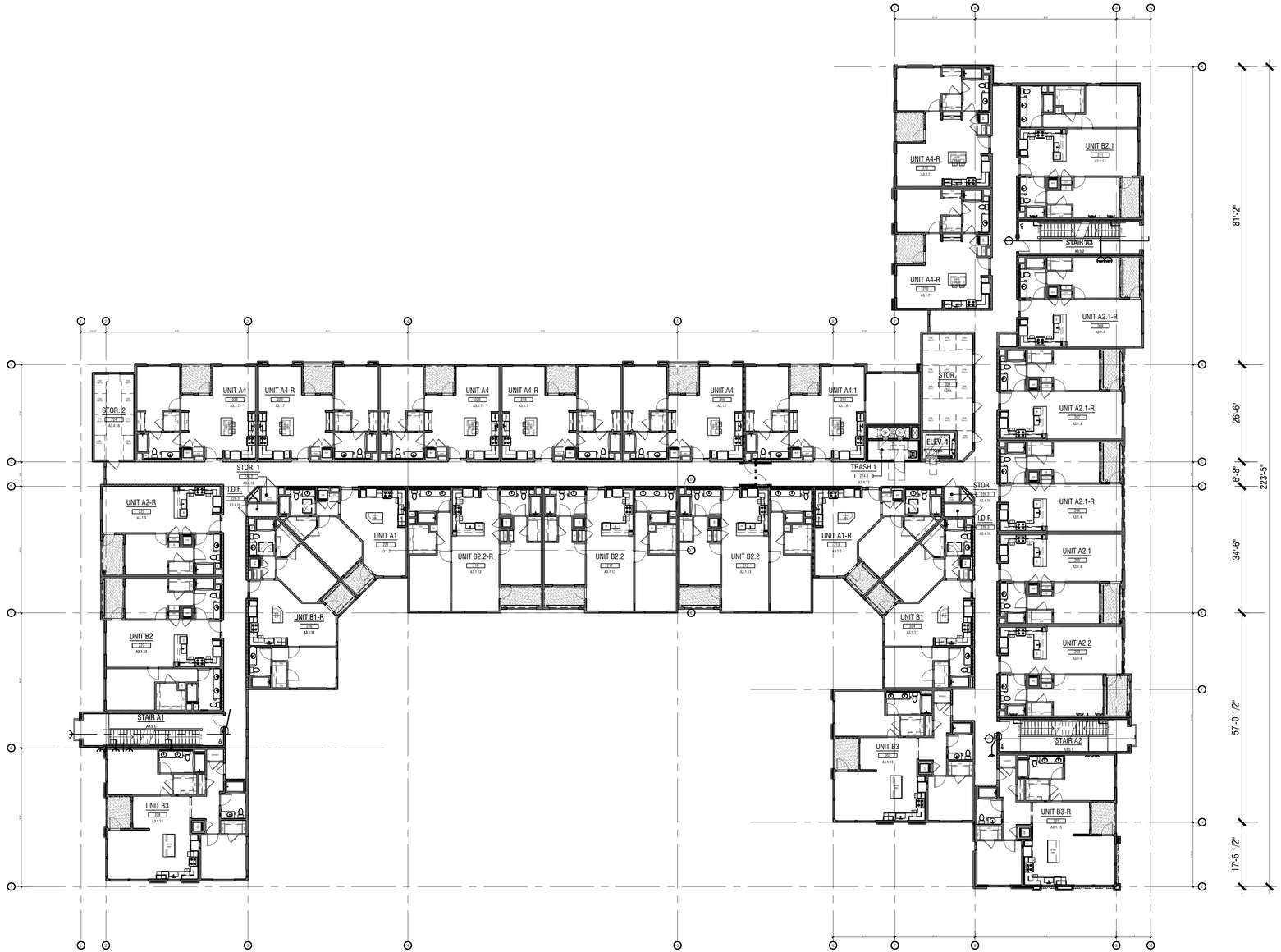
DATE: 06-29-23
JOB NO.: 2021-544

LEGACY PARTNERS
5141 CALIFORNIA AVENUE, SUITE 100, IRVINE, CA 92617
949.930.7712

AO ARCHITECTS
144 NORTH ORANGE ST., ORANGE, CA 92866
(714) 639-9860

Architecture.
Design.
Relationships.

Wednesday, June 28, 2023 11:55:47 AM
R:\2021\2021-544 LEGACY EUCLID & WALNUT ONTARIO\03 DESIGN\SCHEMATIC\CAD\21-544_A2.0 - A2.2 BUILDING A COMPOSITE PLANS.DWG



2ND AND 3RD FLOOR

NORTH

1/16"=1'-0" 0 8' 16' 32' 48'

PAGE 5

BUILDING "A" COMPOSITE PLANS

DATE: 06-29-23
JOB NO.: 2021-544

EUCLID AND WALNUT

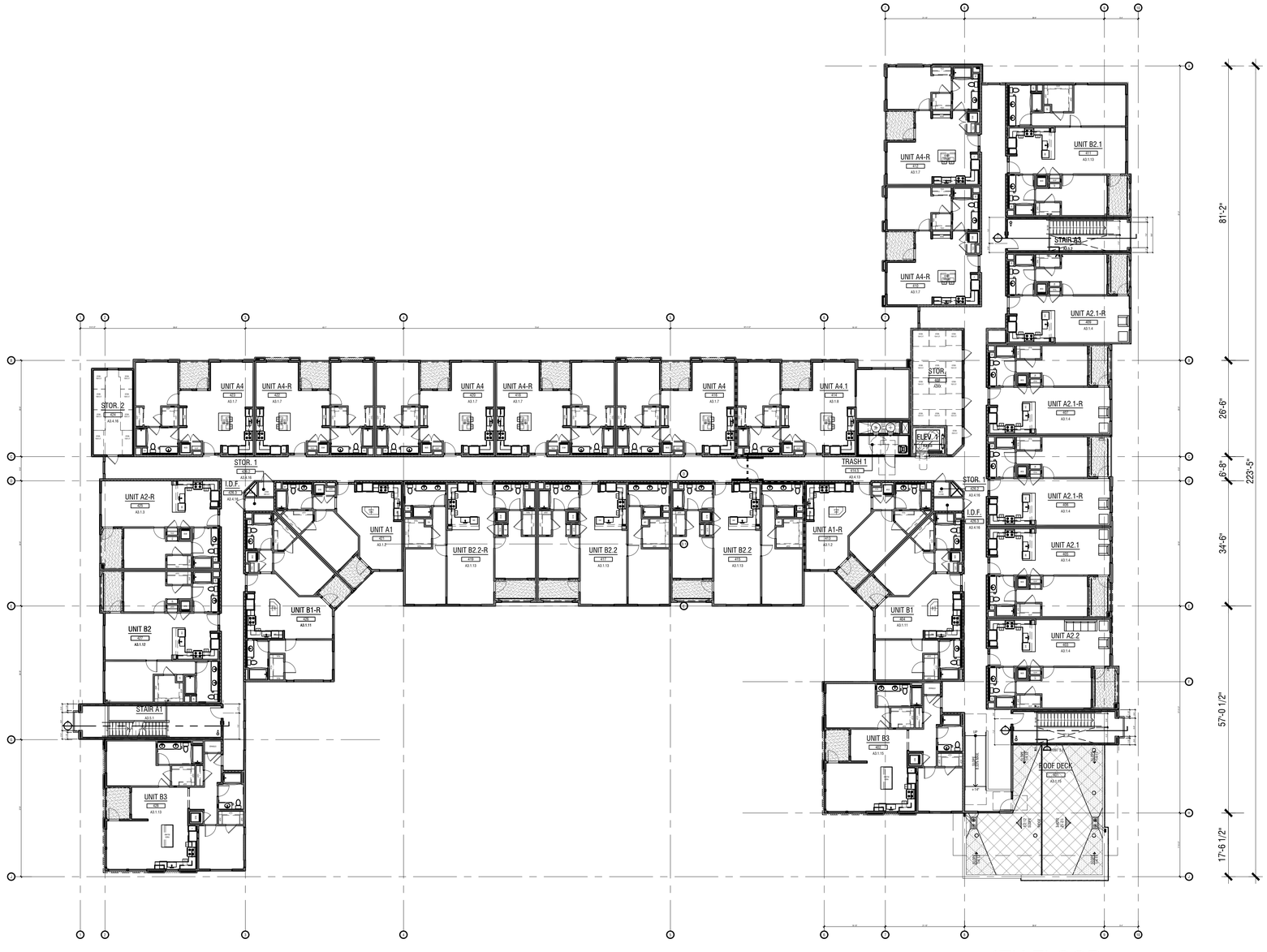
ONTARIO, CA

LEGACY PARTNERS
5141 CALIFORNIA AVENUE, SUITE 100, IRVINE, CA 92617
949.930.7712

AO ARCHITECTS
144 NORTH ORANGE ST., ORANGE, CA 92866
(714) 639-9860

Architecture. Design. Relationships.

Wednesday, June 28, 2023 11:56:03 AM
R:\2021\2021-544 LEGACY EUCLID & WALNUT ONTARIO\03 DESIGN\SCHEMATIC\CAD\21-544_A2.0 - A2.2 BUILDING A COMPOSITE PLANS.DWG



4TH FLOOR

NORTH

1/16"=1'-0" 0 8' 16' 32' 48'

BUILDING "A" COMPOSITE PLANS

PAGE 6

EUCLID AND WALNUT

ONTARIO, CA

DATE: 06-29-23
JOB NO.: 2021-544

LEGACY PARTNERS
5141 CALIFORNIA AVENUE, SUITE 100, IRVINE, CA 92617
949.930.7712

AO ARCHITECTS
144 NORTH ORANGE ST., ORANGE, CA 92866
(714) 639-9860

Architecture. Design. Relationships.

Wednesday, June 28, 2023 11:56:18 AM
R:\2021\2021-544 LEGACY EUCLID & WALNUT ONTARIO\03 DESIGN\SCHEMATIC\CAD\21-544_A2.0 - A2.2 BUILDING A COMPOSITE PLANS.DWG

MATERIAL / COLOR LEGEND

1	EXTERIOR PLASTER
2	METAL AWNING
3	VINYL WINDOW
4	FIBER CEMENT LAP SIDING
5	FIBER CEMENT TRIM BOARDS
6	FOAM TRIM
7	METAL RAILING
8	SECTIONAL GARAGE DOOR
9	STOREFRONT GLAZING SYSTEM
10	STONE VENEER



SOUTH ELEVATION 4



WEST ELEVATION 3

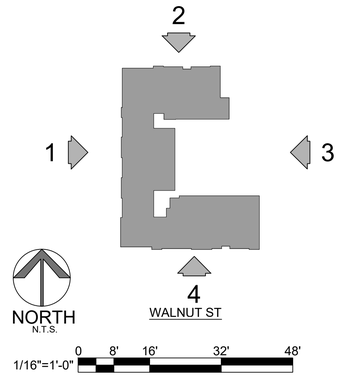


NORTH ELEVATION 2



EAST ELEVATION 1

KEY MAP



BUILDING "B" ELEVATIONS

PAGE 7

EUCLID AND WALNUT

ONTARIO, CA

DATE: 06-29-23
JOB NO.: 2021-544

LEGACY PARTNERS
5141 CALIFORNIA AVENUE, SUITE 100, IRVINE, CA 92617
949.930.7712

AO ARCHITECTS
144 NORTH ORANGE ST., ORANGE, CA 92866
(714) 639-9860

Architecture. Design. Relationships.

Wednesday, June 28, 2023 1:55:37 PM
R:\2021\2021-544 LEGACY EUCLID & WALNUT ONTARIO\03 DESIGN\SCHEMATIC\CAD\21-544_A2.6 BUILDING B ELEVATIONS.DWG



2ND - 4TH FLOOR

1ST FLOOR

NORTH

1/16"=1'-0" 0 8' 16' 32' 48'

BUILDING "B" COMPOSITE PLAN

PAGE 8

EUCLID AND WALNUT

ONTARIO, CA

DATE: 06-29-23
JOB NO.: 2021-544

LEGACY PARTNERS
5141 CALIFORNIA AVENUE, SUITE 100, IRVINE, CA 92617
949.930.7712

AO ARCHITECTS
144 NORTH ORANGE ST., ORANGE, CA 92866
(714) 639-9860

Architecture. Design. Relationships.

MATERIAL / COLOR LEGEND

1	EXTERIOR PLASTER
2	METAL AWNING
3	VINYL WINDOW
4	FIBER CEMENT LAP SIDING
5	FIBER CEMENT TRIM BOARDS
6	FOAM TRIM
7	METAL RAILING
8	SECTIONAL GARAGE DOOR
9	STOREFRONT GLAZING SYSTEM
10	STONE VENEER



SIDE ELEVATION 4



REAR ELEVATION 3

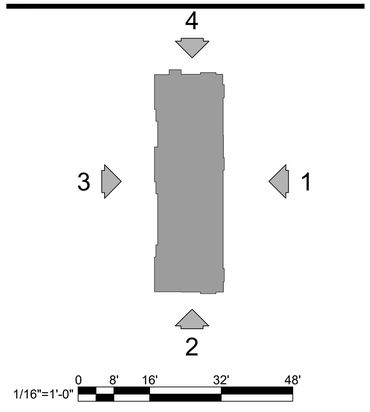


SIDE ELEVATION 2



FRONT ELEVATION 1

KEY MAP



PAGE 9

BUILDING "C" ELEVATIONS

DATE: 06-29-23
JOB NO.: 2021-544

EUCLID AND WALNUT

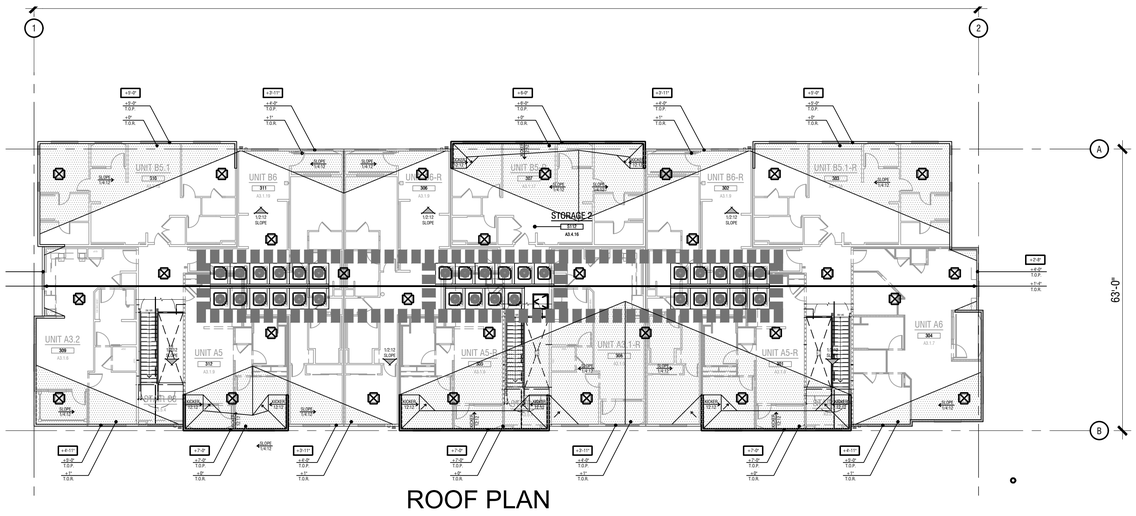
ONTARIO, CA

LEGACY PARTNERS
5141 CALIFORNIA AVENUE, SUITE 100, IRVINE, CA 92617
949.930.7712

AO ARCHITECTS
144 NORTH ORANGE ST., ORANGE, CA 92866
(714) 639-9860

Architecture. Design. Relationships.

Wednesday, June 28, 2023 2:19:50 PM
R:\2021\2021-544 LEGACY EUCLID & WALNUT ONTARIO\03 DESIGN\SCHEMATIC\CAD\21-544_A2.8 BUILDING C ELEVATIONS.DWG



ROOF PLAN



SECOND & THIRD FLOOR



FIRST FLOOR

1/16"=1'-0" 0 8' 16' 32' 48'

BUILDING "C" COMPOSITE PLAN

PAGE 10

EUCLID AND WALNUT

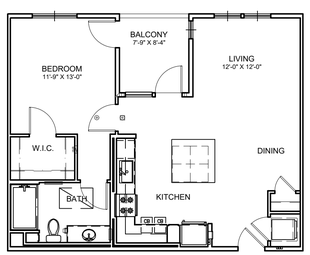
ONTARIO, CA

DATE: 06-29-23
JOB NO.: 2021-544

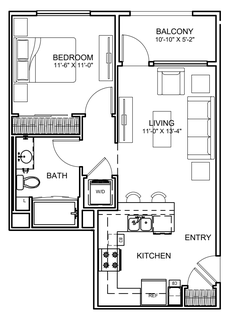
LEGACY PARTNERS
5141 CALIFORNIA AVENUE, SUITE 100, IRVINE, CA 92617
949.930.7712

AO ARCHITECTS
144 NORTH ORANGE ST., ORANGE, CA 92866
(714) 639-9860
Architecture. Design. Relationships.

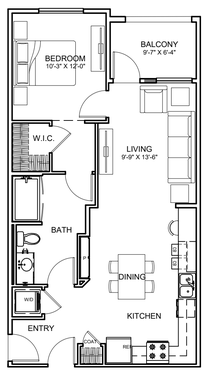
Wednesday, June 28, 2023 1:59:50 PM
R:\2021\2021-544 LEGACY EUCLID & WALNUT ONTARIO\03 DESIGN\SCHEMATIC\CAD\21-544_A2.7 BUILDING C COMPOSITE PLANS.DWG



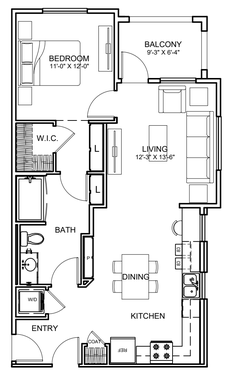
UNIT A4: 1BR / 1BA
LIVABLE AREA: 806 SQ. FT.
PATIO/ BALCONY AREA: 65 SQ. FT.



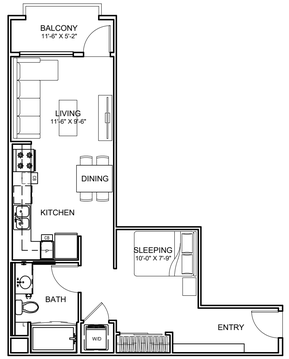
UNIT A5: 1BR / 1BA
LIVABLE AREA: 637 SQ. FT.
PATIO/ BALCONY AREA: 56 SQ. FT.



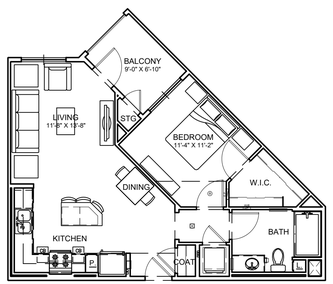
UNIT A6A: 1BR / 1BA
LIVABLE AREA: 781 SQ. FT.
PATIO/ BALCONY AREA: 61 SQ. FT.



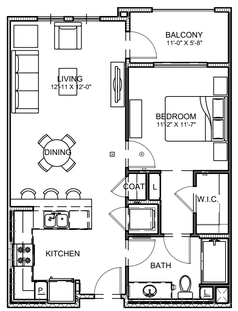
UNIT A6B: 1BR / 1BA
LIVABLE AREA: 818 SQ. FT.
PATIO/ BALCONY AREA: 59 SQ. FT.



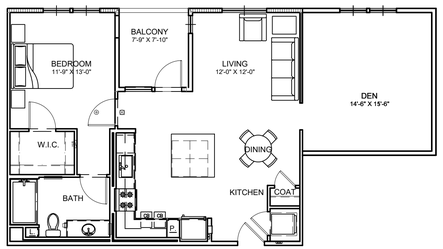
UNIT S1: 1BR / 1BA
LIVABLE AREA: 596 SQ. FT.
PATIO/ BALCONY AREA: 54 SQ. FT.



UNIT A1: 1BR / 1BA
LIVABLE AREA: 707 SQ. FT.
PATIO/ BALCONY AREA: 69 SQ. FT.



UNIT A2: 1BR / 1BA
LIVABLE AREA: 749 SQ. FT.
PATIO/ BALCONY AREA: 71 SQ. FT.



UNIT A3: 1BR + DEN / 1BA
LIVABLE AREA: 1051 SQ. FT.
PATIO/ BALCONY AREA: 65 SQ. FT.

1/8"=1'-0" 0 4' 8' 16' 24'

CONCEPTUAL UNIT PLANS

PAGE 11

EUCLID AND WALNUT

ONTARIO, CA

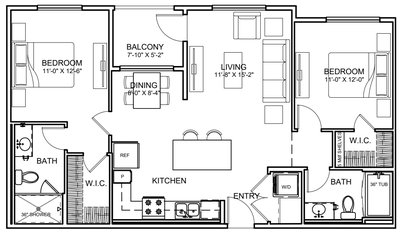
DATE: 06-29-23
JOB NO.: 2021-544

LEGACY PARTNERS
5141 CALIFORNIA AVENUE, SUITE 100, IRVINE, CA 92617
949.930.7712

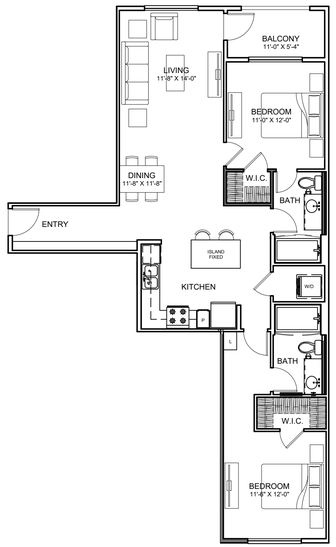
AO ARCHITECTS
144 NORTH ORANGE ST., ORANGE, CA 92866
(714) 639-9860

Architecture. Design. Relationships.

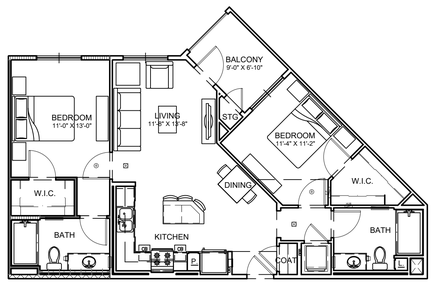
Wednesday, June 28, 2023 2:00:06 PM
R:\2021\2021-544 LEGACY EUCLID & WALNUT ONTARIO\03 DESIGN\SCHEMATIC\CAD\21-544_A3.0 - A3.1 UNIT PLANS.DWG



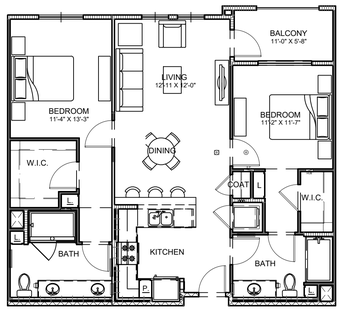
UNIT B5: 2BR / 2BA
LIVABLE AREA: 1011 SQ. FT.
PATIO/ BALCONY AREA: 50 SQ. FT.



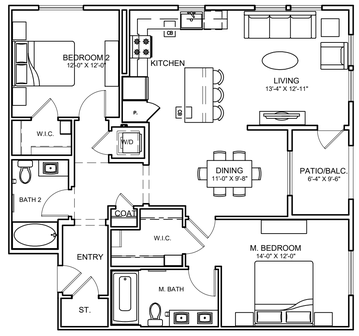
UNIT B6: 2BR / 2BA
LIVABLE AREA: 1130 SQ. FT.
PATIO/ BALCONY AREA: 58 SQ. FT.



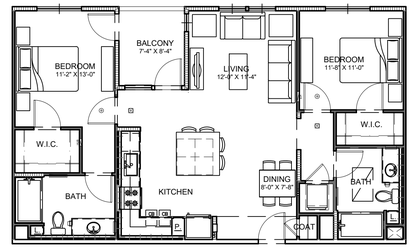
UNIT B1: 2BR / 2BA
LIVABLE AREA: 989 SQ. FT.
PATIO/ BALCONY AREA: 69 SQ. FT.



UNIT B2: 2BR / 2BA
LIVABLE AREA: 1128 SQ. FT.
PATIO/ BALCONY AREA: 71 SQ. FT.



UNIT B3: 2BR / 2BA
LIVABLE AREA: 1284 SQ. FT.
PATIO/ BALCONY AREA: 60 SQ. FT.



UNIT B4: 2BR / 2BA
LIVABLE AREA: 1101 SQ. FT.
PATIO/ BALCONY AREA: 61 SQ. FT.

1/8"=1'-0" 0 4' 8' 16' 24'

CONCEPTUAL UNIT PLANS

EUCLID AND WALNUT

ONTARIO, CA

DATE: 06-29-23
JOB NO.: 2021-544

LEGACY PARTNERS
5141 CALIFORNIA AVENUE, SUITE 100, IRVINE, CA 92617
949.930.7712

AO ARCHITECTS
144 NORTH ORANGE ST., ORANGE, CA 92866
(714) 639-9860
Architecture. Design. Relationships.

Wednesday, June 28, 2023 2:00:10 PM
R:\2021\2021-544 LEGACY EUCLID & WALNUT ONTARIO\03 DESIGN\SCHEMATIC\CAD\21-544_A3.0 - A3.1 UNIT PLANS.DWG



PRELIMINARY LANDSCAPE PLAN

LEGEND

1. MAIN ENTRY OFF OF EUCLID AVENUE
2. SECONDARY ENTRY
3. EVA GATE
4. RECREATIONAL AREA – SEE ENLARGEMENT ON SHEET L2
5. DOG PARK
6. COURTYARD SEE ENLARGEMENT ON SHEET L2
7. TRASH ENCLOSURE BY OTHERS
8. COMMERCIAL PLAZA
9. PERIMETER COMBO WALL (2' BLOCK/4' T.S. FENCE) SEE DETAIL ON SHEET L4
10. PROJECT MONUMENTATION SEE DETAIL ON SHEET L4
11. PERIMETER WALL SEE DETAIL ON SHEET L4
12. VEHICULAR ENTRY GATE SEE DETAIL ON SHEET L4
13. ENHANCED STREET PAVING HOLLAND STONE PAVER IN ½ RUNNINGBOND PATTERN. COLOR: "RIO" BY BELGARD

PLANT LIST

SYMBOL	BOTANICAL NAME	COMMON NAME	WUCOLS (Zone 4)	SIZE
	TREES			
	Specimen Tree	TBD	M	60" Box
	Quercus agrifolia	Coast Live Oak	L	48" Box
	Platanus racemosa	California Sycamore	M	
	Ulmus parvifolia 'True Green'	Evergreen Elm	M	
	Koelreuteria paniculata	Golden Rain Tree	L	36" Box
	Lagerstroemia hybrids 'Muskogee'	Crape Myrtle (Lavender)	M	
	Chilopsis linearis	Desert Willow	L	
	Aloe hainesii	Tree Aloe	L	24" Box
	Arbutus 'Marina'	Strawberry Tree	L	
	Cercis occidentalis	Western Redbud	L	
	Platanus acerifolia 'Bloodgood'	London Plane Tree (anthracnose res.)	M	
	Podocarpus gracilior	Fern Pine	M	
	Quercus wislizeni	Interior Live Oak	L	
	Tristania conferta	Brisbane Box	M	24" Box
	Street Tree			
	Grevillea robusta	Silk Oak (Euclid)	L	24" Box
	Platanus wrightii	Arizona Sycamore	M	
	PALMS			
	Phoenix dactylifera	Date Palm	L	16' BTH
	SHRUBS			
	Agave 'Blue Flame'	Blue Flame Agave	L	5 Gal.
	Agave desmettiana ' Variegata'	Variegated Dwarf Century Plant	L	5 Gal.
	Alyogne huegelii 'MOVleon'	Leon's Purple Delight Lilac Hibiscus	L	5 Gal.
	Arbutus unedo 'Elfin King'	Elfin King Strawberry King	L	5 Gal.
	Buxus microphylla japonica	Japanese Boxwood	M	1 Gal.
	Calandrinia spectabilis	Rock Purslane	L	1 Gal.
	Carex tumulicola	Foothill Sedge	L	1 Gal.
	Carissa grandiflora 'Green Carpet'	Natal Plum	M	1 Gal.
	Dianella revoluta 'DR5000'	Little Rev Flax Lily	M	1 Gal.
	Dianella tasmanica 'Silver Streak'	Silver Streak Flax Lily	M	1 Gal.
	Ilex crenata 'Sky Pencil'	Sky Pencil Ilex	M	5 Gal.
	Juniperus scopulorum 'Skyrocket'	Skyrocket Juniper	L/M	5 Gal.
	Lantana montevidensis 'Monma'	White Lightin' Lantana	L	1 Gal.
	Ligustrum japonicum 'Texanum'	Wax Leaf Privet	M	5 Gal.
	Lomandra longifolia 'LM300'	Breeze Dwarf Mat Rush	M	5 Gal.
	Muhlenbergia capillaris 'Regal Mist'	Regal Mist Muhly	M	5 Gal.
	Mosperum parvifolium	N.C.N	L	1 Gal.
	Philodendron x 'Xanadu'	Dwarf Philodendron	M	5 Gal.
	Pittosporum tobira	Tobira	M	5 Gal.
	Podocarpus elongatus 'Monmal'	Icee Blue Yellow-Wood	M	5 Gal.
	Prunus caroliniana 'Bright n' Tight'	Carolina Cherry	M	5 Gal.
	Rhaphiolepis indica 'Clara'	Dwarf Indian Hawthorne	M	5 Gal.
	Rhaphiolepis x. 'Montic'	Majestic Beauty Indian Hawthorne	M	5 Gal.
	Rosa 'Flower Carpet var. Noatraum'	Pink Carpet Rose	M	2 Gal.
	Rosa f. 'Ice Berg'	White Shrub Rose	M	5 Gal.
	Trachelospermum asiaticum	Asian Jasmine	M	1 Gal.
	VINES & ESPALIERS			
	Clytostoma callistegioides	Violet Trumpet Vine	M	5 Gal.
	Distictus buccinatoria	Blood Red Trumpet Vine	M	5 Gal.
	Ficus pumila (repens)	Creeping Fig	M	1 Gal.
	Parthenocissus tricuspidata	Boston Ivy	M	1 Gal.

NOTES:

- Trees planting sizes shall meet the following criteria based on the total number of trees: 5% - 48" Box, 10% - 36" Box, 30% - 24" Box and 55% 15 Gallon
- Tree species in above legend include California native plant material. A minimum of 25% of the total number of trees planted on-site shall be selected from this native material list

PROJECT NOTE:
THE ENTIRETY OF THE PROJECT SITE (EXCLUDING AREAS DEVOTED TO BUILDING AREA, PAVING, AND/OR OUTDOOR LOADING AND STORAGE AREAS THAT ARE SCREENED FROM PUBLIC VIEW), INCLUDING STREET PARKWAY AND MEDIAN AREAS THAT ABUT THE PROJECT SITE, SHALL BE FULLY LANDSCAPED, PROVIDED WITH AN UNDERGROUND AUTOMATIC IRRIGATION SYSTEM, AND CONTINUOUSLY MAINTAINED.

Legacy Partners
5141 CALIFORNIA AVENUE, SUITE 100
IRVINE, CALIFORNIA 92617
(949) 930 7712

EUCLID-WALNUT MIXED USE

CITY OF ONTARIO, CALIFORNIA

SCALE 1"=30'

SITESCAPES
Landscape Architecture & Planning

22-011
06-28-2023

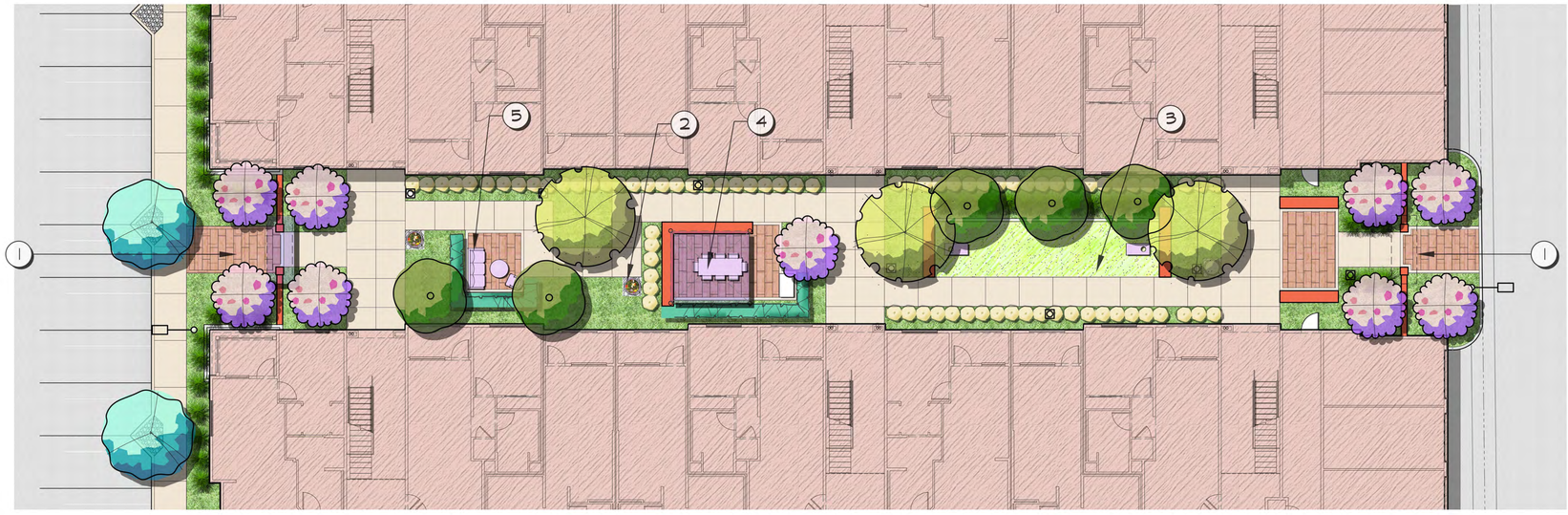


LEGEND

1. POOL
2. SPA
3. OUTDOOR KITCHEN W/ BAR INCLUDING:
   - (2) BBQ'S
   - (2) TV'S
   - SHADE OVERHEAD
4. MAILBOX COURTYARD W/ OVERHEAD
5. DECORATIVE WALL W/ TUBULAR STEEL FENCE
6. MEDIA WALL INCLUDING
   - (1) TV
   - FIREPLACE
7. AMENITY COURTYARD
8. VEHICULAR ENTRY GATE

SCALE 1"=10'

RECREATIONAL AREA PLAN



LEGEND

1. COURTYARD ENTRY
   - 3' HT. COURTYARD WALL
   - ENTRY TRELLIS
2. DECORATIVE ACCENT POT IN GRAVEL BED
3. ARTIFICIAL TURF PLAY PANEL (CORN HOLE SHOWN)
4. DINING PATIO INCLUDING:
   - DINING TABLE
   - PEDESTAL BBQ
   - FESTOON LIGHTING
5. SEATING AREA

SCALE 1"=10'

COURTYARD PLAN

CONCEPTUAL LANDSCAPE PLAN - ENLARGEMENTS

Legacy Partners
5141 CALIFORNIA AVENUE, SUITE 100
IRVINE, CALIFORNIA 92617
(949) 930 7712

EUCLID-WALNUT MIXED USE

CITY OF ONTARIO, CALIFORNIA

SCALE 1"=30'

SITESCAPES
Landscape Architecture & Planning
3190-B2 Airport Loop Drive
Costa Mesa, CA 92626
Richard Fullerton, License # 2782
(949) 644-3370 FAX (714) 210-3140

22-011
06-28-2023



VIEW FROM MAIN ENTRY OFF EUCLID LOOKING NORTHWEST 1

CONCEPTUAL PERSPECTIVE

EUCLID AND WALNUT

ONTARIO, CA

DATE: 06-29-23
JOB NO.: 2021-544

LEGACY PARTNERS
5141 CALIFORNIA AVENUE, SUITE 100, IRVINE, CA 92617
949.930.7712

AO ARCHITECTS
144 NORTH ORANGE ST., ORANGE, CA 92866
(714) 639-9860

Architecture.
Design.
Relationships.

Wednesday, June 28, 2023 11:43:00 AM
R:\2021\2021-544 LEGACY EUCLID & WALNUT ONTARIO\03 DESIGN\SCHEMATIC\CAD\21-544_A1.0 A1.1 PERSPECTIVES.DWG



VIEW FROM ENTRY OFF WALNUT LOOKING NORTHEAST 1

CONCEPTUAL PERSPECTIVE

EUCLID AND WALNUT

ONTARIO, CA

DATE: 06-29-23
JOB NO.: 2021-544

LEGACY PARTNERS
5141 CALIFORNIA AVENUE, SUITE 100, IRVINE, CA 92617
949.930.7712

AO ARCHITECTS
144 NORTH ORANGE ST., ORANGE, CA 92866
(714) 639-9860

Architecture.
Design.
Relationships.

Wednesday, June 28, 2023 11:34:27 AM
R:\2021\2021-544 LEGACY EUCLID & WALNUT ONTARIO\03 DESIGN\SCHEMATIC\CAD\21-544_A1.0 A1.1 PERSPECTIVES.DWG



VIEW FROM WALNUT ST LOOKING NORTHWEST 1

CONCEPTUAL PERSPECTIVE

EUCLID AND WALNUT

ONTARIO, CA

DATE: 06-29-23
JOB NO.: 2021-544

LEGACY PARTNERS
5141 CALIFORNIA AVENUE, SUITE 100, IRVINE, CA 92617
949.930.7712

AO ARCHITECTS
144 NORTH ORANGE ST., ORANGE, CA 92866
(714) 639-9860

Architecture.
Design.
Relationships.

Wednesday, June 28, 2023 11:34:12 AM
R:\2021\2021-544 LEGACY EUCLID & WALNUT ONTARIO\03 DESIGN\SCHEMATIC\CAD\21-544_A1.0 A1.1 PERSPECTIVES.DWG



BUILDING A - EUCLID ELEVATION

A — PACER WHITE SW6098 (OR SIMILAR)

B — MYSTERIOUS MAUVE SW6262 (OR SIMILAR)

C — STARRY NIGHT SW6540 (OR SIMILAR)

D — IRON ORE SW7069 (OR SIMILAR)

E — TRICORN BLACK SW6258(OR SIMILAR)

F — HIGH REFLECTIVE WHITE SW7004 (OR SIMILAR)

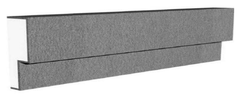
G — NAVEL SW6887 Bldg. A Accent Color

H — FORSYTHIA SW6907 Bldg. B Accent Color

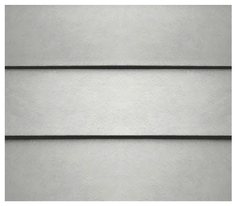
I — CENTER STAGE SW6920 Bldg. C Accent Color



1 EXTERIOR PLASTER
20/30 SAND FINISH
TO MATCH PAINT SPECS



2 FOAM TRIMS
SHAPES AND SIZES WILL VARY
TO MATCH PAINT SPECS F



3 FIBER CEMENT LAP SIDING
SMOOTH
TO MATCH PAINT SPECS C & D



4 FIBER CEMENT TRIM BOARDS
SMOOTH
TO MATCH PAINT SPEC F



5 ALUMINUM STOREFRONT
PAINT SPEC E



6 METAL AWNING
STYLE AND DESIGN MAY VARY
TO MATCH PAINT SPEC E



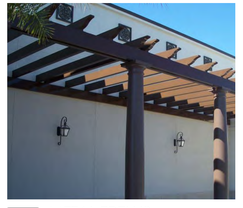
7 FABRICATED METAL RAILING
TO MATCH PAINT SPEC E



8 VINYL WINDOWS



9 STONE VENEER



10 METAL TRELLIS
PAINT SPEC D

EUCLID AND WALNUT

ONTARIO, CA

DATE: 09-23-22
JOB NO.: 2021-544

LEGACY PARTNERS
5141 CALIFORNIA AVENUE, SUITE 100, IRVINE, CA 92617
949.930.7712

AO ARCHITECTS
144 NORTH ORANGE ST., ORANGE, CA 92866
(714) 639-9860

Architecture.
Design.
Relationships.

PROJECT DESCRIPTION

346 UNIT MIXED-USE APARTMENT PROJECT CONSISTING OF 2 FOUR STORY TYPE V APARTMENT BUILDINGS WITH TUCK UNDER GARAGES, ONE OF WHICH HAS ~5400 S.F. OF GROUND FLOOR RETAIL, AND SIX 3 STORY TYPE V APARTMENTS WITH TUCK UNDER GARAGES AND SURFACE PARKING

TOTAL UNITS	346 UNITS	
RETAIL	5400 S.F.	
SITE AREA	9.4 AC	410,997 S.F.
DENSITY	36.67 DU/AC	
RETAIL F.A.R.	0.01	

BUILDING/ UNIT MIX

BLDG. TYPE	STUDIO	1 BR / 1 BA							2 BR / 2 BA						TOTAL UNIT	TOTAL GARAGE
	S1	A1	A2	A3	A4	A5	A6A	A6B	B1	B2	B3	B4	B5	B6		
1-A		8	19	3	21				6	16	8				81	23
2-B			20	3	15					20	12	3			73	22
3-C	3					9	3	5					6	6	32	19
4-C	3					9	3	5					6	6	32	19
5-C	3					9	3	5					6	6	32	19
6-C	3					9	3	5					6	6	32	19
7-C	3					9	3	5					6	6	32	19
8-C	3					9	3	5					6	6	32	19
SUB-TOTAL	18	8	39	6	36	54	18	30	6	36	20	3	36	36	346	159
	18	191							137							
%	5%	55%							40%						100%	

NET RENTABLE

UNIT TYPE	QTY.	NET RENTABLE PER UNIT SQ.FT	TOTAL NET RENTABLE SQ.FT.	PRIVATE OPEN SPACE SQ.FT.	TOTAL PRIVATE OPEN SPACE SQ.FT.
S1	18	596	10,728	54	972
A1	8	707	5,656	69	552
A2	39	749	29,211	71	2,769
A3	6	991	5,946	65	390
A4	36	806	29,016	65	2,340
A5	54	637	34,398	56	3,024
A6A	18	781	14,058	61	1,098
A6B	30	818	24,540	59	1,770
B1	6	989	5,934	69	414
B2	36	1128	40,608	71	2,556
B3	20	1284	25,680	60	1,200
B4	3	1101	3,303	61	183
B5	36	1011	36,396	50	1,800
B6	36	1,130	40,680	58	2,088
TOTAL	346	885	306,154		21,156

RESIDENTIAL OPEN SPACE AND COMMON AMENITIES SUMMARY - 346 UNITS

REQUIRED			PROVIDED	
Ratio (sf per unit)	Total Square Footage		Ratio (sf per unit)	Total Square Footage
Combined				
250	86,500		256	88,560
Private Open Space				
50	17,300		61	21,156
Common Amenities				
175	60,550		195	67,404
COMMON AMENITIES BREAKDOWN				
		Location/Type	Square Footage Indoor Area	Square Footage Outdoor Area
		Pool Court		12,638
		Dog Park		4,103
		Landscape Paseos		29,928
		Courtyard 1		5,904
		Courtyard 2		5,908
		Club	2,904	
		Fitness	2,329	
		Sports Lounge	1,290	
		Roof Deck		1,370
		Leasing Lounge	1,030	
		TOTALS	7,553	59,851
		PERCENTAGE – 15% MAX INDOOR	11.2%	88.8%

BUILDING AREA SUMMARIES

BUILDING A	
FLOOR	SQ. FT.
1ST FLOOR	32,164
2ND FLOOR	31,414
3RD FLOOR	31,414
4TH FLOOR	31,414
AREA PER BLDG	126,406
BUILDING B	
FLOOR	SQ. FT.
1ST FLOOR	25,434
2ND FLOOR	25,294
3RD FLOOR	25,294
4TH FLOOR	25,294
AREA PER BLDG	101,316
BUILDING C	
FLOOR	SQ. FT.
1ST FLOOR	12,818
2ND FLOOR	12,862
3RD FLOOR	12,862
AREA PER BLDG	38,542
TOTAL AREA FOR 6 BLDG C	231,252
TOTAL GROSS AREA*	458,974

*INCLUDES 5400 S.F. RETAIL SPACE
WITHOUT RETAIL, TOTAL RESIDENTIAL AREA: 453,574 S.F.
RESIDENTIAL AREA: 99% OF TOTAL GROSS BLDG AREA
RETAIL AREA: 1% OF TOTAL GROSS BLDG AREA

RETAIL SUMMARY

RETAIL SPACE AND USE	AREA S.F.
TENANT 1 - SIT DOWN RESTARUART	3,400
TENANT 2 - SERVICE ORIENTED	800
TENENT 3 - COFFEE SHOP	1,200
TOTAL	5,400
RETAIL FAR	0.01
PARKING BASED ON TOTAL AREA (1 SPACE PER 250 S.F.)	22

STORAGE

BUILDING	UNITS	C.F. PER STORAGE UNIT *	C.F. REQUIRED	UNITS PROVIDED	C.F. PROVIDED
1-A	81	150	12,150	85	12,750
2-B	73	150	10,950	80	12,000
3-C	32	150	4,800	32	4,800
4-C	32	150	4,800	32	4,800
5-C	32	150	4,800	32	4,800
6-C	32	150	4,800	32	4,800
7-C	32	150	4,800	32	4,800
8-C	32	150	4,800	32	4,800
TOTAL	346		51,900	357	53,550
AVG PER UNIT	150 C.F				155

*150 C.F. FOR EACH STORAGE UNIT MIN.

GENERAL DISCLAIMER

THESE CONCEPTUAL ARCHITECTURAL PLANS ARE FOR PLANNING & DEVELOPMENT PURPOSES ONLY. REVISIONS MAY BE REQUIRED DUE TO FURTHER REQUIREMENTS, INVESTIGATION FROM GOVERNING AGENCIES AND BUILDING CODE ANALYSIS. DIMENSIONS SHOWN ARE APPROXIMATE AND ARE BASED UPON THE INFORMATION AND SURVEYS AVAILABLE. PLEASE REFER TO CIVIL SURVEYS, DRAWINGS AND EXHIBITS FOR TECHNICAL INFORMATION AND MEASUREMENTS. PLEASE REFER TO THE LANDSCAPE ARCHITECT'S DRAWINGS AND EXHIBITS FOR ALL LANDSCAPE PLANTING, IRRIGATION, DESIGN AND SPECIFICATIONS.

REQUIRED PARKING - RESIDENTIAL

TYPE

RESIDENTIAL UNITS	BEDROOMS	FACTOR	STALLS
1.2 SPACES PER BEDROOM	483	1.20	580
ALLOWABLE REDUCTION		0%	
TOTAL REQUIRED RESIDENTIAL PARKING			580

REQUIRED PARKING - NON RESIDENTIAL

TYPE	AREA	FACTOR	SQ.FT.	STALLS
COMMERICAL SPACES				
(M) OCCUPANCY	5,693	1	250	23
TOTAL REQUIRED NON-RESIDENTIAL PARKING				23
TOTAL REQUIRED PARKING				603

PARKING PROVIDED

RESIDENTIAL	ACCESSIBLE STALLS STD.	ACCESSIBLE STALLS VAN	STANDARD STALLS STD.	STANDARD STALLS COMP.	EV STALLS ACCESSIBLE STD.	EV STALLS ACCESSIBLE VAN	TOTAL
PRIVATE GARAGE	3	1	155	0	0	0	159
UNCOVERED (INC. TANDEM)	5	1	221	0	0	0	227
CARPORT	3	1	164	0	0	0	168
VISITOR	1	1	26	0	0	0	28
	12	4	566	0	0	0	582
	16		566		0		

RESIDENTIAL & ACCESSORY USE	ACCESSIBLE STALLS STD.	ACCESSIBLE STALLS VAN	STANDARD STALLS STD.	STANDARD STALLS COMP.	EV STALLS ACCESSIBLE STD.	EV STALLS ACCESSIBLE VAN	TOTAL
USPS	0	0	1	0	0	0	1
COMMERCIAL	1	1	21	0	0	0	23
	1	1	22	0	0	0	24
	2		22		0		

OVERALL TOTALS	ACCESSIBLE STALLS STD.	ACCESSIBLE STALLS VAN	STANDARD STALLS STD.	STANDARD STALLS COMP.	EV STALLS ACCESSIBLE STD.	EV STALLS ACCESSIBLE VAN	EV STALLS ACCESSIBLE AMB.	TOTAL
RESIDENTIAL	12	4	566	0	0	N/A	0 N/A	582
NON-RESIDENTIAL	1	1	22	0	0	0	0 0	24
	13	5	588	0	0	0	0 0	606
	18		588				0	

OTHER	BICYCLE	MOTORCYCLE	USPS
MISC. ON SITE	0	0	1

REQUIRED ACCESSIBLE STALLS

RESIDENTIAL AND ACCESSARY USE	STALLS*	FACTOR	STD.	VAN 1/8	TOTAL
RESIDENTIAL ASSIGNED	580	2% (CBC 1109A.4)	10	2	12

NON-RESIDENTIAL	STALLS*	FACTOR	STANDARD	VAN 1/6	TOTAL
VISITOR	28	Table 11B-208.2	1	1	2
COMMERCIAL	23	Table 11B-208.2	0	1	1

* - THE TOTAL STALL COUNT IS REDUCED BY THE ELECTRICAL VEHICLE STALLS PROVIDED

REQUIRED ELECTRIC VEHICLE STALLS

RESIDENTIAL AND ACCESSARY USE	FACTOR	ADDITIONAL GUEST	ADDITIONAL RESIDENTIAL
CALGREEN - CHAPTER 4	10%	(CG 4.106.4.2)	

	STALLS	FACTOR	STD.	VAN 1/25	TOTAL
RESIDENTIAL	582	10.00%	56	3	59

PROJECT SUMMARY, INFORMATION

DATE: 06-29-23
JOB NO.: 2021-544

EUCLID AND WALNUT
ONTARIO, CA
LEGACY PARTNERS
5141 CALIFORNIA AVENUE, SUITE 100, IRVINE, CA 92617
949.930.7712

AO ARCHITECTS
144 NORTH ORANGE ST., ORANGE, CA 92866
(714) 639-9860
Architecture. Design. Relationships.

Thursday, July 06, 2023 10:06:03 AM
R:\2021\2021-544 LEGACY EUCLID & WALNUT ONTARIO\03 DESIGN\SCHEMATIC\CAD\~21-544_G1.1 PROJECT INFORMATION.DWG

File Nos. PUD22-004, PHP22-015, and PDEV22-027
Attachment A1: Mitchell M. Tsai Letter

(Attachment to follow this page)

P: (626) 381-9248
F: (626) 389-5414
E: info@mitchtsailaw.com

Mitchell M. Tsai
Attorney At Law

139 South Hudson Avenue
Suite 200
Pasadena, California 91101

VIA EMAIL

August 7, 2023

Alexis Vaughn, Associate Planner
303 East "B" Street
Ontario, CA 91764
Ph: (909) 395-2416
Em: avaughn@ontarioca.gov

RE: Southwest Mountain States Regional Council of Carpenters' Comments Regarding the City of Ontario's Euclid & Walnut Mixed Use Project (Agenda Item D).

Dear Ms. Vaughn and Development Advisory Board Members:

On behalf of the Southwest Mountain States Regional Council of Carpenters (**SWMSRCC**), my Office is submitting these comments ahead of the City of Ontario's ("**City**" or "**Lead Agency**") August 7, 2023, Development Advisory Board (**DAB**) pubic hearing for the Euclid and Walnut Mixed Use project ("**Project**").

Submitted by Legacy/Collier Residential LLC ("**Applicant**"), the Project involves a Development Plan (File No. PDEV22-027) to construct 346 apartment units and 5,400 square feet of commercial space on 9.4 acres of land located at the northwest corner of Euclid Avenue and Walnut Avenue ("**Site**") within the Mixed Use – Neighborhood Hub 8e – Euclid and Walnut (**MU-NH 8e**) zoning district. The Site is located within the Airport Influence Area of Ontario International Airport and was evaluated and claimed to have been found to be consistent with the policies and criteria of the Ontario International Airport Land Use Compatibility Plan. In conjunction with the Project, an Addendum ("**Addendum**") to The Ontario Plan 2050 Supplemental Environmental Impact Report (**SEIR**) (SCH No. 2021070364) was prepared and certified by the City Council on August 16, 2022. The application before the City is claimed to introduce no new significant environmental impacts.

The DAB will review the Project and make two recommendations to the Planning Commission—to approve or deny the Addendum and to approve or deny the Development Plan.

According to the Staff Report, the Project has been submitted in conjunction with two other applications, namely, the Euclid Walnut Planned Unit Development (**PUD**) (File No. PUD22-004) to establish the development standards and design guidelines for an overall 10.6-acre Project site (subject to recommendation by the Planning Commission to the City Council); and a Certificate of Appropriateness (PHP22-015) to determine whether the Project Site is an historic resource subject to recommendation by the Historic Preservation Subcommittee to the Planning Commission/Historic Preservation Commission.

SWMSRCC is a labor union representing over 63,000 union carpenters in 10 states, including California, and has a strong interest in well-ordered land use planning and in addressing the environmental impacts of development projects. Some SWMSRCC members live, work, and recreate in the City and the surrounding communities and would be directly affected by the Project's environmental impacts.

SWMSRCC expressly reserves the right to supplement these comments at or prior to hearings on the Project, and at any later hearing and proceeding related to this Project. Gov. Code, § 65009, subd. (b); Pub. Res. Code, § 21177, subd. (a); see *Bakersfield Citizens for Local Control v. Bakersfield* (2004) 124 Cal.App.4th 1184, 1199-1203; see also *Galante Vineyards v. Monterey Water Dist.* (1997) 60 Cal.App.4th 1109, 1121.

SWMSRCC incorporates by reference all comments raising issues regarding the Project and its environmental review and associated documents and reports (including the City's Staff Report), or lack thereof. See *Citizens for Clean Energy v. City of Woodland* (2014) 225 Cal.App.4th 173, 191 (finding that any party who has objected to the project's environmental documentation may assert any issue timely raised by other parties).

Moreover, SWMSRCC requests that the City provide notice for any and all notices referring or related to the Project issued under CEQA (Pub. Res. Code § 21000 et seq.), and the California Planning and Zoning Law ("**Planning and Zoning Law**") (Gov. Code, §§ 65000–65010). California Public Resources Code, sections 21092.2 and 21167(f) and California Government Code, section 65092 require agencies to mail

such notices to any person who has filed a written request for them with the clerk of the agency's governing body.

I. THE CITY SHOULD REQUIRE THE USE OF A LOCAL WORKFORCE TO BENEFIT THE COMMUNITY'S ECONOMIC DEVELOPMENT AND ENVIRONMENT.

The City should require that the Project be built using local workers who have graduated from a Joint Labor-Management Apprenticeship Program approved by the State of California, have at least as many hours of on-the-job experience in the applicable craft which would be required to graduate from such a program, or are registered apprentices in such a program.

Community benefits such as local hire can also be helpful to reduce environmental impacts and improve the positive economic impacts of the Project. Local hire provisions requiring that a certain percentage of workers reside within 10 miles or less of the Project site can reduce the length of vendor trips, reduce greenhouse gas emissions, and provide localized economic benefits. As environmental consultants Matt Hagemann and Paul E. Rosenfeld note:

> [A]ny local hire requirement that results in a decreased worker trip length from the default value has the potential to result in a reduction of construction-related GHG emissions, though the significance of the reduction would vary based on the location and urbanization level of the project site.

March 8, 2021, SWAPE Letter to Mitchell M. Tsai re Local Hire Requirements and Considerations for Greenhouse Gas Modeling.

Workforce requirements promote the development of skilled trades that yield sustainable economic development. As the California Workforce Development Board and the University of California, Berkeley Center for Labor Research and Education concluded:

> [L]abor should be considered an investment rather than a cost—and investments in growing, diversifying, and upskilling California's workforce can positively affect returns on climate mitigation efforts. In other words,

> well-trained workers are key to delivering emissions reductions and moving California closer to its climate targets.[1]

Furthermore, workforce policies have significant environmental benefits given that they improve an area's jobs-housing balance, decreasing the amount and length of job commutes and the associated greenhouse gas (**GHG**) emissions. In fact, on May 7, 2021, the South Coast Air Quality Management District found that that the "[u]se of a local state-certified apprenticeship program" can result in air pollutant reductions.[2]

Locating jobs closer to residential areas can have significant environmental benefits. As the California Planning Roundtable noted in 2008:

> People who live and work in the same jurisdiction would be more likely to take transit, walk, or bicycle to work than residents of less balanced communities and their vehicle trips would be shorter. Benefits would include potential reductions in both vehicle miles traveled and vehicle hours traveled.[3]

Moreover, local hire mandates and skill-training are critical facets of a strategy to reduce vehicle miles traveled (**VMT**). As planning experts Robert Cervero and Michael Duncan have noted, simply placing jobs near housing stock is insufficient to achieve VMT reductions given that the skill requirements of available local jobs must match those held by local residents.[4] Some municipalities have even tied local hire and

---

[1] California Workforce Development Board (2020) Putting California on the High Road: A Jobs and Climate Action Plan 2030 at p. ii, *available at* https://laborcenter.berkeley.edu/wp-content/uploads/2020/09/Putting-California-on-the-High-Road.pdf.

[2] South Coast Air Quality Management District (May 7, 2021) Certify Final Environmental Assessment and Adopt Proposed Rule 2305 – Warehouse Indirect Source Rule – Warehouse Actions and Investments to Reduce Emissions Program, and Proposed Rule 316 – Fees for Rule 2305, Submit Rule 2305 for Inclusion Into the SIP, and Approve Supporting Budget Actions, *available at* http://www.aqmd.gov/docs/default-source/Agendas/Governing-Board/2021/2021-May7-027.pdf?sfvrsn=10.

[3] California Planning Roundtable (2008) Deconstructing Jobs-Housing Balance at p. 6, *available at* https://cproundtable.org/static/media/uploads/publications/cpr-jobs-housing.pdf

[4] Cervero, Robert and Duncan, Michael (2006) Which Reduces Vehicle Travel More: Jobs-Housing Balance or Retail-Housing Mixing? Journal of the American Planning Association 72 (4), 475-490, 482, *available at* http://reconnectingamerica.org/assets/Uploads/UTCT-825.pdf.

other workforce policies to local development permits to address transportation issues. Cervero and Duncan note that:

> In nearly built-out Berkeley, CA, the approach to balancing jobs and housing is to create local jobs rather than to develop new housing. The city's First Source program encourages businesses to hire local residents, especially for entry- and intermediate-level jobs, and sponsors vocational training to ensure residents are employment-ready. While the program is voluntary, some 300 businesses have used it to date, placing more than 3,000 city residents in local jobs since it was launched in 1986. When needed, these carrots are matched by sticks, since the city is not shy about negotiating corporate participation in First Source as a condition of approval for development permits.

Recently, the State of California verified its commitment towards workforce development through the Affordable Housing and High Road Jobs Act of 2022, otherwise known as Assembly Bill No. 2011 (**AB2011**). AB2011 amended the Planning and Zoning Law to allow ministerial, by-right approval for projects being built alongside commercial corridors that meet affordability and labor requirements.

The City should consider utilizing local workforce policies and requirements to benefit the local area economically and to mitigate GHG emissions, improve air quality, and reduce transportation impacts.

II. THE CALIFORNIA ENVIRONMENTAL QUALITY ACT.

A. Background Concerning Environmental Impacts Reports.

The California Environmental Quality Act is a California statute designed to inform decision-makers and the public about the potential significant environmental effects of a project. CEQA Guidelines, § 15002, subd. (a)(1).[5] At its core, its purpose is to "inform the public and its responsible officials of the environmental consequences of their decisions *before* they are made." *Citizens of Goleta Valley v. Board of Supervisors* (1990) 52 Cal.3d 553, 564.

[5] The CEQA Guidelines, codified in Title 14 of the California Code of Regulations, section 15000 et seq., are regulatory guidelines promulgated by the state Natural Resources Agency for the implementation of CEQA. Pub. Res. Code, § 21083. The CEQA Guidelines are given "great weight in interpreting CEQA except when . . . clearly unauthorized or erroneous." *Center for Biological Diversity v. Dept. of Fish & Wildlife* (2015) 62 Cal.4th 204, 217.

CEQA directs public agencies to avoid or reduce environmental damage, when possible, by requiring alternatives or mitigation measures. CEQA Guidelines, § 15002, subd. (a)(2)-(3); see also *Berkeley Keep Jets Over the Bay Committee v. Board of Port Comes* (2001) 91 Cal.App.4th 1344, 1354; *Citizens of Goleta Valley v. Board of Supervisors* (1990) 52 Cal.3d 553; *Laurel Heights Improvement Assn.*, 47 Cal.3d at p. 400. The EIR serves to provide public agencies and the public in general with information about the effect that a proposed project is likely to have on the environment and to "identify ways that environmental damage can be avoided or significantly reduced." CEQA Guidelines, § 15002, subd. (a)(2). If the project has a significant effect on the environment, the agency may approve the project only upon finding that it has "eliminated or substantially lessened all significant effects on the environment where feasible" and that any unavoidable significant effects on the environment are "acceptable due to overriding concerns" specified in Public Resources Code section 21081. See CEQA Guidelines, §§ 15092, subds. (b)(2)(A), (B).

While the courts review an EIR using an 'abuse of discretion' standard, the reviewing court is not to *uncritically* rely on every study or analysis presented by a project proponent in support of its position. *Berkeley Jets*, 91 Cal.App.4th at p. 1355 (quoting *Laurel Heights Improvement Assn.*, 47 Cal.3d at pp. 391, 409 fn. 12) (internal quotations omitted). A clearly inadequate or unsupported study is entitled to no judicial deference. *Id.* Drawing this line and determining whether the EIR complies with CEQA's information disclosure requirements presents a question of law subject to independent review by the courts. *Sierra Club v. County of Fresno* (2018) 6 Cal.5th 502, 515; *Madera Oversight Coalition, Inc. v. County of Madera* (2011) 199 Cal.App.4th 48, 102, 131. As the court stated in *Berkeley Jets*, prejudicial abuse of discretion occurs if the failure to include relevant information precludes informed decision-making and informed public participation, thereby thwarting the statutory goals of the EIR process. 91 Cal.App.4th at p. 1355 (internal quotations omitted).

The preparation and circulation of an EIR is more than a set of technical hurdles for agencies and developers to overcome. *Communities for a Better Environment v. Richmond* (2010) 184 Cal.App.4th 70, 80 (quoting *Vineyard Area Citizens for Responsible Growth, Inc. v. City of Rancho Cordova* (2007) 40 Cal.4th 412, 449-450). The EIR's function is to ensure that government officials who decide to build or approve a project do so with a full understanding of the environmental consequences and, equally important, that the public is assured those consequences have been considered. *Ibid.* For the EIR to

serve these goals it must present information so that the foreseeable impacts of pursuing the project can be understood and weighed, and the public must be given an adequate opportunity to comment on that presentation before the decision to go forward is made. *Ibid.*

A strong presumption in favor of requiring preparation of an EIR is built into CEQA. This presumption is reflected in what is known as the "fair argument" standard under which an EIR must be prepared whenever substantial evidence in the record supports a fair argument that a project may have a significant effect on the environment. *Quail Botanical Gardens Found., Inc. v. City of Encinitas* (1994) 29 Cal.App.4th 1597, 1602; *Friends of "B" St.* v. *City of Hayward* (1980) 106 Cal.3d 988, 1002.

The fair argument test stems from the statutory mandate that an EIR be prepared for any project that "may have a significant effect on the environment." Pub. Res. Code, § 21151; see *No Oil, Inc. v. City of Los Angeles* (1974) 13 Cal.App.3d 68, 75; accord *Jensen v. City of Santa Rosa* (2018) 23 Cal.App.5th 877, 884. Under this test, if a proposed project is not exempt and may cause a significant effect on the environment, the lead agency must prepare an EIR. Pub. Res. Code, §§ 21100, subd. (a), 21151; CEQA Guidelines, §§ 15064, subds. (a)(1), (f)(1). An EIR may be dispensed with only if the lead agency finds no substantial evidence in the initial study or elsewhere in the record that the project may have a significant effect on the environment. *Parker Shattuck Neighbors v. Berkeley City Council* (2013) 222 Cal.App.4th 768, 785. In such a situation, the agency must adopt a negative declaration. Pub. Res. Code, § 21080, subd. (c)(1); CEQA Guidelines, §§ 15063, subd. (b)(2), 15064, subd. (f)(3).

"Significant effect upon the environment" is defined as "a substantial or potentially substantial adverse change in the environment." Pub. Res. Code, § 21068; CEQA Guidelines, § 15382. A project may have a significant effect on the environment if there is a reasonable probability that it will result in a significant impact. *No Oil, Inc.*, 13 Cal.3d at p. 83 fn. 16; see *Sundstrom v. County of Mendocino* (1988) 202 Cal.App.3d 296, 309. If any aspect of the project may result in a significant impact on the environment, an EIR must be prepared even if the overall effect of the project is beneficial. CEQA Guidelines, § 15063, subd. (b)(1); see *County Sanitation Dist. No. 2 v. County of Kern* (2005) 127 Cal.App.4th 1544, 1580.

This standard sets a "low threshold" for preparation of an EIR. *Consolidated Irrigation Dist. v. City of Selma* (2012) 204 Cal.App.4th 187, 207; *Nelson v. County of Kern* (2010) 190 Cal.App.4th 252; *Pocket Protectors v. City of Sacramento* (2004) 124 Cal.App.4th 903,

928; *Bowman v. City of Berkeley* (2004) 122 Cal.App.4th 572, 580; *Citizen Action to Serve All Students v. Thornley* (1990) 222 Cal.App.3d 748, 754; *Sundstrom*, 202 Cal.App.3d at p. 310. If substantial evidence in the record supports a fair argument that the project may have a significant environmental effect, the lead agency must prepare an EIR even if other substantial evidence before it indicates the project will have no significant effect. See *Jensen,* 23 Cal.App.5th at p. 886; *Clews Land & Livestock v. City of San Diego* (2017) 19 Cal.App.5th 161, 183; *Stanislaus Audubon Society, Inc. v. County of Stanislaus* (1995) 33 Cal.App.4th 144, 150; *Brentwood Assn. for No Drilling, Inc. v. City of Los Angeles* (1982) 134 Cal.App.3d 491; *Friends of "B" St.*, 106 Cal.App.3d 988; CEQA Guidelines, § 15064, subd. (f)(1).

B. Background Concerning Initial Studies, Negative Declarations, and Mitigated Negative Declarations.

CEQA and CEQA Guidelines are strict and unambiguous about when an MND may be used. A public agency must prepare an EIR whenever substantial evidence supports a "fair argument" that a proposed project "may have a significant effect on the environment." Pub. Res. Code, §§ 21100, 21151; CEQA Guidelines, §§ 15002, subds. (f)(1), (2), 15063; *No Oil, Inc.*, *supra*, 13 Cal.3d at 75; *Communities for a Better Environment v. California Resources Agency* (2002) 103 Cal.App.4th 98, 111-112. Essentially, should a lead agency be presented with a fair argument that a project may have a significant effect on the environment, the lead agency shall prepare an EIR even though it may also be presented with other substantial evidence that the project will not have a significant effect. CEQA Guidelines, §§ 15064, subds. (f)(1), (2); see *No Oil Inc., supra*, 13 Cal.3d at 75 (internal citations and quotations omitted). Substantial evidence includes "enough relevant information and reasonable inferences from this information that a fair argument can be made to support a conclusion, even though other conclusions might also be reached." CEQA Guidelines, § 15384, subd. (a).

The fair argument standard is a "low threshold" test for requiring the preparation of an EIR. *No Oil Inc.*, *supra*, 13 Cal.3d at 84; *County Sanitation Dist. No. 2 of Los Angeles County v. County of Kern* (2005) 127 Cal.App.4th 1544, 1579. It "requires the preparation of an EIR where there is substantial evidence that any aspect of the project, either individually or cumulatively, may cause a significant effect on the environment, regardless of whether the overall effect of the project is adverse or beneficial[.]" *County Sanitation*, *supra*, 127 Cal.App.4th at 1580 (quoting CEQA Guidelines, § 15063, subd. (b)(1)). A lead agency may adopt an MND only if "there is no substantial evidence

that the project will have a significant effect on the environment." CEQA Guidelines, § 15074, subd. (b).

Evidence supporting a fair argument of a significant environmental impact triggers preparation of an EIR regardless of whether the record contains contrary evidence. *League for Protection of Oakland's Architectural and Historical Resources v. City of Oakland* (1997) 52 Cal.App.4th 896, 904-905. "Where the question is the sufficiency of the evidence to support a fair argument, deference to the agency's determination is not appropriate[.]" *County Sanitation*, 127 Cal.App.4th at 1579 (quoting *Sierra Club v. County of Sonoma* (1992) 6 Cal.App.4th 1307, 1317-1318).

Further, it is the duty of the lead agency, not the public, to conduct the proper environmental studies. "The agency should not be allowed to hide behind its own failure to gather relevant data." *Sundstrom*, *supra*, 202 Cal.App.3d at 311. "Deficiencies in the record may actually enlarge the scope of fair argument by lending a logical plausibility to a wider range of inferences." *Ibid*; see also *Gentry v. City of Murrieta* (1995) 36 Cal.App.4th 1359, 1382 (lack of study enlarges the scope of the fair argument which may be made based on the limited facts in the record).

Thus, refusal to complete recommended studies lowers the already low threshold to establish a fair argument. The court may not exercise its independent judgment on the omitted material by determining whether the ultimate decision of the lead agency would have been affected had the law been followed. *Environmental Protection Information Center v. Cal. Dept. of Forestry* (2008) 44 Cal.4th 459, 486 (internal citations and quotations omitted). The remedy for this deficiency would be for the trial court to issue a writ of mandate. *Ibid.*

Both the review for failure to follow CEQA's procedures and the fair argument test are questions of law, thus, the de novo standard of review applies. *Vineyard Area Citizens for Responsible Growth v. City of Rancho Cordova* (2007) 40 Cal.4th 412, 435. "Whether the agency's record contains substantial evidence that would support a fair argument that the project may have a significant effect on the environment is treated as a question of law. *Consolidated Irrigation Dist.*, *supra*, 204 Cal.App.4th at 207; Kostka and Zischke, Practice Under the Environmental Quality Act (2017, 2d ed.) at § 6.76.

In the MND context, courts give no deference to the agency. The agency or the court should not weigh expert testimony or decide on the credibility of such evidence—this is the EIR's responsibility. As stated in *Pocket Protectors v. City of Sacramento*:

> Unlike the situation where an EIR has been prepared, neither the lead agency nor a court may "weigh" conflicting substantial evidence to determine whether an EIR must be prepared in the first instance. Guidelines section 15064, subdivision (f)(1) provides in pertinent part: if a lead agency is presented with a fair argument that a project may have a significant effect on the environment, the lead agency shall prepare an EIR even though it may also be presented with other substantial evidence that the project will not have a significant effect. Thus, as *Claremont* itself recognized, [c]onsideration is not to be given contrary evidence supporting the preparation of a negative declaration.

(2004) 124 Cal.App.4th 903, 935 (internal citations and quotations omitted).

In cases where it is not clear whether there is substantial evidence of significant environmental impacts, CEQA requires erring on the side of a "preference for resolving doubts in favor of environmental review." *Mejia v. City of Los Angeles* (2005) 130 Cal.App.4th 322, 332. The foremost principle under CEQA is that the Legislature intended the act to be interpreted in such manner as to afford the fullest possible protection to the environment within the reasonable scope of the statutory language. *Friends of Mammoth v. Bd. of Supervisors* (1972) 8 Cal.3d 247, 259.

C. Background Concerning CEQA Exemptions.

Where a lead agency chooses to dispose of CEQA by asserting a CEQA exemption, it has a duty to support its CEQA exemption findings by substantial evidence, including evidence that there are no applicable exceptions to exemptions. This duty is imposed by CEQA and related case law. CEQA Guidelines, § 15020 (lead agency shall not knowingly release a deficient document hoping that public comments will correct the defects); see *Citizens for Environmental Responsibility v. State ex rel. 14th Dist. Agriculture Assn.* (2015) 242 Cal.App.4th 555, 568 (lead agency has the burden of demonstrating that a project falls within a categorical exemption and must support the determination with substantial evidence); accord *Assn. for Protection etc. Values v. City of Ukiah* (1991) 2 Cal.App.4th 720, 732 (lead agency is required to consider exemption exceptions where there is evidence in the record that the project might have a significant impact).

The duty to support CEQA and exemption findings with substantial evidence is also required by the Code of Civil Procedure (**CCP**) and case law on administrative or traditional writs. Under the CCP, an abuse of discretion is established if the decision is

unsupported by the findings, or the findings are unsupported by the evidence. CCP, § 1094.5, subd. (b). In *Topanga Assn. for a Scenic Community v. County of Los Angeles*, our Supreme Court held that implicit in CCP section 1094.5 is a requirement that the agency which renders the challenged decision must set forth findings to bridge the analytic gap between the raw evidence and ultimate decision or order. (1977) 11 Cal.3d 506, 515 (internal citations and quotations omitted). The lead agency's findings may be determined to be sufficient if a court has no trouble under the circumstances discerning the analytic route the administrative agency traveled from evidence to action. *West Chandler Blvd. Neighborhood Assn. vs. City of Los Angeles* (2011) 198 Cal.App.4th 1506, 1521-1522 (internal citations and quotations omitted). However, "mere conclusory findings without reference to the record are inadequate." *Id.* at p. 1521 (finding city council findings conclusory, violating *Topanga Assn. for a Scenic Community, supra*).

Further, CEQA exemptions must be narrowly construed to accomplish CEQA's environmental objectives. *Cal. Farm Bureau Federation v. Cal. Wildlife Conservation Bd.* (2006) 143 Cal.App.4th 173, 187; accord *Save Our Carmel River v. Monterey Peninsula Water Management Dist.* (2006) 141 Cal.App.4th 677, 697 (these rules ensure that in all but the clearest cases of categorical exemptions, a project will be subject to some level of environmental review).

Finally, CEQA procedures reflect a preference for resolving doubts in favor of environmental review. See Pub. Res. Code, § 21080, subd. (c) (an EIR may be disposed of only if there is no substantial evidence, in light of the entire record before the lead agency, that the project may have a significant effect on the environment or revisions in the project); CEQA Guidelines, §§ 15061, subd. (b)(3) (common sense exemption only where it can be seen *with certainty*); 15063, subd. (b)(1) (prepare an EIR if the agency determines that there is substantial evidence that any aspect of the project, either individually or cumulatively, may cause a significant effect on the environment, regardless of whether the overall effect of the project is adverse or beneficial]; 15064, subd. (h) (the agency must consider cumulative impacts of past, current, and probable future projects); 15070 (a negative declaration may be prepared only if there is no substantial evidence, in light of the whole record, that the project may have a significant effect on the environment, or project revisions would avoid the effects or mitigate the effects to a point where clearly no significant effects would occur, and there is no substantial evidence, in light of the whole record, that the

project as revised may have a significant effect on the environment); *No Oil, Inc., supra,* 13 Cal.3d at 83-84 (significant impacts are to be interpreted so as to afford the fullest possible protection).

III. THE PROJECT WOULD BE APPROVED IN VIOLATION OF CEQA.

Here, the Project involves the construction of 346 apartment units and 5,400 square feet of commercial space on 9.4 acres of land. Considering the size and scope of the Project, the City must prepare and circulate a thorough, Project-specific EIR.

Section 15088.5, subsection (a) of the CEQA Guidelines provides that an EIR must be recirculated whenever there is disclosure of significant new information. Significant new information includes: (1) disclosure of a new significant environmental impact resulting from the project or from a new proposed mitigation measure; (2) disclosure of a substantial increase in the severity of an environmental impact unless mitigation measures are adopted that reduce the impact to a level of insignificance; and, (3) disclosure of a feasible project alternative or mitigation measure considerably different from others previously analyzed which would clearly lessen the significant environmental impacts of the project which the project proponents decline to adopt.

The Project requires new feasible mitigation measures not specified in the original environmental analysis for the City's General Plan or the applicable Specific Plan. Those analyses occurred, at the latest, in 2004—nearly 20 years ago. Specifically, the Project is slated to develop a new mixed-use development, yet the original environmental analyses governing this Site and its use provide no specification nor mitigation measures identifying, for example, how many or which of the Project's parking spaces must be capable of supporting electric vehicle charging stations (**EVCS**) and ready to be compliant with the 2022 California Green Building Standards Code, Title 24, Part 11 (**CGBSC**), also known as CALGreen. In fact, there is no mention of electric vehicle (**EV**) accommodations anywhere in the original environmental analyses. Without revisions to the original environmental analyses, allowing the Project to commence without adequate and thorough CEQA review would result in significant and unavoidable impacts on the local community and environment as well as on global climate change due to cumulative GHG emissions from vehicle exhaust, among other things. Further, the Project would be out of

compliance with CALGreen and could incur for Applicant and the City extensive litigation and unnecessary turbulence in the pursuit and completion of the Project.

CALGreen, which became effective January 1, 2023, requires new buildings to designate 20 percent of the total number of parking spaces as EV-capable. See CALGreen, § 5.106.5.31 (Nonresidential Mandatory Measures). Therefore, if the Project develops 299 additional parking spaces, 60 of those spaces must have electrical panel space and load capacity to support EV charging. Additionally, this must all be laid out with sufficient detail for the City and the public to thoroughly review, assess, and provide comments thereon.

Further, CALGreen requires new buildings to designate 25 percent of the total number of EV-capable parking spaces as EV spaces with Level 2 EV supply equipment (**EVSE**). *Id.* Hence, if the Project develops 299 additional parking spaces, 75 of those spaces must be equipped with a 208/240 volt 40-ampere branch circuit with the electric vehicle charging connectors, attachment plugs, and all other fittings, devices, and power outlets installed. *Id.* CALGreen also requires, among other things, that new construction of large, non-residential buildings of 50,000 square feet or larger be hold LEED Silver certification or have Alternate Reference Standard[6] per Section 101.10.2.

This analysis is entirely absent from the prior environmental analyses or of any environmental analysis of the proposed Project, and as such they must be revised and recirculated to specify the additional EV mitigation requirements addressed above, or otherwise the DAB should recommend that the Planning Commission deny the Addendum and Development Review application, and recommend that the Planning Commission order the preparation and circulation of a Project-specific EIR.

[6] According to Section 101.10.2 of the CGBSC, Developer may request to apply an alternate green building standard for the Project in lieu of the minimum standards per Table 101.10. In making a determination in response to an application under this section, the Building Official may allow an alternate standard if they find that the proposed alternative standard complies with all of the following: (A) Addresses a comprehensive scope of green building issues including energy efficiency, water efficiency, resource efficient materials, and healthy building practices; (B) applies standards that are, when taken as a whole, as stringent as the GPR and LEED standards; (C) includes a formalized certification process that incorporates third party verification; and, (D) the project will advance the purposes of this Chapter. See Ord. 22-2245, part, 2022; Ord. 19-2193, § 2 (part), 2019.

IV. THE PROJECT REQUIRES SUBJECTIVE DISCRETIONARY JUDGMENT.

Although the Project seeks a DAB recommendation which the City asserts is an entirely ministerial decision, this does not necessarily preclude the Project from including discretionary aspects. As the California Second District Court of Appeal discussed in *Friends of Westwood, Inc. v. City of Los Angeles* (1987), "a municipality's classification of a certain approval process as ministerial is not conclusive. The applicability of CEQA cannot be made to depend upon the unfettered discretion of local agencies, for local agencies must act in accordance with state guidelines and the objectives of CEQA." 191 Cal.App.3d 259, 270 (hereinafter, "*Friends of Westwood*") (internal citations and quotations omitted). For example, *Friends of Westwood* cited to *People v. Dept. of Housing & Community Development* in which the court deemed the issuance of a mobile park construction permit to be a discretionary act that was subject to CEQA. *Id.* at 271 (citing *People v. Dept. of Housing & Community Development* (1975) 45 Cal.App.3d 185, 194 (hereinafter, "*Ramey*")). While the *Ramey* court acknowledged that the mobile home park approval process included numerous ministerial decisions that applied "'fixed design and construction specifications[,]'" the court noted that some of the other approval decisions involved "'relatively general'" standards. *Id.* at 271 (citing *Ramey, supra,* at 193). The *Ramey* court also noted that for the construction permit at issue there, the applicant must provide a description of the water supply, ground drainage, and method of sewage disposal; there must be a sufficient supply of artificial lighting; the water supply must be adequate and potable; and the site must be well-drained and graded. *Id.* (internal citations and quotations omitted). The *Ramey* court thus concluded that these decisions rendered the entire construction permit process discretionary for purposes of CEQA given that they required "relatively personal decisions addressed to the sound judgment and enlightened choice of the administrator." *Id.*

Here, the DAB is tasked with assessing the Project's design, layout, and location on the Project Site, and, in particular, making a determination as to the Addendum and Development Plan application. The DAB will then make a recommendation to the Planning Commission for approval. Given that the DAB must *exercise its discretion* in determining whether the Project's features, including its FAR and height, are consistent with applicable codes and plans, the Project should be deemed discretionary and reviewed accordingly.

V. CEQA REQUIRES THE CITY TO PREPARE A TIERED EIR FOR THE PROJECT INSTEAD OF AN ADDENDUM.

CEQA permits agencies to 'tier' EIRs, in which general matters and environmental effects are considered in an EIR "prepared for a policy, plan, program or ordinance followed by narrower or site-specific [EIRs] which incorporate by reference the discussion in any prior [EIR] and which concentrate on the environmental effects which (a) are capable of being mitigated, or (b) were not analyzed as significant effects on the environment in the prior [EIR]." Pub. Res. Code, § 21068.5. The initial general policy-oriented EIR is called a programmatic EIR (**PEIR**) and offers the advantage of allowing "the lead agency to consider broad policy alternatives and program wide mitigation measures at an early time when the agency has greater flexibility to deal with basic problems or cumulative impacts." CCR, § 15168. "[T]iering is appropriate when it helps a public agency to focus upon the issues ripe for decision at each level of environmental review and in order to exclude duplicative analysis of environmental effects examined in previous [EIRs]." Pub. Res. Code, § 21093. CEQA regulations strongly promote tiering of EIRs, stating that "[EIRs] shall be tiered whenever feasible, as determined by the lead agency." *Ibid.*

Once a program EIR has been prepared, "[s]ubsequent activities in the program must be examined in light of the program EIR to determine whether an additional environmental document must be prepared." CCR, § 15168, subd. (c). The first consideration is whether the activity proposed is covered by the PEIR. *Id.* If a later project is outside the scope of the program, then it is treated as a separate project and the PEIR may not be relied upon in further review. *Sierra Club v. County of Sonoma* (1992) 6 Cal.App.4th 1307. The second consideration is whether the "later activity would have effects that were not examined in the program EIR." CCR, §§ 15168, subd. (c)(1). A PEIR may only serve "to the extent that it contemplates and adequately analyzes the potential environmental impacts of the project." (*Sierra Nevada Conservation v. Cnty. of El Dorado* (2012) 202 Cal.App.4th 1156. If the PEIR does not evaluate the environmental impacts of the project, a tiered EIR must be completed before the project is approved. *Id.* For these inquiries, the "fair argument test" applies. *Sierra Club, supra*, 6 Cal.App.4th at 1318; *see also Sierra Club v. Cnty. of San Diego* (2014) 231 Cal.App.4th 1152, 1164 (when a prior EIR has been prepared and certified for a program or plan, the question for a court reviewing an agency's decision not to use a

tiered EIR for a later project 'is one of law, i.e., the sufficiency of the evidence to support a fair argument).

Under the fair argument test, a new EIR must be prepared "whenever it can be fairly argued on the basis of substantial evidence that the project may have significant environmental impact. *Id.* at 1316 (quotations omitted). When applying the fair argument test, "deference to the agency's determination is not appropriate and its decision not to require an EIR can be upheld only when there is no credible evidence to the contrary." *Sierra Club, supra*, 6 Cal. App. 4th at 1312. "[I]f there is substantial evidence in the record that the later project may arguably have a significant adverse effect on the environment which was not examined in the prior program EIR, doubts must be resolved in favor of environmental review and the agency must prepare a new tiered EIR, notwithstanding the existence of contrary evidence." *Id.* at 1319.

In *Friends of College of San Mateo Gardens, supra*, the California Supreme Court explained the differing analyses that apply when a project EIR was originally approved and changes are being made to the project, and when a tiered program EIR was originally prepared and a subsequent project is proposed consistent with the program or plan:

> For project EIRs, of course, a subsequent or supplemental impact report is required in the event there are substantial changes to the project or its circumstances, or in the event of material new and previously unavailable information. (*Friends of Mammoth*, citing § 21166.) In contrast, when a tiered EIR has been prepared, review of a subsequent project proposal is more searching. If the subsequent project is consistent with the program or plan for which the EIR was certified, then 'CEQA requires a lead agency to prepare an initial study to determine if the later project may cause significant environmental effects not examined in the first tier EIR.' (*Ibid.* citing Pub. Resources Code, § 21094, subds. (a), (c).) 'If the subsequent project is not consistent with the program or plan, it is treated as a new project and must be fully analyzed in a project—or another tiered EIR if it may have a significant effect on the environment.'

(2016) 1 Cal.5th 937, 960.

Here, the City prepared an SEIR for The Ontario Plan 2050 and certified it in August 2022. As a result, CEQA requires the City to prepare, at minimum, an initial study to determine if the Project *may* cause significant environmental effects not examined in

the SEIR—which the City had prepared but did not produce in its three PRA productions to this Office over the last year. Pub. Res. Code, § 21094. There exists here substantial evidence supporting a fair argument that the Project may result in significant environmental impacts that were not previously analyzed in the SEIR. Accordingly, a subsequent EIR must be prepared.

If a project *may* have a significant effect on *any* of the specified environmental factors, CEQA review must occur. *Salmon Protection & Watershed Network v. Cnty. of Marin* (2004) 125 Cal.App.4th 1098, 1107. CEQA places the duty to investigate the Project's impacts on the City. CEQA Guidelines, § 15144 (an agency must use its best efforts to find out and disclose such impacts); *Sundstrom v. Cnty. of Mendocino* (1988) 202 Cal.App.3d 296, 311 (agency should not be allowed to hide behind its own failure to gather relevant data). "An agency's duty to provide such factual support 'is all the more important where . . . opponents of the project have raised arguments" about impacts. *Muzzy Ranch Co. v. Solano Cnty. Airport Land Use Commission* (2007) 41 Cal.4th 372, 386. In reviewing an agency's determination to prepare an Addendum, courts should assess whether the agency made a "*definitive finding"* and whether it met its initial burden to support its finding by substantial evidence. *Banker's Hill, Hillcrest, Park W. Cmty. Pres. Grp. v. City of San Diego* (2006) 139 Cal.App.4th 249, 268 (lead agency must make a *definitive finding*, at the preliminary review stage, as to whether or not there will be a significant environmental effect).

The Project's environmental review documents, including technical studies relating to the preparation of the Addendum, were not provided to my Office despite the three Public Records Act requests we submitted on or about August 30, 2022; January 6, 2023; and July 25, 2023. This Office has received at least three Public Records Act productions between August 2022 and July 2023—none of which have included the environmental review documents or studies upon which the City has based the Project's Addendum.

Unfortunately, the Addendum's environmental analyses and accompanying studies were not provided to this Office for review and comment in violation of CEQA until the early evening of August 3, 2023—just one business day before the DAB hearing is to take place. Considering that the Addendum is upwards of 1,880 pages, the City's failure to provide the Addendum earlier precludes this Office's and the public's ability to fairly and accurately assess and comment upon the Project.

According to the CEQA Guidelines:

> Each public agency should include provisions in its CEQA procedures for wide public involvement, formal and informal, consistent with its existing activities and procedures, in order to receive and evaluate public reactions to environmental issues related to the agency's activities.

CEQA Guidelines, § 15201.

As far as the public is concerned, the City's environmental review and technical studies related to the Project's environmental impacts have not occurred. Given that the Project involves a demolition and construction of a five-story-high building in an area surrounded by other developments and sensitive receptors, a thorough and Project-specific EIR is necessary. The City's failure to provide for public review and commentary the environmental analyses and studies upon which it rests its CEQA determination constitutes a prejudicial abuse of discretion. See *Bakersfield Citizens for Local Control v. City of Bakersfield* (2004) 124 Cal.App.4th 1184 (hereinafter, "*Bakersfield Citizens*"). "Failure to comply with the information disclosure requirements constitutes a prejudicial abuse of discretion when the omission of relevant information has precluded . . . informed public participation[.]" *Dry Creek Citizens Coalition v. Cnty. Of Tulare* (1999) 70 Cal.App.4th 20, 26; accord *Assoc. of Irritated Residents v. Cnty. of Madera* (2003) 107 Cal.App.4th 1383, 1391. Further, "the ultimate decision of whether to approve a project, be that decision right or wrong, is a nullity if based upon an [environmental determination] that does not provide the . . . public with the information about the project that is required by CEQA." *Santiago Cnty. Water Dist. v. Cnty. of Orange* (1981) 118 Cal.App.3d 818, 829. Consequently, the Project approvals and associated land use entitlements also must be voided and an EIR prepared and circulated. See *Bakersfield Citizens*, *supra*, 124 Cal.App.4th at 1221 (citing *Friends of the Eel River v. Sonoma Cnty. Water Agency* (2003) 108 Cal.App.4th 859, 868).

"When the informational requirements of CEQA are not complied with, an agency has failed to proceed in 'a manner required by law.'" *Save Our Peninsula Committee v. Monterey Cnty. Bd. of Supervisors* (2001) 87 Cal.App.4th 99, 118. As a result of the City's omissions, "meaningful assessment of the true scope of numerous potentially serious adverse environmental effects was thwarted." *Bakersfield Citizens*, *supra*, 124 Cal.App.4th at 1220-1221. As such, a Project-specific EIR must be produced and circulated.

VI. THE CITY CANNOT ISSUE AN ADDENDUM FOR THE PROJECT BECAUSE THE PROJECT WAS NOT ADDRESSED IN THE PROGRAM EIR.

The City is mistaken in concluding that the Project may be analyzed under CEQA Guidelines, sections 15164 and 15162 given that these sections are applicable only where a project has *recently* undergone CEQA review. As the California Supreme Court explained in *San Mateo Gardens*, subsequent CEQA review provisions "can apply only if the project has been subject to initial review; they can have no application if the agency has proposed a new project that has not previously been subject to review." *Friends of Coll. of San Mateo Gardens v. San Mateo County Cmty. Coll. Dist.* (2016) 1 Cal.5th 937, 950 (hereinafter, "*San Mateo Gardens*"). Lead agencies may prepare addendums for project modifications or revisions and avoid further environmental review *only if* the project has a previously certified EIR or negative declaration. *See Save our Heritage v. City of San Diego* (2018) 28 Cal.App.5th 656, 667.

If the proposed Project here had been addressed in the SEIR, the standard for determining whether further review is required would be governed by California Code of Regulations, section 15162 and Public Resources Code, section 21166, and an addendum could potentially be allowed under California Code of Regulations, section 15164. These sections are inapplicable here, however, given that the proposed Project has <u>never</u> undergone CEQA review. An EIR has not been prepared, and the Project, as proposed, was never mentioned or discussed in the SEIR.

In a similar case in 2010, the City of Irvine adopted a plan to guide development of the Irvine Business Complex (**IBC**), which covered almost 3,000 acres in the City of Irvine. *IBC Business Owners for Sensible Development v. City of Irvine* (2023) 88 Cal.App.5th 100. The City of Irvine also prepared and approved a PEIR in 2010 that studied the effects of the development plan under CEQA. *Ibid.* Several years later, the applicant and appellant Gemdale 2400 Barranca Holdings, LLC, submitted a plan to redevelop a roughly five-acre parcel in the IBC. *Ibid.* The City of Irvine determined that all the environmental effects of the proposed project were adequately analyzed in the 2010 PEIR, and it found the project would have no additional significant environmental effects. *Ibid.* The City of Irvine approved the project over the objections of plaintiff and petitioner IBC Business Owners for Sensible Development. *Ibid.* Petitioner then filed a petition for writ of mandate. *Ibid.*

The trial court granted the writ and entered judgment in favor of Petitioner. *Ibid.* The City of Irvine and Gemdale appealed, contending that the City correctly approved the project. *Ibid.* The Fourth District Court of Appeal disagreed with the arguments made on appeal there existed insufficient evidence showing the project's GHG emissions were within the scope of the 2010 PEIR, and that no exemption applied because the project involved unusual circumstances which could cause significant environmental effects. *Ibid.* As such, the Court affirmed the judgment. *Ibid.*

Here, the environmental impacts of the Project are outside of the scope of those studied in the SEIR. Consequently, the City cannot rely on the subsequent review provisions of CEQA Guidelines, sections 15162 or 15164 and an independent, CEQA-compliance environmental analysis must be conducted and circulated in the form of an EIR.

VII. THE CITY MUST PREPARE AN EIR GIVEN THAT THE SEIR ADMITS SIGNIFICANT ENVIRONMENTAL IMPACTS.

An EIR must be prepared for the Project given that the SEIR determined that the Ontario Plan would cause significant and unavoidable impacts on aesthetics, air quality, biological resources, cultural resources, geology and soils, hazardous materials, hydrology and water quality, noise, public services, transportation and traffic, and utilities and service systems.

In the case of *Communities for a Better Environment v. Cal. Resources Agency*, the Third District Court of Appeal held that when a "first tier" EIR admits a significant, unavoidable environmental impact, then the agency must prepare second tier EIRs for later projects to ensure that those unmitigated impacts are "mitigated or avoided." (2002) 103 Cal.App.4th 98, 122-125 (citing CEQA Guidelines, §15152, subd. (f). There, the court reasoned that the unmitigated impacts were not "adequately addressed" in the first tier EIR given that they were not "mitigated or avoided." *Communities for a Better Environment v. Cal. Resources Agency* (2002) 103 Cal.App.4th 98, 122-125. Therefore, significant effects disclosed in first tier EIRs will trigger second tier EIRs unless such effects have been "adequately addressed," in a way that ensures the effects will be "mitigated or avoided." *Ibid.* Such a second tier EIR is required, even if the impact still cannot be fully mitigated and a statement of overriding considerations will be required. The court explained, "The requirement of a statement of overriding considerations is central to CEQA's role as a public accountability statute; it requires public officials, in approving environmental

detrimental projects, to justify their decisions based on counterbalancing social, economic or other benefits, and to point to substantial evidence in support." *Id.* at 124-125.

Here, given that the SEIR admitted numerous significant, unmitigated impacts, a second tier EIR is now required to determine whether mitigation measures must now be imposed to reduce or eliminate those impacts. Should the impacts remain significant and unavoidable, a statement of overriding considerations would be required.

VIII. THE PROJECT ENTITLEMENTS MUST BE APPROVED SIMULTANEOUSLY TO CEQA REVIEW.

Legal precedent has established that Project entitlements must be approved simultaneously to a project's CEQA review. See *Coalition for Clean Air v. City of Visalia* (2012) 209 Cal.App.4th 408, 423-425, fn. 18 (noting that a CEQA document cannot be approved, and Notice of Exemption filed, before the underlying project is approved); see also *County of Amador v. El Dorado County Water Agency* (1999) 76 Cal.App.4th 931, 963, fn. 16. A project's environmental review cannot and should not occur prior to the project plans being submitted and its design review taking place, especially given that a project's environmental review must hinge on the final project design and development plan. For this reason, the DAB must not make any recommendation to the Planning Commission, but instead advise that the Addendum be revised or a Project-specific EIR be prepared.

IX. THE APPLICATION MATERIALS MUST INCLUDE AN ADEQUATE DESCRIPTION OF THE PROJECT.

A project description must be stable and finite in order to afford a lead agency and the public an adequate opportunity to assess and comment on the project and its impacts. "[A]n accurate, stable and finite project description is the sine qua non of an informative and legally sufficient" environmental document. *County of Inyo v. City of Los Angeles* (1977) 71 Cal.App.3d 185, 200. "A curtailed or distorted project description may stultify the objectives of the reporting process" as an accurate, stable, and finite project description is necessary to allow "affected outsiders and public decision-makers balance the proposal's benefit against its environmental cost, consider mitigation measures, assess the advantage of terminating the proposal (i.e., the "no project" alternative) and weigh other alternatives in the balance. *Id.* at 192-93.

CEQA Guidelines, section 15124 requires that a description describe the project in enough detail to allow for evaluation of its potential environmental impacts: (a) the project's precise location and boundaries; (b) a clearly written statement of objectives sought by the proposed project; (c) a description of the project's technical, economic, and environmental characteristics; and, (d) a statement describing a list of agencies, permits, and approval which the project expects to use.

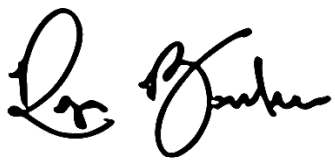
Here, SWMSRCC respectfully requests that the Project application includes an adequate and compliant Project description with the details listed above, including objectives sought, the Project's economic characteristics, and more. The City should demand that Applicant resubmit its application materials with CEQA-compliant parameters.

X. CONCLUSION.

A detailed and thorough review of the Project's impacts must be studied, supported by substantial evidence, and mitigated against where necessary. Without this in-depth analysis and a higher standard for the quantity and quality of evidence supporting it, it is impossible to determine, with a high degree of certainty, the magnitude and extent of the Project's environmental impacts.

In light of the aforementioned, SWMSRCC respectfully requests that the City: (1) require the Project utilize a local trained and skilled workforce; (2) prepare and circulate a thorough, project-specific EIR which focuses heavily on the Project's impacts that were not previously or adequately addressed in the SEIR; and, (3) order Applicant to revise the Project to ensure its consistency with all applicable laws and regulations especially those addressing human and environmental health. Should the City have any questions or concerns, it should feel free to contact my office.

Sincerely,



Reza Bonachea Mohamadzadeh
Attorneys for Southwest Mountain
States Regional Council of Carpenters

Attached:

March 8, 2021, SWAPE Letter to Mitchell M. Tsai re Local Hire Requirements and Considerations for Greenhouse Gas Modeling (Exhibit A);

Air Quality and GHG Expert Paul Rosenfeld CV (Exhibit B); and,

Air Quality and GHG Expert Matt Hagemann CV (Exhibit C).

EXHIBIT A

SWAPE Technical Consultation, Data Analysis and Litigation Support for the Environment

2656 29th Street, Suite 201
Santa Monica, CA 90405

Matt Hagemann, P.G, C.Hg.
(949) 887-9013
mhagemann@swape.com

Paul E. Rosenfeld, PhD
(310) 795-2335
prosenfeld@swape.com

March 8, 2021

Mitchell M. Tsai
155 South El Molino, Suite 104
Pasadena, CA 91101

Subject: Local Hire Requirements and Considerations for Greenhouse Gas Modeling

Dear Mr. Tsai,

Soil Water Air Protection Enterprise ("SWAPE") is pleased to provide the following draft technical report explaining the significance of worker trips required for construction of land use development projects with respect to the estimation of greenhouse gas ("GHG") emissions. The report will also discuss the potential for local hire requirements to reduce the length of worker trips, and consequently, reduced or mitigate the potential GHG impacts.

Worker Trips and Greenhouse Gas Calculations

The California Emissions Estimator Model ("CalEEMod") is a "statewide land use emissions computer model designed to provide a uniform platform for government agencies, land use planners, and environmental professionals to quantify potential criteria pollutant and greenhouse gas (GHG) emissions associated with both construction and operations from a variety of land use projects."[1] CalEEMod quantifies construction-related emissions associated with land use projects resulting from off-road construction equipment; on-road mobile equipment associated with workers, vendors, and hauling; fugitive dust associated with grading, demolition, truck loading, and on-road vehicles traveling along paved and unpaved roads; and architectural coating activities; and paving.[2]

The number, length, and vehicle class of worker trips are utilized by CalEEMod to calculate emissions associated with the on-road vehicle trips required to transport workers to and from the Project site during construction.[3]

[1] "California Emissions Estimator Model." CAPCOA, 2017, *available at:* http://www.aqmd.gov/caleemod/home.
[2] "California Emissions Estimator Model." CAPCOA, 2017, *available at:* http://www.aqmd.gov/caleemod/home.
[3] "CalEEMod User's Guide." CAPCOA, November 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/01_user-39-s-guide2016-3-2_15november2017.pdf?sfvrsn=4, p. 34.

Specifically, the number and length of vehicle trips is utilized to estimate the vehicle miles travelled ("VMT") associated with construction. Then, utilizing vehicle-class specific EMFAC 2014 emission factors, CalEEMod calculates the vehicle exhaust, evaporative, and dust emissions resulting from construction-related VMT, including personal vehicles for worker commuting.[4]

Specifically, in order to calculate VMT, CalEEMod multiplies the average daily trip rate by the average overall trip length (see excerpt below):

> "$VMT_d = \Sigma(\text{Average Daily Trip Rate}_i * \text{Average Overall Trip Length}_i)_n$
>
> Where:
>
> n = Number of land uses being modeled."[5]

Furthermore, to calculate the on-road emissions associated with worker trips, CalEEMod utilizes the following equation (see excerpt below):

> "$\text{Emissions}_{pollutant} = VMT * EF_{running,pollutant}$
>
> Where:
>
> $\text{Emissions}_{pollutant}$ = emissions from vehicle running for each pollutant
>
> VMT = vehicle miles traveled
>
> $EF_{running,pollutant}$ = emission factor for running emissions."[6]

Thus, there is a direct relationship between trip length and VMT, as well as a direct relationship between VMT and vehicle running emissions. In other words, when the trip length is increased, the VMT and vehicle running emissions increase as a result. Thus, vehicle running emissions can be reduced by decreasing the average overall trip length, by way of a local hire requirement or otherwise.

Default Worker Trip Parameters and Potential Local Hire Requirements

As previously discussed, the number, length, and vehicle class of worker trips are utilized by CalEEMod to calculate emissions associated with the on-road vehicle trips required to transport workers to and from the Project site during construction.[7] In order to understand how local hire requirements and associated worker trip length reductions impact GHG emissions calculations, it is important to consider the CalEEMod default worker trip parameters. CalEEMod provides recommended default values based on site-specific information, such as land use type, meteorological data, total lot acreage, project type and typical equipment associated with project type. If more specific project information is known, the user can change the default values and input project-specific values, but the California Environmental Quality Act ("CEQA") requires that such changes be justified by substantial evidence.[8] The default number of construction-related worker trips is calculated by multiplying the

[4] "Appendix A Calculation Details for CalEEMod." CAPCOA, October 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/02_appendix-a2016-3-2.pdf?sfvrsn=6, p. 14-15.
[5] "Appendix A Calculation Details for CalEEMod." CAPCOA, October 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/02_appendix-a2016-3-2.pdf?sfvrsn=6, p. 23.
[6] "Appendix A Calculation Details for CalEEMod." CAPCOA, October 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/02_appendix-a2016-3-2.pdf?sfvrsn=6, p. 15.
[7] "CalEEMod User's Guide." CAPCOA, November 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/01_user-39-s-guide2016-3-2_15november2017.pdf?sfvrsn=4, p. 34.
[8] CalEEMod User Guide, *available at:* http://www.caleemod.com/, p. 1, 9.

number of pieces of equipment for all phases by 1.25, with the exception of worker trips required for the building construction and architectural coating phases.[9] Furthermore, the worker trip vehicle class is a 50/25/25 percent mix of light duty autos, light duty truck class 1 and light duty truck class 2, respectively."[10] Finally, the default worker trip length is consistent with the length of the operational home-to-work vehicle trips.[11] The operational home-to-work vehicle trip lengths are:

> "[B]ased on the *location* and *urbanization* selected on the project characteristic screen. These values were *supplied by the air districts or use a default average for the state*. Each district (or county) also assigns trip lengths for urban and rural settings" (emphasis added). [12]

Thus, the default worker trip length is based on the location and urbanization level selected by the User when modeling emissions. The below table shows the CalEEMod default rural and urban worker trip lengths by air basin (see excerpt below and Attachment A).[13]

Worker Trip Length by Air Basin		
Air Basin	**Rural (miles)**	**Urban (miles)**
Great Basin Valleys	16.8	10.8
Lake County	16.8	10.8
Lake Tahoe	16.8	10.8
Mojave Desert	16.8	10.8
Mountain Counties	16.8	10.8
North Central Coast	17.1	12.3
North Coast	16.8	10.8
Northeast Plateau	16.8	10.8
Sacramento Valley	16.8	10.8
Salton Sea	14.6	11
San Diego	16.8	10.8
San Francisco Bay Area	10.8	10.8
San Joaquin Valley	16.8	10.8
South Central Coast	16.8	10.8
South Coast	19.8	14.7
Average	**16.47**	**11.17**
Minimum	**10.80**	**10.80**
Maximum	**19.80**	**14.70**
Range	**9.00**	**3.90**

[9] "CalEEMod User's Guide." CAPCOA, November 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/01_user-39-s-guide2016-3-2_15november2017.pdf?sfvrsn=4, p. 34.
[10] "Appendix A Calculation Details for CalEEMod." CAPCOA, October 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/02_appendix-a2016-3-2.pdf?sfvrsn=6, p. 15.
[11] "Appendix A Calculation Details for CalEEMod." CAPCOA, October 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/02_appendix-a2016-3-2.pdf?sfvrsn=6, p. 14.
[12] "Appendix A Calculation Details for CalEEMod." CAPCOA, October 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/02_appendix-a2016-3-2.pdf?sfvrsn=6, p. 21.
[13] "Appendix D Default Data Tables." CAPCOA, October 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/05_appendix-d2016-3-2.pdf?sfvrsn=4, p. D-84 – D-86.

As demonstrated above, default rural worker trip lengths for air basins in California vary from 10.8- to 19.8-miles, with an average of 16.47 miles. Furthermore, default urban worker trip lengths vary from 10.8- to 14.7-miles, with an average of 11.17 miles. Thus, while default worker trip lengths vary by location, default urban worker trip lengths tend to be shorter in length. Based on these trends evident in the CalEEMod default worker trip lengths, we can reasonably assume that the efficacy of a local hire requirement is especially dependent upon the urbanization of the project site, as well as the project location.

Practical Application of a Local Hire Requirement and Associated Impact

To provide an example of the potential impact of a local hire provision on construction-related GHG emissions, we estimated the significance of a local hire provision for the Village South Specific Plan ("Project") located in the City of Claremont ("City"). The Project proposed to construct 1,000 residential units, 100,000-SF of retail space, 45,000-SF of office space, as well as a 50-room hotel, on the 24-acre site. The Project location is classified as Urban and lies within the Los Angeles-South Coast County. As a result, the Project has a default worker trip length of 14.7 miles.[14] In an effort to evaluate the potential for a local hire provision to reduce the Project's construction-related GHG emissions, we prepared an updated model, reducing all worker trip lengths to 10 miles (see Attachment B). Our analysis estimates that if a local hire provision with a 10-mile radius were to be implemented, the GHG emissions associated with Project construction would decrease by approximately 17% (see table below and Attachment C).

Local Hire Provision Net Change	
Without Local Hire Provision	
Total Construction GHG Emissions (MT CO_2e)	3,623
Amortized Construction GHG Emissions (MT CO_2e/year)	120.77
With Local Hire Provision	
Total Construction GHG Emissions (MT CO2e)	3,024
Amortized Construction GHG Emissions (MT CO_2e/year)	100.80
% Decrease in Construction-related GHG Emissions	***17%***

As demonstrated above, by implementing a local hire provision requiring 10 mile worker trip lengths, the Project could reduce potential GHG emissions associated with construction worker trips. More broadly, any local hire requirement that results in a decreased worker trip length from the default value has the potential to result in a reduction of construction-related GHG emissions, though the significance of the reduction would vary based on the location and urbanization level of the project site.

This serves as an example of the potential impacts of local hire requirements on estimated project-level GHG emissions, though it does not indicate that local hire requirements would result in reduced construction-related GHG emission for all projects. As previously described, the significance of a local hire requirement depends on the worker trip length enforced and the default worker trip length for the project's urbanization level and location.

[14] "Appendix D Default Data Tables." CAPCOA, October 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/05_appendix-d2016-3-2.pdf?sfvrsn=4, p. D-85.

Disclaimer

SWAPE has received limited discovery. Additional information may become available in the future; thus, we retain the right to revise or amend this report when additional information becomes available. Our professional services have been performed using that degree of care and skill ordinarily exercised, under similar circumstances, by reputable environmental consultants practicing in this or similar localities at the time of service. No other warranty, expressed or implied, is made as to the scope of work, work methodologies and protocols, site conditions, analytical testing results, and findings presented. This report reflects efforts which were limited to information that was reasonably accessible at the time of the work, and may contain informational gaps, inconsistencies, or otherwise be incomplete due to the unavailability or uncertainty of information obtained or provided by third parties.

Sincerely,



Matt Hagemann, P.G., C.Hg.



Paul E. Rosenfeld, Ph.D.

Location Type	Location Name	Rural H-W (miles)	Urban H-W (miles)
Air Basin	Great Basin	16.8	10.8
Air Basin	Lake County	16.8	10.8
Air Basin	Lake Tahoe	16.8	10.8
Air Basin	Mojave Desert	16.8	10.8
Air Basin	Mountain	16.8	10.8
Air Basin	North Central	17.1	12.3
Air Basin	North Coast	16.8	10.8
Air Basin	Northeast	16.8	10.8
Air Basin	Sacramento	16.8	10.8
Air Basin	Salton Sea	14.6	11
Air Basin	San Diego	16.8	10.8
Air Basin	San Francisco	10.8	10.8
Air Basin	San Joaquin	16.8	10.8
Air Basin	South Central	16.8	10.8
Air Basin	South Coast	19.8	14.7
Air District	Amador County	16.8	10.8
Air District	Antelope Valley	16.8	10.8
Air District	Bay Area AQMD	10.8	10.8
Air District	Butte County	12.54	12.54
Air District	Calaveras	16.8	10.8
Air District	Colusa County	16.8	10.8
Air District	El Dorado	16.8	10.8
Air District	Feather River	16.8	10.8
Air District	Glenn County	16.8	10.8
Air District	Great Basin	16.8	10.8
Air District	Imperial County	10.2	7.3
Air District	Kern County	16.8	10.8
Air District	Lake County	16.8	10.8
Air District	Lassen County	16.8	10.8
Air District	Mariposa	16.8	10.8
Air District	Mendocino	16.8	10.8
Air District	Modoc County	16.8	10.8
Air District	Mojave Desert	16.8	10.8
Air District	Monterey Bay	16.8	10.8
Air District	North Coast	16.8	10.8
Air District	Northern Sierra	16.8	10.8
Air District	Northern	16.8	10.8
Air District	Placer County	16.8	10.8
Air District	Sacramento	15	10

Air District	San Diego	16.8	10.8
Air District	San Joaquin	16.8	10.8
Air District	San Luis Obispo	13	13
Air District	Santa Barbara	8.3	8.3
Air District	Shasta County	16.8	10.8
Air District	Siskiyou County	16.8	10.8
Air District	South Coast	19.8	14.7
Air District	Tehama County	16.8	10.8
Air District	Tuolumne	16.8	10.8
Air District	Ventura County	16.8	10.8
Air District	Yolo/Solano	15	10
County	Alameda	10.8	10.8
County	Alpine	16.8	10.8
County	Amador	16.8	10.8
County	Butte	12.54	12.54
County	Calaveras	16.8	10.8
County	Colusa	16.8	10.8
County	Contra Costa	10.8	10.8
County	Del Norte	16.8	10.8
County	El Dorado-Lake	16.8	10.8
County	El Dorado-	16.8	10.8
County	Fresno	16.8	10.8
County	Glenn	16.8	10.8
County	Humboldt	16.8	10.8
County	Imperial	10.2	7.3
County	Inyo	16.8	10.8
County	Kern-Mojave	16.8	10.8
County	Kern-San	16.8	10.8
County	Kings	16.8	10.8
County	Lake	16.8	10.8
County	Lassen	16.8	10.8
County	Los Angeles-	16.8	10.8
County	Los Angeles-	19.8	14.7
County	Madera	16.8	10.8
County	Marin	10.8	10.8
County	Mariposa	16.8	10.8
County	Mendocino-	16.8	10.8
County	Mendocino-	16.8	10.8
County	Mendocino-	16.8	10.8
County	Mendocino-	16.8	10.8
County	Merced	16.8	10.8
County	Modoc	16.8	10.8
County	Mono	16.8	10.8
County	Monterey	16.8	10.8
County	Napa	10.8	10.8

County	Nevada	16.8	10.8
County	Orange	19.8	14.7
County	Placer-Lake	16.8	10.8
County	Placer-Mountain	16.8	10.8
County	Placer-	16.8	10.8
County	Plumas	16.8	10.8
County	Riverside-	16.8	10.8
County	Riverside-	19.8	14.7
County	Riverside-Salton	14.6	11
County	Riverside-South	19.8	14.7
County	Sacramento	15	10
County	San Benito	16.8	10.8
County	San Bernardino-	16.8	10.8
County	San Bernardino-	19.8	14.7
County	San Diego	16.8	10.8
County	San Francisco	10.8	10.8
County	San Joaquin	16.8	10.8
County	San Luis Obispo	13	13
County	San Mateo	10.8	10.8
County	Santa Barbara-	8.3	8.3
County	Santa Barbara-	8.3	8.3
County	Santa Clara	10.8	10.8
County	Santa Cruz	16.8	10.8
County	Shasta	16.8	10.8
County	Sierra	16.8	10.8
County	Siskiyou	16.8	10.8
County	Solano-	15	10
County	Solano-San	16.8	10.8
County	Sonoma-North	16.8	10.8
County	Sonoma-San	10.8	10.8
County	Stanislaus	16.8	10.8
County	Sutter	16.8	10.8
County	Tehama	16.8	10.8
County	Trinity	16.8	10.8
County	Tulare	16.8	10.8
County	Tuolumne	16.8	10.8
County	Ventura	16.8	10.8
County	Yolo	15	10
County	Yuba	16.8	10.8
Statewide	Statewide	16.8	10.8

Worker Trip Length by Air Basin		
Air Basin	**Rural (miles)**	**Urban (miles)**
Great Basin Valleys	16.8	10.8
Lake County	16.8	10.8
Lake Tahoe	16.8	10.8
Mojave Desert	16.8	10.8
Mountain Counties	16.8	10.8
North Central Coast	17.1	12.3
North Coast	16.8	10.8
Northeast Plateau	16.8	10.8
Sacramento Valley	16.8	10.8
Salton Sea	14.6	11
San Diego	16.8	10.8
San Francisco Bay Area	10.8	10.8
San Joaquin Valley	16.8	10.8
South Central Coast	16.8	10.8
South Coast	19.8	14.7
Average	**16.47**	**11.17**
Mininum	**10.80**	**10.80**
Maximum	**19.80**	**14.70**
Range	**9.00**	**3.90**

Village South Specific Plan (Proposed)

Los Angeles-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	45.00	1000sqft	1.03	45,000.00	0
High Turnover (Sit Down Restaurant)	36.00	1000sqft	0.83	36,000.00	0
Hotel	50.00	Room	1.67	72,600.00	0
Quality Restaurant	8.00	1000sqft	0.18	8,000.00	0
Apartments Low Rise	25.00	Dwelling Unit	1.56	25,000.00	72
Apartments Mid Rise	975.00	Dwelling Unit	25.66	975,000.00	2789
Regional Shopping Center	56.00	1000sqft	1.29	56,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2028
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Annual

Project Characteristics - Consistent with the DEIR's model.

Land Use - See SWAPE comment regarding residential and retail land uses.

Construction Phase - See SWAPE comment regarding individual construction phase lengths.

Demolition - Consistent with the DEIR's model. See SWAPE comment regarding demolition.

Vehicle Trips - Saturday trips consistent with the DEIR's model. See SWAPE comment regarding weekday and Sunday trips.

Woodstoves - Woodstoves and wood-burning fireplaces consistent with the DEIR's model. See SWAPE comment regarding gas fireplaces.

Energy Use -

Construction Off-road Equipment Mitigation - See SWAPE comment on construction-related mitigation.

Area Mitigation - See SWAPE comment regarding operational mitigation measures.

Water Mitigation - See SWAPE comment regarding operational mitigation measures.

Table Name	Column Name	Default Value	New Value
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberWood	1.25	0.00
tblFireplaces	NumberWood	48.75	0.00
tblVehicleTrips	ST_TR	7.16	6.17
tblVehicleTrips	ST_TR	6.39	3.87
tblVehicleTrips	ST_TR	2.46	1.39
tblVehicleTrips	ST_TR	158.37	79.82
tblVehicleTrips	ST_TR	8.19	3.75
tblVehicleTrips	ST_TR	94.36	63.99
tblVehicleTrips	ST_TR	49.97	10.74
tblVehicleTrips	SU_TR	6.07	6.16
tblVehicleTrips	SU_TR	5.86	4.18
tblVehicleTrips	SU_TR	1.05	0.69
tblVehicleTrips	SU_TR	131.84	78.27

tblVehicleTrips	SU_TR	5.95	3.20
tblVehicleTrips	SU_TR	72.16	57.65
tblVehicleTrips	SU_TR	25.24	6.39
tblVehicleTrips	WD_TR	6.59	5.83
tblVehicleTrips	WD_TR	6.65	4.13
tblVehicleTrips	WD_TR	11.03	6.41
tblVehicleTrips	WD_TR	127.15	65.80
tblVehicleTrips	WD_TR	8.17	3.84
tblVehicleTrips	WD_TR	89.95	62.64
tblVehicleTrips	WD_TR	42.70	9.43
tblWoodstoves	NumberCatalytic	1.25	0.00
tblWoodstoves	NumberCatalytic	48.75	0.00
tblWoodstoves	NumberNoncatalytic	1.25	0.00
tblWoodstoves	NumberNoncatalytic	48.75	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.1713	1.8242	1.1662	2.4000e-003	0.4169	0.0817	0.4986	0.1795	0.0754	0.2549	0.0000	213.1969	213.1969	0.0601	0.0000	214.6993
2022	0.6904	4.1142	6.1625	0.0189	1.3058	0.1201	1.4259	0.3460	0.1128	0.4588	0.0000	1,721.6826	1,721.6826	0.1294	0.0000	1,724.9187
2023	0.6148	3.3649	5.6747	0.0178	1.1963	0.0996	1.2959	0.3203	0.0935	0.4138	0.0000	1,627.5295	1,627.5295	0.1185	0.0000	1,630.4925
2024	4.1619	0.1335	0.2810	5.9000e-004	0.0325	6.4700e-003	0.0390	8.6300e-003	6.0400e-003	0.0147	0.0000	52.9078	52.9078	8.0200e-003	0.0000	53.1082
Maximum	**4.1619**	**4.1142**	**6.1625**	**0.0189**	**1.3058**	**0.1201**	**1.4259**	**0.3460**	**0.1128**	**0.4588**	**0.0000**	**1,721.6826**	**1,721.6826**	**0.1294**	**0.0000**	**1,724.9187**

2.1 Overall Construction

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.1713	1.8242	1.1662	2.4000e-003	0.4169	0.0817	0.4986	0.1795	0.0754	0.2549	0.0000	213.1967	213.1967	0.0601	0.0000	214.6991
2022	0.6904	4.1142	6.1625	0.0189	1.3058	0.1201	1.4259	0.3460	0.1128	0.4588	0.0000	1,721.6823	1,721.6823	0.1294	0.0000	1,724.9183
2023	0.6148	3.3648	5.6747	0.0178	1.1963	0.0996	1.2959	0.3203	0.0935	0.4138	0.0000	1,627.5291	1,627.5291	0.1185	0.0000	1,630.4921
2024	4.1619	0.1335	0.2810	5.9000e-004	0.0325	6.4700e-003	0.0390	8.6300e-003	6.0400e-003	0.0147	0.0000	52.9077	52.9077	8.0200e-003	0.0000	53.1082
Maximum	**4.1619**	**4.1142**	**6.1625**	**0.0189**	**1.3058**	**0.1201**	**1.4259**	**0.3460**	**0.1128**	**0.4588**	**0.0000**	**1,721.6823**	**1,721.6823**	**0.1294**	**0.0000**	**1,724.9183**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	**9-1-2021**	**11-30-2021**	1.4103	1.4103
2	**12-1-2021**	**2-28-2022**	1.3613	1.3613
3	**3-1-2022**	**5-31-2022**	1.1985	1.1985
4	**6-1-2022**	**8-31-2022**	1.1921	1.1921
5	**9-1-2022**	**11-30-2022**	1.1918	1.1918
6	**12-1-2022**	**2-28-2023**	1.0774	1.0774
7	**3-1-2023**	**5-31-2023**	1.0320	1.0320
8	**6-1-2023**	**8-31-2023**	1.0260	1.0260

9	**9-1-2023**	**11-30-2023**	1.0265	1.0265
10	**12-1-2023**	**2-29-2024**	2.8857	2.8857
11	**3-1-2024**	**5-31-2024**	1.6207	1.6207
		Highest	2.8857	2.8857

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	5.1437	0.2950	10.3804	1.6700e-003		0.0714	0.0714		0.0714	0.0714	0.0000	220.9670	220.9670	0.0201	3.7400e-003	222.5835
Energy	0.1398	1.2312	0.7770	7.6200e-003		0.0966	0.0966		0.0966	0.0966	0.0000	3,896.0732	3,896.0732	0.1303	0.0468	3,913.2833
Mobile	1.5857	7.9962	19.1834	0.0821	7.7979	0.0580	7.8559	2.0895	0.0539	2.1434	0.0000	7,620.4986	7,620.4986	0.3407	0.0000	7,629.0162
Waste						0.0000	0.0000		0.0000	0.0000	207.8079	0.0000	207.8079	12.2811	0.0000	514.8354
Water						0.0000	0.0000		0.0000	0.0000	29.1632	556.6420	585.8052	3.0183	0.0755	683.7567
Total	**6.8692**	**9.5223**	**30.3407**	**0.0914**	**7.7979**	**0.2260**	**8.0240**	**2.0895**	**0.2219**	**2.3114**	**236.9712**	**12,294.1807**	**12,531.1519**	**15.7904**	**0.1260**	**12,963.4751**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	5.1437	0.2950	10.3804	1.6700e-003		0.0714	0.0714		0.0714	0.0714	0.0000	220.9670	220.9670	0.0201	3.7400e-003	222.5835
Energy	0.1398	1.2312	0.7770	7.6200e-003		0.0966	0.0966		0.0966	0.0966	0.0000	3,896.0732	3,896.0732	0.1303	0.0468	3,913.2833
Mobile	1.5857	7.9962	19.1834	0.0821	7.7979	0.0580	7.8559	2.0895	0.0539	2.1434	0.0000	7,620.4986	7,620.4986	0.3407	0.0000	7,629.0162
Waste						0.0000	0.0000		0.0000	0.0000	207.8079	0.0000	207.8079	12.2811	0.0000	514.8354
Water						0.0000	0.0000		0.0000	0.0000	29.1632	556.6420	585.8052	3.0183	0.0755	683.7567
Total	**6.8692**	**9.5223**	**30.3407**	**0.0914**	**7.7979**	**0.2260**	**8.0240**	**2.0895**	**0.2219**	**2.3114**	**236.9712**	**12,294.1807**	**12,531.1519**	**15.7904**	**0.1260**	**12,963.4751**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Annual

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	9/1/2021	10/12/2021	5	30	
2	Site Preparation	Site Preparation	10/13/2021	11/9/2021	5	20	
3	Grading	Grading	11/10/2021	1/11/2022	5	45	
4	Building Construction	Building Construction	1/12/2022	12/12/2023	5	500	
5	Paving	Paving	12/13/2023	1/30/2024	5	35	
6	Architectural Coating	Architectural Coating	1/31/2024	3/19/2024	5	35	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 112.5

Acres of Paving: 0

Residential Indoor: 2,025,000; Residential Outdoor: 675,000; Non-Residential Indoor: 326,400; Non-Residential Outdoor: 108,800; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	458.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	801.00	143.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	160.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0496	0.0000	0.0496	7.5100e-003	0.0000	7.5100e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0475	0.4716	0.3235	5.8000e-004		0.0233	0.0233		0.0216	0.0216	0.0000	51.0012	51.0012	0.0144	0.0000	51.3601
Total	**0.0475**	**0.4716**	**0.3235**	**5.8000e-004**	**0.0496**	**0.0233**	**0.0729**	**7.5100e-003**	**0.0216**	**0.0291**	**0.0000**	**51.0012**	**51.0012**	**0.0144**	**0.0000**	**51.3601**

3.2 Demolition - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.9300e-003	0.0634	0.0148	1.8000e-004	3.9400e-003	1.9000e-004	4.1300e-003	1.0800e-003	1.8000e-004	1.2600e-003	0.0000	17.4566	17.4566	1.2100e-003	0.0000	17.4869
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.7000e-004	7.5000e-004	8.5100e-003	2.0000e-005	2.4700e-003	2.0000e-005	2.4900e-003	6.5000e-004	2.0000e-005	6.7000e-004	0.0000	2.2251	2.2251	7.0000e-005	0.0000	2.2267
Total	**2.9000e-003**	**0.0641**	**0.0233**	**2.0000e-004**	**6.4100e-003**	**2.1000e-004**	**6.6200e-003**	**1.7300e-003**	**2.0000e-004**	**1.9300e-003**	**0.0000**	**19.6816**	**19.6816**	**1.2800e-003**	**0.0000**	**19.7136**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0496	0.0000	0.0496	7.5100e-003	0.0000	7.5100e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0475	0.4716	0.3235	5.8000e-004		0.0233	0.0233		0.0216	0.0216	0.0000	51.0011	51.0011	0.0144	0.0000	51.3600
Total	**0.0475**	**0.4716**	**0.3235**	**5.8000e-004**	**0.0496**	**0.0233**	**0.0729**	**7.5100e-003**	**0.0216**	**0.0291**	**0.0000**	**51.0011**	**51.0011**	**0.0144**	**0.0000**	**51.3600**

3.2 Demolition - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.9300e-003	0.0634	0.0148	1.8000e-004	3.9400e-003	1.9000e-004	4.1300e-003	1.0800e-003	1.8000e-004	1.2600e-003	0.0000	17.4566	17.4566	1.2100e-003	0.0000	17.4869
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.7000e-004	7.5000e-004	8.5100e-003	2.0000e-005	2.4700e-003	2.0000e-005	2.4900e-003	6.5000e-004	2.0000e-005	6.7000e-004	0.0000	2.2251	2.2251	7.0000e-005	0.0000	2.2267
Total	**2.9000e-003**	**0.0641**	**0.0233**	**2.0000e-004**	**6.4100e-003**	**2.1000e-004**	**6.6200e-003**	**1.7300e-003**	**2.0000e-004**	**1.9300e-003**	**0.0000**	**19.6816**	**19.6816**	**1.2800e-003**	**0.0000**	**19.7136**

3.3 Site Preparation - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1807	0.0000	0.1807	0.0993	0.0000	0.0993	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0389	0.4050	0.2115	3.8000e-004		0.0204	0.0204		0.0188	0.0188	0.0000	33.4357	33.4357	0.0108	0.0000	33.7061
Total	**0.0389**	**0.4050**	**0.2115**	**3.8000e-004**	**0.1807**	**0.0204**	**0.2011**	**0.0993**	**0.0188**	**0.1181**	**0.0000**	**33.4357**	**33.4357**	**0.0108**	**0.0000**	**33.7061**

3.3 Site Preparation - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.7000e-004	6.0000e-004	6.8100e-003	2.0000e-005	1.9700e-003	2.0000e-005	1.9900e-003	5.2000e-004	1.0000e-005	5.4000e-004	0.0000	1.7801	1.7801	5.0000e-005	0.0000	1.7814
Total	**7.7000e-004**	**6.0000e-004**	**6.8100e-003**	**2.0000e-005**	**1.9700e-003**	**2.0000e-005**	**1.9900e-003**	**5.2000e-004**	**1.0000e-005**	**5.4000e-004**	**0.0000**	**1.7801**	**1.7801**	**5.0000e-005**	**0.0000**	**1.7814**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1807	0.0000	0.1807	0.0993	0.0000	0.0993	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0389	0.4050	0.2115	3.8000e-004		0.0204	0.0204		0.0188	0.0188	0.0000	33.4357	33.4357	0.0108	0.0000	33.7060
Total	**0.0389**	**0.4050**	**0.2115**	**3.8000e-004**	**0.1807**	**0.0204**	**0.2011**	**0.0993**	**0.0188**	**0.1181**	**0.0000**	**33.4357**	**33.4357**	**0.0108**	**0.0000**	**33.7060**

3.3 Site Preparation - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.7000e-004	6.0000e-004	6.8100e-003	2.0000e-005	1.9700e-003	2.0000e-005	1.9900e-003	5.2000e-004	1.0000e-005	5.4000e-004	0.0000	1.7801	1.7801	5.0000e-005	0.0000	1.7814
Total	**7.7000e-004**	**6.0000e-004**	**6.8100e-003**	**2.0000e-005**	**1.9700e-003**	**2.0000e-005**	**1.9900e-003**	**5.2000e-004**	**1.0000e-005**	**5.4000e-004**	**0.0000**	**1.7801**	**1.7801**	**5.0000e-005**	**0.0000**	**1.7814**

3.4 Grading - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1741	0.0000	0.1741	0.0693	0.0000	0.0693	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0796	0.8816	0.5867	1.1800e-003		0.0377	0.0377		0.0347	0.0347	0.0000	103.5405	103.5405	0.0335	0.0000	104.3776
Total	**0.0796**	**0.8816**	**0.5867**	**1.1800e-003**	**0.1741**	**0.0377**	**0.2118**	**0.0693**	**0.0347**	**0.1040**	**0.0000**	**103.5405**	**103.5405**	**0.0335**	**0.0000**	**104.3776**

3.4 Grading - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.6400e-003	1.2700e-003	0.0144	4.0000e-005	4.1600e-003	3.0000e-005	4.2000e-003	1.1100e-003	3.0000e-005	1.1400e-003	0.0000	3.7579	3.7579	1.1000e-004	0.0000	3.7607
Total	**1.6400e-003**	**1.2700e-003**	**0.0144**	**4.0000e-005**	**4.1600e-003**	**3.0000e-005**	**4.2000e-003**	**1.1100e-003**	**3.0000e-005**	**1.1400e-003**	**0.0000**	**3.7579**	**3.7579**	**1.1000e-004**	**0.0000**	**3.7607**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1741	0.0000	0.1741	0.0693	0.0000	0.0693	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0796	0.8816	0.5867	1.1800e-003		0.0377	0.0377		0.0347	0.0347	0.0000	103.5403	103.5403	0.0335	0.0000	104.3775
Total	**0.0796**	**0.8816**	**0.5867**	**1.1800e-003**	**0.1741**	**0.0377**	**0.2118**	**0.0693**	**0.0347**	**0.1040**	**0.0000**	**103.5403**	**103.5403**	**0.0335**	**0.0000**	**104.3775**

3.4 Grading - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.6400e-003	1.2700e-003	0.0144	4.0000e-005	4.1600e-003	3.0000e-005	4.2000e-003	1.1100e-003	3.0000e-005	1.1400e-003	0.0000	3.7579	3.7579	1.1000e-004	0.0000	3.7607
Total	**1.6400e-003**	**1.2700e-003**	**0.0144**	**4.0000e-005**	**4.1600e-003**	**3.0000e-005**	**4.2000e-003**	**1.1100e-003**	**3.0000e-005**	**1.1400e-003**	**0.0000**	**3.7579**	**3.7579**	**1.1000e-004**	**0.0000**	**3.7607**

3.4 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0807	0.0000	0.0807	0.0180	0.0000	0.0180	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0127	0.1360	0.1017	2.2000e-004		5.7200e-003	5.7200e-003		5.2600e-003	5.2600e-003	0.0000	19.0871	19.0871	6.1700e-003	0.0000	19.2414
Total	**0.0127**	**0.1360**	**0.1017**	**2.2000e-004**	**0.0807**	**5.7200e-003**	**0.0865**	**0.0180**	**5.2600e-003**	**0.0233**	**0.0000**	**19.0871**	**19.0871**	**6.1700e-003**	**0.0000**	**19.2414**

3.4 Grading - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.8000e-004	2.1000e-004	2.4400e-003	1.0000e-005	7.7000e-004	1.0000e-005	7.7000e-004	2.0000e-004	1.0000e-005	2.1000e-004	0.0000	0.6679	0.6679	2.0000e-005	0.0000	0.6684
Total	**2.8000e-004**	**2.1000e-004**	**2.4400e-003**	**1.0000e-005**	**7.7000e-004**	**1.0000e-005**	**7.7000e-004**	**2.0000e-004**	**1.0000e-005**	**2.1000e-004**	**0.0000**	**0.6679**	**0.6679**	**2.0000e-005**	**0.0000**	**0.6684**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0807	0.0000	0.0807	0.0180	0.0000	0.0180	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0127	0.1360	0.1017	2.2000e-004		5.7200e-003	5.7200e-003		5.2600e-003	5.2600e-003	0.0000	19.0871	19.0871	6.1700e-003	0.0000	19.2414
Total	**0.0127**	**0.1360**	**0.1017**	**2.2000e-004**	**0.0807**	**5.7200e-003**	**0.0865**	**0.0180**	**5.2600e-003**	**0.0233**	**0.0000**	**19.0871**	**19.0871**	**6.1700e-003**	**0.0000**	**19.2414**

3.4 Grading - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.8000e-004	2.1000e-004	2.4400e-003	1.0000e-005	7.7000e-004	1.0000e-005	7.7000e-004	2.0000e-004	1.0000e-005	2.1000e-004	0.0000	0.6679	0.6679	2.0000e-005	0.0000	0.6684
Total	**2.8000e-004**	**2.1000e-004**	**2.4400e-003**	**1.0000e-005**	**7.7000e-004**	**1.0000e-005**	**7.7000e-004**	**2.0000e-004**	**1.0000e-005**	**2.1000e-004**	**0.0000**	**0.6679**	**0.6679**	**2.0000e-005**	**0.0000**	**0.6684**

3.5 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2158	1.9754	2.0700	3.4100e-003		0.1023	0.1023		0.0963	0.0963	0.0000	293.1324	293.1324	0.0702	0.0000	294.8881
Total	**0.2158**	**1.9754**	**2.0700**	**3.4100e-003**		**0.1023**	**0.1023**		**0.0963**	**0.0963**	**0.0000**	**293.1324**	**293.1324**	**0.0702**	**0.0000**	**294.8881**

3.5 Building Construction - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0527	1.6961	0.4580	4.5500e-003	0.1140	3.1800e-003	0.1171	0.0329	3.0400e-003	0.0359	0.0000	441.9835	441.9835	0.0264	0.0000	442.6435
Worker	0.4088	0.3066	3.5305	0.0107	1.1103	8.8700e-003	1.1192	0.2949	8.1700e-003	0.3031	0.0000	966.8117	966.8117	0.0266	0.0000	967.4773
Total	**0.4616**	**2.0027**	**3.9885**	**0.0152**	**1.2243**	**0.0121**	**1.2363**	**0.3278**	**0.0112**	**0.3390**	**0.0000**	**1,408.7952**	**1,408.7952**	**0.0530**	**0.0000**	**1,410.1208**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2158	1.9754	2.0700	3.4100e-003		0.1023	0.1023		0.0963	0.0963	0.0000	293.1321	293.1321	0.0702	0.0000	294.8877
Total	**0.2158**	**1.9754**	**2.0700**	**3.4100e-003**		**0.1023**	**0.1023**		**0.0963**	**0.0963**	**0.0000**	**293.1321**	**293.1321**	**0.0702**	**0.0000**	**294.8877**

3.5 Building Construction - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0527	1.6961	0.4580	4.5500e-003	0.1140	3.1800e-003	0.1171	0.0329	3.0400e-003	0.0359	0.0000	441.9835	441.9835	0.0264	0.0000	442.6435
Worker	0.4088	0.3066	3.5305	0.0107	1.1103	8.8700e-003	1.1192	0.2949	8.1700e-003	0.3031	0.0000	966.8117	966.8117	0.0266	0.0000	967.4773
Total	**0.4616**	**2.0027**	**3.9885**	**0.0152**	**1.2243**	**0.0121**	**1.2363**	**0.3278**	**0.0112**	**0.3390**	**0.0000**	**1,408.7952**	**1,408.7952**	**0.0530**	**0.0000**	**1,410.1208**

3.5 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1942	1.7765	2.0061	3.3300e-003		0.0864	0.0864		0.0813	0.0813	0.0000	286.2789	286.2789	0.0681	0.0000	287.9814
Total	**0.1942**	**1.7765**	**2.0061**	**3.3300e-003**		**0.0864**	**0.0864**		**0.0813**	**0.0813**	**0.0000**	**286.2789**	**286.2789**	**0.0681**	**0.0000**	**287.9814**

3.5 Building Construction - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0382	1.2511	0.4011	4.3000e-003	0.1113	1.4600e-003	0.1127	0.0321	1.4000e-003	0.0335	0.0000	417.9930	417.9930	0.0228	0.0000	418.5624
Worker	0.3753	0.2708	3.1696	0.0101	1.0840	8.4100e-003	1.0924	0.2879	7.7400e-003	0.2957	0.0000	909.3439	909.3439	0.0234	0.0000	909.9291
Total	**0.4135**	**1.5218**	**3.5707**	**0.0144**	**1.1953**	**9.8700e-003**	**1.2051**	**0.3200**	**9.1400e-003**	**0.3292**	**0.0000**	**1,327.3369**	**1,327.3369**	**0.0462**	**0.0000**	**1,328.4916**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1942	1.7765	2.0061	3.3300e-003		0.0864	0.0864		0.0813	0.0813	0.0000	286.2785	286.2785	0.0681	0.0000	287.9811
Total	**0.1942**	**1.7765**	**2.0061**	**3.3300e-003**		**0.0864**	**0.0864**		**0.0813**	**0.0813**	**0.0000**	**286.2785**	**286.2785**	**0.0681**	**0.0000**	**287.9811**

3.5 Building Construction - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0382	1.2511	0.4011	4.3000e-003	0.1113	1.4600e-003	0.1127	0.0321	1.4000e-003	0.0335	0.0000	417.9930	417.9930	0.0228	0.0000	418.5624
Worker	0.3753	0.2708	3.1696	0.0101	1.0840	8.4100e-003	1.0924	0.2879	7.7400e-003	0.2957	0.0000	909.3439	909.3439	0.0234	0.0000	909.9291
Total	**0.4135**	**1.5218**	**3.5707**	**0.0144**	**1.1953**	**9.8700e-003**	**1.2051**	**0.3200**	**9.1400e-003**	**0.3292**	**0.0000**	**1,327.3369**	**1,327.3369**	**0.0462**	**0.0000**	**1,328.4916**

3.6 Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	6.7100e-003	0.0663	0.0948	1.5000e-004		3.3200e-003	3.3200e-003		3.0500e-003	3.0500e-003	0.0000	13.0175	13.0175	4.2100e-003	0.0000	13.1227
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**6.7100e-003**	**0.0663**	**0.0948**	**1.5000e-004**		**3.3200e-003**	**3.3200e-003**		**3.0500e-003**	**3.0500e-003**	**0.0000**	**13.0175**	**13.0175**	**4.2100e-003**	**0.0000**	**13.1227**

3.6 Paving - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.7000e-004	2.7000e-004	3.1200e-003	1.0000e-005	1.0700e-003	1.0000e-005	1.0800e-003	2.8000e-004	1.0000e-005	2.9000e-004	0.0000	0.8963	0.8963	2.0000e-005	0.0000	0.8968
Total	**3.7000e-004**	**2.7000e-004**	**3.1200e-003**	**1.0000e-005**	**1.0700e-003**	**1.0000e-005**	**1.0800e-003**	**2.8000e-004**	**1.0000e-005**	**2.9000e-004**	**0.0000**	**0.8963**	**0.8963**	**2.0000e-005**	**0.0000**	**0.8968**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	6.7100e-003	0.0663	0.0948	1.5000e-004		3.3200e-003	3.3200e-003		3.0500e-003	3.0500e-003	0.0000	13.0175	13.0175	4.2100e-003	0.0000	13.1227
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**6.7100e-003**	**0.0663**	**0.0948**	**1.5000e-004**		**3.3200e-003**	**3.3200e-003**		**3.0500e-003**	**3.0500e-003**	**0.0000**	**13.0175**	**13.0175**	**4.2100e-003**	**0.0000**	**13.1227**

3.6 Paving - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.7000e-004	2.7000e-004	3.1200e-003	1.0000e-005	1.0700e-003	1.0000e-005	1.0800e-003	2.8000e-004	1.0000e-005	2.9000e-004	0.0000	0.8963	0.8963	2.0000e-005	0.0000	0.8968
Total	**3.7000e-004**	**2.7000e-004**	**3.1200e-003**	**1.0000e-005**	**1.0700e-003**	**1.0000e-005**	**1.0800e-003**	**2.8000e-004**	**1.0000e-005**	**2.9000e-004**	**0.0000**	**0.8963**	**0.8963**	**2.0000e-005**	**0.0000**	**0.8968**

3.6 Paving - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0109	0.1048	0.1609	2.5000e-004		5.1500e-003	5.1500e-003		4.7400e-003	4.7400e-003	0.0000	22.0292	22.0292	7.1200e-003	0.0000	22.2073
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0109**	**0.1048**	**0.1609**	**2.5000e-004**		**5.1500e-003**	**5.1500e-003**		**4.7400e-003**	**4.7400e-003**	**0.0000**	**22.0292**	**22.0292**	**7.1200e-003**	**0.0000**	**22.2073**

3.6 Paving - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.9000e-004	4.1000e-004	4.9200e-003	2.0000e-005	1.8100e-003	1.0000e-005	1.8200e-003	4.8000e-004	1.0000e-005	4.9000e-004	0.0000	1.4697	1.4697	4.0000e-005	0.0000	1.4706
Total	**5.9000e-004**	**4.1000e-004**	**4.9200e-003**	**2.0000e-005**	**1.8100e-003**	**1.0000e-005**	**1.8200e-003**	**4.8000e-004**	**1.0000e-005**	**4.9000e-004**	**0.0000**	**1.4697**	**1.4697**	**4.0000e-005**	**0.0000**	**1.4706**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0109	0.1048	0.1609	2.5000e-004		5.1500e-003	5.1500e-003		4.7400e-003	4.7400e-003	0.0000	22.0292	22.0292	7.1200e-003	0.0000	22.2073
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0109**	**0.1048**	**0.1609**	**2.5000e-004**		**5.1500e-003**	**5.1500e-003**		**4.7400e-003**	**4.7400e-003**	**0.0000**	**22.0292**	**22.0292**	**7.1200e-003**	**0.0000**	**22.2073**

3.6 Paving - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.9000e-004	4.1000e-004	4.9200e-003	2.0000e-005	1.8100e-003	1.0000e-005	1.8200e-003	4.8000e-004	1.0000e-005	4.9000e-004	0.0000	1.4697	1.4697	4.0000e-005	0.0000	1.4706
Total	**5.9000e-004**	**4.1000e-004**	**4.9200e-003**	**2.0000e-005**	**1.8100e-003**	**1.0000e-005**	**1.8200e-003**	**4.8000e-004**	**1.0000e-005**	**4.9000e-004**	**0.0000**	**1.4697**	**1.4697**	**4.0000e-005**	**0.0000**	**1.4706**

3.7 Architectural Coating - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	4.1372					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.1600e-003	0.0213	0.0317	5.0000e-005		1.0700e-003	1.0700e-003		1.0700e-003	1.0700e-003	0.0000	4.4682	4.4682	2.5000e-004	0.0000	4.4745
Total	**4.1404**	**0.0213**	**0.0317**	**5.0000e-005**		**1.0700e-003**	**1.0700e-003**		**1.0700e-003**	**1.0700e-003**	**0.0000**	**4.4682**	**4.4682**	**2.5000e-004**	**0.0000**	**4.4745**

3.7 Architectural Coating - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0101	6.9900e-003	0.0835	2.8000e-004	0.0307	2.3000e-004	0.0309	8.1500e-003	2.2000e-004	8.3700e-003	0.0000	24.9407	24.9407	6.1000e-004	0.0000	24.9558
Total	**0.0101**	**6.9900e-003**	**0.0835**	**2.8000e-004**	**0.0307**	**2.3000e-004**	**0.0309**	**8.1500e-003**	**2.2000e-004**	**8.3700e-003**	**0.0000**	**24.9407**	**24.9407**	**6.1000e-004**	**0.0000**	**24.9558**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	4.1372					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.1600e-003	0.0213	0.0317	5.0000e-005		1.0700e-003	1.0700e-003		1.0700e-003	1.0700e-003	0.0000	4.4682	4.4682	2.5000e-004	0.0000	4.4745
Total	**4.1404**	**0.0213**	**0.0317**	**5.0000e-005**		**1.0700e-003**	**1.0700e-003**		**1.0700e-003**	**1.0700e-003**	**0.0000**	**4.4682**	**4.4682**	**2.5000e-004**	**0.0000**	**4.4745**

3.7 Architectural Coating - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0101	6.9900e-003	0.0835	2.8000e-004	0.0307	2.3000e-004	0.0309	8.1500e-003	2.2000e-004	8.3700e-003	0.0000	24.9407	24.9407	6.1000e-004	0.0000	24.9558
Total	**0.0101**	**6.9900e-003**	**0.0835**	**2.8000e-004**	**0.0307**	**2.3000e-004**	**0.0309**	**8.1500e-003**	**2.2000e-004**	**8.3700e-003**	**0.0000**	**24.9407**	**24.9407**	**6.1000e-004**	**0.0000**	**24.9558**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	1.5857	7.9962	19.1834	0.0821	7.7979	0.0580	7.8559	2.0895	0.0539	2.1434	0.0000	7,620.4986	7,620.4986	0.3407	0.0000	7,629.0162
Unmitigated	1.5857	7.9962	19.1834	0.0821	7.7979	0.0580	7.8559	2.0895	0.0539	2.1434	0.0000	7,620.4986	7,620.4986	0.3407	0.0000	7,629.0162

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	145.75	154.25	154.00	506,227	506,227
Apartments Mid Rise	4,026.75	3,773.25	4075.50	13,660,065	13,660,065
General Office Building	288.45	62.55	31.05	706,812	706,812
High Turnover (Sit Down Restaurant)	2,368.80	2,873.52	2817.72	3,413,937	3,413,937
Hotel	192.00	187.50	160.00	445,703	445,703
Quality Restaurant	501.12	511.92	461.20	707,488	707,488
Regional Shopping Center	528.08	601.44	357.84	1,112,221	1,112,221
Total	8,050.95	8,164.43	8,057.31	20,552,452	20,552,452

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Low Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Apartments Mid Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
High Turnover (Sit Down	16.60	8.40	6.90	8.50	72.50	19.00	37	20	43
Hotel	16.60	8.40	6.90	19.40	61.60	19.00	58	38	4
Quality Restaurant	16.60	8.40	6.90	12.00	69.00	19.00	38	18	44
Regional Shopping Center	16.60	8.40	6.90	16.30	64.70	19.00	54	35	11

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Low Rise	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Apartments Mid Rise	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
General Office Building	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
High Turnover (Sit Down Restaurant)	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Hotel	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Quality Restaurant	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Regional Shopping Center	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Annual

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	2,512.6465	2,512.6465	0.1037	0.0215	2,521.6356
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	2,512.6465	2,512.6465	0.1037	0.0215	2,521.6356
NaturalGas Mitigated	0.1398	1.2312	0.7770	7.6200e-003		0.0966	0.0966		0.0966	0.0966	0.0000	1,383.4267	1,383.4267	0.0265	0.0254	1,391.6478
NaturalGas Unmitigated	0.1398	1.2312	0.7770	7.6200e-003		0.0966	0.0966		0.0966	0.0966	0.0000	1,383.4267	1,383.4267	0.0265	0.0254	1,391.6478

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Low Rise	408494	2.2000e-003	0.0188	8.0100e-003	1.2000e-004		1.5200e-003	1.5200e-003		1.5200e-003	1.5200e-003	0.0000	21.7988	21.7988	4.2000e-004	4.0000e-004	21.9284
Apartments Mid Rise	1.30613e+007	0.0704	0.6018	0.2561	3.8400e-003		0.0487	0.0487		0.0487	0.0487	0.0000	696.9989	696.9989	0.0134	0.0128	701.1408
General Office Building	468450	2.5300e-003	0.0230	0.0193	1.4000e-004		1.7500e-003	1.7500e-003		1.7500e-003	1.7500e-003	0.0000	24.9983	24.9983	4.8000e-004	4.6000e-004	25.1468
High Turnover (Sit Down Restaurant)	8.30736e+006	0.0448	0.4072	0.3421	2.4400e-003		0.0310	0.0310		0.0310	0.0310	0.0000	443.3124	443.3124	8.5000e-003	8.1300e-003	445.9468
Hotel	1.74095e+006	9.3900e-003	0.0853	0.0717	5.1000e-004		6.4900e-003	6.4900e-003		6.4900e-003	6.4900e-003	0.0000	92.9036	92.9036	1.7800e-003	1.7000e-003	93.4557
Quality Restaurant	1.84608e+006	9.9500e-003	0.0905	0.0760	5.4000e-004		6.8800e-003	6.8800e-003		6.8800e-003	6.8800e-003	0.0000	98.5139	98.5139	1.8900e-003	1.8100e-003	99.0993
Regional Shopping Center	91840	5.0000e-004	4.5000e-003	3.7800e-003	3.0000e-005		3.4000e-004	3.4000e-004		3.4000e-004	3.4000e-004	0.0000	4.9009	4.9009	9.0000e-005	9.0000e-005	4.9301
Total		**0.1398**	**1.2312**	**0.7770**	**7.6200e-003**		**0.0966**	**0.0966**		**0.0966**	**0.0966**	**0.0000**	**1,383.4268**	**1,383.4268**	**0.0265**	**0.0254**	**1,391.6478**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Low Rise	408494	2.2000e-003	0.0188	8.0100e-003	1.2000e-004		1.5200e-003	1.5200e-003		1.5200e-003	1.5200e-003	0.0000	21.7988	21.7988	4.2000e-004	4.0000e-004	21.9284
Apartments Mid Rise	1.30613e+007	0.0704	0.6018	0.2561	3.8400e-003		0.0487	0.0487		0.0487	0.0487	0.0000	696.9989	696.9989	0.0134	0.0128	701.1408
General Office Building	468450	2.5300e-003	0.0230	0.0193	1.4000e-004		1.7500e-003	1.7500e-003		1.7500e-003	1.7500e-003	0.0000	24.9983	24.9983	4.8000e-004	4.6000e-004	25.1468
High Turnover (Sit Down Restaurant)	8.30736e+006	0.0448	0.4072	0.3421	2.4400e-003		0.0310	0.0310		0.0310	0.0310	0.0000	443.3124	443.3124	8.5000e-003	8.1300e-003	445.9468
Hotel	1.74095e+006	9.3900e-003	0.0853	0.0717	5.1000e-004		6.4900e-003	6.4900e-003		6.4900e-003	6.4900e-003	0.0000	92.9036	92.9036	1.7800e-003	1.7000e-003	93.4557
Quality Restaurant	1.84608e+006	9.9500e-003	0.0905	0.0760	5.4000e-004		6.8800e-003	6.8800e-003		6.8800e-003	6.8800e-003	0.0000	98.5139	98.5139	1.8900e-003	1.8100e-003	99.0993
Regional Shopping Center	91840	5.0000e-004	4.5000e-003	3.7800e-003	3.0000e-005		3.4000e-004	3.4000e-004		3.4000e-004	3.4000e-004	0.0000	4.9009	4.9009	9.0000e-005	9.0000e-005	4.9301
Total		**0.1398**	**1.2312**	**0.7770**	**7.6200e-003**		**0.0966**	**0.0966**		**0.0966**	**0.0966**	**0.0000**	**1,383.4268**	**1,383.4268**	**0.0265**	**0.0254**	**1,391.6478**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Low Rise	106010	33.7770	1.3900e-003	2.9000e-004	33.8978
Apartments Mid Rise	3.94697e+006	1,257.5879	0.0519	0.0107	1,262.0869
General Office Building	584550	186.2502	7.6900e-003	1.5900e-003	186.9165
High Turnover (Sit Down Restaurant)	1.58904e+006	506.3022	0.0209	4.3200e-003	508.1135
Hotel	550308	175.3399	7.2400e-003	1.5000e-003	175.9672
Quality Restaurant	353120	112.5116	4.6500e-003	9.6000e-004	112.9141
Regional Shopping Center	756000	240.8778	9.9400e-003	2.0600e-003	241.7395
Total		**2,512.6465**	**0.1037**	**0.0215**	**2,521.6356**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Low Rise	106010	33.7770	1.3900e-003	2.9000e-004	33.8978
Apartments Mid Rise	3.94697e+006	1,257.5879	0.0519	0.0107	1,262.0869
General Office Building	584550	186.2502	7.6900e-003	1.5900e-003	186.9165
High Turnover (Sit Down Restaurant)	1.58904e+006	506.3022	0.0209	4.3200e-003	508.1135
Hotel	550308	175.3399	7.2400e-003	1.5000e-003	175.9672
Quality Restaurant	353120	112.5116	4.6500e-003	9.6000e-004	112.9141
Regional Shopping Center	756000	240.8778	9.9400e-003	2.0600e-003	241.7395
Total		**2,512.6465**	**0.1037**	**0.0215**	**2,521.6356**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	5.1437	0.2950	10.3804	1.6700e-003		0.0714	0.0714		0.0714	0.0714	0.0000	220.9670	220.9670	0.0201	3.7400e-003	222.5835
Unmitigated	5.1437	0.2950	10.3804	1.6700e-003		0.0714	0.0714		0.0714	0.0714	0.0000	220.9670	220.9670	0.0201	3.7400e-003	222.5835

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.4137					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	4.3998					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0206	0.1763	0.0750	1.1200e-003		0.0143	0.0143		0.0143	0.0143	0.0000	204.1166	204.1166	3.9100e-003	3.7400e-003	205.3295
Landscaping	0.3096	0.1187	10.3054	5.4000e-004		0.0572	0.0572		0.0572	0.0572	0.0000	16.8504	16.8504	0.0161	0.0000	17.2540
Total	**5.1437**	**0.2950**	**10.3804**	**1.6600e-003**		**0.0714**	**0.0714**		**0.0714**	**0.0714**	**0.0000**	**220.9670**	**220.9670**	**0.0201**	**3.7400e-003**	**222.5835**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.4137					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	4.3998					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0206	0.1763	0.0750	1.1200e-003		0.0143	0.0143		0.0143	0.0143	0.0000	204.1166	204.1166	3.9100e-003	3.7400e-003	205.3295
Landscaping	0.3096	0.1187	10.3054	5.4000e-004		0.0572	0.0572		0.0572	0.0572	0.0000	16.8504	16.8504	0.0161	0.0000	17.2540
Total	**5.1437**	**0.2950**	**10.3804**	**1.6600e-003**		**0.0714**	**0.0714**		**0.0714**	**0.0714**	**0.0000**	**220.9670**	**220.9670**	**0.0201**	**3.7400e-003**	**222.5835**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	585.8052	3.0183	0.0755	683.7567
Unmitigated	585.8052	3.0183	0.0755	683.7567

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Low Rise	1.62885 / 1.02688	10.9095	0.0535	1.3400e-003	12.6471
Apartments Mid Rise	63.5252 / 40.0485	425.4719	2.0867	0.0523	493.2363
General Office Building	7.99802 / 4.90201	53.0719	0.2627	6.5900e-003	61.6019
High Turnover (Sit Down Restaurant)	10.9272 / 0.697482	51.2702	0.3580	8.8200e-003	62.8482
Hotel	1.26834 / 0.140927	6.1633	0.0416	1.0300e-003	7.5079
Quality Restaurant	2.42827 / 0.154996	11.3934	0.0796	1.9600e-003	13.9663
Regional Shopping Center	4.14806 / 2.54236	27.5250	0.1363	3.4200e-003	31.9490
Total		**585.8052**	**3.0183**	**0.0755**	**683.7567**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Low Rise	1.62885 / 1.02688	10.9095	0.0535	1.3400e-003	12.6471
Apartments Mid Rise	63.5252 / 40.0485	425.4719	2.0867	0.0523	493.2363
General Office Building	7.99802 / 4.90201	53.0719	0.2627	6.5900e-003	61.6019
High Turnover (Sit Down Restaurant)	10.9272 / 0.697482	51.2702	0.3580	8.8200e-003	62.8482
Hotel	1.26834 / 0.140927	6.1633	0.0416	1.0300e-003	7.5079
Quality Restaurant	2.42827 / 0.154996	11.3934	0.0796	1.9600e-003	13.9663
Regional Shopping Center	4.14806 / 2.54236	27.5250	0.1363	3.4200e-003	31.9490
Total		**585.8052**	**3.0183**	**0.0755**	**683.7567**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	207.8079	12.2811	0.0000	514.8354
Unmitigated	207.8079	12.2811	0.0000	514.8354

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Low Rise	11.5	2.3344	0.1380	0.0000	5.7834
Apartments Mid Rise	448.5	91.0415	5.3804	0.0000	225.5513
General Office Building	41.85	8.4952	0.5021	0.0000	21.0464
High Turnover (Sit Down Restaurant)	428.4	86.9613	5.1393	0.0000	215.4430
Hotel	27.38	5.5579	0.3285	0.0000	13.7694
Quality Restaurant	7.3	1.4818	0.0876	0.0000	3.6712
Regional Shopping Center	58.8	11.9359	0.7054	0.0000	29.5706
Total		**207.8079**	**12.2811**	**0.0000**	**514.8354**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Low Rise	11.5	2.3344	0.1380	0.0000	5.7834
Apartments Mid Rise	448.5	91.0415	5.3804	0.0000	225.5513
General Office Building	41.85	8.4952	0.5021	0.0000	21.0464
High Turnover (Sit Down Restaurant)	428.4	86.9613	5.1393	0.0000	215.4430
Hotel	27.38	5.5579	0.3285	0.0000	13.7694
Quality Restaurant	7.3	1.4818	0.0876	0.0000	3.6712
Regional Shopping Center	58.8	11.9359	0.7054	0.0000	29.5706
Total		**207.8079**	**12.2811**	**0.0000**	**514.8354**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Village South Specific Plan (Proposed)

Los Angeles-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	45.00	1000sqft	1.03	45,000.00	0
High Turnover (Sit Down Restaurant)	36.00	1000sqft	0.83	36,000.00	0
Hotel	50.00	Room	1.67	72,600.00	0
Quality Restaurant	8.00	1000sqft	0.18	8,000.00	0
Apartments Low Rise	25.00	Dwelling Unit	1.56	25,000.00	72
Apartments Mid Rise	975.00	Dwelling Unit	25.66	975,000.00	2789
Regional Shopping Center	56.00	1000sqft	1.29	56,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2028
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

Project Characteristics - Consistent with the DEIR's model.

Land Use - See SWAPE comment regarding residential and retail land uses.

Construction Phase - See SWAPE comment regarding individual construction phase lengths.

Demolition - Consistent with the DEIR's model. See SWAPE comment regarding demolition.

Vehicle Trips - Saturday trips consistent with the DEIR's model. See SWAPE comment regarding weekday and Sunday trips.

Woodstoves - Woodstoves and wood-burning fireplaces consistent with the DEIR's model. See SWAPE comment regarding gas fireplaces.

Energy Use -

Construction Off-road Equipment Mitigation - See SWAPE comment on construction-related mitigation.

Area Mitigation - See SWAPE comment regarding operational mitigation measures.

Water Mitigation - See SWAPE comment regarding operational mitigation measures.

Table Name	Column Name	Default Value	New Value
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberWood	1.25	0.00
tblFireplaces	NumberWood	48.75	0.00
tblVehicleTrips	ST_TR	7.16	6.17
tblVehicleTrips	ST_TR	6.39	3.87
tblVehicleTrips	ST_TR	2.46	1.39
tblVehicleTrips	ST_TR	158.37	79.82
tblVehicleTrips	ST_TR	8.19	3.75
tblVehicleTrips	ST_TR	94.36	63.99
tblVehicleTrips	ST_TR	49.97	10.74
tblVehicleTrips	SU_TR	6.07	6.16
tblVehicleTrips	SU_TR	5.86	4.18
tblVehicleTrips	SU_TR	1.05	0.69
tblVehicleTrips	SU_TR	131.84	78.27

tblVehicleTrips	SU_TR	5.95	3.20
tblVehicleTrips	SU_TR	72.16	57.65
tblVehicleTrips	SU_TR	25.24	6.39
tblVehicleTrips	WD_TR	6.59	5.83
tblVehicleTrips	WD_TR	6.65	4.13
tblVehicleTrips	WD_TR	11.03	6.41
tblVehicleTrips	WD_TR	127.15	65.80
tblVehicleTrips	WD_TR	8.17	3.84
tblVehicleTrips	WD_TR	89.95	62.64
tblVehicleTrips	WD_TR	42.70	9.43
tblWoodstoves	NumberCatalytic	1.25	0.00
tblWoodstoves	NumberCatalytic	48.75	0.00
tblWoodstoves	NumberNoncatalytic	1.25	0.00
tblWoodstoves	NumberNoncatalytic	48.75	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	4.2769	46.4588	31.6840	0.0643	18.2675	2.0461	20.3135	9.9840	1.8824	11.8664	0.0000	6,234.7974	6,234.7974	1.9495	0.0000	6,283.5352
2022	5.3304	38.8967	49.5629	0.1517	9.8688	1.6366	10.7727	3.6558	1.5057	5.1615	0.0000	15,251.5674	15,251.5674	1.9503	0.0000	15,278.5288
2023	4.8957	26.3317	46.7567	0.1472	9.8688	0.7794	10.6482	2.6381	0.7322	3.3702	0.0000	14,807.5269	14,807.5269	1.0250	0.0000	14,833.1521
2024	237.1630	9.5575	15.1043	0.0244	1.7884	0.4698	1.8628	0.4743	0.4322	0.5476	0.0000	2,361.3989	2,361.3989	0.7177	0.0000	2,379.3421
Maximum	**237.1630**	**46.4588**	**49.5629**	**0.1517**	**18.2675**	**2.0461**	**20.3135**	**9.9840**	**1.8824**	**11.8664**	**0.0000**	**15,251.5674**	**15,251.5674**	**1.9503**	**0.0000**	**15,278.5288**

2.1 Overall Construction (Maximum Daily Emission)

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	4.2769	46.4588	31.6840	0.0643	18.2675	2.0461	20.3135	9.9840	1.8824	11.8664	0.0000	6,234.7974	6,234.7974	1.9495	0.0000	6,283.5352
2022	5.3304	38.8967	49.5629	0.1517	9.8688	1.6366	10.7727	3.6558	1.5057	5.1615	0.0000	15,251.5674	15,251.5674	1.9503	0.0000	15,278.5288
2023	4.8957	26.3317	46.7567	0.1472	9.8688	0.7794	10.6482	2.6381	0.7322	3.3702	0.0000	14,807.5269	14,807.5269	1.0250	0.0000	14,833.1520
2024	237.1630	9.5575	15.1043	0.0244	1.7884	0.4698	1.8628	0.4743	0.4322	0.5476	0.0000	2,361.3989	2,361.3989	0.7177	0.0000	2,379.3421
Maximum	**237.1630**	**46.4588**	**49.5629**	**0.1517**	**18.2675**	**2.0461**	**20.3135**	**9.9840**	**1.8824**	**11.8664**	**0.0000**	**15,251.5674**	**15,251.5674**	**1.9503**	**0.0000**	**15,278.5288**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192
Energy	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.6387
Mobile	9.8489	45.4304	114.8495	0.4917	45.9592	0.3360	46.2951	12.2950	0.3119	12.6070		50,306.6034	50,306.6034	2.1807		50,361.1208
Total	**41.1168**	**67.2262**	**207.5497**	**0.6278**	**45.9592**	**2.4626**	**48.4217**	**12.2950**	**2.4385**	**14.7336**	**0.0000**	**76,811.1816**	**76,811.1816**	**2.8282**	**0.4832**	**77,025.8786**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192
Energy	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.6387
Mobile	9.8489	45.4304	114.8495	0.4917	45.9592	0.3360	46.2951	12.2950	0.3119	12.6070		50,306.6034	50,306.6034	2.1807		50,361.1208
Total	**41.1168**	**67.2262**	**207.5497**	**0.6278**	**45.9592**	**2.4626**	**48.4217**	**12.2950**	**2.4385**	**14.7336**	**0.0000**	**76,811.1816**	**76,811.1816**	**2.8282**	**0.4832**	**77,025.8786**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	9/1/2021	10/12/2021	5	30	
2	Site Preparation	Site Preparation	10/13/2021	11/9/2021	5	20	
3	Grading	Grading	11/10/2021	1/11/2022	5	45	
4	Building Construction	Building Construction	1/12/2022	12/12/2023	5	500	
5	Paving	Paving	12/13/2023	1/30/2024	5	35	
6	Architectural Coating	Architectural Coating	1/31/2024	3/19/2024	5	35	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 112.5

Acres of Paving: 0

Residential Indoor: 2,025,000; Residential Outdoor: 675,000; Non-Residential Indoor: 326,400; Non-Residential Outdoor: 108,800; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	458.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	801.00	143.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	160.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.3074	0.0000	3.3074	0.5008	0.0000	0.5008			0.0000			0.0000
Off-Road	3.1651	31.4407	21.5650	0.0388		1.5513	1.5513		1.4411	1.4411		3,747.9449	3,747.9449	1.0549		3,774.3174
Total	**3.1651**	**31.4407**	**21.5650**	**0.0388**	**3.3074**	**1.5513**	**4.8588**	**0.5008**	**1.4411**	**1.9419**		**3,747.9449**	**3,747.9449**	**1.0549**		**3,774.3174**

3.2 Demolition - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1273	4.0952	0.9602	0.0119	0.2669	0.0126	0.2795	0.0732	0.0120	0.0852		1,292.2413	1,292.2413	0.0877		1,294.4337
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0643	0.0442	0.6042	1.7100e-003	0.1677	1.3500e-003	0.1690	0.0445	1.2500e-003	0.0457		170.8155	170.8155	5.0300e-003		170.9413
Total	**0.1916**	**4.1394**	**1.5644**	**0.0136**	**0.4346**	**0.0139**	**0.4485**	**0.1176**	**0.0133**	**0.1309**		**1,463.0568**	**1,463.0568**	**0.0927**		**1,465.3750**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.3074	0.0000	3.3074	0.5008	0.0000	0.5008			0.0000			0.0000
Off-Road	3.1651	31.4407	21.5650	0.0388		1.5513	1.5513		1.4411	1.4411	0.0000	3,747.9449	3,747.9449	1.0549		3,774.3174
Total	**3.1651**	**31.4407**	**21.5650**	**0.0388**	**3.3074**	**1.5513**	**4.8588**	**0.5008**	**1.4411**	**1.9419**	**0.0000**	**3,747.9449**	**3,747.9449**	**1.0549**		**3,774.3174**

3.2 Demolition - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1273	4.0952	0.9602	0.0119	0.2669	0.0126	0.2795	0.0732	0.0120	0.0852		1,292.2413	1,292.2413	0.0877		1,294.4337
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0643	0.0442	0.6042	1.7100e-003	0.1677	1.3500e-003	0.1690	0.0445	1.2500e-003	0.0457		170.8155	170.8155	5.0300e-003		170.9413
Total	**0.1916**	**4.1394**	**1.5644**	**0.0136**	**0.4346**	**0.0139**	**0.4485**	**0.1176**	**0.0133**	**0.1309**		**1,463.0568**	**1,463.0568**	**0.0927**		**1,465.3750**

3.3 Site Preparation - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809		3,685.6569	3,685.6569	1.1920		3,715.4573
Total	**3.8882**	**40.4971**	**21.1543**	**0.0380**	**18.0663**	**2.0445**	**20.1107**	**9.9307**	**1.8809**	**11.8116**		**3,685.6569**	**3,685.6569**	**1.1920**		**3,715.4573**

3.3 Site Preparation - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0772	0.0530	0.7250	2.0600e-003	0.2012	1.6300e-003	0.2028	0.0534	1.5000e-003	0.0549		204.9786	204.9786	6.0400e-003		205.1296
Total	**0.0772**	**0.0530**	**0.7250**	**2.0600e-003**	**0.2012**	**1.6300e-003**	**0.2028**	**0.0534**	**1.5000e-003**	**0.0549**		**204.9786**	**204.9786**	**6.0400e-003**		**205.1296**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809	0.0000	3,685.6569	3,685.6569	1.1920		3,715.4573
Total	**3.8882**	**40.4971**	**21.1543**	**0.0380**	**18.0663**	**2.0445**	**20.1107**	**9.9307**	**1.8809**	**11.8116**	**0.0000**	**3,685.6569**	**3,685.6569**	**1.1920**		**3,715.4573**

3.3 Site Preparation - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0772	0.0530	0.7250	2.0600e-003	0.2012	1.6300e-003	0.2028	0.0534	1.5000e-003	0.0549		204.9786	204.9786	6.0400e-003		205.1296
Total	**0.0772**	**0.0530**	**0.7250**	**2.0600e-003**	**0.2012**	**1.6300e-003**	**0.2028**	**0.0534**	**1.5000e-003**	**0.0549**		**204.9786**	**204.9786**	**6.0400e-003**		**205.1296**

3.4 Grading - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	4.1912	46.3998	30.8785	0.0620		1.9853	1.9853		1.8265	1.8265		6,007.0434	6,007.0434	1.9428		6,055.6134
Total	**4.1912**	**46.3998**	**30.8785**	**0.0620**	**8.6733**	**1.9853**	**10.6587**	**3.5965**	**1.8265**	**5.4230**		**6,007.0434**	**6,007.0434**	**1.9428**		**6,055.6134**

3.4 Grading - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0857	0.0589	0.8056	2.2900e-003	0.2236	1.8100e-003	0.2254	0.0593	1.6600e-003	0.0610		227.7540	227.7540	6.7100e-003		227.9217
Total	**0.0857**	**0.0589**	**0.8056**	**2.2900e-003**	**0.2236**	**1.8100e-003**	**0.2254**	**0.0593**	**1.6600e-003**	**0.0610**		**227.7540**	**227.7540**	**6.7100e-003**		**227.9217**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	4.1912	46.3998	30.8785	0.0620		1.9853	1.9853		1.8265	1.8265	0.0000	6,007.0434	6,007.0434	1.9428		6,055.6134
Total	**4.1912**	**46.3998**	**30.8785**	**0.0620**	**8.6733**	**1.9853**	**10.6587**	**3.5965**	**1.8265**	**5.4230**	**0.0000**	**6,007.0434**	**6,007.0434**	**1.9428**		**6,055.6134**

3.4 Grading - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0857	0.0589	0.8056	2.2900e-003	0.2236	1.8100e-003	0.2254	0.0593	1.6600e-003	0.0610		227.7540	227.7540	6.7100e-003		227.9217
Total	**0.0857**	**0.0589**	**0.8056**	**2.2900e-003**	**0.2236**	**1.8100e-003**	**0.2254**	**0.0593**	**1.6600e-003**	**0.0610**		**227.7540**	**227.7540**	**6.7100e-003**		**227.9217**

3.4 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041		6,011.4105	6,011.4105	1.9442		6,060.0158
Total	**3.6248**	**38.8435**	**29.0415**	**0.0621**	**8.6733**	**1.6349**	**10.3082**	**3.5965**	**1.5041**	**5.1006**		**6,011.4105**	**6,011.4105**	**1.9442**		**6,060.0158**

3.4 Grading - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0803	0.0532	0.7432	2.2100e-003	0.2236	1.7500e-003	0.2253	0.0593	1.6100e-003	0.0609		219.7425	219.7425	6.0600e-003		219.8941
Total	**0.0803**	**0.0532**	**0.7432**	**2.2100e-003**	**0.2236**	**1.7500e-003**	**0.2253**	**0.0593**	**1.6100e-003**	**0.0609**		**219.7425**	**219.7425**	**6.0600e-003**		**219.8941**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041	0.0000	6,011.4105	6,011.4105	1.9442		6,060.0158
Total	**3.6248**	**38.8435**	**29.0415**	**0.0621**	**8.6733**	**1.6349**	**10.3082**	**3.5965**	**1.5041**	**5.1006**	**0.0000**	**6,011.4105**	**6,011.4105**	**1.9442**		**6,060.0158**

3.4 Grading - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0803	0.0532	0.7432	2.2100e-003	0.2236	1.7500e-003	0.2253	0.0593	1.6100e-003	0.0609		219.7425	219.7425	6.0600e-003		219.8941
Total	**0.0803**	**0.0532**	**0.7432**	**2.2100e-003**	**0.2236**	**1.7500e-003**	**0.2253**	**0.0593**	**1.6100e-003**	**0.0609**		**219.7425**	**219.7425**	**6.0600e-003**		**219.8941**

3.5 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**		**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

3.5 Building Construction - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.4079	13.2032	3.4341	0.0364	0.9155	0.0248	0.9404	0.2636	0.0237	0.2873		3,896.5482	3,896.5482	0.2236		3,902.1384
Worker	3.2162	2.1318	29.7654	0.0883	8.9533	0.0701	9.0234	2.3745	0.0646	2.4390		8,800.6857	8,800.6857	0.2429		8,806.7582
Total	**3.6242**	**15.3350**	**33.1995**	**0.1247**	**9.8688**	**0.0949**	**9.9637**	**2.6381**	**0.0883**	**2.7263**		**12,697.2339**	**12,697.2339**	**0.4665**		**12,708.8966**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612	0.0000	2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**	**0.0000**	**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

3.5 Building Construction - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.4079	13.2032	3.4341	0.0364	0.9155	0.0248	0.9404	0.2636	0.0237	0.2873		3,896.5482	3,896.5482	0.2236		3,902.1384
Worker	3.2162	2.1318	29.7654	0.0883	8.9533	0.0701	9.0234	2.3745	0.0646	2.4390		8,800.6857	8,800.6857	0.2429		8,806.7582
Total	**3.6242**	**15.3350**	**33.1995**	**0.1247**	**9.8688**	**0.0949**	**9.9637**	**2.6381**	**0.0883**	**2.7263**		**12,697.2339**	**12,697.2339**	**0.4665**		**12,708.8966**

3.5 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**		**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

3.5 Building Construction - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.3027	10.0181	3.1014	0.0352	0.9156	0.0116	0.9271	0.2636	0.0111	0.2747		3,773.8762	3,773.8762	0.1982		3,778.8300
Worker	3.0203	1.9287	27.4113	0.0851	8.9533	0.0681	9.0214	2.3745	0.0627	2.4372		8,478.4408	8,478.4408	0.2190		8,483.9160
Total	**3.3229**	**11.9468**	**30.5127**	**0.1203**	**9.8688**	**0.0797**	**9.9485**	**2.6381**	**0.0738**	**2.7118**		**12,252.3170**	**12,252.3170**	**0.4172**		**12,262.7460**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**	**0.0000**	**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

3.5 Building Construction - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.3027	10.0181	3.1014	0.0352	0.9156	0.0116	0.9271	0.2636	0.0111	0.2747		3,773.8762	3,773.8762	0.1982		3,778.8300
Worker	3.0203	1.9287	27.4113	0.0851	8.9533	0.0681	9.0214	2.3745	0.0627	2.4372		8,478.4408	8,478.4408	0.2190		8,483.9160
Total	**3.3229**	**11.9468**	**30.5127**	**0.1203**	**9.8688**	**0.0797**	**9.9485**	**2.6381**	**0.0738**	**2.7118**		**12,252.3170**	**12,252.3170**	**0.4172**		**12,262.7460**

3.6 Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694		2,207.5841	2,207.5841	0.7140		2,225.4336
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.0327**	**10.1917**	**14.5842**	**0.0228**		**0.5102**	**0.5102**		**0.4694**	**0.4694**		**2,207.5841**	**2,207.5841**	**0.7140**		**2,225.4336**

3.6 Paving - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0566	0.0361	0.5133	1.5900e-003	0.1677	1.2800e-003	0.1689	0.0445	1.1700e-003	0.0456		158.7723	158.7723	4.1000e-003		158.8748
Total	**0.0566**	**0.0361**	**0.5133**	**1.5900e-003**	**0.1677**	**1.2800e-003**	**0.1689**	**0.0445**	**1.1700e-003**	**0.0456**		**158.7723**	**158.7723**	**4.1000e-003**		**158.8748**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694	0.0000	2,207.5841	2,207.5841	0.7140		2,225.4336
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.0327**	**10.1917**	**14.5842**	**0.0228**		**0.5102**	**0.5102**		**0.4694**	**0.4694**	**0.0000**	**2,207.5841**	**2,207.5841**	**0.7140**		**2,225.4336**

3.6 Paving - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0566	0.0361	0.5133	1.5900e-003	0.1677	1.2800e-003	0.1689	0.0445	1.1700e-003	0.0456		158.7723	158.7723	4.1000e-003		158.8748
Total	**0.0566**	**0.0361**	**0.5133**	**1.5900e-003**	**0.1677**	**1.2800e-003**	**0.1689**	**0.0445**	**1.1700e-003**	**0.0456**		**158.7723**	**158.7723**	**4.1000e-003**		**158.8748**

3.6 Paving - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310		2,207.5472	2,207.5472	0.7140		2,225.3963
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9882**	**9.5246**	**14.6258**	**0.0228**		**0.4685**	**0.4685**		**0.4310**	**0.4310**		**2,207.5472**	**2,207.5472**	**0.7140**		**2,225.3963**

3.6 Paving - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0535	0.0329	0.4785	1.5400e-003	0.1677	1.2600e-003	0.1689	0.0445	1.1600e-003	0.0456		153.8517	153.8517	3.7600e-003		153.9458
Total	**0.0535**	**0.0329**	**0.4785**	**1.5400e-003**	**0.1677**	**1.2600e-003**	**0.1689**	**0.0445**	**1.1600e-003**	**0.0456**		**153.8517**	**153.8517**	**3.7600e-003**		**153.9458**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310	0.0000	2,207.5472	2,207.5472	0.7140		2,225.3963
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9882**	**9.5246**	**14.6258**	**0.0228**		**0.4685**	**0.4685**		**0.4310**	**0.4310**	**0.0000**	**2,207.5472**	**2,207.5472**	**0.7140**		**2,225.3963**

3.6 Paving - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0535	0.0329	0.4785	1.5400e-003	0.1677	1.2600e-003	0.1689	0.0445	1.1600e-003	0.0456		153.8517	153.8517	3.7600e-003		153.9458
Total	**0.0535**	**0.0329**	**0.4785**	**1.5400e-003**	**0.1677**	**1.2600e-003**	**0.1689**	**0.0445**	**1.1600e-003**	**0.0456**		**153.8517**	**153.8517**	**3.7600e-003**		**153.9458**

3.7 Architectural Coating - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	236.4115					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443
Total	**236.5923**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**		**281.4481**	**281.4481**	**0.0159**		**281.8443**

3.7 Architectural Coating - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.5707	0.3513	5.1044	0.0165	1.7884	0.0134	1.8018	0.4743	0.0123	0.4866		1,641.0852	1,641.0852	0.0401		1,642.0886
Total	**0.5707**	**0.3513**	**5.1044**	**0.0165**	**1.7884**	**0.0134**	**1.8018**	**0.4743**	**0.0123**	**0.4866**		**1,641.0852**	**1,641.0852**	**0.0401**		**1,642.0886**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	236.4115					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609	0.0000	281.4481	281.4481	0.0159		281.8443
Total	**236.5923**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**	**0.0000**	**281.4481**	**281.4481**	**0.0159**		**281.8443**

3.7 Architectural Coating - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.5707	0.3513	5.1044	0.0165	1.7884	0.0134	1.8018	0.4743	0.0123	0.4866		1,641.0852	1,641.0852	0.0401		1,642.0886
Total	**0.5707**	**0.3513**	**5.1044**	**0.0165**	**1.7884**	**0.0134**	**1.8018**	**0.4743**	**0.0123**	**0.4866**		**1,641.0852**	**1,641.0852**	**0.0401**		**1,642.0886**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	9.8489	45.4304	114.8495	0.4917	45.9592	0.3360	46.2951	12.2950	0.3119	12.6070		50,306.6034	50,306.6034	2.1807		50,361.1208
Unmitigated	9.8489	45.4304	114.8495	0.4917	45.9592	0.3360	46.2951	12.2950	0.3119	12.6070		50,306.6034	50,306.6034	2.1807		50,361.1208

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	145.75	154.25	154.00	506,227	506,227
Apartments Mid Rise	4,026.75	3,773.25	4075.50	13,660,065	13,660,065
General Office Building	288.45	62.55	31.05	706,812	706,812
High Turnover (Sit Down Restaurant)	2,368.80	2,873.52	2817.72	3,413,937	3,413,937
Hotel	192.00	187.50	160.00	445,703	445,703
Quality Restaurant	501.12	511.92	461.20	707,488	707,488
Regional Shopping Center	528.08	601.44	357.84	1,112,221	1,112,221
Total	8,050.95	8,164.43	8,057.31	20,552,452	20,552,452

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Low Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Apartments Mid Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
High Turnover (Sit Down	16.60	8.40	6.90	8.50	72.50	19.00	37	20	43
Hotel	16.60	8.40	6.90	19.40	61.60	19.00	58	38	4
Quality Restaurant	16.60	8.40	6.90	12.00	69.00	19.00	38	18	44
Regional Shopping Center	16.60	8.40	6.90	16.30	64.70	19.00	54	35	11

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Low Rise	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Apartments Mid Rise	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
General Office Building	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
High Turnover (Sit Down Restaurant)	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Hotel	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Quality Restaurant	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Regional Shopping Center	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.6387
NaturalGas Unmitigated	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.6387

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Low Rise	1119.16	0.0121	0.1031	0.0439	6.6000e-004		8.3400e-003	8.3400e-003		8.3400e-003	8.3400e-003		131.6662	131.6662	2.5200e-003	2.4100e-003	132.4486
Apartments Mid Rise	35784.3	0.3859	3.2978	1.4033	0.0211		0.2666	0.2666		0.2666	0.2666		4,209.9164	4,209.9164	0.0807	0.0772	4,234.9339
General Office Building	1283.42	0.0138	0.1258	0.1057	7.5000e-004		9.5600e-003	9.5600e-003		9.5600e-003	9.5600e-003		150.9911	150.9911	2.8900e-003	2.7700e-003	151.8884
High Turnover (Sit Down Restaurant)	22759.9	0.2455	2.2314	1.8743	0.0134		0.1696	0.1696		0.1696	0.1696		2,677.6342	2,677.6342	0.0513	0.0491	2,693.5460
Hotel	4769.72	0.0514	0.4676	0.3928	2.8100e-003		0.0355	0.0355		0.0355	0.0355		561.1436	561.1436	0.0108	0.0103	564.4782
Quality Restaurant	5057.75	0.0545	0.4959	0.4165	2.9800e-003		0.0377	0.0377		0.0377	0.0377		595.0298	595.0298	0.0114	0.0109	598.5658
Regional Shopping Center	251.616	2.7100e-003	0.0247	0.0207	1.5000e-004		1.8700e-003	1.8700e-003		1.8700e-003	1.8700e-003		29.6019	29.6019	5.7000e-004	5.4000e-004	29.7778
Total		**0.7660**	**6.7463**	**4.2573**	**0.0418**		**0.5292**	**0.5292**		**0.5292**	**0.5292**		**8,355.9832**	**8,355.9832**	**0.1602**	**0.1532**	**8,405.6387**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Low Rise	1.11916	0.0121	0.1031	0.0439	6.6000e-004		8.3400e-003	8.3400e-003		8.3400e-003	8.3400e-003		131.6662	131.6662	2.5200e-003	2.4100e-003	132.4486
Apartments Mid Rise	35.7843	0.3859	3.2978	1.4033	0.0211		0.2666	0.2666		0.2666	0.2666		4,209.9164	4,209.9164	0.0807	0.0772	4,234.9339
General Office Building	1.28342	0.0138	0.1258	0.1057	7.5000e-004		9.5600e-003	9.5600e-003		9.5600e-003	9.5600e-003		150.9911	150.9911	2.8900e-003	2.7700e-003	151.8884
High Turnover (Sit Down Restaurant)	22.7599	0.2455	2.2314	1.8743	0.0134		0.1696	0.1696		0.1696	0.1696		2,677.6342	2,677.6342	0.0513	0.0491	2,693.5460
Hotel	4.76972	0.0514	0.4676	0.3928	2.8100e-003		0.0355	0.0355		0.0355	0.0355		561.1436	561.1436	0.0108	0.0103	564.4782
Quality Restaurant	5.05775	0.0545	0.4959	0.4165	2.9800e-003		0.0377	0.0377		0.0377	0.0377		595.0298	595.0298	0.0114	0.0109	598.5658
Regional Shopping Center	0.251616	2.7100e-003	0.0247	0.0207	1.5000e-004		1.8700e-003	1.8700e-003		1.8700e-003	1.8700e-003		29.6019	29.6019	5.7000e-004	5.4000e-004	29.7778
Total		**0.7660**	**6.7463**	**4.2573**	**0.0418**		**0.5292**	**0.5292**		**0.5292**	**0.5292**		**8,355.9832**	**8,355.9832**	**0.1602**	**0.1532**	**8,405.6387**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192
Unmitigated	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	2.2670					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	24.1085					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	1.6500	14.1000	6.0000	0.0900		1.1400	1.1400		1.1400	1.1400	0.0000	18,000.0000	18,000.0000	0.3450	0.3300	18,106.9650
Landscaping	2.4766	0.9496	82.4430	4.3600e-003		0.4574	0.4574		0.4574	0.4574		148.5950	148.5950	0.1424		152.1542
Total	**30.5020**	**15.0496**	**88.4430**	**0.0944**		**1.5974**	**1.5974**		**1.5974**	**1.5974**	**0.0000**	**18,148.5950**	**18,148.5950**	**0.4874**	**0.3300**	**18,259.1192**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	2.2670					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	24.1085					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	1.6500	14.1000	6.0000	0.0900		1.1400	1.1400		1.1400	1.1400	0.0000	18,000.0000	18,000.0000	0.3450	0.3300	18,106.9650
Landscaping	2.4766	0.9496	82.4430	4.3600e-003		0.4574	0.4574		0.4574	0.4574		148.5950	148.5950	0.1424		152.1542
Total	**30.5020**	**15.0496**	**88.4430**	**0.0944**		**1.5974**	**1.5974**		**1.5974**	**1.5974**	**0.0000**	**18,148.5950**	**18,148.5950**	**0.4874**	**0.3300**	**18,259.1192**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Village South Specific Plan (Proposed)

Los Angeles-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	45.00	1000sqft	1.03	45,000.00	0
High Turnover (Sit Down Restaurant)	36.00	1000sqft	0.83	36,000.00	0
Hotel	50.00	Room	1.67	72,600.00	0
Quality Restaurant	8.00	1000sqft	0.18	8,000.00	0
Apartments Low Rise	25.00	Dwelling Unit	1.56	25,000.00	72
Apartments Mid Rise	975.00	Dwelling Unit	25.66	975,000.00	2789
Regional Shopping Center	56.00	1000sqft	1.29	56,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2028
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

Project Characteristics - Consistent with the DEIR's model.

Land Use - See SWAPE comment regarding residential and retail land uses.

Construction Phase - See SWAPE comment regarding individual construction phase lengths.

Demolition - Consistent with the DEIR's model. See SWAPE comment regarding demolition.

Vehicle Trips - Saturday trips consistent with the DEIR's model. See SWAPE comment regarding weekday and Sunday trips.

Woodstoves - Woodstoves and wood-burning fireplaces consistent with the DEIR's model. See SWAPE comment regarding gas fireplaces.

Energy Use -

Construction Off-road Equipment Mitigation - See SWAPE comment on construction-related mitigation.

Area Mitigation - See SWAPE comment regarding operational mitigation measures.

Water Mitigation - See SWAPE comment regarding operational mitigation measures.

Table Name	Column Name	Default Value	New Value
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberWood	1.25	0.00
tblFireplaces	NumberWood	48.75	0.00
tblVehicleTrips	ST_TR	7.16	6.17
tblVehicleTrips	ST_TR	6.39	3.87
tblVehicleTrips	ST_TR	2.46	1.39
tblVehicleTrips	ST_TR	158.37	79.82
tblVehicleTrips	ST_TR	8.19	3.75
tblVehicleTrips	ST_TR	94.36	63.99
tblVehicleTrips	ST_TR	49.97	10.74
tblVehicleTrips	SU_TR	6.07	6.16
tblVehicleTrips	SU_TR	5.86	4.18
tblVehicleTrips	SU_TR	1.05	0.69
tblVehicleTrips	SU_TR	131.84	78.27

tblVehicleTrips	SU_TR	5.95	3.20
tblVehicleTrips	SU_TR	72.16	57.65
tblVehicleTrips	SU_TR	25.24	6.39
tblVehicleTrips	WD_TR	6.59	5.83
tblVehicleTrips	WD_TR	6.65	4.13
tblVehicleTrips	WD_TR	11.03	6.41
tblVehicleTrips	WD_TR	127.15	65.80
tblVehicleTrips	WD_TR	8.17	3.84
tblVehicleTrips	WD_TR	89.95	62.64
tblVehicleTrips	WD_TR	42.70	9.43
tblWoodstoves	NumberCatalytic	1.25	0.00
tblWoodstoves	NumberCatalytic	48.75	0.00
tblWoodstoves	NumberNoncatalytic	1.25	0.00
tblWoodstoves	NumberNoncatalytic	48.75	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	4.2865	46.4651	31.6150	0.0642	18.2675	2.0461	20.3135	9.9840	1.8824	11.8664	0.0000	6,221.4937	6,221.4937	1.9491	0.0000	6,270.2214
2022	5.7218	38.9024	47.3319	0.1455	9.8688	1.6366	10.7736	3.6558	1.5057	5.1615	0.0000	14,630.3099	14,630.3099	1.9499	0.0000	14,657.2663
2023	5.2705	26.4914	44.5936	0.1413	9.8688	0.7800	10.6488	2.6381	0.7328	3.3708	0.0000	14,210.3424	14,210.3424	1.0230	0.0000	14,235.9160
2024	237.2328	9.5610	15.0611	0.0243	1.7884	0.4698	1.8628	0.4743	0.4322	0.5476	0.0000	2,352.4178	2,352.4178	0.7175	0.0000	2,370.3550
Maximum	**237.2328**	**46.4651**	**47.3319**	**0.1455**	**18.2675**	**2.0461**	**20.3135**	**9.9840**	**1.8824**	**11.8664**	**0.0000**	**14,630.3099**	**14,630.3099**	**1.9499**	**0.0000**	**14,657.2663**

2.1 Overall Construction (Maximum Daily Emission)

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	4.2865	46.4651	31.6150	0.0642	18.2675	2.0461	20.3135	9.9840	1.8824	11.8664	0.0000	6,221.4937	6,221.4937	1.9491	0.0000	6,270.2214
2022	5.7218	38.9024	47.3319	0.1455	9.8688	1.6366	10.7736	3.6558	1.5057	5.1615	0.0000	14,630.3099	14,630.3099	1.9499	0.0000	14,657.2663
2023	5.2705	26.4914	44.5936	0.1413	9.8688	0.7800	10.6488	2.6381	0.7328	3.3708	0.0000	14,210.3424	14,210.3424	1.0230	0.0000	14,235.9160
2024	237.2328	9.5610	15.0611	0.0243	1.7884	0.4698	1.8628	0.4743	0.4322	0.5476	0.0000	2,352.4178	2,352.4178	0.7175	0.0000	2,370.3550
Maximum	**237.2328**	**46.4651**	**47.3319**	**0.1455**	**18.2675**	**2.0461**	**20.3135**	**9.9840**	**1.8824**	**11.8664**	**0.0000**	**14,630.3099**	**14,630.3099**	**1.9499**	**0.0000**	**14,657.2663**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192
Energy	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.6387
Mobile	9.5233	45.9914	110.0422	0.4681	45.9592	0.3373	46.2965	12.2950	0.3132	12.6083		47,917.8005	47,917.8005	2.1953		47,972.6839
Total	**40.7912**	**67.7872**	**202.7424**	**0.6043**	**45.9592**	**2.4640**	**48.4231**	**12.2950**	**2.4399**	**14.7349**	**0.0000**	**74,422.3787**	**74,422.3787**	**2.8429**	**0.4832**	**74,637.4417**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192
Energy	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.6387
Mobile	9.5233	45.9914	110.0422	0.4681	45.9592	0.3373	46.2965	12.2950	0.3132	12.6083		47,917.8005	47,917.8005	2.1953		47,972.6839
Total	**40.7912**	**67.7872**	**202.7424**	**0.6043**	**45.9592**	**2.4640**	**48.4231**	**12.2950**	**2.4399**	**14.7349**	**0.0000**	**74,422.3787**	**74,422.3787**	**2.8429**	**0.4832**	**74,637.4417**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	9/1/2021	10/12/2021	5	30	
2	Site Preparation	Site Preparation	10/13/2021	11/9/2021	5	20	
3	Grading	Grading	11/10/2021	1/11/2022	5	45	
4	Building Construction	Building Construction	1/12/2022	12/12/2023	5	500	
5	Paving	Paving	12/13/2023	1/30/2024	5	35	
6	Architectural Coating	Architectural Coating	1/31/2024	3/19/2024	5	35	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 112.5

Acres of Paving: 0

Residential Indoor: 2,025,000; Residential Outdoor: 675,000; Non-Residential Indoor: 326,400; Non-Residential Outdoor: 108,800; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	458.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	801.00	143.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	160.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.3074	0.0000	3.3074	0.5008	0.0000	0.5008			0.0000			0.0000
Off-Road	3.1651	31.4407	21.5650	0.0388		1.5513	1.5513		1.4411	1.4411		3,747.9449	3,747.9449	1.0549		3,774.3174
Total	**3.1651**	**31.4407**	**21.5650**	**0.0388**	**3.3074**	**1.5513**	**4.8588**	**0.5008**	**1.4411**	**1.9419**		**3,747.9449**	**3,747.9449**	**1.0549**		**3,774.3174**

3.2 Demolition - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1304	4.1454	1.0182	0.0117	0.2669	0.0128	0.2797	0.0732	0.0122	0.0854		1,269.8555	1,269.8555	0.0908		1,272.1252
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0715	0.0489	0.5524	1.6100e-003	0.1677	1.3500e-003	0.1690	0.0445	1.2500e-003	0.0457		160.8377	160.8377	4.7300e-003		160.9560
Total	**0.2019**	**4.1943**	**1.5706**	**0.0133**	**0.4346**	**0.0141**	**0.4487**	**0.1176**	**0.0135**	**0.1311**		**1,430.6932**	**1,430.6932**	**0.0955**		**1,433.0812**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.3074	0.0000	3.3074	0.5008	0.0000	0.5008			0.0000			0.0000
Off-Road	3.1651	31.4407	21.5650	0.0388		1.5513	1.5513		1.4411	1.4411	0.0000	3,747.9449	3,747.9449	1.0549		3,774.3174
Total	**3.1651**	**31.4407**	**21.5650**	**0.0388**	**3.3074**	**1.5513**	**4.8588**	**0.5008**	**1.4411**	**1.9419**	**0.0000**	**3,747.9449**	**3,747.9449**	**1.0549**		**3,774.3174**

3.2 Demolition - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1304	4.1454	1.0182	0.0117	0.2669	0.0128	0.2797	0.0732	0.0122	0.0854		1,269.8555	1,269.8555	0.0908		1,272.1252
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0715	0.0489	0.5524	1.6100e-003	0.1677	1.3500e-003	0.1690	0.0445	1.2500e-003	0.0457		160.8377	160.8377	4.7300e-003		160.9560
Total	**0.2019**	**4.1943**	**1.5706**	**0.0133**	**0.4346**	**0.0141**	**0.4487**	**0.1176**	**0.0135**	**0.1311**		**1,430.6932**	**1,430.6932**	**0.0955**		**1,433.0812**

3.3 Site Preparation - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809		3,685.6569	3,685.6569	1.1920		3,715.4573
Total	**3.8882**	**40.4971**	**21.1543**	**0.0380**	**18.0663**	**2.0445**	**20.1107**	**9.9307**	**1.8809**	**11.8116**		**3,685.6569**	**3,685.6569**	**1.1920**		**3,715.4573**

3.3 Site Preparation - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0858	0.0587	0.6629	1.9400e-003	0.2012	1.6300e-003	0.2028	0.0534	1.5000e-003	0.0549		193.0052	193.0052	5.6800e-003		193.1472
Total	**0.0858**	**0.0587**	**0.6629**	**1.9400e-003**	**0.2012**	**1.6300e-003**	**0.2028**	**0.0534**	**1.5000e-003**	**0.0549**		**193.0052**	**193.0052**	**5.6800e-003**		**193.1472**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809	0.0000	3,685.6569	3,685.6569	1.1920		3,715.4573
Total	**3.8882**	**40.4971**	**21.1543**	**0.0380**	**18.0663**	**2.0445**	**20.1107**	**9.9307**	**1.8809**	**11.8116**	**0.0000**	**3,685.6569**	**3,685.6569**	**1.1920**		**3,715.4573**

3.3 Site Preparation - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0858	0.0587	0.6629	1.9400e-003	0.2012	1.6300e-003	0.2028	0.0534	1.5000e-003	0.0549		193.0052	193.0052	5.6800e-003		193.1472
Total	**0.0858**	**0.0587**	**0.6629**	**1.9400e-003**	**0.2012**	**1.6300e-003**	**0.2028**	**0.0534**	**1.5000e-003**	**0.0549**		**193.0052**	**193.0052**	**5.6800e-003**		**193.1472**

3.4 Grading - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	4.1912	46.3998	30.8785	0.0620		1.9853	1.9853		1.8265	1.8265		6,007.0434	6,007.0434	1.9428		6,055.6134
Total	**4.1912**	**46.3998**	**30.8785**	**0.0620**	**8.6733**	**1.9853**	**10.6587**	**3.5965**	**1.8265**	**5.4230**		**6,007.0434**	**6,007.0434**	**1.9428**		**6,055.6134**

3.4 Grading - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0954	0.0652	0.7365	2.1500e-003	0.2236	1.8100e-003	0.2254	0.0593	1.6600e-003	0.0610		214.4502	214.4502	6.3100e-003		214.6080
Total	**0.0954**	**0.0652**	**0.7365**	**2.1500e-003**	**0.2236**	**1.8100e-003**	**0.2254**	**0.0593**	**1.6600e-003**	**0.0610**		**214.4502**	**214.4502**	**6.3100e-003**		**214.6080**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	4.1912	46.3998	30.8785	0.0620		1.9853	1.9853		1.8265	1.8265	0.0000	6,007.0434	6,007.0434	1.9428		6,055.6134
Total	**4.1912**	**46.3998**	**30.8785**	**0.0620**	**8.6733**	**1.9853**	**10.6587**	**3.5965**	**1.8265**	**5.4230**	**0.0000**	**6,007.0434**	**6,007.0434**	**1.9428**		**6,055.6134**

3.4 Grading - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0954	0.0652	0.7365	2.1500e-003	0.2236	1.8100e-003	0.2254	0.0593	1.6600e-003	0.0610		214.4502	214.4502	6.3100e-003		214.6080
Total	**0.0954**	**0.0652**	**0.7365**	**2.1500e-003**	**0.2236**	**1.8100e-003**	**0.2254**	**0.0593**	**1.6600e-003**	**0.0610**		**214.4502**	**214.4502**	**6.3100e-003**		**214.6080**

3.4 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041		6,011.4105	6,011.4105	1.9442		6,060.0158
Total	**3.6248**	**38.8435**	**29.0415**	**0.0621**	**8.6733**	**1.6349**	**10.3082**	**3.5965**	**1.5041**	**5.1006**		**6,011.4105**	**6,011.4105**	**1.9442**		**6,060.0158**

3.4 Grading - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0896	0.0589	0.6784	2.0800e-003	0.2236	1.7500e-003	0.2253	0.0593	1.6100e-003	0.0609		206.9139	206.9139	5.7000e-003		207.0563
Total	**0.0896**	**0.0589**	**0.6784**	**2.0800e-003**	**0.2236**	**1.7500e-003**	**0.2253**	**0.0593**	**1.6100e-003**	**0.0609**		**206.9139**	**206.9139**	**5.7000e-003**		**207.0563**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041	0.0000	6,011.4105	6,011.4105	1.9442		6,060.0158
Total	**3.6248**	**38.8435**	**29.0415**	**0.0621**	**8.6733**	**1.6349**	**10.3082**	**3.5965**	**1.5041**	**5.1006**	**0.0000**	**6,011.4105**	**6,011.4105**	**1.9442**		**6,060.0158**

3.4 Grading - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0896	0.0589	0.6784	2.0800e-003	0.2236	1.7500e-003	0.2253	0.0593	1.6100e-003	0.0609		206.9139	206.9139	5.7000e-003		207.0563
Total	**0.0896**	**0.0589**	**0.6784**	**2.0800e-003**	**0.2236**	**1.7500e-003**	**0.2253**	**0.0593**	**1.6100e-003**	**0.0609**		**206.9139**	**206.9139**	**5.7000e-003**		**207.0563**

3.5 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**		**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

3.5 Building Construction - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.4284	13.1673	3.8005	0.0354	0.9155	0.0256	0.9412	0.2636	0.0245	0.2881		3,789.0750	3,789.0750	0.2381		3,795.0283
Worker	3.5872	2.3593	27.1680	0.0832	8.9533	0.0701	9.0234	2.3745	0.0646	2.4390		8,286.9013	8,286.9013	0.2282		8,292.6058
Total	**4.0156**	**15.5266**	**30.9685**	**0.1186**	**9.8688**	**0.0957**	**9.9645**	**2.6381**	**0.0891**	**2.7271**		**12,075.9763**	**12,075.9763**	**0.4663**		**12,087.6341**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612	0.0000	2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**	**0.0000**	**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

3.5 Building Construction - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.4284	13.1673	3.8005	0.0354	0.9155	0.0256	0.9412	0.2636	0.0245	0.2881		3,789.0750	3,789.0750	0.2381		3,795.0283
Worker	3.5872	2.3593	27.1680	0.0832	8.9533	0.0701	9.0234	2.3745	0.0646	2.4390		8,286.9013	8,286.9013	0.2282		8,292.6058
Total	**4.0156**	**15.5266**	**30.9685**	**0.1186**	**9.8688**	**0.0957**	**9.9645**	**2.6381**	**0.0891**	**2.7271**		**12,075.9763**	**12,075.9763**	**0.4663**		**12,087.6341**

3.5 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**		**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

3.5 Building Construction - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.3183	9.9726	3.3771	0.0343	0.9156	0.0122	0.9277	0.2636	0.0116	0.2752		3,671.4007	3,671.4007	0.2096		3,676.6417
Worker	3.3795	2.1338	24.9725	0.0801	8.9533	0.0681	9.0214	2.3745	0.0627	2.4372		7,983.7318	7,983.7318	0.2055		7,988.8683
Total	**3.6978**	**12.1065**	**28.3496**	**0.1144**	**9.8688**	**0.0803**	**9.9491**	**2.6381**	**0.0743**	**2.7124**		**11,655.1325**	**11,655.1325**	**0.4151**		**11,665.5099**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**	**0.0000**	**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

3.5 Building Construction - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.3183	9.9726	3.3771	0.0343	0.9156	0.0122	0.9277	0.2636	0.0116	0.2752		3,671.4007	3,671.4007	0.2096		3,676.6417
Worker	3.3795	2.1338	24.9725	0.0801	8.9533	0.0681	9.0214	2.3745	0.0627	2.4372		7,983.7318	7,983.7318	0.2055		7,988.8683
Total	**3.6978**	**12.1065**	**28.3496**	**0.1144**	**9.8688**	**0.0803**	**9.9491**	**2.6381**	**0.0743**	**2.7124**		**11,655.1325**	**11,655.1325**	**0.4151**		**11,665.5099**

3.6 Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694		2,207.5841	2,207.5841	0.7140		2,225.4336
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.0327**	**10.1917**	**14.5842**	**0.0228**		**0.5102**	**0.5102**		**0.4694**	**0.4694**		**2,207.5841**	**2,207.5841**	**0.7140**		**2,225.4336**

3.6 Paving - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0633	0.0400	0.4677	1.5000e-003	0.1677	1.2800e-003	0.1689	0.0445	1.1700e-003	0.0456		149.5081	149.5081	3.8500e-003		149.6043
Total	**0.0633**	**0.0400**	**0.4677**	**1.5000e-003**	**0.1677**	**1.2800e-003**	**0.1689**	**0.0445**	**1.1700e-003**	**0.0456**		**149.5081**	**149.5081**	**3.8500e-003**		**149.6043**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694	0.0000	2,207.5841	2,207.5841	0.7140		2,225.4336
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.0327**	**10.1917**	**14.5842**	**0.0228**		**0.5102**	**0.5102**		**0.4694**	**0.4694**	**0.0000**	**2,207.5841**	**2,207.5841**	**0.7140**		**2,225.4336**

3.6 Paving - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0633	0.0400	0.4677	1.5000e-003	0.1677	1.2800e-003	0.1689	0.0445	1.1700e-003	0.0456		149.5081	149.5081	3.8500e-003		149.6043
Total	**0.0633**	**0.0400**	**0.4677**	**1.5000e-003**	**0.1677**	**1.2800e-003**	**0.1689**	**0.0445**	**1.1700e-003**	**0.0456**		**149.5081**	**149.5081**	**3.8500e-003**		**149.6043**

3.6 Paving - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310		2,207.5472	2,207.5472	0.7140		2,225.3963
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9882**	**9.5246**	**14.6258**	**0.0228**		**0.4685**	**0.4685**		**0.4310**	**0.4310**		**2,207.5472**	**2,207.5472**	**0.7140**		**2,225.3963**

3.6 Paving - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0601	0.0364	0.4354	1.4500e-003	0.1677	1.2600e-003	0.1689	0.0445	1.1600e-003	0.0456		144.8706	144.8706	3.5300e-003		144.9587
Total	**0.0601**	**0.0364**	**0.4354**	**1.4500e-003**	**0.1677**	**1.2600e-003**	**0.1689**	**0.0445**	**1.1600e-003**	**0.0456**		**144.8706**	**144.8706**	**3.5300e-003**		**144.9587**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310	0.0000	2,207.5472	2,207.5472	0.7140		2,225.3963
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9882**	**9.5246**	**14.6258**	**0.0228**		**0.4685**	**0.4685**		**0.4310**	**0.4310**	**0.0000**	**2,207.5472**	**2,207.5472**	**0.7140**		**2,225.3963**

3.6 Paving - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0601	0.0364	0.4354	1.4500e-003	0.1677	1.2600e-003	0.1689	0.0445	1.1600e-003	0.0456		144.8706	144.8706	3.5300e-003		144.9587
Total	**0.0601**	**0.0364**	**0.4354**	**1.4500e-003**	**0.1677**	**1.2600e-003**	**0.1689**	**0.0445**	**1.1600e-003**	**0.0456**		**144.8706**	**144.8706**	**3.5300e-003**		**144.9587**

3.7 Architectural Coating - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	236.4115					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443
Total	**236.5923**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**		**281.4481**	**281.4481**	**0.0159**		**281.8443**

3.7 Architectural Coating - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.6406	0.3886	4.6439	0.0155	1.7884	0.0134	1.8018	0.4743	0.0123	0.4866		1,545.2860	1,545.2860	0.0376		1,546.2262
Total	**0.6406**	**0.3886**	**4.6439**	**0.0155**	**1.7884**	**0.0134**	**1.8018**	**0.4743**	**0.0123**	**0.4866**		**1,545.2860**	**1,545.2860**	**0.0376**		**1,546.2262**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	236.4115					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609	0.0000	281.4481	281.4481	0.0159		281.8443
Total	**236.5923**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**	**0.0000**	**281.4481**	**281.4481**	**0.0159**		**281.8443**

3.7 Architectural Coating - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.6406	0.3886	4.6439	0.0155	1.7884	0.0134	1.8018	0.4743	0.0123	0.4866		1,545.2860	1,545.2860	0.0376		1,546.2262
Total	**0.6406**	**0.3886**	**4.6439**	**0.0155**	**1.7884**	**0.0134**	**1.8018**	**0.4743**	**0.0123**	**0.4866**		**1,545.2860**	**1,545.2860**	**0.0376**		**1,546.2262**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	9.5233	45.9914	110.0422	0.4681	45.9592	0.3373	46.2965	12.2950	0.3132	12.6083		47,917.8005	47,917.8005	2.1953		47,972.6839
Unmitigated	9.5233	45.9914	110.0422	0.4681	45.9592	0.3373	46.2965	12.2950	0.3132	12.6083		47,917.8005	47,917.8005	2.1953		47,972.6839

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	145.75	154.25	154.00	506,227	506,227
Apartments Mid Rise	4,026.75	3,773.25	4075.50	13,660,065	13,660,065
General Office Building	288.45	62.55	31.05	706,812	706,812
High Turnover (Sit Down Restaurant)	2,368.80	2,873.52	2817.72	3,413,937	3,413,937
Hotel	192.00	187.50	160.00	445,703	445,703
Quality Restaurant	501.12	511.92	461.20	707,488	707,488
Regional Shopping Center	528.08	601.44	357.84	1,112,221	1,112,221
Total	8,050.95	8,164.43	8,057.31	20,552,452	20,552,452

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Low Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Apartments Mid Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
High Turnover (Sit Down	16.60	8.40	6.90	8.50	72.50	19.00	37	20	43
Hotel	16.60	8.40	6.90	19.40	61.60	19.00	58	38	4
Quality Restaurant	16.60	8.40	6.90	12.00	69.00	19.00	38	18	44
Regional Shopping Center	16.60	8.40	6.90	16.30	64.70	19.00	54	35	11

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Low Rise	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Apartments Mid Rise	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
General Office Building	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
High Turnover (Sit Down Restaurant)	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Hotel	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Quality Restaurant	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Regional Shopping Center	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.6387
NaturalGas Unmitigated	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.6387

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Low Rise	1119.16	0.0121	0.1031	0.0439	6.6000e-004		8.3400e-003	8.3400e-003		8.3400e-003	8.3400e-003		131.6662	131.6662	2.5200e-003	2.4100e-003	132.4486
Apartments Mid Rise	35784.3	0.3859	3.2978	1.4033	0.0211		0.2666	0.2666		0.2666	0.2666		4,209.9164	4,209.9164	0.0807	0.0772	4,234.9339
General Office Building	1283.42	0.0138	0.1258	0.1057	7.5000e-004		9.5600e-003	9.5600e-003		9.5600e-003	9.5600e-003		150.9911	150.9911	2.8900e-003	2.7700e-003	151.8884
High Turnover (Sit Down Restaurant)	22759.9	0.2455	2.2314	1.8743	0.0134		0.1696	0.1696		0.1696	0.1696		2,677.6342	2,677.6342	0.0513	0.0491	2,693.5460
Hotel	4769.72	0.0514	0.4676	0.3928	2.8100e-003		0.0355	0.0355		0.0355	0.0355		561.1436	561.1436	0.0108	0.0103	564.4782
Quality Restaurant	5057.75	0.0545	0.4959	0.4165	2.9800e-003		0.0377	0.0377		0.0377	0.0377		595.0298	595.0298	0.0114	0.0109	598.5658
Regional Shopping Center	251.616	2.7100e-003	0.0247	0.0207	1.5000e-004		1.8700e-003	1.8700e-003		1.8700e-003	1.8700e-003		29.6019	29.6019	5.7000e-004	5.4000e-004	29.7778
Total		**0.7660**	**6.7463**	**4.2573**	**0.0418**		**0.5292**	**0.5292**		**0.5292**	**0.5292**		**8,355.9832**	**8,355.9832**	**0.1602**	**0.1532**	**8,405.6387**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Low Rise	1.11916	0.0121	0.1031	0.0439	6.6000e-004		8.3400e-003	8.3400e-003		8.3400e-003	8.3400e-003		131.6662	131.6662	2.5200e-003	2.4100e-003	132.4486
Apartments Mid Rise	35.7843	0.3859	3.2978	1.4033	0.0211		0.2666	0.2666		0.2666	0.2666		4,209.9164	4,209.9164	0.0807	0.0772	4,234.9339
General Office Building	1.28342	0.0138	0.1258	0.1057	7.5000e-004		9.5600e-003	9.5600e-003		9.5600e-003	9.5600e-003		150.9911	150.9911	2.8900e-003	2.7700e-003	151.8884
High Turnover (Sit Down Restaurant)	22.7599	0.2455	2.2314	1.8743	0.0134		0.1696	0.1696		0.1696	0.1696		2,677.6342	2,677.6342	0.0513	0.0491	2,693.5460
Hotel	4.76972	0.0514	0.4676	0.3928	2.8100e-003		0.0355	0.0355		0.0355	0.0355		561.1436	561.1436	0.0108	0.0103	564.4782
Quality Restaurant	5.05775	0.0545	0.4959	0.4165	2.9800e-003		0.0377	0.0377		0.0377	0.0377		595.0298	595.0298	0.0114	0.0109	598.5658
Regional Shopping Center	0.251616	2.7100e-003	0.0247	0.0207	1.5000e-004		1.8700e-003	1.8700e-003		1.8700e-003	1.8700e-003		29.6019	29.6019	5.7000e-004	5.4000e-004	29.7778
Total		**0.7660**	**6.7463**	**4.2573**	**0.0418**		**0.5292**	**0.5292**		**0.5292**	**0.5292**		**8,355.9832**	**8,355.9832**	**0.1602**	**0.1532**	**8,405.6387**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192
Unmitigated	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	2.2670					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	24.1085					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	1.6500	14.1000	6.0000	0.0900		1.1400	1.1400		1.1400	1.1400	0.0000	18,000.0000	18,000.0000	0.3450	0.3300	18,106.9650
Landscaping	2.4766	0.9496	82.4430	4.3600e-003		0.4574	0.4574		0.4574	0.4574		148.5950	148.5950	0.1424		152.1542
Total	**30.5020**	**15.0496**	**88.4430**	**0.0944**		**1.5974**	**1.5974**		**1.5974**	**1.5974**	**0.0000**	**18,148.5950**	**18,148.5950**	**0.4874**	**0.3300**	**18,259.1192**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	2.2670					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	24.1085					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	1.6500	14.1000	6.0000	0.0900		1.1400	1.1400		1.1400	1.1400	0.0000	18,000.0000	18,000.0000	0.3450	0.3300	18,106.9650
Landscaping	2.4766	0.9496	82.4430	4.3600e-003		0.4574	0.4574		0.4574	0.4574		148.5950	148.5950	0.1424		152.1542
Total	**30.5020**	**15.0496**	**88.4430**	**0.0944**		**1.5974**	**1.5974**		**1.5974**	**1.5974**	**0.0000**	**18,148.5950**	**18,148.5950**	**0.4874**	**0.3300**	**18,259.1192**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Village South Specific Plan (Proposed)

Los Angeles-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	45.00	1000sqft	1.03	45,000.00	0
High Turnover (Sit Down Restaurant)	36.00	1000sqft	0.83	36,000.00	0
Hotel	50.00	Room	1.67	72,600.00	0
Quality Restaurant	8.00	1000sqft	0.18	8,000.00	0
Apartments Low Rise	25.00	Dwelling Unit	1.56	25,000.00	72
Apartments Mid Rise	975.00	Dwelling Unit	25.66	975,000.00	2789
Regional Shopping Center	56.00	1000sqft	1.29	56,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2028
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Annual

Project Characteristics - Consistent with the DEIR's model.

Land Use - See SWAPE comment regarding residential and retail land uses.

Construction Phase - See SWAPE comment regarding individual construction phase lengths.

Demolition - Consistent with the DEIR's model. See SWAPE comment regarding demolition.

Vehicle Trips - Saturday trips consistent with the DEIR's model. See SWAPE comment regarding weekday and Sunday trips.

Woodstoves - Woodstoves and wood-burning fireplaces consistent with the DEIR's model. See SWAPE comment regarding gas fireplaces.

Energy Use -

Construction Off-road Equipment Mitigation - See SWAPE comment on construction-related mitigation.

Area Mitigation - See SWAPE comment regarding operational mitigation measures.

Water Mitigation - See SWAPE comment regarding operational mitigation measures.

Trips and VMT - Local hire provision

Table Name	Column Name	Default Value	New Value
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberWood	1.25	0.00
tblFireplaces	NumberWood	48.75	0.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblVehicleTrips	ST_TR	7.16	6.17
tblVehicleTrips	ST_TR	6.39	3.87
tblVehicleTrips	ST_TR	2.46	1.39
tblVehicleTrips	ST_TR	158.37	79.82

tblVehicleTrips	ST_TR	8.19	3.75
tblVehicleTrips	ST_TR	94.36	63.99
tblVehicleTrips	ST_TR	49.97	10.74
tblVehicleTrips	SU_TR	6.07	6.16
tblVehicleTrips	SU_TR	5.86	4.18
tblVehicleTrips	SU_TR	1.05	0.69
tblVehicleTrips	SU_TR	131.84	78.27
tblVehicleTrips	SU_TR	5.95	3.20
tblVehicleTrips	SU_TR	72.16	57.65
tblVehicleTrips	SU_TR	25.24	6.39
tblVehicleTrips	WD_TR	6.59	5.83
tblVehicleTrips	WD_TR	6.65	4.13
tblVehicleTrips	WD_TR	11.03	6.41
tblVehicleTrips	WD_TR	127.15	65.80
tblVehicleTrips	WD_TR	8.17	3.84
tblVehicleTrips	WD_TR	89.95	62.64
tblVehicleTrips	WD_TR	42.70	9.43
tblWoodstoves	NumberCatalytic	1.25	0.00
tblWoodstoves	NumberCatalytic	48.75	0.00
tblWoodstoves	NumberNoncatalytic	1.25	0.00
tblWoodstoves	NumberNoncatalytic	48.75	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.1704	1.8234	1.1577	2.3800e-003	0.4141	0.0817	0.4958	0.1788	0.0754	0.2542	0.0000	210.7654	210.7654	0.0600	0.0000	212.2661
2022	0.5865	4.0240	5.1546	0.0155	0.9509	0.1175	1.0683	0.2518	0.1103	0.3621	0.0000	1,418.6554	1,418.6554	0.1215	0.0000	1,421.6925
2023	0.5190	3.2850	4.7678	0.0147	0.8497	0.0971	0.9468	0.2283	0.0912	0.3195	0.0000	1,342.4412	1,342.4412	0.1115	0.0000	1,345.2291
2024	4.1592	0.1313	0.2557	5.0000e-004	0.0221	6.3900e-003	0.0285	5.8700e-003	5.9700e-003	0.0118	0.0000	44.6355	44.6355	7.8300e-003	0.0000	44.8311
Maximum	**4.1592**	**4.0240**	**5.1546**	**0.0155**	**0.9509**	**0.1175**	**1.0683**	**0.2518**	**0.1103**	**0.3621**	**0.0000**	**1,418.6554**	**1,418.6554**	**0.1215**	**0.0000**	**1,421.6925**

2.1 Overall Construction

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.1704	1.8234	1.1577	2.3800e-003	0.4141	0.0817	0.4958	0.1788	0.0754	0.2542	0.0000	210.7651	210.7651	0.0600	0.0000	212.2658
2022	0.5865	4.0240	5.1546	0.0155	0.9509	0.1175	1.0683	0.2518	0.1103	0.3621	0.0000	1,418.6550	1,418.6550	0.1215	0.0000	1,421.6921
2023	0.5190	3.2850	4.7678	0.0147	0.8497	0.0971	0.9468	0.2283	0.0912	0.3195	0.0000	1,342.4409	1,342.4409	0.1115	0.0000	1,345.2287
2024	4.1592	0.1313	0.2557	5.0000e-004	0.0221	6.3900e-003	0.0285	5.8700e-003	5.9700e-003	0.0118	0.0000	44.6354	44.6354	7.8300e-003	0.0000	44.8311
Maximum	**4.1592**	**4.0240**	**5.1546**	**0.0155**	**0.9509**	**0.1175**	**1.0683**	**0.2518**	**0.1103**	**0.3621**	**0.0000**	**1,418.6550**	**1,418.6550**	**0.1215**	**0.0000**	**1,421.6921**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	**9-1-2021**	**11-30-2021**	1.4091	1.4091
2	**12-1-2021**	**2-28-2022**	1.3329	1.3329
3	**3-1-2022**	**5-31-2022**	1.1499	1.1499
4	**6-1-2022**	**8-31-2022**	1.1457	1.1457
5	**9-1-2022**	**11-30-2022**	1.1415	1.1415
6	**12-1-2022**	**2-28-2023**	1.0278	1.0278
7	**3-1-2023**	**5-31-2023**	0.9868	0.9868
8	**6-1-2023**	**8-31-2023**	0.9831	0.9831

9	**9-1-2023**	**11-30-2023**	0.9798	0.9798
10	**12-1-2023**	**2-29-2024**	2.8757	2.8757
11	**3-1-2024**	**5-31-2024**	1.6188	1.6188
		Highest	2.8757	2.8757

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	5.1437	0.2950	10.3804	1.6700e-003		0.0714	0.0714		0.0714	0.0714	0.0000	220.9670	220.9670	0.0201	3.7400e-003	222.5835
Energy	0.1398	1.2312	0.7770	7.6200e-003		0.0966	0.0966		0.0966	0.0966	0.0000	3,896.0732	3,896.0732	0.1303	0.0468	3,913.2833
Mobile	1.5857	7.9962	19.1834	0.0821	7.7979	0.0580	7.8559	2.0895	0.0539	2.1434	0.0000	7,620.4986	7,620.4986	0.3407	0.0000	7,629.0162
Waste						0.0000	0.0000		0.0000	0.0000	207.8079	0.0000	207.8079	12.2811	0.0000	514.8354
Water						0.0000	0.0000		0.0000	0.0000	29.1632	556.6420	585.8052	3.0183	0.0755	683.7567
Total	**6.8692**	**9.5223**	**30.3407**	**0.0914**	**7.7979**	**0.2260**	**8.0240**	**2.0895**	**0.2219**	**2.3114**	**236.9712**	**12,294.1807**	**12,531.1519**	**15.7904**	**0.1260**	**12,963.4751**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	5.1437	0.2950	10.3804	1.6700e-003		0.0714	0.0714		0.0714	0.0714	0.0000	220.9670	220.9670	0.0201	3.7400e-003	222.5835
Energy	0.1398	1.2312	0.7770	7.6200e-003		0.0966	0.0966		0.0966	0.0966	0.0000	3,896.0732	3,896.0732	0.1303	0.0468	3,913.2833
Mobile	1.5857	7.9962	19.1834	0.0821	7.7979	0.0580	7.8559	2.0895	0.0539	2.1434	0.0000	7,620.4986	7,620.4986	0.3407	0.0000	7,629.0162
Waste						0.0000	0.0000		0.0000	0.0000	207.8079	0.0000	207.8079	12.2811	0.0000	514.8354
Water						0.0000	0.0000		0.0000	0.0000	29.1632	556.6420	585.8052	3.0183	0.0755	683.7567
Total	**6.8692**	**9.5223**	**30.3407**	**0.0914**	**7.7979**	**0.2260**	**8.0240**	**2.0895**	**0.2219**	**2.3114**	**236.9712**	**12,294.1807**	**12,531.1519**	**15.7904**	**0.1260**	**12,963.4751**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Annual

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	9/1/2021	10/12/2021	5	30	
2	Site Preparation	Site Preparation	10/13/2021	11/9/2021	5	20	
3	Grading	Grading	11/10/2021	1/11/2022	5	45	
4	Building Construction	Building Construction	1/12/2022	12/12/2023	5	500	
5	Paving	Paving	12/13/2023	1/30/2024	5	35	
6	Architectural Coating	Architectural Coating	1/31/2024	3/19/2024	5	35	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 112.5

Acres of Paving: 0

Residential Indoor: 2,025,000; Residential Outdoor: 675,000; Non-Residential Indoor: 326,400; Non-Residential Outdoor: 108,800; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Annual

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	458.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	801.00	143.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	160.00	0.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0496	0.0000	0.0496	7.5100e-003	0.0000	7.5100e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0475	0.4716	0.3235	5.8000e-004		0.0233	0.0233		0.0216	0.0216	0.0000	51.0012	51.0012	0.0144	0.0000	51.3601
Total	**0.0475**	**0.4716**	**0.3235**	**5.8000e-004**	**0.0496**	**0.0233**	**0.0729**	**7.5100e-003**	**0.0216**	**0.0291**	**0.0000**	**51.0012**	**51.0012**	**0.0144**	**0.0000**	**51.3601**

3.2 Demolition - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.9300e-003	0.0634	0.0148	1.8000e-004	3.9400e-003	1.9000e-004	4.1300e-003	1.0800e-003	1.8000e-004	1.2600e-003	0.0000	17.4566	17.4566	1.2100e-003	0.0000	17.4869
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.2000e-004	5.3000e-004	6.0900e-003	2.0000e-005	1.6800e-003	1.0000e-005	1.6900e-003	4.5000e-004	1.0000e-005	4.6000e-004	0.0000	1.5281	1.5281	5.0000e-005	0.0000	1.5293
Total	**2.6500e-003**	**0.0639**	**0.0209**	**2.0000e-004**	**5.6200e-003**	**2.0000e-004**	**5.8200e-003**	**1.5300e-003**	**1.9000e-004**	**1.7200e-003**	**0.0000**	**18.9847**	**18.9847**	**1.2600e-003**	**0.0000**	**19.0161**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0496	0.0000	0.0496	7.5100e-003	0.0000	7.5100e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0475	0.4716	0.3235	5.8000e-004		0.0233	0.0233		0.0216	0.0216	0.0000	51.0011	51.0011	0.0144	0.0000	51.3600
Total	**0.0475**	**0.4716**	**0.3235**	**5.8000e-004**	**0.0496**	**0.0233**	**0.0729**	**7.5100e-003**	**0.0216**	**0.0291**	**0.0000**	**51.0011**	**51.0011**	**0.0144**	**0.0000**	**51.3600**

3.2 Demolition - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.9300e-003	0.0634	0.0148	1.8000e-004	3.9400e-003	1.9000e-004	4.1300e-003	1.0800e-003	1.8000e-004	1.2600e-003	0.0000	17.4566	17.4566	1.2100e-003	0.0000	17.4869
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.2000e-004	5.3000e-004	6.0900e-003	2.0000e-005	1.6800e-003	1.0000e-005	1.6900e-003	4.5000e-004	1.0000e-005	4.6000e-004	0.0000	1.5281	1.5281	5.0000e-005	0.0000	1.5293
Total	**2.6500e-003**	**0.0639**	**0.0209**	**2.0000e-004**	**5.6200e-003**	**2.0000e-004**	**5.8200e-003**	**1.5300e-003**	**1.9000e-004**	**1.7200e-003**	**0.0000**	**18.9847**	**18.9847**	**1.2600e-003**	**0.0000**	**19.0161**

3.3 Site Preparation - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1807	0.0000	0.1807	0.0993	0.0000	0.0993	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0389	0.4050	0.2115	3.8000e-004		0.0204	0.0204		0.0188	0.0188	0.0000	33.4357	33.4357	0.0108	0.0000	33.7061
Total	**0.0389**	**0.4050**	**0.2115**	**3.8000e-004**	**0.1807**	**0.0204**	**0.2011**	**0.0993**	**0.0188**	**0.1181**	**0.0000**	**33.4357**	**33.4357**	**0.0108**	**0.0000**	**33.7061**

3.3 Site Preparation - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.8000e-004	4.3000e-004	4.8700e-003	1.0000e-005	1.3400e-003	1.0000e-005	1.3500e-003	3.6000e-004	1.0000e-005	3.7000e-004	0.0000	1.2225	1.2225	4.0000e-005	0.0000	1.2234
Total	**5.8000e-004**	**4.3000e-004**	**4.8700e-003**	**1.0000e-005**	**1.3400e-003**	**1.0000e-005**	**1.3500e-003**	**3.6000e-004**	**1.0000e-005**	**3.7000e-004**	**0.0000**	**1.2225**	**1.2225**	**4.0000e-005**	**0.0000**	**1.2234**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1807	0.0000	0.1807	0.0993	0.0000	0.0993	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0389	0.4050	0.2115	3.8000e-004		0.0204	0.0204		0.0188	0.0188	0.0000	33.4357	33.4357	0.0108	0.0000	33.7060
Total	**0.0389**	**0.4050**	**0.2115**	**3.8000e-004**	**0.1807**	**0.0204**	**0.2011**	**0.0993**	**0.0188**	**0.1181**	**0.0000**	**33.4357**	**33.4357**	**0.0108**	**0.0000**	**33.7060**

3.3 Site Preparation - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.8000e-004	4.3000e-004	4.8700e-003	1.0000e-005	1.3400e-003	1.0000e-005	1.3500e-003	3.6000e-004	1.0000e-005	3.7000e-004	0.0000	1.2225	1.2225	4.0000e-005	0.0000	1.2234
Total	**5.8000e-004**	**4.3000e-004**	**4.8700e-003**	**1.0000e-005**	**1.3400e-003**	**1.0000e-005**	**1.3500e-003**	**3.6000e-004**	**1.0000e-005**	**3.7000e-004**	**0.0000**	**1.2225**	**1.2225**	**4.0000e-005**	**0.0000**	**1.2234**

3.4 Grading - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1741	0.0000	0.1741	0.0693	0.0000	0.0693	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0796	0.8816	0.5867	1.1800e-003		0.0377	0.0377		0.0347	0.0347	0.0000	103.5405	103.5405	0.0335	0.0000	104.3776
Total	**0.0796**	**0.8816**	**0.5867**	**1.1800e-003**	**0.1741**	**0.0377**	**0.2118**	**0.0693**	**0.0347**	**0.1040**	**0.0000**	**103.5405**	**103.5405**	**0.0335**	**0.0000**	**104.3776**

3.4 Grading - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.2200e-003	9.0000e-004	0.0103	3.0000e-005	2.8300e-003	2.0000e-005	2.8600e-003	7.5000e-004	2.0000e-005	7.8000e-004	0.0000	2.5808	2.5808	8.0000e-005	0.0000	2.5828
Total	**1.2200e-003**	**9.0000e-004**	**0.0103**	**3.0000e-005**	**2.8300e-003**	**2.0000e-005**	**2.8600e-003**	**7.5000e-004**	**2.0000e-005**	**7.8000e-004**	**0.0000**	**2.5808**	**2.5808**	**8.0000e-005**	**0.0000**	**2.5828**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1741	0.0000	0.1741	0.0693	0.0000	0.0693	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0796	0.8816	0.5867	1.1800e-003		0.0377	0.0377		0.0347	0.0347	0.0000	103.5403	103.5403	0.0335	0.0000	104.3775
Total	**0.0796**	**0.8816**	**0.5867**	**1.1800e-003**	**0.1741**	**0.0377**	**0.2118**	**0.0693**	**0.0347**	**0.1040**	**0.0000**	**103.5403**	**103.5403**	**0.0335**	**0.0000**	**104.3775**

3.4 Grading - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.2200e-003	9.0000e-004	0.0103	3.0000e-005	2.8300e-003	2.0000e-005	2.8600e-003	7.5000e-004	2.0000e-005	7.8000e-004	0.0000	2.5808	2.5808	8.0000e-005	0.0000	2.5828
Total	**1.2200e-003**	**9.0000e-004**	**0.0103**	**3.0000e-005**	**2.8300e-003**	**2.0000e-005**	**2.8600e-003**	**7.5000e-004**	**2.0000e-005**	**7.8000e-004**	**0.0000**	**2.5808**	**2.5808**	**8.0000e-005**	**0.0000**	**2.5828**

3.4 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0807	0.0000	0.0807	0.0180	0.0000	0.0180	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0127	0.1360	0.1017	2.2000e-004		5.7200e-003	5.7200e-003		5.2600e-003	5.2600e-003	0.0000	19.0871	19.0871	6.1700e-003	0.0000	19.2414
Total	**0.0127**	**0.1360**	**0.1017**	**2.2000e-004**	**0.0807**	**5.7200e-003**	**0.0865**	**0.0180**	**5.2600e-003**	**0.0233**	**0.0000**	**19.0871**	**19.0871**	**6.1700e-003**	**0.0000**	**19.2414**

3.4 Grading - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.1000e-004	1.5000e-004	1.7400e-003	1.0000e-005	5.2000e-004	0.0000	5.3000e-004	1.4000e-004	0.0000	1.4000e-004	0.0000	0.4587	0.4587	1.0000e-005	0.0000	0.4590
Total	**2.1000e-004**	**1.5000e-004**	**1.7400e-003**	**1.0000e-005**	**5.2000e-004**	**0.0000**	**5.3000e-004**	**1.4000e-004**	**0.0000**	**1.4000e-004**	**0.0000**	**0.4587**	**0.4587**	**1.0000e-005**	**0.0000**	**0.4590**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0807	0.0000	0.0807	0.0180	0.0000	0.0180	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0127	0.1360	0.1017	2.2000e-004		5.7200e-003	5.7200e-003		5.2600e-003	5.2600e-003	0.0000	19.0871	19.0871	6.1700e-003	0.0000	19.2414
Total	**0.0127**	**0.1360**	**0.1017**	**2.2000e-004**	**0.0807**	**5.7200e-003**	**0.0865**	**0.0180**	**5.2600e-003**	**0.0233**	**0.0000**	**19.0871**	**19.0871**	**6.1700e-003**	**0.0000**	**19.2414**

3.4 Grading - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.1000e-004	1.5000e-004	1.7400e-003	1.0000e-005	5.2000e-004	0.0000	5.3000e-004	1.4000e-004	0.0000	1.4000e-004	0.0000	0.4587	0.4587	1.0000e-005	0.0000	0.4590
Total	**2.1000e-004**	**1.5000e-004**	**1.7400e-003**	**1.0000e-005**	**5.2000e-004**	**0.0000**	**5.3000e-004**	**1.4000e-004**	**0.0000**	**1.4000e-004**	**0.0000**	**0.4587**	**0.4587**	**1.0000e-005**	**0.0000**	**0.4590**

3.5 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2158	1.9754	2.0700	3.4100e-003		0.1023	0.1023		0.0963	0.0963	0.0000	293.1324	293.1324	0.0702	0.0000	294.8881
Total	**0.2158**	**1.9754**	**2.0700**	**3.4100e-003**		**0.1023**	**0.1023**		**0.0963**	**0.0963**	**0.0000**	**293.1324**	**293.1324**	**0.0702**	**0.0000**	**294.8881**

3.5 Building Construction - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0527	1.6961	0.4580	4.5500e-003	0.1140	3.1800e-003	0.1171	0.0329	3.0400e-003	0.0359	0.0000	441.9835	441.9835	0.0264	0.0000	442.6435
Worker	0.3051	0.2164	2.5233	7.3500e-003	0.7557	6.2300e-003	0.7619	0.2007	5.7400e-003	0.2065	0.0000	663.9936	663.9936	0.0187	0.0000	664.4604
Total	**0.3578**	**1.9125**	**2.9812**	**0.0119**	**0.8696**	**9.4100e-003**	**0.8790**	**0.2336**	**8.7800e-003**	**0.2424**	**0.0000**	**1,105.9771**	**1,105.9771**	**0.0451**	**0.0000**	**1,107.1039**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2158	1.9754	2.0700	3.4100e-003		0.1023	0.1023		0.0963	0.0963	0.0000	293.1321	293.1321	0.0702	0.0000	294.8877
Total	**0.2158**	**1.9754**	**2.0700**	**3.4100e-003**		**0.1023**	**0.1023**		**0.0963**	**0.0963**	**0.0000**	**293.1321**	**293.1321**	**0.0702**	**0.0000**	**294.8877**

3.5 Building Construction - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0527	1.6961	0.4580	4.5500e-003	0.1140	3.1800e-003	0.1171	0.0329	3.0400e-003	0.0359	0.0000	441.9835	441.9835	0.0264	0.0000	442.6435
Worker	0.3051	0.2164	2.5233	7.3500e-003	0.7557	6.2300e-003	0.7619	0.2007	5.7400e-003	0.2065	0.0000	663.9936	663.9936	0.0187	0.0000	664.4604
Total	**0.3578**	**1.9125**	**2.9812**	**0.0119**	**0.8696**	**9.4100e-003**	**0.8790**	**0.2336**	**8.7800e-003**	**0.2424**	**0.0000**	**1,105.9771**	**1,105.9771**	**0.0451**	**0.0000**	**1,107.1039**

3.5 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1942	1.7765	2.0061	3.3300e-003		0.0864	0.0864		0.0813	0.0813	0.0000	286.2789	286.2789	0.0681	0.0000	287.9814
Total	**0.1942**	**1.7765**	**2.0061**	**3.3300e-003**		**0.0864**	**0.0864**		**0.0813**	**0.0813**	**0.0000**	**286.2789**	**286.2789**	**0.0681**	**0.0000**	**287.9814**

3.5 Building Construction - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0382	1.2511	0.4011	4.3000e-003	0.1113	1.4600e-003	0.1127	0.0321	1.4000e-003	0.0335	0.0000	417.9930	417.9930	0.0228	0.0000	418.5624
Worker	0.2795	0.1910	2.2635	6.9100e-003	0.7377	5.9100e-003	0.7436	0.1960	5.4500e-003	0.2014	0.0000	624.5363	624.5363	0.0164	0.0000	624.9466
Total	**0.3177**	**1.4420**	**2.6646**	**0.0112**	**0.8490**	**7.3700e-003**	**0.8564**	**0.2281**	**6.8500e-003**	**0.2349**	**0.0000**	**1,042.5294**	**1,042.5294**	**0.0392**	**0.0000**	**1,043.5090**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1942	1.7765	2.0061	3.3300e-003		0.0864	0.0864		0.0813	0.0813	0.0000	286.2785	286.2785	0.0681	0.0000	287.9811
Total	**0.1942**	**1.7765**	**2.0061**	**3.3300e-003**		**0.0864**	**0.0864**		**0.0813**	**0.0813**	**0.0000**	**286.2785**	**286.2785**	**0.0681**	**0.0000**	**287.9811**

3.5 Building Construction - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0382	1.2511	0.4011	4.3000e-003	0.1113	1.4600e-003	0.1127	0.0321	1.4000e-003	0.0335	0.0000	417.9930	417.9930	0.0228	0.0000	418.5624
Worker	0.2795	0.1910	2.2635	6.9100e-003	0.7377	5.9100e-003	0.7436	0.1960	5.4500e-003	0.2014	0.0000	624.5363	624.5363	0.0164	0.0000	624.9466
Total	**0.3177**	**1.4420**	**2.6646**	**0.0112**	**0.8490**	**7.3700e-003**	**0.8564**	**0.2281**	**6.8500e-003**	**0.2349**	**0.0000**	**1,042.5294**	**1,042.5294**	**0.0392**	**0.0000**	**1,043.5090**

3.6 Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	6.7100e-003	0.0663	0.0948	1.5000e-004		3.3200e-003	3.3200e-003		3.0500e-003	3.0500e-003	0.0000	13.0175	13.0175	4.2100e-003	0.0000	13.1227
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**6.7100e-003**	**0.0663**	**0.0948**	**1.5000e-004**		**3.3200e-003**	**3.3200e-003**		**3.0500e-003**	**3.0500e-003**	**0.0000**	**13.0175**	**13.0175**	**4.2100e-003**	**0.0000**	**13.1227**

3.6 Paving - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.8000e-004	1.9000e-004	2.2300e-003	1.0000e-005	7.3000e-004	1.0000e-005	7.3000e-004	1.9000e-004	1.0000e-005	2.0000e-004	0.0000	0.6156	0.6156	2.0000e-005	0.0000	0.6160
Total	**2.8000e-004**	**1.9000e-004**	**2.2300e-003**	**1.0000e-005**	**7.3000e-004**	**1.0000e-005**	**7.3000e-004**	**1.9000e-004**	**1.0000e-005**	**2.0000e-004**	**0.0000**	**0.6156**	**0.6156**	**2.0000e-005**	**0.0000**	**0.6160**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	6.7100e-003	0.0663	0.0948	1.5000e-004		3.3200e-003	3.3200e-003		3.0500e-003	3.0500e-003	0.0000	13.0175	13.0175	4.2100e-003	0.0000	13.1227
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**6.7100e-003**	**0.0663**	**0.0948**	**1.5000e-004**		**3.3200e-003**	**3.3200e-003**		**3.0500e-003**	**3.0500e-003**	**0.0000**	**13.0175**	**13.0175**	**4.2100e-003**	**0.0000**	**13.1227**

3.6 Paving - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.8000e-004	1.9000e-004	2.2300e-003	1.0000e-005	7.3000e-004	1.0000e-005	7.3000e-004	1.9000e-004	1.0000e-005	2.0000e-004	0.0000	0.6156	0.6156	2.0000e-005	0.0000	0.6160
Total	**2.8000e-004**	**1.9000e-004**	**2.2300e-003**	**1.0000e-005**	**7.3000e-004**	**1.0000e-005**	**7.3000e-004**	**1.9000e-004**	**1.0000e-005**	**2.0000e-004**	**0.0000**	**0.6156**	**0.6156**	**2.0000e-005**	**0.0000**	**0.6160**

3.6 Paving - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0109	0.1048	0.1609	2.5000e-004		5.1500e-003	5.1500e-003		4.7400e-003	4.7400e-003	0.0000	22.0292	22.0292	7.1200e-003	0.0000	22.2073
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0109**	**0.1048**	**0.1609**	**2.5000e-004**		**5.1500e-003**	**5.1500e-003**		**4.7400e-003**	**4.7400e-003**	**0.0000**	**22.0292**	**22.0292**	**7.1200e-003**	**0.0000**	**22.2073**

3.6 Paving - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.4000e-004	2.9000e-004	3.5100e-003	1.0000e-005	1.2300e-003	1.0000e-005	1.2400e-003	3.3000e-004	1.0000e-005	3.4000e-004	0.0000	1.0094	1.0094	3.0000e-005	0.0000	1.0100
Total	**4.4000e-004**	**2.9000e-004**	**3.5100e-003**	**1.0000e-005**	**1.2300e-003**	**1.0000e-005**	**1.2400e-003**	**3.3000e-004**	**1.0000e-005**	**3.4000e-004**	**0.0000**	**1.0094**	**1.0094**	**3.0000e-005**	**0.0000**	**1.0100**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0109	0.1048	0.1609	2.5000e-004		5.1500e-003	5.1500e-003		4.7400e-003	4.7400e-003	0.0000	22.0292	22.0292	7.1200e-003	0.0000	22.2073
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0109**	**0.1048**	**0.1609**	**2.5000e-004**		**5.1500e-003**	**5.1500e-003**		**4.7400e-003**	**4.7400e-003**	**0.0000**	**22.0292**	**22.0292**	**7.1200e-003**	**0.0000**	**22.2073**

3.6 Paving - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.4000e-004	2.9000e-004	3.5100e-003	1.0000e-005	1.2300e-003	1.0000e-005	1.2400e-003	3.3000e-004	1.0000e-005	3.4000e-004	0.0000	1.0094	1.0094	3.0000e-005	0.0000	1.0100
Total	**4.4000e-004**	**2.9000e-004**	**3.5100e-003**	**1.0000e-005**	**1.2300e-003**	**1.0000e-005**	**1.2400e-003**	**3.3000e-004**	**1.0000e-005**	**3.4000e-004**	**0.0000**	**1.0094**	**1.0094**	**3.0000e-005**	**0.0000**	**1.0100**

3.7 Architectural Coating - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	4.1372					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.1600e-003	0.0213	0.0317	5.0000e-005		1.0700e-003	1.0700e-003		1.0700e-003	1.0700e-003	0.0000	4.4682	4.4682	2.5000e-004	0.0000	4.4745
Total	**4.1404**	**0.0213**	**0.0317**	**5.0000e-005**		**1.0700e-003**	**1.0700e-003**		**1.0700e-003**	**1.0700e-003**	**0.0000**	**4.4682**	**4.4682**	**2.5000e-004**	**0.0000**	**4.4745**

3.7 Architectural Coating - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.4800e-003	4.9300e-003	0.0596	1.9000e-004	0.0209	1.6000e-004	0.0211	5.5500e-003	1.5000e-004	5.7000e-003	0.0000	17.1287	17.1287	4.3000e-004	0.0000	17.1394
Total	**7.4800e-003**	**4.9300e-003**	**0.0596**	**1.9000e-004**	**0.0209**	**1.6000e-004**	**0.0211**	**5.5500e-003**	**1.5000e-004**	**5.7000e-003**	**0.0000**	**17.1287**	**17.1287**	**4.3000e-004**	**0.0000**	**17.1394**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	4.1372					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.1600e-003	0.0213	0.0317	5.0000e-005		1.0700e-003	1.0700e-003		1.0700e-003	1.0700e-003	0.0000	4.4682	4.4682	2.5000e-004	0.0000	4.4745
Total	**4.1404**	**0.0213**	**0.0317**	**5.0000e-005**		**1.0700e-003**	**1.0700e-003**		**1.0700e-003**	**1.0700e-003**	**0.0000**	**4.4682**	**4.4682**	**2.5000e-004**	**0.0000**	**4.4745**

3.7 Architectural Coating - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.4800e-003	4.9300e-003	0.0596	1.9000e-004	0.0209	1.6000e-004	0.0211	5.5500e-003	1.5000e-004	5.7000e-003	0.0000	17.1287	17.1287	4.3000e-004	0.0000	17.1394
Total	**7.4800e-003**	**4.9300e-003**	**0.0596**	**1.9000e-004**	**0.0209**	**1.6000e-004**	**0.0211**	**5.5500e-003**	**1.5000e-004**	**5.7000e-003**	**0.0000**	**17.1287**	**17.1287**	**4.3000e-004**	**0.0000**	**17.1394**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	1.5857	7.9962	19.1834	0.0821	7.7979	0.0580	7.8559	2.0895	0.0539	2.1434	0.0000	7,620.4986	7,620.4986	0.3407	0.0000	7,629.0162
Unmitigated	1.5857	7.9962	19.1834	0.0821	7.7979	0.0580	7.8559	2.0895	0.0539	2.1434	0.0000	7,620.4986	7,620.4986	0.3407	0.0000	7,629.0162

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	145.75	154.25	154.00	506,227	506,227
Apartments Mid Rise	4,026.75	3,773.25	4075.50	13,660,065	13,660,065
General Office Building	288.45	62.55	31.05	706,812	706,812
High Turnover (Sit Down Restaurant)	2,368.80	2,873.52	2817.72	3,413,937	3,413,937
Hotel	192.00	187.50	160.00	445,703	445,703
Quality Restaurant	501.12	511.92	461.20	707,488	707,488
Regional Shopping Center	528.08	601.44	357.84	1,112,221	1,112,221
Total	8,050.95	8,164.43	8,057.31	20,552,452	20,552,452

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Low Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Apartments Mid Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
High Turnover (Sit Down	16.60	8.40	6.90	8.50	72.50	19.00	37	20	43
Hotel	16.60	8.40	6.90	19.40	61.60	19.00	58	38	4
Quality Restaurant	16.60	8.40	6.90	12.00	69.00	19.00	38	18	44
Regional Shopping Center	16.60	8.40	6.90	16.30	64.70	19.00	54	35	11

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Low Rise	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Apartments Mid Rise	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
General Office Building	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
High Turnover (Sit Down Restaurant)	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Hotel	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Quality Restaurant	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Regional Shopping Center	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Annual

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	2,512.6465	2,512.6465	0.1037	0.0215	2,521.6356
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	2,512.6465	2,512.6465	0.1037	0.0215	2,521.6356
NaturalGas Mitigated	0.1398	1.2312	0.7770	7.6200e-003		0.0966	0.0966		0.0966	0.0966	0.0000	1,383.4267	1,383.4267	0.0265	0.0254	1,391.6478
NaturalGas Unmitigated	0.1398	1.2312	0.7770	7.6200e-003		0.0966	0.0966		0.0966	0.0966	0.0000	1,383.4267	1,383.4267	0.0265	0.0254	1,391.6478

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Low Rise	408494	2.2000e-003	0.0188	8.0100e-003	1.2000e-004		1.5200e-003	1.5200e-003		1.5200e-003	1.5200e-003	0.0000	21.7988	21.7988	4.2000e-004	4.0000e-004	21.9284
Apartments Mid Rise	1.30613e+007	0.0704	0.6018	0.2561	3.8400e-003		0.0487	0.0487		0.0487	0.0487	0.0000	696.9989	696.9989	0.0134	0.0128	701.1408
General Office Building	468450	2.5300e-003	0.0230	0.0193	1.4000e-004		1.7500e-003	1.7500e-003		1.7500e-003	1.7500e-003	0.0000	24.9983	24.9983	4.8000e-004	4.6000e-004	25.1468
High Turnover (Sit Down Restaurant)	8.30736e+006	0.0448	0.4072	0.3421	2.4400e-003		0.0310	0.0310		0.0310	0.0310	0.0000	443.3124	443.3124	8.5000e-003	8.1300e-003	445.9468
Hotel	1.74095e+006	9.3900e-003	0.0853	0.0717	5.1000e-004		6.4900e-003	6.4900e-003		6.4900e-003	6.4900e-003	0.0000	92.9036	92.9036	1.7800e-003	1.7000e-003	93.4557
Quality Restaurant	1.84608e+006	9.9500e-003	0.0905	0.0760	5.4000e-004		6.8800e-003	6.8800e-003		6.8800e-003	6.8800e-003	0.0000	98.5139	98.5139	1.8900e-003	1.8100e-003	99.0993
Regional Shopping Center	91840	5.0000e-004	4.5000e-003	3.7800e-003	3.0000e-005		3.4000e-004	3.4000e-004		3.4000e-004	3.4000e-004	0.0000	4.9009	4.9009	9.0000e-005	9.0000e-005	4.9301
Total		**0.1398**	**1.2312**	**0.7770**	**7.6200e-003**		**0.0966**	**0.0966**		**0.0966**	**0.0966**	**0.0000**	**1,383.4268**	**1,383.4268**	**0.0265**	**0.0254**	**1,391.6478**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Low Rise	408494	2.2000e-003	0.0188	8.0100e-003	1.2000e-004		1.5200e-003	1.5200e-003		1.5200e-003	1.5200e-003	0.0000	21.7988	21.7988	4.2000e-004	4.0000e-004	21.9284
Apartments Mid Rise	1.30613e+007	0.0704	0.6018	0.2561	3.8400e-003		0.0487	0.0487		0.0487	0.0487	0.0000	696.9989	696.9989	0.0134	0.0128	701.1408
General Office Building	468450	2.5300e-003	0.0230	0.0193	1.4000e-004		1.7500e-003	1.7500e-003		1.7500e-003	1.7500e-003	0.0000	24.9983	24.9983	4.8000e-004	4.6000e-004	25.1468
High Turnover (Sit Down Restaurant)	8.30736e+006	0.0448	0.4072	0.3421	2.4400e-003		0.0310	0.0310		0.0310	0.0310	0.0000	443.3124	443.3124	8.5000e-003	8.1300e-003	445.9468
Hotel	1.74095e+006	9.3900e-003	0.0853	0.0717	5.1000e-004		6.4900e-003	6.4900e-003		6.4900e-003	6.4900e-003	0.0000	92.9036	92.9036	1.7800e-003	1.7000e-003	93.4557
Quality Restaurant	1.84608e+006	9.9500e-003	0.0905	0.0760	5.4000e-004		6.8800e-003	6.8800e-003		6.8800e-003	6.8800e-003	0.0000	98.5139	98.5139	1.8900e-003	1.8100e-003	99.0993
Regional Shopping Center	91840	5.0000e-004	4.5000e-003	3.7800e-003	3.0000e-005		3.4000e-004	3.4000e-004		3.4000e-004	3.4000e-004	0.0000	4.9009	4.9009	9.0000e-005	9.0000e-005	4.9301
Total		**0.1398**	**1.2312**	**0.7770**	**7.6200e-003**		**0.0966**	**0.0966**		**0.0966**	**0.0966**	**0.0000**	**1,383.4268**	**1,383.4268**	**0.0265**	**0.0254**	**1,391.6478**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Low Rise	106010	33.7770	1.3900e-003	2.9000e-004	33.8978
Apartments Mid Rise	3.94697e+006	1,257.5879	0.0519	0.0107	1,262.0869
General Office Building	584550	186.2502	7.6900e-003	1.5900e-003	186.9165
High Turnover (Sit Down Restaurant)	1.58904e+006	506.3022	0.0209	4.3200e-003	508.1135
Hotel	550308	175.3399	7.2400e-003	1.5000e-003	175.9672
Quality Restaurant	353120	112.5116	4.6500e-003	9.6000e-004	112.9141
Regional Shopping Center	756000	240.8778	9.9400e-003	2.0600e-003	241.7395
Total		**2,512.6465**	**0.1037**	**0.0215**	**2,521.6356**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Low Rise	106010	33.7770	1.3900e-003	2.9000e-004	33.8978
Apartments Mid Rise	3.94697e+006	1,257.5879	0.0519	0.0107	1,262.0869
General Office Building	584550	186.2502	7.6900e-003	1.5900e-003	186.9165
High Turnover (Sit Down Restaurant)	1.58904e+006	506.3022	0.0209	4.3200e-003	508.1135
Hotel	550308	175.3399	7.2400e-003	1.5000e-003	175.9672
Quality Restaurant	353120	112.5116	4.6500e-003	9.6000e-004	112.9141
Regional Shopping Center	756000	240.8778	9.9400e-003	2.0600e-003	241.7395
Total		**2,512.6465**	**0.1037**	**0.0215**	**2,521.6356**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	5.1437	0.2950	10.3804	1.6700e-003		0.0714	0.0714		0.0714	0.0714	0.0000	220.9670	220.9670	0.0201	3.7400e-003	222.5835
Unmitigated	5.1437	0.2950	10.3804	1.6700e-003		0.0714	0.0714		0.0714	0.0714	0.0000	220.9670	220.9670	0.0201	3.7400e-003	222.5835

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.4137					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	4.3998					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0206	0.1763	0.0750	1.1200e-003		0.0143	0.0143		0.0143	0.0143	0.0000	204.1166	204.1166	3.9100e-003	3.7400e-003	205.3295
Landscaping	0.3096	0.1187	10.3054	5.4000e-004		0.0572	0.0572		0.0572	0.0572	0.0000	16.8504	16.8504	0.0161	0.0000	17.2540
Total	**5.1437**	**0.2950**	**10.3804**	**1.6600e-003**		**0.0714**	**0.0714**		**0.0714**	**0.0714**	**0.0000**	**220.9670**	**220.9670**	**0.0201**	**3.7400e-003**	**222.5835**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.4137					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	4.3998					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0206	0.1763	0.0750	1.1200e-003		0.0143	0.0143		0.0143	0.0143	0.0000	204.1166	204.1166	3.9100e-003	3.7400e-003	205.3295
Landscaping	0.3096	0.1187	10.3054	5.4000e-004		0.0572	0.0572		0.0572	0.0572	0.0000	16.8504	16.8504	0.0161	0.0000	17.2540
Total	**5.1437**	**0.2950**	**10.3804**	**1.6600e-003**		**0.0714**	**0.0714**		**0.0714**	**0.0714**	**0.0000**	**220.9670**	**220.9670**	**0.0201**	**3.7400e-003**	**222.5835**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	585.8052	3.0183	0.0755	683.7567
Unmitigated	585.8052	3.0183	0.0755	683.7567

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Low Rise	1.62885 / 1.02688	10.9095	0.0535	1.3400e-003	12.6471
Apartments Mid Rise	63.5252 / 40.0485	425.4719	2.0867	0.0523	493.2363
General Office Building	7.99802 / 4.90201	53.0719	0.2627	6.5900e-003	61.6019
High Turnover (Sit Down Restaurant)	10.9272 / 0.697482	51.2702	0.3580	8.8200e-003	62.8482
Hotel	1.26834 / 0.140927	6.1633	0.0416	1.0300e-003	7.5079
Quality Restaurant	2.42827 / 0.154996	11.3934	0.0796	1.9600e-003	13.9663
Regional Shopping Center	4.14806 / 2.54236	27.5250	0.1363	3.4200e-003	31.9490
Total		**585.8052**	**3.0183**	**0.0755**	**683.7567**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Low Rise	1.62885 / 1.02688	10.9095	0.0535	1.3400e-003	12.6471
Apartments Mid Rise	63.5252 / 40.0485	425.4719	2.0867	0.0523	493.2363
General Office Building	7.99802 / 4.90201	53.0719	0.2627	6.5900e-003	61.6019
High Turnover (Sit Down Restaurant)	10.9272 / 0.697482	51.2702	0.3580	8.8200e-003	62.8482
Hotel	1.26834 / 0.140927	6.1633	0.0416	1.0300e-003	7.5079
Quality Restaurant	2.42827 / 0.154996	11.3934	0.0796	1.9600e-003	13.9663
Regional Shopping Center	4.14806 / 2.54236	27.5250	0.1363	3.4200e-003	31.9490
Total		**585.8052**	**3.0183**	**0.0755**	**683.7567**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	207.8079	12.2811	0.0000	514.8354
Unmitigated	207.8079	12.2811	0.0000	514.8354

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Low Rise	11.5	2.3344	0.1380	0.0000	5.7834
Apartments Mid Rise	448.5	91.0415	5.3804	0.0000	225.5513
General Office Building	41.85	8.4952	0.5021	0.0000	21.0464
High Turnover (Sit Down Restaurant)	428.4	86.9613	5.1393	0.0000	215.4430
Hotel	27.38	5.5579	0.3285	0.0000	13.7694
Quality Restaurant	7.3	1.4818	0.0876	0.0000	3.6712
Regional Shopping Center	58.8	11.9359	0.7054	0.0000	29.5706
Total		**207.8079**	**12.2811**	**0.0000**	**514.8354**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Low Rise	11.5	2.3344	0.1380	0.0000	5.7834
Apartments Mid Rise	448.5	91.0415	5.3804	0.0000	225.5513
General Office Building	41.85	8.4952	0.5021	0.0000	21.0464
High Turnover (Sit Down Restaurant)	428.4	86.9613	5.1393	0.0000	215.4430
Hotel	27.38	5.5579	0.3285	0.0000	13.7694
Quality Restaurant	7.3	1.4818	0.0876	0.0000	3.6712
Regional Shopping Center	58.8	11.9359	0.7054	0.0000	29.5706
Total		**207.8079**	**12.2811**	**0.0000**	**514.8354**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Village South Specific Plan (Proposed)

Los Angeles-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	45.00	1000sqft	1.03	45,000.00	0
High Turnover (Sit Down Restaurant)	36.00	1000sqft	0.83	36,000.00	0
Hotel	50.00	Room	1.67	72,600.00	0
Quality Restaurant	8.00	1000sqft	0.18	8,000.00	0
Apartments Low Rise	25.00	Dwelling Unit	1.56	25,000.00	72
Apartments Mid Rise	975.00	Dwelling Unit	25.66	975,000.00	2789
Regional Shopping Center	56.00	1000sqft	1.29	56,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2028
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

Project Characteristics - Consistent with the DEIR's model.

Land Use - See SWAPE comment regarding residential and retail land uses.

Construction Phase - See SWAPE comment regarding individual construction phase lengths.

Demolition - Consistent with the DEIR's model. See SWAPE comment regarding demolition.

Vehicle Trips - Saturday trips consistent with the DEIR's model. See SWAPE comment regarding weekday and Sunday trips.

Woodstoves - Woodstoves and wood-burning fireplaces consistent with the DEIR's model. See SWAPE comment regarding gas fireplaces.

Energy Use -

Construction Off-road Equipment Mitigation - See SWAPE comment on construction-related mitigation.

Area Mitigation - See SWAPE comment regarding operational mitigation measures.

Water Mitigation - See SWAPE comment regarding operational mitigation measures.

Trips and VMT - Local hire provision

Table Name	Column Name	Default Value	New Value
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberWood	1.25	0.00
tblFireplaces	NumberWood	48.75	0.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblVehicleTrips	ST_TR	7.16	6.17
tblVehicleTrips	ST_TR	6.39	3.87
tblVehicleTrips	ST_TR	2.46	1.39
tblVehicleTrips	ST_TR	158.37	79.82

tblVehicleTrips	ST_TR	8.19	3.75
tblVehicleTrips	ST_TR	94.36	63.99
tblVehicleTrips	ST_TR	49.97	10.74
tblVehicleTrips	SU_TR	6.07	6.16
tblVehicleTrips	SU_TR	5.86	4.18
tblVehicleTrips	SU_TR	1.05	0.69
tblVehicleTrips	SU_TR	131.84	78.27
tblVehicleTrips	SU_TR	5.95	3.20
tblVehicleTrips	SU_TR	72.16	57.65
tblVehicleTrips	SU_TR	25.24	6.39
tblVehicleTrips	WD_TR	6.59	5.83
tblVehicleTrips	WD_TR	6.65	4.13
tblVehicleTrips	WD_TR	11.03	6.41
tblVehicleTrips	WD_TR	127.15	65.80
tblVehicleTrips	WD_TR	8.17	3.84
tblVehicleTrips	WD_TR	89.95	62.64
tblVehicleTrips	WD_TR	42.70	9.43
tblWoodstoves	NumberCatalytic	1.25	0.00
tblWoodstoves	NumberCatalytic	48.75	0.00
tblWoodstoves	NumberNoncatalytic	1.25	0.00
tblWoodstoves	NumberNoncatalytic	48.75	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	4.2561	46.4415	31.4494	0.0636	18.2032	2.0456	20.2488	9.9670	1.8820	11.8490	0.0000	6,163.4166	6,163.4166	1.9475	0.0000	6,212.1039
2022	4.5441	38.8811	40.8776	0.1240	8.8255	1.6361	10.4616	3.6369	1.5052	5.1421	0.0000	12,493.4403	12,493.4403	1.9485	0.0000	12,518.5707
2023	4.1534	25.7658	38.7457	0.1206	7.0088	0.7592	7.7679	1.8799	0.7136	2.5935	0.0000	12,150.4890	12,150.4890	0.9589	0.0000	12,174.4615
2024	237.0219	9.5478	14.9642	0.0239	1.2171	0.4694	1.2875	0.3229	0.4319	0.4621	0.0000	2,313.1808	2,313.1808	0.7166	0.0000	2,331.0956
Maximum	**237.0219**	**46.4415**	**40.8776**	**0.1240**	**18.2032**	**2.0456**	**20.2488**	**9.9670**	**1.8820**	**11.8490**	**0.0000**	**12,493.4403**	**12,493.4403**	**1.9485**	**0.0000**	**12,518.5707**

2.1 Overall Construction (Maximum Daily Emission)

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	4.2561	46.4415	31.4494	0.0636	18.2032	2.0456	20.2488	9.9670	1.8820	11.8490	0.0000	6,163.4166	6,163.4166	1.9475	0.0000	6,212.1039
2022	4.5441	38.8811	40.8776	0.1240	8.8255	1.6361	10.4616	3.6369	1.5052	5.1421	0.0000	12,493.4403	12,493.4403	1.9485	0.0000	12,518.5707
2023	4.1534	25.7658	38.7457	0.1206	7.0088	0.7592	7.7679	1.8799	0.7136	2.5935	0.0000	12,150.4890	12,150.4890	0.9589	0.0000	12,174.4615
2024	237.0219	9.5478	14.9642	0.0239	1.2171	0.4694	1.2875	0.3229	0.4319	0.4621	0.0000	2,313.1808	2,313.1808	0.7166	0.0000	2,331.0955
Maximum	**237.0219**	**46.4415**	**40.8776**	**0.1240**	**18.2032**	**2.0456**	**20.2488**	**9.9670**	**1.8820**	**11.8490**	**0.0000**	**12,493.4403**	**12,493.4403**	**1.9485**	**0.0000**	**12,518.5707**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192
Energy	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.6387
Mobile	9.8489	45.4304	114.8495	0.4917	45.9592	0.3360	46.2951	12.2950	0.3119	12.6070		50,306.6034	50,306.6034	2.1807		50,361.1208
Total	**41.1168**	**67.2262**	**207.5497**	**0.6278**	**45.9592**	**2.4626**	**48.4217**	**12.2950**	**2.4385**	**14.7336**	**0.0000**	**76,811.1816**	**76,811.1816**	**2.8282**	**0.4832**	**77,025.8786**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192
Energy	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.6387
Mobile	9.8489	45.4304	114.8495	0.4917	45.9592	0.3360	46.2951	12.2950	0.3119	12.6070		50,306.6034	50,306.6034	2.1807		50,361.1208
Total	**41.1168**	**67.2262**	**207.5497**	**0.6278**	**45.9592**	**2.4626**	**48.4217**	**12.2950**	**2.4385**	**14.7336**	**0.0000**	**76,811.1816**	**76,811.1816**	**2.8282**	**0.4832**	**77,025.8786**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	9/1/2021	10/12/2021	5	30	
2	Site Preparation	Site Preparation	10/13/2021	11/9/2021	5	20	
3	Grading	Grading	11/10/2021	1/11/2022	5	45	
4	Building Construction	Building Construction	1/12/2022	12/12/2023	5	500	
5	Paving	Paving	12/13/2023	1/30/2024	5	35	
6	Architectural Coating	Architectural Coating	1/31/2024	3/19/2024	5	35	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 112.5

Acres of Paving: 0

Residential Indoor: 2,025,000; Residential Outdoor: 675,000; Non-Residential Indoor: 326,400; Non-Residential Outdoor: 108,800; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	458.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	801.00	143.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	160.00	0.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.3074	0.0000	3.3074	0.5008	0.0000	0.5008			0.0000			0.0000
Off-Road	3.1651	31.4407	21.5650	0.0388		1.5513	1.5513		1.4411	1.4411		3,747.9449	3,747.9449	1.0549		3,774.3174
Total	**3.1651**	**31.4407**	**21.5650**	**0.0388**	**3.3074**	**1.5513**	**4.8588**	**0.5008**	**1.4411**	**1.9419**		**3,747.9449**	**3,747.9449**	**1.0549**		**3,774.3174**

3.2 Demolition - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1273	4.0952	0.9602	0.0119	0.2669	0.0126	0.2795	0.0732	0.0120	0.0852		1,292.2413	1,292.2413	0.0877		1,294.4337
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0487	0.0313	0.4282	1.1800e-003	0.1141	9.5000e-004	0.1151	0.0303	8.8000e-004	0.0311		117.2799	117.2799	3.5200e-003		117.3678
Total	**0.1760**	**4.1265**	**1.3884**	**0.0131**	**0.3810**	**0.0135**	**0.3946**	**0.1034**	**0.0129**	**0.1163**		**1,409.5212**	**1,409.5212**	**0.0912**		**1,411.8015**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.3074	0.0000	3.3074	0.5008	0.0000	0.5008			0.0000			0.0000
Off-Road	3.1651	31.4407	21.5650	0.0388		1.5513	1.5513		1.4411	1.4411	0.0000	3,747.9449	3,747.9449	1.0549		3,774.3174
Total	**3.1651**	**31.4407**	**21.5650**	**0.0388**	**3.3074**	**1.5513**	**4.8588**	**0.5008**	**1.4411**	**1.9419**	**0.0000**	**3,747.9449**	**3,747.9449**	**1.0549**		**3,774.3174**

3.2 Demolition - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1273	4.0952	0.9602	0.0119	0.2669	0.0126	0.2795	0.0732	0.0120	0.0852		1,292.2413	1,292.2413	0.0877		1,294.4337
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0487	0.0313	0.4282	1.1800e-003	0.1141	9.5000e-004	0.1151	0.0303	8.8000e-004	0.0311		117.2799	117.2799	3.5200e-003		117.3678
Total	**0.1760**	**4.1265**	**1.3884**	**0.0131**	**0.3810**	**0.0135**	**0.3946**	**0.1034**	**0.0129**	**0.1163**		**1,409.5212**	**1,409.5212**	**0.0912**		**1,411.8015**

3.3 Site Preparation - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809		3,685.6569	3,685.6569	1.1920		3,715.4573
Total	**3.8882**	**40.4971**	**21.1543**	**0.0380**	**18.0663**	**2.0445**	**20.1107**	**9.9307**	**1.8809**	**11.8116**		**3,685.6569**	**3,685.6569**	**1.1920**		**3,715.4573**

3.3 Site Preparation - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0584	0.0375	0.5139	1.4100e-003	0.1369	1.1400e-003	0.1381	0.0363	1.0500e-003	0.0374		140.7359	140.7359	4.2200e-003		140.8414
Total	**0.0584**	**0.0375**	**0.5139**	**1.4100e-003**	**0.1369**	**1.1400e-003**	**0.1381**	**0.0363**	**1.0500e-003**	**0.0374**		**140.7359**	**140.7359**	**4.2200e-003**		**140.8414**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809	0.0000	3,685.6569	3,685.6569	1.1920		3,715.4573
Total	**3.8882**	**40.4971**	**21.1543**	**0.0380**	**18.0663**	**2.0445**	**20.1107**	**9.9307**	**1.8809**	**11.8116**	**0.0000**	**3,685.6569**	**3,685.6569**	**1.1920**		**3,715.4573**

3.3 Site Preparation - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0584	0.0375	0.5139	1.4100e-003	0.1369	1.1400e-003	0.1381	0.0363	1.0500e-003	0.0374		140.7359	140.7359	4.2200e-003		140.8414
Total	**0.0584**	**0.0375**	**0.5139**	**1.4100e-003**	**0.1369**	**1.1400e-003**	**0.1381**	**0.0363**	**1.0500e-003**	**0.0374**		**140.7359**	**140.7359**	**4.2200e-003**		**140.8414**

3.4 Grading - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	4.1912	46.3998	30.8785	0.0620		1.9853	1.9853		1.8265	1.8265		6,007.0434	6,007.0434	1.9428		6,055.6134
Total	**4.1912**	**46.3998**	**30.8785**	**0.0620**	**8.6733**	**1.9853**	**10.6587**	**3.5965**	**1.8265**	**5.4230**		**6,007.0434**	**6,007.0434**	**1.9428**		**6,055.6134**

3.4 Grading - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0649	0.0417	0.5710	1.5700e-003	0.1521	1.2700e-003	0.1534	0.0404	1.1700e-003	0.0415		156.3732	156.3732	4.6900e-003		156.4904
Total	**0.0649**	**0.0417**	**0.5710**	**1.5700e-003**	**0.1521**	**1.2700e-003**	**0.1534**	**0.0404**	**1.1700e-003**	**0.0415**		**156.3732**	**156.3732**	**4.6900e-003**		**156.4904**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	4.1912	46.3998	30.8785	0.0620		1.9853	1.9853		1.8265	1.8265	0.0000	6,007.0434	6,007.0434	1.9428		6,055.6134
Total	**4.1912**	**46.3998**	**30.8785**	**0.0620**	**8.6733**	**1.9853**	**10.6587**	**3.5965**	**1.8265**	**5.4230**	**0.0000**	**6,007.0434**	**6,007.0434**	**1.9428**		**6,055.6134**

3.4 Grading - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0649	0.0417	0.5710	1.5700e-003	0.1521	1.2700e-003	0.1534	0.0404	1.1700e-003	0.0415		156.3732	156.3732	4.6900e-003		156.4904
Total	**0.0649**	**0.0417**	**0.5710**	**1.5700e-003**	**0.1521**	**1.2700e-003**	**0.1534**	**0.0404**	**1.1700e-003**	**0.0415**		**156.3732**	**156.3732**	**4.6900e-003**		**156.4904**

3.4 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041		6,011.4105	6,011.4105	1.9442		6,060.0158
Total	**3.6248**	**38.8435**	**29.0415**	**0.0621**	**8.6733**	**1.6349**	**10.3082**	**3.5965**	**1.5041**	**5.1006**		**6,011.4105**	**6,011.4105**	**1.9442**		**6,060.0158**

3.4 Grading - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0607	0.0376	0.5263	1.5100e-003	0.1521	1.2300e-003	0.1534	0.0404	1.1300e-003	0.0415		150.8754	150.8754	4.2400e-003		150.9813
Total	**0.0607**	**0.0376**	**0.5263**	**1.5100e-003**	**0.1521**	**1.2300e-003**	**0.1534**	**0.0404**	**1.1300e-003**	**0.0415**		**150.8754**	**150.8754**	**4.2400e-003**		**150.9813**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041	0.0000	6,011.4105	6,011.4105	1.9442		6,060.0158
Total	**3.6248**	**38.8435**	**29.0415**	**0.0621**	**8.6733**	**1.6349**	**10.3082**	**3.5965**	**1.5041**	**5.1006**	**0.0000**	**6,011.4105**	**6,011.4105**	**1.9442**		**6,060.0158**

3.4 Grading - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0607	0.0376	0.5263	1.5100e-003	0.1521	1.2300e-003	0.1534	0.0404	1.1300e-003	0.0415		150.8754	150.8754	4.2400e-003		150.9813
Total	**0.0607**	**0.0376**	**0.5263**	**1.5100e-003**	**0.1521**	**1.2300e-003**	**0.1534**	**0.0404**	**1.1300e-003**	**0.0415**		**150.8754**	**150.8754**	**4.2400e-003**		**150.9813**

3.5 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**		**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

3.5 Building Construction - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.4079	13.2032	3.4341	0.0364	0.9155	0.0248	0.9404	0.2636	0.0237	0.2873		3,896.5482	3,896.5482	0.2236		3,902.1384
Worker	2.4299	1.5074	21.0801	0.0607	6.0932	0.0493	6.1425	1.6163	0.0454	1.6617		6,042.5585	6,042.5585	0.1697		6,046.8000
Total	**2.8378**	**14.7106**	**24.5142**	**0.0971**	**7.0087**	**0.0741**	**7.0828**	**1.8799**	**0.0691**	**1.9490**		**9,939.1067**	**9,939.1067**	**0.3933**		**9,948.9384**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612	0.0000	2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**	**0.0000**	**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

3.5 Building Construction - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.4079	13.2032	3.4341	0.0364	0.9155	0.0248	0.9404	0.2636	0.0237	0.2873		3,896.5482	3,896.5482	0.2236		3,902.1384
Worker	2.4299	1.5074	21.0801	0.0607	6.0932	0.0493	6.1425	1.6163	0.0454	1.6617		6,042.5585	6,042.5585	0.1697		6,046.8000
Total	**2.8378**	**14.7106**	**24.5142**	**0.0971**	**7.0087**	**0.0741**	**7.0828**	**1.8799**	**0.0691**	**1.9490**		**9,939.1067**	**9,939.1067**	**0.3933**		**9,948.9384**

3.5 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**		**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

3.5 Building Construction - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.3027	10.0181	3.1014	0.0352	0.9156	0.0116	0.9271	0.2636	0.0111	0.2747		3,773.8762	3,773.8762	0.1982		3,778.8300
Worker	2.2780	1.3628	19.4002	0.0584	6.0932	0.0479	6.1411	1.6163	0.0441	1.6604		5,821.4028	5,821.4028	0.1529		5,825.2254
Total	**2.5807**	**11.3809**	**22.5017**	**0.0936**	**7.0088**	**0.0595**	**7.0682**	**1.8799**	**0.0552**	**1.9350**		**9,595.2790**	**9,595.2790**	**0.3511**		**9,604.0554**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**	**0.0000**	**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

3.5 Building Construction - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.3027	10.0181	3.1014	0.0352	0.9156	0.0116	0.9271	0.2636	0.0111	0.2747		3,773.8762	3,773.8762	0.1982		3,778.8300
Worker	2.2780	1.3628	19.4002	0.0584	6.0932	0.0479	6.1411	1.6163	0.0441	1.6604		5,821.4028	5,821.4028	0.1529		5,825.2254
Total	**2.5807**	**11.3809**	**22.5017**	**0.0936**	**7.0088**	**0.0595**	**7.0682**	**1.8799**	**0.0552**	**1.9350**		**9,595.2790**	**9,595.2790**	**0.3511**		**9,604.0554**

3.6 Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694		2,207.5841	2,207.5841	0.7140		2,225.4336
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.0327**	**10.1917**	**14.5842**	**0.0228**		**0.5102**	**0.5102**		**0.4694**	**0.4694**		**2,207.5841**	**2,207.5841**	**0.7140**		**2,225.4336**

3.6 Paving - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0427	0.0255	0.3633	1.0900e-003	0.1141	9.0000e-004	0.1150	0.0303	8.3000e-004	0.0311		109.0150	109.0150	2.8600e-003		109.0866
Total	**0.0427**	**0.0255**	**0.3633**	**1.0900e-003**	**0.1141**	**9.0000e-004**	**0.1150**	**0.0303**	**8.3000e-004**	**0.0311**		**109.0150**	**109.0150**	**2.8600e-003**		**109.0866**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694	0.0000	2,207.5841	2,207.5841	0.7140		2,225.4336
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.0327**	**10.1917**	**14.5842**	**0.0228**		**0.5102**	**0.5102**		**0.4694**	**0.4694**	**0.0000**	**2,207.5841**	**2,207.5841**	**0.7140**		**2,225.4336**

3.6 Paving - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0427	0.0255	0.3633	1.0900e-003	0.1141	9.0000e-004	0.1150	0.0303	8.3000e-004	0.0311		109.0150	109.0150	2.8600e-003		109.0866
Total	**0.0427**	**0.0255**	**0.3633**	**1.0900e-003**	**0.1141**	**9.0000e-004**	**0.1150**	**0.0303**	**8.3000e-004**	**0.0311**		**109.0150**	**109.0150**	**2.8600e-003**		**109.0866**

3.6 Paving - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310		2,207.5472	2,207.5472	0.7140		2,225.3963
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9882**	**9.5246**	**14.6258**	**0.0228**		**0.4685**	**0.4685**		**0.4310**	**0.4310**		**2,207.5472**	**2,207.5472**	**0.7140**		**2,225.3963**

3.6 Paving - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0403	0.0233	0.3384	1.0600e-003	0.1141	8.8000e-004	0.1150	0.0303	8.1000e-004	0.0311		105.6336	105.6336	2.6300e-003		105.6992
Total	**0.0403**	**0.0233**	**0.3384**	**1.0600e-003**	**0.1141**	**8.8000e-004**	**0.1150**	**0.0303**	**8.1000e-004**	**0.0311**		**105.6336**	**105.6336**	**2.6300e-003**		**105.6992**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310	0.0000	2,207.5472	2,207.5472	0.7140		2,225.3963
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9882**	**9.5246**	**14.6258**	**0.0228**		**0.4685**	**0.4685**		**0.4310**	**0.4310**	**0.0000**	**2,207.5472**	**2,207.5472**	**0.7140**		**2,225.3963**

3.6 Paving - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0403	0.0233	0.3384	1.0600e-003	0.1141	8.8000e-004	0.1150	0.0303	8.1000e-004	0.0311		105.6336	105.6336	2.6300e-003		105.6992
Total	**0.0403**	**0.0233**	**0.3384**	**1.0600e-003**	**0.1141**	**8.8000e-004**	**0.1150**	**0.0303**	**8.1000e-004**	**0.0311**		**105.6336**	**105.6336**	**2.6300e-003**		**105.6992**

3.7 Architectural Coating - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	236.4115					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443
Total	**236.5923**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**		**281.4481**	**281.4481**	**0.0159**		**281.8443**

3.7 Architectural Coating - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.4296	0.2481	3.6098	0.0113	1.2171	9.4300e-003	1.2266	0.3229	8.6800e-003	0.3315		1,126.7583	1,126.7583	0.0280		1,127.4583
Total	**0.4296**	**0.2481**	**3.6098**	**0.0113**	**1.2171**	**9.4300e-003**	**1.2266**	**0.3229**	**8.6800e-003**	**0.3315**		**1,126.7583**	**1,126.7583**	**0.0280**		**1,127.4583**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	236.4115					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609	0.0000	281.4481	281.4481	0.0159		281.8443
Total	**236.5923**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**	**0.0000**	**281.4481**	**281.4481**	**0.0159**		**281.8443**

3.7 Architectural Coating - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.4296	0.2481	3.6098	0.0113	1.2171	9.4300e-003	1.2266	0.3229	8.6800e-003	0.3315		1,126.7583	1,126.7583	0.0280		1,127.4583
Total	**0.4296**	**0.2481**	**3.6098**	**0.0113**	**1.2171**	**9.4300e-003**	**1.2266**	**0.3229**	**8.6800e-003**	**0.3315**		**1,126.7583**	**1,126.7583**	**0.0280**		**1,127.4583**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	9.8489	45.4304	114.8495	0.4917	45.9592	0.3360	46.2951	12.2950	0.3119	12.6070		50,306.6034	50,306.6034	2.1807		50,361.1208
Unmitigated	9.8489	45.4304	114.8495	0.4917	45.9592	0.3360	46.2951	12.2950	0.3119	12.6070		50,306.6034	50,306.6034	2.1807		50,361.1208

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	145.75	154.25	154.00	506,227	506,227
Apartments Mid Rise	4,026.75	3,773.25	4075.50	13,660,065	13,660,065
General Office Building	288.45	62.55	31.05	706,812	706,812
High Turnover (Sit Down Restaurant)	2,368.80	2,873.52	2817.72	3,413,937	3,413,937
Hotel	192.00	187.50	160.00	445,703	445,703
Quality Restaurant	501.12	511.92	461.20	707,488	707,488
Regional Shopping Center	528.08	601.44	357.84	1,112,221	1,112,221
Total	8,050.95	8,164.43	8,057.31	20,552,452	20,552,452

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Low Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Apartments Mid Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
High Turnover (Sit Down	16.60	8.40	6.90	8.50	72.50	19.00	37	20	43
Hotel	16.60	8.40	6.90	19.40	61.60	19.00	58	38	4
Quality Restaurant	16.60	8.40	6.90	12.00	69.00	19.00	38	18	44
Regional Shopping Center	16.60	8.40	6.90	16.30	64.70	19.00	54	35	11

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Low Rise	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Apartments Mid Rise	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
General Office Building	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
High Turnover (Sit Down Restaurant)	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Hotel	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Quality Restaurant	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Regional Shopping Center	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.6387
NaturalGas Unmitigated	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.6387

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Low Rise	1119.16	0.0121	0.1031	0.0439	6.6000e-004		8.3400e-003	8.3400e-003		8.3400e-003	8.3400e-003		131.6662	131.6662	2.5200e-003	2.4100e-003	132.4486
Apartments Mid Rise	35784.3	0.3859	3.2978	1.4033	0.0211		0.2666	0.2666		0.2666	0.2666		4,209.9164	4,209.9164	0.0807	0.0772	4,234.9339
General Office Building	1283.42	0.0138	0.1258	0.1057	7.5000e-004		9.5600e-003	9.5600e-003		9.5600e-003	9.5600e-003		150.9911	150.9911	2.8900e-003	2.7700e-003	151.8884
High Turnover (Sit Down Restaurant)	22759.9	0.2455	2.2314	1.8743	0.0134		0.1696	0.1696		0.1696	0.1696		2,677.6342	2,677.6342	0.0513	0.0491	2,693.5460
Hotel	4769.72	0.0514	0.4676	0.3928	2.8100e-003		0.0355	0.0355		0.0355	0.0355		561.1436	561.1436	0.0108	0.0103	564.4782
Quality Restaurant	5057.75	0.0545	0.4959	0.4165	2.9800e-003		0.0377	0.0377		0.0377	0.0377		595.0298	595.0298	0.0114	0.0109	598.5658
Regional Shopping Center	251.616	2.7100e-003	0.0247	0.0207	1.5000e-004		1.8700e-003	1.8700e-003		1.8700e-003	1.8700e-003		29.6019	29.6019	5.7000e-004	5.4000e-004	29.7778
Total		**0.7660**	**6.7463**	**4.2573**	**0.0418**		**0.5292**	**0.5292**		**0.5292**	**0.5292**		**8,355.9832**	**8,355.9832**	**0.1602**	**0.1532**	**8,405.6387**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Low Rise	1.11916	0.0121	0.1031	0.0439	6.6000e-004		8.3400e-003	8.3400e-003		8.3400e-003	8.3400e-003		131.6662	131.6662	2.5200e-003	2.4100e-003	132.4486
Apartments Mid Rise	35.7843	0.3859	3.2978	1.4033	0.0211		0.2666	0.2666		0.2666	0.2666		4,209.9164	4,209.9164	0.0807	0.0772	4,234.9339
General Office Building	1.28342	0.0138	0.1258	0.1057	7.5000e-004		9.5600e-003	9.5600e-003		9.5600e-003	9.5600e-003		150.9911	150.9911	2.8900e-003	2.7700e-003	151.8884
High Turnover (Sit Down Restaurant)	22.7599	0.2455	2.2314	1.8743	0.0134		0.1696	0.1696		0.1696	0.1696		2,677.6342	2,677.6342	0.0513	0.0491	2,693.5460
Hotel	4.76972	0.0514	0.4676	0.3928	2.8100e-003		0.0355	0.0355		0.0355	0.0355		561.1436	561.1436	0.0108	0.0103	564.4782
Quality Restaurant	5.05775	0.0545	0.4959	0.4165	2.9800e-003		0.0377	0.0377		0.0377	0.0377		595.0298	595.0298	0.0114	0.0109	598.5658
Regional Shopping Center	0.251616	2.7100e-003	0.0247	0.0207	1.5000e-004		1.8700e-003	1.8700e-003		1.8700e-003	1.8700e-003		29.6019	29.6019	5.7000e-004	5.4000e-004	29.7778
Total		**0.7660**	**6.7463**	**4.2573**	**0.0418**		**0.5292**	**0.5292**		**0.5292**	**0.5292**		**8,355.9832**	**8,355.9832**	**0.1602**	**0.1532**	**8,405.6387**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192
Unmitigated	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	2.2670					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	24.1085					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	1.6500	14.1000	6.0000	0.0900		1.1400	1.1400		1.1400	1.1400	0.0000	18,000.0000	18,000.0000	0.3450	0.3300	18,106.9650
Landscaping	2.4766	0.9496	82.4430	4.3600e-003		0.4574	0.4574		0.4574	0.4574		148.5950	148.5950	0.1424		152.1542
Total	**30.5020**	**15.0496**	**88.4430**	**0.0944**		**1.5974**	**1.5974**		**1.5974**	**1.5974**	**0.0000**	**18,148.5950**	**18,148.5950**	**0.4874**	**0.3300**	**18,259.1192**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	2.2670					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	24.1085					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	1.6500	14.1000	6.0000	0.0900		1.1400	1.1400		1.1400	1.1400	0.0000	18,000.0000	18,000.0000	0.3450	0.3300	18,106.9650
Landscaping	2.4766	0.9496	82.4430	4.3600e-003		0.4574	0.4574		0.4574	0.4574		148.5950	148.5950	0.1424		152.1542
Total	**30.5020**	**15.0496**	**88.4430**	**0.0944**		**1.5974**	**1.5974**		**1.5974**	**1.5974**	**0.0000**	**18,148.5950**	**18,148.5950**	**0.4874**	**0.3300**	**18,259.1192**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Village South Specific Plan (Proposed)

Los Angeles-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	45.00	1000sqft	1.03	45,000.00	0
High Turnover (Sit Down Restaurant)	36.00	1000sqft	0.83	36,000.00	0
Hotel	50.00	Room	1.67	72,600.00	0
Quality Restaurant	8.00	1000sqft	0.18	8,000.00	0
Apartments Low Rise	25.00	Dwelling Unit	1.56	25,000.00	72
Apartments Mid Rise	975.00	Dwelling Unit	25.66	975,000.00	2789
Regional Shopping Center	56.00	1000sqft	1.29	56,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2028
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

Project Characteristics - Consistent with the DEIR's model.

Land Use - See SWAPE comment regarding residential and retail land uses.

Construction Phase - See SWAPE comment regarding individual construction phase lengths.

Demolition - Consistent with the DEIR's model. See SWAPE comment regarding demolition.

Vehicle Trips - Saturday trips consistent with the DEIR's model. See SWAPE comment regarding weekday and Sunday trips.

Woodstoves - Woodstoves and wood-burning fireplaces consistent with the DEIR's model. See SWAPE comment regarding gas fireplaces.

Energy Use -

Construction Off-road Equipment Mitigation - See SWAPE comment on construction-related mitigation.

Area Mitigation - See SWAPE comment regarding operational mitigation measures.

Water Mitigation - See SWAPE comment regarding operational mitigation measures.

Trips and VMT - Local hire provision

Table Name	Column Name	Default Value	New Value
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberWood	1.25	0.00
tblFireplaces	NumberWood	48.75	0.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblVehicleTrips	ST_TR	7.16	6.17
tblVehicleTrips	ST_TR	6.39	3.87
tblVehicleTrips	ST_TR	2.46	1.39
tblVehicleTrips	ST_TR	158.37	79.82

tblVehicleTrips	ST_TR	8.19	3.75
tblVehicleTrips	ST_TR	94.36	63.99
tblVehicleTrips	ST_TR	49.97	10.74
tblVehicleTrips	SU_TR	6.07	6.16
tblVehicleTrips	SU_TR	5.86	4.18
tblVehicleTrips	SU_TR	1.05	0.69
tblVehicleTrips	SU_TR	131.84	78.27
tblVehicleTrips	SU_TR	5.95	3.20
tblVehicleTrips	SU_TR	72.16	57.65
tblVehicleTrips	SU_TR	25.24	6.39
tblVehicleTrips	WD_TR	6.59	5.83
tblVehicleTrips	WD_TR	6.65	4.13
tblVehicleTrips	WD_TR	11.03	6.41
tblVehicleTrips	WD_TR	127.15	65.80
tblVehicleTrips	WD_TR	8.17	3.84
tblVehicleTrips	WD_TR	89.95	62.64
tblVehicleTrips	WD_TR	42.70	9.43
tblWoodstoves	NumberCatalytic	1.25	0.00
tblWoodstoves	NumberCatalytic	48.75	0.00
tblWoodstoves	NumberNoncatalytic	1.25	0.00
tblWoodstoves	NumberNoncatalytic	48.75	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	4.2621	46.4460	31.4068	0.0635	18.2032	2.0456	20.2488	9.9670	1.8820	11.8490	0.0000	6,154.3377	6,154.3377	1.9472	0.0000	6,203.0186
2022	4.7966	38.8851	39.6338	0.1195	8.8255	1.6361	10.4616	3.6369	1.5052	5.1421	0.0000	12,035.3440	12,035.3440	1.9482	0.0000	12,060.6013
2023	4.3939	25.8648	37.5031	0.1162	7.0088	0.7598	7.7685	1.8799	0.7142	2.5940	0.0000	11,710.4080	11,710.4080	0.9617	0.0000	11,734.4497
2024	237.0656	9.5503	14.9372	0.0238	1.2171	0.4694	1.2875	0.3229	0.4319	0.4621	0.0000	2,307.0517	2,307.0517	0.7164	0.0000	2,324.9627
Maximum	**237.0656**	**46.4460**	**39.6338**	**0.1195**	**18.2032**	**2.0456**	**20.2488**	**9.9670**	**1.8820**	**11.8490**	**0.0000**	**12,035.3440**	**12,035.3440**	**1.9482**	**0.0000**	**12,060.6013**

2.1 Overall Construction (Maximum Daily Emission)

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	4.2621	46.4460	31.4068	0.0635	18.2032	2.0456	20.2488	9.9670	1.8820	11.8490	0.0000	6,154.3377	6,154.3377	1.9472	0.0000	6,203.0186
2022	4.7966	38.8851	39.6338	0.1195	8.8255	1.6361	10.4616	3.6369	1.5052	5.1421	0.0000	12,035.3440	12,035.3440	1.9482	0.0000	12,060.6013
2023	4.3939	25.8648	37.5031	0.1162	7.0088	0.7598	7.7685	1.8799	0.7142	2.5940	0.0000	11,710.4080	11,710.4080	0.9617	0.0000	11,734.4497
2024	237.0656	9.5503	14.9372	0.0238	1.2171	0.4694	1.2875	0.3229	0.4319	0.4621	0.0000	2,307.0517	2,307.0517	0.7164	0.0000	2,324.9627
Maximum	**237.0656**	**46.4460**	**39.6338**	**0.1195**	**18.2032**	**2.0456**	**20.2488**	**9.9670**	**1.8820**	**11.8490**	**0.0000**	**12,035.3440**	**12,035.3440**	**1.9482**	**0.0000**	**12,060.6013**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192
Energy	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.6387
Mobile	9.5233	45.9914	110.0422	0.4681	45.9592	0.3373	46.2965	12.2950	0.3132	12.6083		47,917.8005	47,917.8005	2.1953		47,972.6839
Total	**40.7912**	**67.7872**	**202.7424**	**0.6043**	**45.9592**	**2.4640**	**48.4231**	**12.2950**	**2.4399**	**14.7349**	**0.0000**	**74,422.3787**	**74,422.3787**	**2.8429**	**0.4832**	**74,637.4417**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192
Energy	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.6387
Mobile	9.5233	45.9914	110.0422	0.4681	45.9592	0.3373	46.2965	12.2950	0.3132	12.6083		47,917.8005	47,917.8005	2.1953		47,972.6839
Total	**40.7912**	**67.7872**	**202.7424**	**0.6043**	**45.9592**	**2.4640**	**48.4231**	**12.2950**	**2.4399**	**14.7349**	**0.0000**	**74,422.3787**	**74,422.3787**	**2.8429**	**0.4832**	**74,637.4417**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	9/1/2021	10/12/2021	5	30	
2	Site Preparation	Site Preparation	10/13/2021	11/9/2021	5	20	
3	Grading	Grading	11/10/2021	1/11/2022	5	45	
4	Building Construction	Building Construction	1/12/2022	12/12/2023	5	500	
5	Paving	Paving	12/13/2023	1/30/2024	5	35	
6	Architectural Coating	Architectural Coating	1/31/2024	3/19/2024	5	35	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 112.5

Acres of Paving: 0

Residential Indoor: 2,025,000; Residential Outdoor: 675,000; Non-Residential Indoor: 326,400; Non-Residential Outdoor: 108,800; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	458.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	801.00	143.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	160.00	0.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.3074	0.0000	3.3074	0.5008	0.0000	0.5008			0.0000			0.0000
Off-Road	3.1651	31.4407	21.5650	0.0388		1.5513	1.5513		1.4411	1.4411		3,747.9449	3,747.9449	1.0549		3,774.3174
Total	**3.1651**	**31.4407**	**21.5650**	**0.0388**	**3.3074**	**1.5513**	**4.8588**	**0.5008**	**1.4411**	**1.9419**		**3,747.9449**	**3,747.9449**	**1.0549**		**3,774.3174**

3.2 Demolition - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1304	4.1454	1.0182	0.0117	0.2669	0.0128	0.2797	0.0732	0.0122	0.0854		1,269.8555	1,269.8555	0.0908		1,272.1252
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0532	0.0346	0.3963	1.1100e-003	0.1141	9.5000e-004	0.1151	0.0303	8.8000e-004	0.0311		110.4707	110.4707	3.3300e-003		110.5539
Total	**0.1835**	**4.1800**	**1.4144**	**0.0128**	**0.3810**	**0.0137**	**0.3948**	**0.1034**	**0.0131**	**0.1165**		**1,380.3262**	**1,380.3262**	**0.0941**		**1,382.6791**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.3074	0.0000	3.3074	0.5008	0.0000	0.5008			0.0000			0.0000
Off-Road	3.1651	31.4407	21.5650	0.0388		1.5513	1.5513		1.4411	1.4411	0.0000	3,747.9449	3,747.9449	1.0549		3,774.3174
Total	**3.1651**	**31.4407**	**21.5650**	**0.0388**	**3.3074**	**1.5513**	**4.8588**	**0.5008**	**1.4411**	**1.9419**	**0.0000**	**3,747.9449**	**3,747.9449**	**1.0549**		**3,774.3174**

3.2 Demolition - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1304	4.1454	1.0182	0.0117	0.2669	0.0128	0.2797	0.0732	0.0122	0.0854		1,269.8555	1,269.8555	0.0908		1,272.1252
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0532	0.0346	0.3963	1.1100e-003	0.1141	9.5000e-004	0.1151	0.0303	8.8000e-004	0.0311		110.4707	110.4707	3.3300e-003		110.5539
Total	**0.1835**	**4.1800**	**1.4144**	**0.0128**	**0.3810**	**0.0137**	**0.3948**	**0.1034**	**0.0131**	**0.1165**		**1,380.3262**	**1,380.3262**	**0.0941**		**1,382.6791**

3.3 Site Preparation - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809		3,685.6569	3,685.6569	1.1920		3,715.4573
Total	**3.8882**	**40.4971**	**21.1543**	**0.0380**	**18.0663**	**2.0445**	**20.1107**	**9.9307**	**1.8809**	**11.8116**		**3,685.6569**	**3,685.6569**	**1.1920**		**3,715.4573**

3.3 Site Preparation - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0638	0.0415	0.4755	1.3300e-003	0.1369	1.1400e-003	0.1381	0.0363	1.0500e-003	0.0374		132.5649	132.5649	3.9900e-003		132.6646
Total	**0.0638**	**0.0415**	**0.4755**	**1.3300e-003**	**0.1369**	**1.1400e-003**	**0.1381**	**0.0363**	**1.0500e-003**	**0.0374**		**132.5649**	**132.5649**	**3.9900e-003**		**132.6646**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809	0.0000	3,685.6569	3,685.6569	1.1920		3,715.4573
Total	**3.8882**	**40.4971**	**21.1543**	**0.0380**	**18.0663**	**2.0445**	**20.1107**	**9.9307**	**1.8809**	**11.8116**	**0.0000**	**3,685.6569**	**3,685.6569**	**1.1920**		**3,715.4573**

3.3 Site Preparation - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0638	0.0415	0.4755	1.3300e-003	0.1369	1.1400e-003	0.1381	0.0363	1.0500e-003	0.0374		132.5649	132.5649	3.9900e-003		132.6646
Total	**0.0638**	**0.0415**	**0.4755**	**1.3300e-003**	**0.1369**	**1.1400e-003**	**0.1381**	**0.0363**	**1.0500e-003**	**0.0374**		**132.5649**	**132.5649**	**3.9900e-003**		**132.6646**

3.4 Grading - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	4.1912	46.3998	30.8785	0.0620		1.9853	1.9853		1.8265	1.8265		6,007.0434	6,007.0434	1.9428		6,055.6134
Total	**4.1912**	**46.3998**	**30.8785**	**0.0620**	**8.6733**	**1.9853**	**10.6587**	**3.5965**	**1.8265**	**5.4230**		**6,007.0434**	**6,007.0434**	**1.9428**		**6,055.6134**

3.4 Grading - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0709	0.0462	0.5284	1.4800e-003	0.1521	1.2700e-003	0.1534	0.0404	1.1700e-003	0.0415		147.2943	147.2943	4.4300e-003		147.4051
Total	**0.0709**	**0.0462**	**0.5284**	**1.4800e-003**	**0.1521**	**1.2700e-003**	**0.1534**	**0.0404**	**1.1700e-003**	**0.0415**		**147.2943**	**147.2943**	**4.4300e-003**		**147.4051**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	4.1912	46.3998	30.8785	0.0620		1.9853	1.9853		1.8265	1.8265	0.0000	6,007.0434	6,007.0434	1.9428		6,055.6134
Total	**4.1912**	**46.3998**	**30.8785**	**0.0620**	**8.6733**	**1.9853**	**10.6587**	**3.5965**	**1.8265**	**5.4230**	**0.0000**	**6,007.0434**	**6,007.0434**	**1.9428**		**6,055.6134**

3.4 Grading - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0709	0.0462	0.5284	1.4800e-003	0.1521	1.2700e-003	0.1534	0.0404	1.1700e-003	0.0415		147.2943	147.2943	4.4300e-003		147.4051
Total	**0.0709**	**0.0462**	**0.5284**	**1.4800e-003**	**0.1521**	**1.2700e-003**	**0.1534**	**0.0404**	**1.1700e-003**	**0.0415**		**147.2943**	**147.2943**	**4.4300e-003**		**147.4051**

3.4 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041		6,011.4105	6,011.4105	1.9442		6,060.0158
Total	**3.6248**	**38.8435**	**29.0415**	**0.0621**	**8.6733**	**1.6349**	**10.3082**	**3.5965**	**1.5041**	**5.1006**		**6,011.4105**	**6,011.4105**	**1.9442**		**6,060.0158**

3.4 Grading - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0665	0.0416	0.4861	1.4300e-003	0.1521	1.2300e-003	0.1534	0.0404	1.1300e-003	0.0415		142.1207	142.1207	4.0000e-003		142.2207
Total	**0.0665**	**0.0416**	**0.4861**	**1.4300e-003**	**0.1521**	**1.2300e-003**	**0.1534**	**0.0404**	**1.1300e-003**	**0.0415**		**142.1207**	**142.1207**	**4.0000e-003**		**142.2207**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041	0.0000	6,011.4105	6,011.4105	1.9442		6,060.0158
Total	**3.6248**	**38.8435**	**29.0415**	**0.0621**	**8.6733**	**1.6349**	**10.3082**	**3.5965**	**1.5041**	**5.1006**	**0.0000**	**6,011.4105**	**6,011.4105**	**1.9442**		**6,060.0158**

3.4 Grading - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0665	0.0416	0.4861	1.4300e-003	0.1521	1.2300e-003	0.1534	0.0404	1.1300e-003	0.0415		142.1207	142.1207	4.0000e-003		142.2207
Total	**0.0665**	**0.0416**	**0.4861**	**1.4300e-003**	**0.1521**	**1.2300e-003**	**0.1534**	**0.0404**	**1.1300e-003**	**0.0415**		**142.1207**	**142.1207**	**4.0000e-003**		**142.2207**

3.5 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**		**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

3.5 Building Construction - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.4284	13.1673	3.8005	0.0354	0.9155	0.0256	0.9412	0.2636	0.0245	0.2881		3,789.0750	3,789.0750	0.2381		3,795.0283
Worker	2.6620	1.6677	19.4699	0.0571	6.0932	0.0493	6.1425	1.6163	0.0454	1.6617		5,691.9354	5,691.9354	0.1602		5,695.9408
Total	**3.0904**	**14.8350**	**23.2704**	**0.0926**	**7.0087**	**0.0749**	**7.0836**	**1.8799**	**0.0699**	**1.9498**		**9,481.0104**	**9,481.0104**	**0.3984**		**9,490.9691**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612	0.0000	2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**	**0.0000**	**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

3.5 Building Construction - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.4284	13.1673	3.8005	0.0354	0.9155	0.0256	0.9412	0.2636	0.0245	0.2881		3,789.0750	3,789.0750	0.2381		3,795.0283
Worker	2.6620	1.6677	19.4699	0.0571	6.0932	0.0493	6.1425	1.6163	0.0454	1.6617		5,691.9354	5,691.9354	0.1602		5,695.9408
Total	**3.0904**	**14.8350**	**23.2704**	**0.0926**	**7.0087**	**0.0749**	**7.0836**	**1.8799**	**0.0699**	**1.9498**		**9,481.0104**	**9,481.0104**	**0.3984**		**9,490.9691**

3.5 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**		**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

3.5 Building Construction - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.3183	9.9726	3.3771	0.0343	0.9156	0.0122	0.9277	0.2636	0.0116	0.2752		3,671.4007	3,671.4007	0.2096		3,676.6417
Worker	2.5029	1.5073	17.8820	0.0550	6.0932	0.0479	6.1411	1.6163	0.0441	1.6604		5,483.7974	5,483.7974	0.1442		5,487.4020
Total	**2.8211**	**11.4799**	**21.2591**	**0.0893**	**7.0088**	**0.0601**	**7.0688**	**1.8799**	**0.0557**	**1.9356**		**9,155.1981**	**9,155.1981**	**0.3538**		**9,164.0437**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**	**0.0000**	**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

3.5 Building Construction - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.3183	9.9726	3.3771	0.0343	0.9156	0.0122	0.9277	0.2636	0.0116	0.2752		3,671.4007	3,671.4007	0.2096		3,676.6417
Worker	2.5029	1.5073	17.8820	0.0550	6.0932	0.0479	6.1411	1.6163	0.0441	1.6604		5,483.7974	5,483.7974	0.1442		5,487.4020
Total	**2.8211**	**11.4799**	**21.2591**	**0.0893**	**7.0088**	**0.0601**	**7.0688**	**1.8799**	**0.0557**	**1.9356**		**9,155.1981**	**9,155.1981**	**0.3538**		**9,164.0437**

3.6 Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694		2,207.5841	2,207.5841	0.7140		2,225.4336
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.0327**	**10.1917**	**14.5842**	**0.0228**		**0.5102**	**0.5102**		**0.4694**	**0.4694**		**2,207.5841**	**2,207.5841**	**0.7140**		**2,225.4336**

3.6 Paving - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0469	0.0282	0.3349	1.0300e-003	0.1141	9.0000e-004	0.1150	0.0303	8.3000e-004	0.0311		102.6928	102.6928	2.7000e-003		102.7603
Total	**0.0469**	**0.0282**	**0.3349**	**1.0300e-003**	**0.1141**	**9.0000e-004**	**0.1150**	**0.0303**	**8.3000e-004**	**0.0311**		**102.6928**	**102.6928**	**2.7000e-003**		**102.7603**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694	0.0000	2,207.5841	2,207.5841	0.7140		2,225.4336
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.0327**	**10.1917**	**14.5842**	**0.0228**		**0.5102**	**0.5102**		**0.4694**	**0.4694**	**0.0000**	**2,207.5841**	**2,207.5841**	**0.7140**		**2,225.4336**

3.6 Paving - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0469	0.0282	0.3349	1.0300e-003	0.1141	9.0000e-004	0.1150	0.0303	8.3000e-004	0.0311		102.6928	102.6928	2.7000e-003		102.7603
Total	**0.0469**	**0.0282**	**0.3349**	**1.0300e-003**	**0.1141**	**9.0000e-004**	**0.1150**	**0.0303**	**8.3000e-004**	**0.0311**		**102.6928**	**102.6928**	**2.7000e-003**		**102.7603**

3.6 Paving - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310		2,207.5472	2,207.5472	0.7140		2,225.3963
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9882**	**9.5246**	**14.6258**	**0.0228**		**0.4685**	**0.4685**		**0.4310**	**0.4310**		**2,207.5472**	**2,207.5472**	**0.7140**		**2,225.3963**

3.6 Paving - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0444	0.0257	0.3114	1.0000e-003	0.1141	8.8000e-004	0.1150	0.0303	8.1000e-004	0.0311		99.5045	99.5045	2.4700e-003		99.5663
Total	**0.0444**	**0.0257**	**0.3114**	**1.0000e-003**	**0.1141**	**8.8000e-004**	**0.1150**	**0.0303**	**8.1000e-004**	**0.0311**		**99.5045**	**99.5045**	**2.4700e-003**		**99.5663**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310	0.0000	2,207.5472	2,207.5472	0.7140		2,225.3963
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9882**	**9.5246**	**14.6258**	**0.0228**		**0.4685**	**0.4685**		**0.4310**	**0.4310**	**0.0000**	**2,207.5472**	**2,207.5472**	**0.7140**		**2,225.3963**

3.6 Paving - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0444	0.0257	0.3114	1.0000e-003	0.1141	8.8000e-004	0.1150	0.0303	8.1000e-004	0.0311		99.5045	99.5045	2.4700e-003		99.5663
Total	**0.0444**	**0.0257**	**0.3114**	**1.0000e-003**	**0.1141**	**8.8000e-004**	**0.1150**	**0.0303**	**8.1000e-004**	**0.0311**		**99.5045**	**99.5045**	**2.4700e-003**		**99.5663**

3.7 Architectural Coating - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	236.4115					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443
Total	**236.5923**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**		**281.4481**	**281.4481**	**0.0159**		**281.8443**

3.7 Architectural Coating - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.4734	0.2743	3.3220	0.0107	1.2171	9.4300e-003	1.2266	0.3229	8.6800e-003	0.3315		1,061.3818	1,061.3818	0.0264		1,062.0410
Total	**0.4734**	**0.2743**	**3.3220**	**0.0107**	**1.2171**	**9.4300e-003**	**1.2266**	**0.3229**	**8.6800e-003**	**0.3315**		**1,061.3818**	**1,061.3818**	**0.0264**		**1,062.0410**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	236.4115					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609	0.0000	281.4481	281.4481	0.0159		281.8443
Total	**236.5923**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**	**0.0000**	**281.4481**	**281.4481**	**0.0159**		**281.8443**

3.7 Architectural Coating - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.4734	0.2743	3.3220	0.0107	1.2171	9.4300e-003	1.2266	0.3229	8.6800e-003	0.3315		1,061.3818	1,061.3818	0.0264		1,062.0410
Total	**0.4734**	**0.2743**	**3.3220**	**0.0107**	**1.2171**	**9.4300e-003**	**1.2266**	**0.3229**	**8.6800e-003**	**0.3315**		**1,061.3818**	**1,061.3818**	**0.0264**		**1,062.0410**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	9.5233	45.9914	110.0422	0.4681	45.9592	0.3373	46.2965	12.2950	0.3132	12.6083		47,917.8005	47,917.8005	2.1953		47,972.6839
Unmitigated	9.5233	45.9914	110.0422	0.4681	45.9592	0.3373	46.2965	12.2950	0.3132	12.6083		47,917.8005	47,917.8005	2.1953		47,972.6839

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	145.75	154.25	154.00	506,227	506,227
Apartments Mid Rise	4,026.75	3,773.25	4075.50	13,660,065	13,660,065
General Office Building	288.45	62.55	31.05	706,812	706,812
High Turnover (Sit Down Restaurant)	2,368.80	2,873.52	2817.72	3,413,937	3,413,937
Hotel	192.00	187.50	160.00	445,703	445,703
Quality Restaurant	501.12	511.92	461.20	707,488	707,488
Regional Shopping Center	528.08	601.44	357.84	1,112,221	1,112,221
Total	8,050.95	8,164.43	8,057.31	20,552,452	20,552,452

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Low Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Apartments Mid Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
High Turnover (Sit Down	16.60	8.40	6.90	8.50	72.50	19.00	37	20	43
Hotel	16.60	8.40	6.90	19.40	61.60	19.00	58	38	4
Quality Restaurant	16.60	8.40	6.90	12.00	69.00	19.00	38	18	44
Regional Shopping Center	16.60	8.40	6.90	16.30	64.70	19.00	54	35	11

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Low Rise	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Apartments Mid Rise	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
General Office Building	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
High Turnover (Sit Down Restaurant)	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Hotel	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Quality Restaurant	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Regional Shopping Center	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.6387
NaturalGas Unmitigated	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.6387

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Low Rise	1119.16	0.0121	0.1031	0.0439	6.6000e-004		8.3400e-003	8.3400e-003		8.3400e-003	8.3400e-003		131.6662	131.6662	2.5200e-003	2.4100e-003	132.4486
Apartments Mid Rise	35784.3	0.3859	3.2978	1.4033	0.0211		0.2666	0.2666		0.2666	0.2666		4,209.9164	4,209.9164	0.0807	0.0772	4,234.9339
General Office Building	1283.42	0.0138	0.1258	0.1057	7.5000e-004		9.5600e-003	9.5600e-003		9.5600e-003	9.5600e-003		150.9911	150.9911	2.8900e-003	2.7700e-003	151.8884
High Turnover (Sit Down Restaurant)	22759.9	0.2455	2.2314	1.8743	0.0134		0.1696	0.1696		0.1696	0.1696		2,677.6342	2,677.6342	0.0513	0.0491	2,693.5460
Hotel	4769.72	0.0514	0.4676	0.3928	2.8100e-003		0.0355	0.0355		0.0355	0.0355		561.1436	561.1436	0.0108	0.0103	564.4782
Quality Restaurant	5057.75	0.0545	0.4959	0.4165	2.9800e-003		0.0377	0.0377		0.0377	0.0377		595.0298	595.0298	0.0114	0.0109	598.5658
Regional Shopping Center	251.616	2.7100e-003	0.0247	0.0207	1.5000e-004		1.8700e-003	1.8700e-003		1.8700e-003	1.8700e-003		29.6019	29.6019	5.7000e-004	5.4000e-004	29.7778
Total		**0.7660**	**6.7463**	**4.2573**	**0.0418**		**0.5292**	**0.5292**		**0.5292**	**0.5292**		**8,355.9832**	**8,355.9832**	**0.1602**	**0.1532**	**8,405.6387**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Low Rise	1.11916	0.0121	0.1031	0.0439	6.6000e-004		8.3400e-003	8.3400e-003		8.3400e-003	8.3400e-003		131.6662	131.6662	2.5200e-003	2.4100e-003	132.4486
Apartments Mid Rise	35.7843	0.3859	3.2978	1.4033	0.0211		0.2666	0.2666		0.2666	0.2666		4,209.9164	4,209.9164	0.0807	0.0772	4,234.9339
General Office Building	1.28342	0.0138	0.1258	0.1057	7.5000e-004		9.5600e-003	9.5600e-003		9.5600e-003	9.5600e-003		150.9911	150.9911	2.8900e-003	2.7700e-003	151.8884
High Turnover (Sit Down Restaurant)	22.7599	0.2455	2.2314	1.8743	0.0134		0.1696	0.1696		0.1696	0.1696		2,677.6342	2,677.6342	0.0513	0.0491	2,693.5460
Hotel	4.76972	0.0514	0.4676	0.3928	2.8100e-003		0.0355	0.0355		0.0355	0.0355		561.1436	561.1436	0.0108	0.0103	564.4782
Quality Restaurant	5.05775	0.0545	0.4959	0.4165	2.9800e-003		0.0377	0.0377		0.0377	0.0377		595.0298	595.0298	0.0114	0.0109	598.5658
Regional Shopping Center	0.251616	2.7100e-003	0.0247	0.0207	1.5000e-004		1.8700e-003	1.8700e-003		1.8700e-003	1.8700e-003		29.6019	29.6019	5.7000e-004	5.4000e-004	29.7778
Total		**0.7660**	**6.7463**	**4.2573**	**0.0418**		**0.5292**	**0.5292**		**0.5292**	**0.5292**		**8,355.9832**	**8,355.9832**	**0.1602**	**0.1532**	**8,405.6387**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192
Unmitigated	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	2.2670					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	24.1085					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	1.6500	14.1000	6.0000	0.0900		1.1400	1.1400		1.1400	1.1400	0.0000	18,000.0000	18,000.0000	0.3450	0.3300	18,106.9650
Landscaping	2.4766	0.9496	82.4430	4.3600e-003		0.4574	0.4574		0.4574	0.4574		148.5950	148.5950	0.1424		152.1542
Total	**30.5020**	**15.0496**	**88.4430**	**0.0944**		**1.5974**	**1.5974**		**1.5974**	**1.5974**	**0.0000**	**18,148.5950**	**18,148.5950**	**0.4874**	**0.3300**	**18,259.1192**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	2.2670					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	24.1085					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	1.6500	14.1000	6.0000	0.0900		1.1400	1.1400		1.1400	1.1400	0.0000	18,000.0000	18,000.0000	0.3450	0.3300	18,106.9650
Landscaping	2.4766	0.9496	82.4430	4.3600e-003		0.4574	0.4574		0.4574	0.4574		148.5950	148.5950	0.1424		152.1542
Total	**30.5020**	**15.0496**	**88.4430**	**0.0944**		**1.5974**	**1.5974**		**1.5974**	**1.5974**	**0.0000**	**18,148.5950**	**18,148.5950**	**0.4874**	**0.3300**	**18,259.1192**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Local Hire Provision Net Change	
Without Local Hire Provision	
Total Construction GHG Emissions (MT CO2e)	3,623
Amortized (MT CO2e/year)	120.77
With Local Hire Provision	
Total Construction GHG Emissions (MT CO2e)	3,024
Amortized (MT CO2e/year)	100.80
% Decrease in Construction-related GHG Emissions	***17%***

EXHIBIT B

SWAPE Technical Consultation, Data Analysis and Litigation Support for the Environment

SOIL WATER AIR PROTECTION ENTERPRISE
2656 29th Street, Suite 201
Santa Monica, California 90405
Attn: Paul Rosenfeld, Ph.D.
Mobil: (310) 795-2335
Office: (310) 452-5555
Fax: (310) 452-5550
Email: prosenfeld@swape.com

Paul Rosenfeld, Ph.D.

Chemical Fate and Transport & Air Dispersion Modeling

Principal Environmental Chemist

Risk Assessment & Remediation Specialist

Education

Ph.D. Soil Chemistry, University of Washington, 1999. Dissertation on volatile organic compound filtration.

M.S. Environmental Science, U.C. Berkeley, 1995. Thesis on organic waste economics.

B.A. Environmental Studies, U.C. Santa Barbara, 1991. Thesis on wastewater treatment.

Professional Experience

Dr. Rosenfeld has over 25 years' experience conducting environmental investigations and risk assessments for evaluating impacts to human health, property, and ecological receptors. His expertise focuses on the fate and transport of environmental contaminants, human health risk, exposure assessment, and ecological restoration. Dr. Rosenfeld has evaluated and modeled emissions from unconventional oil drilling operations, oil spills, landfills, boilers and incinerators, process stacks, storage tanks, confined animal feeding operations, and many other industrial and agricultural sources. His project experience ranges from monitoring and modeling of pollution sources to evaluating impacts of pollution on workers at industrial facilities and residents in surrounding communities.

Dr. Rosenfeld has investigated and designed remediation programs and risk assessments for contaminated sites containing lead, heavy metals, mold, bacteria, particulate matter, petroleum hydrocarbons, chlorinated solvents, pesticides, radioactive waste, dioxins and furans, semi- and volatile organic compounds, PCBs, PAHs, perchlorate, asbestos, per- and poly-fluoroalkyl substances (PFOA/PFOS), unusual polymers, fuel oxygenates (MTBE), among other pollutants. Dr. Rosenfeld also has experience evaluating greenhouse gas emissions from various projects and is an expert on the assessment of odors from industrial and agricultural sites, as well as the evaluation of odor nuisance impacts and technologies for abatement of odorous emissions. As a principal scientist at SWAPE, Dr. Rosenfeld directs air dispersion modeling and exposure assessments. He has served as an expert witness and testified about pollution sources causing nuisance and/or personal injury at dozens of sites and has testified as an expert witness on more than ten cases involving exposure to air contaminants from industrial sources.

Professional History:

Soil Water Air Protection Enterprise (SWAPE); 2003 to present; Principal and Founding Partner
UCLA School of Public Health; 2007 to 2011; Lecturer (Assistant Researcher)
UCLA School of Public Health; 2003 to 2006; Adjunct Professor
UCLA Environmental Science and Engineering Program; 2002-2004; Doctoral Intern Coordinator
UCLA Institute of the Environment, 2001-2002; Research Associate
Komex H_2O Science, 2001 to 2003; Senior Remediation Scientist
National Groundwater Association, 2002-2004; Lecturer
San Diego State University, 1999-2001; Adjunct Professor
Anteon Corp., San Diego, 2000-2001; Remediation Project Manager
Ogden (now Amec), San Diego, 2000-2000; Remediation Project Manager
Bechtel, San Diego, California, 1999 – 2000; Risk Assessor
King County, Seattle, 1996 – 1999; Scientist
James River Corp., Washington, 1995-96; Scientist
Big Creek Lumber, Davenport, California, 1995; Scientist
Plumas Corp., California and USFS, Tahoe 1993-1995; Scientist
Peace Corps and World Wildlife Fund, St. Kitts, West Indies, 1991-1993; Scientist

Publications:

Remy, L.L., Clay T., Byers, V., **Rosenfeld P. E.** (2019) Hospital, Health, and Community Burden After Oil Refinery Fires, Richmond, California 2007 and 2012. *Environmental Health.* 18:48

Simons, R.A., Seo, Y. **Rosenfeld, P**., (2015) Modeling the Effect of Refinery Emission On Residential Property Value. Journal of Real Estate Research. 27(3):321-342

Chen, J. A, Zapata A. R., Sutherland A. J., Molmen, D.R., Chow, B. S., Wu, L. E., **Rosenfeld, P. E.,** Hesse, R. C., (2012) Sulfur Dioxide and Volatile Organic Compound Exposure To A Community In Texas City Texas Evaluated Using Aermod and Empirical Data. *American Journal of Environmental Science*, 8(6), 622-632.

Rosenfeld, P.E. & Feng, L. (2011). *The Risks of Hazardous Waste.* Amsterdam: Elsevier Publishing.

Cheremisinoff, N.P., & **Rosenfeld, P.E.** (2011). *Handbook of Pollution Prevention and Cleaner Production: Best Practices in the Agrochemical Industry*, Amsterdam: Elsevier Publishing.

Gonzalez, J., Feng, L., Sutherland, A., Waller, C., Sok, H., Hesse, R., **Rosenfeld, P.** (2010). PCBs and Dioxins/Furans in Attic Dust Collected Near Former PCB Production and Secondary Copper Facilities in Sauget, IL. *Procedia Environmental Sciences*. 113–125.

Feng, L., Wu, C., Tam, L., Sutherland, A.J., Clark, J.J., **Rosenfeld, P.E.** (2010). Dioxin and Furan Blood Lipid and Attic Dust Concentrations in Populations Living Near Four Wood Treatment Facilities in the United States. *Journal of Environmental Health*. 73(6), 34-46.

Cheremisinoff, N.P., & **Rosenfeld, P.E.** (2010). *Handbook of Pollution Prevention and Cleaner Production: Best Practices in the Wood and Paper Industries.* Amsterdam: Elsevier Publishing.

Cheremisinoff, N.P., & **Rosenfeld, P.E.** (2009). *Handbook of Pollution Prevention and Cleaner Production: Best Practices in the Petroleum Industry*. Amsterdam: Elsevier Publishing.

Wu, C., Tam, L., Clark, J., **Rosenfeld, P**. (2009). Dioxin and furan blood lipid concentrations in populations living near four wood treatment facilities in the United States. *WIT Transactions on Ecology and the Environment, Air Pollution,* 123 (17), 319-327.

Tam L. K.., Wu C. D., Clark J. J. and **Rosenfeld, P.E.** (2008). A Statistical Analysis Of Attic Dust And Blood Lipid Concentrations Of Tetrachloro-p-Dibenzodioxin (TCDD) Toxicity Equivalency Quotients (TEQ) In Two Populations Near Wood Treatment Facilities. *Organohalogen Compounds*, 70, 002252-002255.

Tam L. K.., Wu C. D., Clark J. J. and **Rosenfeld, P.E.** (2008). Methods For Collect Samples For Assessing Dioxins And Other Environmental Contaminants In Attic Dust: A Review. *Organohalogen Compounds*, 70, 000527-000530.

Hensley, A.R. A. Scott, J. J. J. Clark, **Rosenfeld, P.E.** (2007). Attic Dust and Human Blood Samples Collected near a Former Wood Treatment Facility. *Environmental Research*. 105, 194-197.

Rosenfeld, P.E., J. J. J. Clark, A. R. Hensley, M. Suffet. (2007). The Use of an Odor Wheel Classification for Evaluation of Human Health Risk Criteria for Compost Facilities. *Water Science & Technology* 55(5), 345-357.

Rosenfeld, P. E., M. Suffet. (2007). The Anatomy Of Odour Wheels For Odours Of Drinking Water, Wastewater, Compost And The Urban Environment. *Water Science & Technology* 55(5), 335-344.

Sullivan, P. J. Clark, J.J.J., Agardy, F. J., **Rosenfeld, P.E.** (2007). *Toxic Legacy, Synthetic Toxins in the Food, Water, and Air in American Cities.* Boston Massachusetts: Elsevier Publishing

Rosenfeld, P.E., and Suffet I.H. (2004). Control of Compost Odor Using High Carbon Wood Ash. *Water Science and Technology*. 49(9),171-178.

Rosenfeld P. E., J.J. Clark, I.H. (Mel) Suffet (2004). The Value of An Odor-Quality-Wheel Classification Scheme For The Urban Environment. *Water Environment Federation's Technical Exhibition and Conference (WEFTEC) 2004.* New Orleans, October 2-6, 2004.

Rosenfeld, P.E., and Suffet, I.H. (2004). Understanding Odorants Associated With Compost, Biomass Facilities, and the Land Application of Biosolids. *Water Science and Technology*. 49(9), 193-199.

Rosenfeld, P.E., and Suffet I.H. (2004). Control of Compost Odor Using High Carbon Wood Ash, *Water Science and Technology*, 49(9), 171-178.

Rosenfeld, P. E., Grey, M. A., Sellew, P. (2004). Measurement of Biosolids Odor and Odorant Emissions from Windrows, Static Pile and Biofilter. *Water Environment Research*. 76(4), 310-315.

Rosenfeld, P.E., Grey, M and Suffet, M. (2002). Compost Demonstration Project, Sacramento California Using High-Carbon Wood Ash to Control Odor at a Green Materials Composting Facility. *Integrated Waste Management Board Public Affairs Office*, Publications Clearinghouse (MS–6), Sacramento, CA Publication #442-02-008.

Rosenfeld, P.E., and C.L. Henry. (2001). Characterization of odor emissions from three different biosolids. *Water Soil and Air Pollution*. 127(1-4), 173-191.

Rosenfeld, P.E., and Henry C. L., (2000). Wood ash control of odor emissions from biosolids application. *Journal of Environmental Quality.* 29, 1662-1668.

Rosenfeld, P.E., C.L. Henry and D. Bennett. (2001). Wastewater dewatering polymer affect on biosolids odor emissions and microbial activity. *Water Environment Research*. 73(4), 363-367.

Rosenfeld, P.E., and C.L. Henry. (2001). Activated Carbon and Wood Ash Sorption of Wastewater, Compost, and Biosolids Odorants. *Water Environment Research*, 73, 388-393.

Rosenfeld, P.E., and Henry C. L., (2001). High carbon wood ash effect on biosolids microbial activity and odor. *Water Environment Research*. 131(1-4), 247-262.

Chollack, T. and **P. Rosenfeld. (**1998). Compost Amendment Handbook For Landscaping. Prepared for and distributed by the City of Redmond, Washington State.

Rosenfeld, P. E. (1992). The Mount Liamuiga Crater Trail. *Heritage Magazine of St. Kitts*, 3(2).

Rosenfeld, P. E. (1993). High School Biogas Project to Prevent Deforestation On St. Kitts. *Biomass Users Network*, 7(1).

Rosenfeld, P. E. (1998). Characterization, Quantification, and Control of Odor Emissions From Biosolids Application To Forest Soil. Doctoral Thesis. University of Washington College of Forest Resources.

Rosenfeld, P. E. (1994). Potential Utilization of Small Diameter Trees on Sierra County Public Land. Masters thesis reprinted by the Sierra County Economic Council. Sierra County, California.

Rosenfeld, P. E. (1991). How to Build a Small Rural Anaerobic Digester & Uses Of Biogas In The First And Third World. Bachelors Thesis. University of California.

Presentations:

Rosenfeld, P.E., Sutherland, A; Hesse, R.; Zapata, A. (October 3-6, 2013). Air dispersion modeling of volatile organic emissions from multiple natural gas wells in Decatur, TX. *44th Western Regional Meeting, American Chemical Society.* Lecture conducted from Santa Clara, CA.

Sok, H.L.; Waller, C.C.; Feng, L.; Gonzalez, J.; Sutherland, A.J.; Wisdom-Stack, T.; Sahai, R.K.; Hesse, R.C.; **Rosenfeld, P.E.** (June 20-23, 2010). Atrazine: A Persistent Pesticide in Urban Drinking Water. *Urban Environmental Pollution*. Lecture conducted from Boston, MA.

Feng, L.; Gonzalez, J.; Sok, H.L.; Sutherland, A.J.; Waller, C.C.; Wisdom-Stack, T.; Sahai, R.K.; La, M.; Hesse, R.C.; **Rosenfeld, P.E.** (June 20-23, 2010). Bringing Environmental Justice to East St. Louis, Illinois. *Urban Environmental Pollution.* Lecture conducted from Boston, MA.

Rosenfeld, P.E. (April 19-23, 2009). Perfluoroctanoic Acid (PFOA) and Perfluoroactane Sulfonate (PFOS) Contamination in Drinking Water From the Use of Aqueous Film Forming Foams (AFFF) at Airports in the United States. *2009 Ground Water Summit and 2009 Ground Water Protection Council Spring Meeting*, Lecture conducted from Tuscon, AZ.

Rosenfeld, P.E. (April 19-23, 2009). Cost to Filter Atrazine Contamination from Drinking Water in the United States" Contamination in Drinking Water From the Use of Aqueous Film Forming Foams (AFFF) at Airports in the United States. *2009 Ground Water Summit and 2009 Ground Water Protection Council Spring Meeting*. Lecture conducted from Tuscon, AZ.

Wu, C., Tam, L., Clark, J., **Rosenfeld, P**. (20-22 July, 2009). Dioxin and furan blood lipid concentrations in populations living near four wood treatment facilities in the United States. Brebbia, C.A. and Popov, V., eds., *Air Pollution XVII: Proceedings of the Seventeenth International Conference on Modeling, Monitoring and Management of Air Pollution*. Lecture conducted from Tallinn, Estonia.

Rosenfeld, P. E. (October 15-18, 2007). Moss Point Community Exposure To Contaminants From A Releasing Facility. *The 23rd Annual International Conferences on Soils Sediment and Water.* Platform lecture conducted from University of Massachusetts, Amherst MA.

Rosenfeld, P. E. (October 15-18, 2007). The Repeated Trespass of Tritium-Contaminated Water Into A Surrounding Community Form Repeated Waste Spills From A Nuclear Power Plant. *The 23rd Annual International Conferences on Soils Sediment and Water*. Platform lecture conducted from University of Massachusetts, Amherst MA.

Rosenfeld, P. E. (October 15-18, 2007). Somerville Community Exposure To Contaminants From Wood Treatment Facility Emissions. The *23rd Annual International Conferences on Soils Sediment and Water*. Lecture conducted from University of Massachusetts, Amherst MA.

Rosenfeld P. E. (March 2007). Production, Chemical Properties, Toxicology, & Treatment Case Studies of 1,2,3-Trichloropropane (TCP). *The Association for Environmental Health and Sciences (AEHS) Annual Meeting*. Lecture conducted from San Diego, CA.

Rosenfeld P. E. (March 2007). Blood and Attic Sampling for Dioxin/Furan, PAH, and Metal Exposure in Florala, Alabama. *The AEHS Annual Meeting.* Lecture conducted from San Diego, CA.

Hensley A.R., Scott, A., **Rosenfeld P.E.,** Clark, J.J.J. (August 21 – 25, 2006). Dioxin Containing Attic Dust And Human Blood Samples Collected Near A Former Wood Treatment Facility. *The 26th International Symposium on Halogenated Persistent Organic Pollutants – DIOXIN2006*. Lecture conducted from Radisson SAS Scandinavia Hotel in Oslo Norway.

Hensley A.R., Scott, A., **Rosenfeld P.E.,** Clark, J.J.J. (November 4-8, 2006). Dioxin Containing Attic Dust And Human Blood Samples Collected Near A Former Wood Treatment Facility. *APHA 134 Annual Meeting & Exposition.* Lecture conducted from Boston Massachusetts.

Paul Rosenfeld Ph.D. (October 24-25, 2005). Fate, Transport and Persistence of PFOA and Related Chemicals. Mealey's C8/PFOA. *Science, Risk & Litigation Conference.* Lecture conducted from The Rittenhouse Hotel, Philadelphia, PA.

Paul Rosenfeld Ph.D. (September 19, 2005). Brominated Flame Retardants in Groundwater: Pathways to Human Ingestion, *Toxicology and Remediation PEMA Emerging Contaminant Conference*. Lecture conducted from Hilton Hotel, Irvine California.

Paul Rosenfeld Ph.D. (September 19, 2005). Fate, Transport, Toxicity, And Persistence of 1,2,3-TCP. *PEMA Emerging Contaminant Conference.* Lecture conducted from Hilton Hotel in Irvine, California.

Paul Rosenfeld Ph.D. (September 26-27, 2005). Fate, Transport and Persistence of PDBEs. *Mealey's Groundwater Conference.* Lecture conducted from Ritz Carlton Hotel, Marina Del Ray, California.

Paul Rosenfeld Ph.D. (June 7-8, 2005). Fate, Transport and Persistence of PFOA and Related Chemicals. *International Society of Environmental Forensics: Focus On Emerging Contaminants*. Lecture conducted from Sheraton Oceanfront Hotel, Virginia Beach, Virginia.

Paul Rosenfeld Ph.D. (July 21-22, 2005). Fate Transport, Persistence and Toxicology of PFOA and Related Perfluorochemicals. *2005 National Groundwater Association Ground Water And Environmental Law Conference*. Lecture conducted from Wyndham Baltimore Inner Harbor, Baltimore Maryland.

Paul Rosenfeld Ph.D. (July 21-22, 2005). Brominated Flame Retardants in Groundwater: Pathways to Human Ingestion, Toxicology and Remediation. *2005 National Groundwater Association Ground Water and Environmental Law Conference.* Lecture conducted from Wyndham Baltimore Inner Harbor, Baltimore Maryland.

Paul Rosenfeld, Ph.D. and James Clark Ph.D. and Rob Hesse R.G. (May 5-6, 2004). Tert-butyl Alcohol Liability and Toxicology, A National Problem and Unquantified Liability. *National Groundwater Association. Environmental Law Conference*. Lecture conducted from Congress Plaza Hotel, Chicago Illinois.

Paul Rosenfeld, Ph.D. (March 2004). Perchlorate Toxicology. *Meeting of the American Groundwater Trust*. Lecture conducted from Phoenix Arizona.

Hagemann, M.F., **Paul Rosenfeld, Ph.D.** and Rob Hesse (2004). Perchlorate Contamination of the Colorado River. *Meeting of tribal representatives*. Lecture conducted from Parker, AZ.

Paul Rosenfeld, Ph.D. (April 7, 2004). A National Damage Assessment Model For PCE and Dry Cleaners. *Drycleaner Symposium. California Ground Water Association*. Lecture conducted from Radison Hotel, Sacramento, California.

Rosenfeld, P. E., Grey, M., (June 2003) Two stage biofilter for biosolids composting odor control. *Seventh International In Situ And On Site Bioremediation Symposium Battelle Conference* Orlando, FL.

Paul Rosenfeld, Ph.D. and James Clark Ph.D. (February 20-21, 2003) Understanding Historical Use, Chemical Properties, Toxicity and Regulatory Guidance of 1,4 Dioxane. *National Groundwater Association. Southwest Focus Conference. Water Supply and Emerging Contaminants*.. Lecture conducted from Hyatt Regency Phoenix Arizona.

Paul Rosenfeld, Ph.D. (February 6-7, 2003). Underground Storage Tank Litigation and Remediation. *California CUPA Forum*. Lecture conducted from Marriott Hotel, Anaheim California.

Paul Rosenfeld, Ph.D. (October 23, 2002) Underground Storage Tank Litigation and Remediation. *EPA Underground Storage Tank Roundtable*. Lecture conducted from Sacramento California.

Rosenfeld, P.E. and Suffet, M. (October 7- 10, 2002). Understanding Odor from Compost, *Wastewater and Industrial Processes. Sixth Annual Symposium On Off Flavors in the Aquatic Environment. International Water Association*. Lecture conducted from Barcelona Spain.

Rosenfeld, P.E. and Suffet, M. (October 7- 10, 2002). Using High Carbon Wood Ash to Control Compost Odor. *Sixth Annual Symposium On Off Flavors in the Aquatic Environment. International Water Association*. Lecture conducted from Barcelona Spain.

Rosenfeld, P.E. and Grey, M. A. (September 22-24, 2002). Biocycle Composting For Coastal Sage Restoration. *Northwest Biosolids Management Association*. Lecture conducted from Vancouver Washington..

Rosenfeld, P.E. and Grey, M. A. (November 11-14, 2002). Using High-Carbon Wood Ash to Control Odor at a Green Materials Composting Facility. *Soil Science Society Annual Conferenc*e. Lecture conducted from Indianapolis, Maryland.

Rosenfeld. P.E. (September 16, 2000). Two stage biofilter for biosolids composting odor control. *Water Environment Federation.* Lecture conducted from Anaheim California.

Rosenfeld. P.E. (October 16, 2000). Wood ash and biofilter control of compost odor. *Biofest.* Lecture conducted from Ocean Shores, California.

Rosenfeld, P.E. (2000). Bioremediation Using Organic Soil Amendments. *California Resource Recovery Association*. Lecture conducted from Sacramento California.

Rosenfeld, P.E., C.L. Henry, R. Harrison. (1998). Oat and Grass Seed Germination and Nitrogen and Sulfur Emissions Following Biosolids Incorporation With High-Carbon Wood-Ash. *Water Environment Federation 12th Annual Residuals and Biosolids Management Conference Proceedings*. Lecture conducted from Bellevue Washington.

Rosenfeld, P.E., and C.L. Henry. (1999). An evaluation of ash incorporation with biosolids for odor reduction. *Soil Science Society of America*. Lecture conducted from Salt Lake City Utah.

Rosenfeld, P.E., C.L. Henry, R. Harrison. (1998). Comparison of Microbial Activity and Odor Emissions from Three Different Biosolids Applied to Forest Soil. *Brown and Caldwell.* Lecture conducted from Seattle Washington.

Rosenfeld, P.E., C.L. Henry. (1998). Characterization, Quantification, and Control of Odor Emissions from Biosolids Application To Forest Soil. *Biofest.* Lecture conducted from Lake Chelan, Washington.

Rosenfeld, P.E, C.L. Henry, R. Harrison. (1998). Oat and Grass Seed Germination and Nitrogen and Sulfur Emissions Following Biosolids Incorporation With High-Carbon Wood-Ash. Water Environment Federation 12th Annual Residuals and Biosolids Management Conference Proceedings. Lecture conducted from Bellevue Washington.

Rosenfeld, P.E., C.L. Henry, R. B. Harrison, and R. Dills. (1997). Comparison of Odor Emissions From Three Different Biosolids Applied to Forest Soil. *Soil Science Society of America*. Lecture conducted from Anaheim California.

Teaching Experience:

UCLA Department of Environmental Health (Summer 2003 through 20010) Taught Environmental Health Science 100 to students, including undergrad, medical doctors, public health professionals and nurses. Course focused on the health effects of environmental contaminants.

National Ground Water Association, Successful Remediation Technologies. Custom Course in Sante Fe, New Mexico. May 21, 2002. Focused on fate and transport of fuel contaminants associated with underground storage tanks.

National Ground Water Association; Successful Remediation Technologies Course in Chicago Illinois. April 1, 2002. Focused on fate and transport of contaminants associated with Superfund and RCRA sites.

California Integrated Waste Management Board, April and May, 2001. Alternative Landfill Caps Seminar in San Diego, Ventura, and San Francisco. Focused on both prescriptive and innovative landfill cover design.

UCLA Department of Environmental Engineering, February 5, 2002. Seminar on Successful Remediation Technologies focusing on Groundwater Remediation.

University Of Washington, Soil Science Program, Teaching Assistant for several courses including: Soil Chemistry, Organic Soil Amendments, and Soil Stability.

U.C. Berkeley, Environmental Science Program Teaching Assistant for Environmental Science 10.

Academic Grants Awarded:

California Integrated Waste Management Board. $41,000 grant awarded to UCLA Institute of the Environment. Goal: To investigate effect of high carbon wood ash on volatile organic emissions from compost. 2001.

Synagro Technologies, Corona California: $10,000 grant awarded to San Diego State University.
Goal: investigate effect of biosolids for restoration and remediation of degraded coastal sage soils. 2000.

King County, Department of Research and Technology, Washington State. $100,000 grant awarded to University of Washington: Goal: To investigate odor emissions from biosolids application and the effect of polymers and ash on VOC emissions. 1998.

Northwest Biosolids Management Association, Washington State. $20,000 grant awarded to investigate effect of polymers and ash on VOC emissions from biosolids. 1997.

James River Corporation, Oregon: $10,000 grant was awarded to investigate the success of genetically engineered Poplar trees with resistance to round-up. 1996.

United State Forest Service, Tahoe National Forest: $15,000 grant was awarded to investigating fire ecology of the Tahoe National Forest. 1995.

Kellogg Foundation, Washington D.C. $500 grant was awarded to construct a large anaerobic digester on St. Kitts in West Indies. 1993

Deposition and/or Trial Testimony:

In the United States District Court For The District of New Jersey
Duarte et al, *Plaintiffs,* vs. United States Metals Refining Company et. al. *Defendant.*
Case No.: 2:17-cv-01624-ES-SCM
Rosenfeld Deposition. 6-7-2019

In the United States District Court of Southern District of Texas Galveston Division
M/T Carla Maersk, *Plaintiffs,* vs. Conti 168., Schiffahrts-GMBH & Co. Bulker KG MS "Conti Perdido" *Defendant.*
Case No.: 3:15-CV-00106 consolidated with 3:15-CV-00237
Rosenfeld Deposition. 5-9-2019

In The Superior Court of the State of California In And For The County Of Los Angeles – Santa Monica
Carole-Taddeo-Bates et al., vs. Ifran Khan et al., Defendants
Case No.: No. BC615636
Rosenfeld Deposition, 1-26-2019

In The Superior Court of the State of California In And For The County Of Los Angeles – Santa Monica
The San Gabriel Valley Council of Governments et al. vs El Adobe Apts. Inc. et al., Defendants
Case No.: No. BC646857
Rosenfeld Deposition, 10-6-2018; Trial 3-7-19

In United States District Court For The District of Colorado
Bells et al. Plaintiff vs. The 3M Company et al., Defendants
Case: No 1:16-cv-02531-RBJ
Rosenfeld Deposition, 3-15-2018 and 4-3-2018

In The District Court Of Regan County, Texas, 112th Judicial District
Phillip Bales et al., Plaintiff vs. Dow Agrosciences, LLC, et al., Defendants
Cause No 1923
Rosenfeld Deposition, 11-17-2017

In The Superior Court of the State of California In And For The County Of Contra Costa
Simons et al., Plaintiffs vs. Chevron Corporation, et al., Defendants
Cause No C12-01481
Rosenfeld Deposition, 11-20-2017

In The Circuit Court Of The Twentieth Judicial Circuit, St Clair County, Illinois
Martha Custer et al., Plaintiff vs. Cerro Flow Products, Inc., Defendants
Case No.: No. 0i9-L-2295
Rosenfeld Deposition, 8-23-2017

In The Superior Court of the State of California, For The County of Los Angeles
Warrn Gilbert and Penny Gilber, Plaintiff vs. BMW of North America LLC
Case No.: LC102019 (c/w BC582154)
Rosenfeld Deposition, 8-16-2017, Trail 8-28-2018

In the Northern District Court of Mississippi, Greenville Division
Brenda J. Cooper, et al., *Plaintiffs,* vs. Meritor Inc., et al., *Defendants*
Case Number: 4:16-cv-52-DMB-JVM
Rosenfeld Deposition: July 2017

In The Superior Court of the State of Washington, County of Snohomish
Michael Davis and Julie Davis et al., Plaintiff vs. Cedar Grove Composting Inc., Defendants
Case No.: No. 13-2-03987-5
Rosenfeld Deposition, February 2017
Trial, March 2017

In The Superior Court of the State of California, County of Alameda
Charles Spain., Plaintiff vs. Thermo Fisher Scientific, et al., Defendants
Case No.: RG14711115
Rosenfeld Deposition, September 2015

In The Iowa District Court In And For Poweshiek County
Russell D. Winburn, et al., Plaintiffs vs. Doug Hoksbergen, et al., Defendants
Case No.: LALA002187
Rosenfeld Deposition, August 2015

In The Iowa District Court For Wapello County
Jerry Dovico, et al., Plaintiffs vs. Valley View Sine LLC, et al., Defendants
Law No,: LALA105144 - Division A
Rosenfeld Deposition, August 2015

In The Iowa District Court For Wapello County
Doug Pauls, et al.,, et al., Plaintiffs vs. Richard Warren, et al., Defendants
Law No,: LALA105144 - Division A
Rosenfeld Deposition, August 2015

In The Circuit Court of Ohio County, West Virginia
Robert Andrews, et al. v. Antero, et al.
Civil Action N0. 14-C-30000
Rosenfeld Deposition, June 2015

In The Third Judicial District County of Dona Ana, New Mexico
Betty Gonzalez, et al. Plaintiffs vs. Del Oro Dairy, Del Oro Real Estate LLC, Jerry Settles and Deward DeRuyter, Defendants
Rosenfeld Deposition: July 2015

In The Iowa District Court For Muscatine County
Laurie Freeman et. al. Plaintiffs vs. Grain Processing Corporation, Defendant
Case No 4980
Rosenfeld Deposition: May 2015

In the Circuit Court of the 17th Judicial Circuit, in and For Broward County, Florida
Walter Hinton, et. al. Plaintiff, vs. City of Fort Lauderdale, Florida, a Municipality, Defendant.
Case Number CACE07030358 (26)
Rosenfeld Deposition: December 2014

In the United States District Court Western District of Oklahoma
Tommy McCarty, et al., Plaintiffs, v. Oklahoma City Landfill, LLC d/b/a Southeast Oklahoma City Landfill, et al. Defendants.
Case No. 5:12-cv-01152-C
Rosenfeld Deposition: July 2014

In the County Court of Dallas County Texas
Lisa Parr et al, *Plaintiff*, vs. Aruba et al, *Defendant.*
Case Number cc-11-01650-E
Rosenfeld Deposition: March and September 2013
Rosenfeld Trial: April 2014

In the Court of Common Pleas of Tuscarawas County Ohio
John Michael Abicht, et al., *Plaintiffs,* vs. Republic Services, Inc., et al., *Defendants*
Case Number: 2008 CT 10 0741 (Cons. w/ 2009 CV 10 0987)
Rosenfeld Deposition: October 2012

In the United States District Court of Southern District of Texas Galveston Division
Kyle Cannon, Eugene Donovan, Genaro Ramirez, Carol Sassler, and Harvey Walton, each Individually and on behalf of those similarly situated, *Plaintiffs,* vs. BP Products North America, Inc., *Defendant.*
Case 3:10-cv-00622
Rosenfeld Deposition: February 2012
Rosenfeld Trial: April 2013

In the Circuit Court of Baltimore County Maryland
Philip E. Cvach, II et al., *Plaintiffs* vs. Two Farms, Inc. d/b/a Royal Farms, Defendants
Case Number: 03-C-12-012487 OT
Rosenfeld Deposition: September 2013

EXHIBIT C

SWAPE Technical Consultation, Data Analysis and Litigation Support for the Environment

1640 5th St.., Suite 204 Santa
Santa Monica, California 90401
Tel: (949) 887-9013
Email: mhagemann@swape.com

Matthew F. Hagemann, P.G., C.Hg., QSD, QSP

Geologic and Hydrogeologic Characterization
Industrial Stormwater Compliance
Investigation and Remediation Strategies
Litigation Support and Testifying Expert
CEQA Review

Education:

M.S. Degree, Geology, California State University Los Angeles, Los Angeles, CA, 1984.
B.A. Degree, Geology, Humboldt State University, Arcata, CA, 1982.

Professional Certifications:

California Professional Geologist
California Certified Hydrogeologist
Qualified SWPPP Developer and Practitioner

Professional Experience:

Matt has 25 years of experience in environmental policy, assessment and remediation. He spent nine years with the U.S. EPA in the RCRA and Superfund programs and served as EPA's Senior Science Policy Advisor in the Western Regional Office where he identified emerging threats to groundwater from perchlorate and MTBE. While with EPA, Matt also served as a Senior Hydrogeologist in the oversight of the assessment of seven major military facilities undergoing base closure. He led numerous enforcement actions under provisions of the Resource Conservation and Recovery Act (RCRA) while also working with permit holders to improve hydrogeologic characterization and water quality monitoring.

Matt has worked closely with U.S. EPA legal counsel and the technical staff of several states in the application and enforcement of RCRA, Safe Drinking Water Act and Clean Water Act regulations. Matt has trained the technical staff in the States of California, Hawaii, Nevada, Arizona and the Territory of Guam in the conduct of investigations, groundwater fundamentals, and sampling techniques.

Positions Matt has held include:

- Founding Partner, Soil/Water/Air Protection Enterprise (SWAPE) (2003 – present);
- Geology Instructor, Golden West College, 2010 – 2014;
- Senior Environmental Analyst, Komex H2O Science, Inc. (2000 -- 2003);

- Executive Director, Orange Coast Watch (2001 – 2004);
- Senior Science Policy Advisor and Hydrogeologist, U.S. Environmental Protection Agency (1989–1998);
- Hydrogeologist, National Park Service, Water Resources Division (1998 – 2000);
- Adjunct Faculty Member, San Francisco State University, Department of Geosciences (1993 – 1998);
- Instructor, College of Marin, Department of Science (1990 – 1995);
- Geologist, U.S. Forest Service (1986 – 1998); and
- Geologist, Dames & Moore (1984 – 1986).

Senior Regulatory and Litigation Support Analyst:

With SWAPE, Matt's responsibilities have included:

- Lead analyst and testifying expert in the review of over 100 environmental impact reports since 2003 under CEQA that identify significant issues with regard to hazardous waste, water resources, water quality, air quality, Valley Fever, greenhouse gas emissions, and geologic hazards. Make recommendations for additional mitigation measures to lead agencies at the local and county level to include additional characterization of health risks and implementation of protective measures to reduce worker exposure to hazards from toxins and Valley Fever.
- Stormwater analysis, sampling and best management practice evaluation at industrial facilities.
- Manager of a project to provide technical assistance to a community adjacent to a former Naval shipyard under a grant from the U.S. EPA.
- Technical assistance and litigation support for vapor intrusion concerns.
- Lead analyst and testifying expert in the review of environmental issues in license applications for large solar power plants before the California Energy Commission.
- Manager of a project to evaluate numerous formerly used military sites in the western U.S.
- Manager of a comprehensive evaluation of potential sources of perchlorate contamination in Southern California drinking water wells.
- Manager and designated expert for litigation support under provisions of Proposition 65 in the review of releases of gasoline to sources drinking water at major refineries and hundreds of gas stations throughout California.
- Expert witness on two cases involving MTBE litigation.
- Expert witness and litigation support on the impact of air toxins and hazards at a school.
- Expert witness in litigation at a former plywood plant.

With Komex H2O Science Inc., Matt's duties included the following:

- Senior author of a report on the extent of perchlorate contamination that was used in testimony by the former U.S. EPA Administrator and General Counsel.
- Senior researcher in the development of a comprehensive, electronically interactive chronology of MTBE use, research, and regulation.
- Senior researcher in the development of a comprehensive, electronically interactive chronology of perchlorate use, research, and regulation.
- Senior researcher in a study that estimates nationwide costs for MTBE remediation and drinking water treatment, results of which were published in newspapers nationwide and in testimony against provisions of an energy bill that would limit liability for oil companies.
- Research to support litigation to restore drinking water supplies that have been contaminated by MTBE in California and New York.

- Expert witness testimony in a case of oil production-related contamination in Mississippi.
- Lead author for a multi-volume remedial investigation report for an operating school in Los Angeles that met strict regulatory requirements and rigorous deadlines.

- Development of strategic approaches for cleanup of contaminated sites in consultation with clients and regulators.

Executive Director:

As Executive Director with Orange Coast Watch, Matt led efforts to restore water quality at Orange County beaches from multiple sources of contamination including urban runoff and the discharge of wastewater. In reporting to a Board of Directors that included representatives from leading Orange County universities and businesses, Matt prepared issue papers in the areas of treatment and disinfection of wastewater and control of the discharge of grease to sewer systems. Matt actively participated in the development of countywide water quality permits for the control of urban runoff and permits for the discharge of wastewater. Matt worked with other nonprofits to protect and restore water quality, including Surfrider, Natural Resources Defense Council and Orange County CoastKeeper as well as with business institutions including the Orange County Business Council.

Hydrogeology:

As a Senior Hydrogeologist with the U.S. Environmental Protection Agency, Matt led investigations to characterize and cleanup closing military bases, including Mare Island Naval Shipyard, Hunters Point Naval Shipyard, Treasure Island Naval Station, Alameda Naval Station, Moffett Field, Mather Army Airfield, and Sacramento Army Depot. Specific activities were as follows:

- Led efforts to model groundwater flow and contaminant transport, ensured adequacy of monitoring networks, and assessed cleanup alternatives for contaminated sediment, soil, and groundwater.
- Initiated a regional program for evaluation of groundwater sampling practices and laboratory analysis at military bases.
- Identified emerging issues, wrote technical guidance, and assisted in policy and regulation development through work on four national U.S. EPA workgroups, including the Superfund Groundwater Technical Forum and the Federal Facilities Forum.

At the request of the State of Hawaii, Matt developed a methodology to determine the vulnerability of groundwater to contamination on the islands of Maui and Oahu. He used analytical models and a GIS to show zones of vulnerability, and the results were adopted and published by the State of Hawaii and County of Maui.

As a hydrogeologist with the EPA Groundwater Protection Section, Matt worked with provisions of the Safe Drinking Water Act and NEPA to prevent drinking water contamination. Specific activities included the following:

- Received an EPA Bronze Medal for his contribution to the development of national guidance for the protection of drinking water.
- Managed the Sole Source Aquifer Program and protected the drinking water of two communities through designation under the Safe Drinking Water Act. He prepared geologic reports, conducted public hearings, and responded to public comments from residents who were very concerned about the impact of designation.

- Reviewed a number of Environmental Impact Statements for planned major developments, including large hazardous and solid waste disposal facilities, mine reclamation, and water transfer.

Matt served as a hydrogeologist with the RCRA Hazardous Waste program. Duties were as follows:

- Supervised the hydrogeologic investigation of hazardous waste sites to determine compliance with Subtitle C requirements.
- Reviewed and wrote "part B" permits for the disposal of hazardous waste.
- Conducted RCRA Corrective Action investigations of waste sites and led inspections that formed the basis for significant enforcement actions that were developed in close coordination with U.S. EPA legal counsel.
- Wrote contract specifications and supervised contractor's investigations of waste sites.

With the National Park Service, Matt directed service-wide investigations of contaminant sources to prevent degradation of water quality, including the following tasks:

- Applied pertinent laws and regulations including CERCLA, RCRA, NEPA, NRDA, and the Clean Water Act to control military, mining, and landfill contaminants.
- Conducted watershed-scale investigations of contaminants at parks, including Yellowstone and Olympic National Park.
- Identified high-levels of perchlorate in soil adjacent to a national park in New Mexico and advised park superintendent on appropriate response actions under CERCLA.
- Served as a Park Service representative on the Interagency Perchlorate Steering Committee, a national workgroup.
- Developed a program to conduct environmental compliance audits of all National Parks while serving on a national workgroup.
- Co-authored two papers on the potential for water contamination from the operation of personal watercraft and snowmobiles, these papers serving as the basis for the development of nation-wide policy on the use of these vehicles in National Parks.
- Contributed to the Federal Multi-Agency Source Water Agreement under the Clean Water Action Plan.

Policy:

Served senior management as the Senior Science Policy Advisor with the U.S. Environmental Protection Agency, Region 9. Activities included the following:

- Advised the Regional Administrator and senior management on emerging issues such as the potential for the gasoline additive MTBE and ammonium perchlorate to contaminate drinking water supplies.
- Shaped EPA's national response to these threats by serving on workgroups and by contributing to guidance, including the Office of Research and Development publication, Oxygenates in Water: Critical Information and Research Needs.
- Improved the technical training of EPA's scientific and engineering staff.
- Earned an EPA Bronze Medal for representing the region's 300 scientists and engineers in negotiations with the Administrator and senior management to better integrate scientific principles into the policy-making process.
- Established national protocol for the peer review of scientific documents.

Geology:

With the U.S. Forest Service, Matt led investigations to determine hillslope stability of areas proposed for timber harvest in the central Oregon Coast Range. Specific activities were as follows:

- Mapped geology in the field, and used aerial photographic interpretation and mathematical models to determine slope stability.
- Coordinated his research with community members who were concerned with natural resource protection.
- Characterized the geology of an aquifer that serves as the sole source of drinking water for the city of Medford, Oregon.

As a consultant with Dames and Moore, Matt led geologic investigations of two contaminated sites (later listed on the Superfund NPL) in the Portland, Oregon, area and a large hazardous waste site in eastern Oregon. Duties included the following:

- Supervised year-long effort for soil and groundwater sampling.
- Conducted aquifer tests.
- Investigated active faults beneath sites proposed for hazardous waste disposal.

Teaching:

From 1990 to 1998, Matt taught at least one course per semester at the community college and university levels:

- At San Francisco State University, held an adjunct faculty position and taught courses in environmental geology, oceanography (lab and lecture), hydrogeology, and groundwater contamination.
- Served as a committee member for graduate and undergraduate students.
- Taught courses in environmental geology and oceanography at the College of Marin.

Matt taught physical geology (lecture and lab and introductory geology at Golden West College in Huntington Beach, California from 2010 to 2014.

Invited Testimony, Reports, Papers and Presentations:

Hagemann, M.F., 2008. Disclosure of Hazardous Waste Issues under CEQA. Presentation to the Public Environmental Law Conference, Eugene, Oregon.

Hagemann, M.F., 2008. Disclosure of Hazardous Waste Issues under CEQA. Invited presentation to U.S. EPA Region 9, San Francisco, California.

Hagemann, M.F., 2005. Use of Electronic Databases in Environmental Regulation, Policy Making and Public Participation. Brownfields 2005, Denver, Coloradao.

Hagemann, M.F., 2004. Perchlorate Contamination of the Colorado River and Impacts to Drinking Water in Nevada and the Southwestern U.S. Presentation to a meeting of the American Groundwater Trust, Las Vegas, NV (served on conference organizing committee).

Hagemann, M.F., 2004. Invited testimony to a California Senate committee hearing on air toxins at schools in Southern California, Los Angeles.

Brown, A., Farrow, J., Gray, A. and **Hagemann, M.**, 2004. An Estimate of Costs to Address MTBE Releases from Underground Storage Tanks and the Resulting Impact to Drinking Water Wells. Presentation to the Ground Water and Environmental Law Conference, National Groundwater Association.

Hagemann, M.F., 2004. Perchlorate Contamination of the Colorado River and Impacts to Drinking Water in Arizona and the Southwestern U.S. Presentation to a meeting of the American Groundwater Trust, Phoenix, AZ (served on conference organizing committee).

Hagemann, M.F., 2003. Perchlorate Contamination of the Colorado River and Impacts to Drinking Water in the Southwestern U.S. Invited presentation to a special committee meeting of the National Academy of Sciences, Irvine, CA.

Hagemann, M.F., 2003. Perchlorate Contamination of the Colorado River. Invited presentation to a tribal EPA meeting, Pechanga, CA.

Hagemann, M.F., 2003. Perchlorate Contamination of the Colorado River. Invited presentation to a meeting of tribal repesentatives, Parker, AZ.

Hagemann, M.F., 2003. Impact of Perchlorate on the Colorado River and Associated Drinking Water Supplies. Invited presentation to the Inter-Tribal Meeting, Torres Martinez Tribe.

Hagemann, M.F., 2003. The Emergence of Perchlorate as a Widespread Drinking Water Contaminant. Invited presentation to the U.S. EPA Region 9.

Hagemann, M.F., 2003. A Deductive Approach to the Assessment of Perchlorate Contamination. Invited presentation to the California Assembly Natural Resources Committee.

Hagemann, M.F., 2003. Perchlorate: A Cold War Legacy in Drinking Water. Presentation to a meeting of the National Groundwater Association.

Hagemann, M.F., 2002. From Tank to Tap: A Chronology of MTBE in Groundwater. Presentation to a meeting of the National Groundwater Association.

Hagemann, M.F., 2002. A Chronology of MTBE in Groundwater and an Estimate of Costs to Address Impacts to Groundwater. Presentation to the annual meeting of the Society of Environmental Journalists.

Hagemann, M.F., 2002. An Estimate of the Cost to Address MTBE Contamination in Groundwater (and Who Will Pay). Presentation to a meeting of the National Groundwater Association.

Hagemann, M.F., 2002. An Estimate of Costs to Address MTBE Releases from Underground Storage Tanks and the Resulting Impact to Drinking Water Wells. Presentation to a meeting of the U.S. EPA and State Underground Storage Tank Program managers.

Hagemann, M.F., 2001. From Tank to Tap: A Chronology of MTBE in Groundwater. Unpublished report.

Hagemann, M.F., 2001. Estimated Cleanup Cost for MTBE in Groundwater Used as Drinking Water. Unpublished report.

Hagemann, M.F., 2001. Estimated Costs to Address MTBE Releases from Leaking Underground Storage Tanks. Unpublished report.

Hagemann, M.F., and VanMouwerik, M., 1999. Potential Water Quality Concerns Related to Snowmobile Usage. Water Resources Division, National Park Service, Technical Report.

VanMouwerik, M. and **Hagemann, M.F**. 1999, Water Quality Concerns Related to Personal Watercraft Usage. Water Resources Division, National Park Service, Technical Report.

Hagemann, M.F., 1999, Is Dilution the Solution to Pollution in National Parks? The George Wright Society Biannual Meeting, Asheville, North Carolina.

Hagemann, M.F., 1997, The Potential for MTBE to Contaminate Groundwater. U.S. EPA Superfund Groundwater Technical Forum Annual Meeting, Las Vegas, Nevada.

Hagemann, M.F., and Gill, M., 1996, Impediments to Intrinsic Remediation, Moffett Field Naval Air Station, Conference on Intrinsic Remediation of Chlorinated Hydrocarbons, Salt Lake City.

Hagemann, M.F., Fukunaga, G.L., 1996, The Vulnerability of Groundwater to Anthropogenic Contaminants on the Island of Maui, Hawaii. Hawaii Water Works Association Annual Meeting, Maui, October 1996.

Hagemann, M. F., Fukanaga, G. L., 1996, Ranking Groundwater Vulnerability in Central Oahu, Hawaii. Proceedings, Geographic Information Systems in Environmental Resources Management, Air and Waste Management Association Publication VIP-61.

Hagemann, M.F., 1994. Groundwater Characterization and Cleanup at Closing Military Bases in California. Proceedings, California Groundwater Resources Association Meeting.

Hagemann, M.F. and Sabol, M.A., 1993. Role of the U.S. EPA in the High Plains States Groundwater Recharge Demonstration Program. Proceedings, Sixth Biennial Symposium on the Artificial Recharge of Groundwater.

Hagemann, M.F., 1993. U.S. EPA Policy on the Technical Impracticability of the Cleanup of DNAPL-contaminated Groundwater. California Groundwater Resources Association Meeting.

Hagemann, M.F., 1992. Dense Nonaqueous Phase Liquid Contamination of Groundwater: An Ounce of Prevention... Proceedings, Association of Engineering Geologists Annual Meeting, v. 35.

Other Experience:

Selected as subject matter expert for the California Professional Geologist licensing examination, 2009-2011.

File Nos. PUD22-004, PHP22-015, and PDEV22-027
Attachment A2: Applicant Response Letter (in response to Attachment A1: Mitchell M. Tsai Letter)

(Attachment to follow this page)

DALE J. GOLDSMITH
T: 310.254.9054
E: Dale@AGD-Landuse.com

August 16, 2023

BY EMAIL

City of Ontario Planning Commission
City Hall, 303 E. B Street
City of Ontario, CA 91764

Email: planningdirector@ontarioca.gov

Re: *Legacy/Collier Residential LLC, Proposed Development Plan, File No. PDEV22-027*; Planning Commission Hearing August 22, 2023

Dear Commissioners:

We represent Legacy Partners, the applicant for the above Development Plan for the construction of 346 apartments and 5,400 square feet of commercial space (Project) on 9.4 acres located at the northwest corner of Euclid Avenue and Walnut Street in the City of Ontario (City). On the eve of the Design Advisory Board (DAB) hearing, Mitchell Tsai, representing Southwest Mountain States Regional Council of Carpenters (SWMSRCC), submitted a lengthy legal letter objecting to DAB's review of the Proposed Project. None of the arguments in this letter provides substantial evidence as to the inadequacy of the EIR Addendum prepared for the Proposed Project, and none have merit. Nonetheless, we have attached detailed responses to SWMSRCC's comment letter to provide a more complete record for the Planning Commission.

In summary, (1) there is no legal requirement for local hire of construction workers, (2) the use of an addendum off of the 2022 The Ontario Plan (TOP) 2050 EIR is appropriate, (3) the Project was thoroughly and adequately reviewed, including by DAB, (4) a tiered EIR is not required, (5) all Project impacts are within those considered in the 2022 TOP EIR, (6) as there are no new significant impacts or increase in severity of significant impacts created by the Project as compared to the 2022 TOP EIR, a supplemental/subsequent EIR is not required, and (7) the Project Description for the Proposed Project is CEQA compliant.

Therefore, we respectfully request you approve DAB's recommendation to approve the EIR Addendum and the Development Plan application.

Very truly yours,



Dale J. Goldsmith

cc: Alexis Vaughn, AVaughn@ontarioca.gov

Response to Mitchell Tsai August 7, 2023 Comment Letter on behalf of Southwest Mountain States Regional Council of Carpenters (SWMSRCC)

Comment No. 1:

On behalf of the Southwest Mountain States Regional Council of Carpenters (SWMSRCC), my Office is submitting these comments ahead of the City of Ontario's ("City" or "Lead Agency") August 7, 2023, Development Advisory Board (DAB) pubic [*sic*] hearing for the Euclid and Walnut Mixed Use project ("Project").

Submitted by Legacy/Collier Residential LLC ("Applicant"), the Project involves a Development Plan (File No. PDEV22-027) to construct 346 apartment units and 5,400 square feet of commercial space on 9.4 acres of land located at the northwest corner of Euclid Avenue and Walnut Avenue ("Site") within the Mixed Use – Neighborhood Hub 8e – Euclid and Walnut (MU-NH 8e) zoning district. The Site is located within the Airport Influence Area of Ontario International Airport and was evaluated and claimed to have been found to be consistent with the policies and criteria of the Ontario International Airport Land Use Compatibility Plan. In conjunction with the Project, an Addendum ("Addendum") to The Ontario Plan 2050 Supplemental Environmental Impact Report (SEIR) (SCH No. 2021070364) was prepared and certified by the City Council on August 16, 2022. The application before the City is claimed to introduce no new significant environmental impacts.

The DAB will review the Project and make two recommendations to the Planning Commission—to approve or deny the Addendum and to approve or deny the Development Plan.

According to the Staff Report, the Project has been submitted in conjunction with two other applications, namely, the Euclid Walnut Planned Unit Development (PUD) (File No. PUD22-004) to establish the development standards and design guidelines for an overall 10.6-acre Project site (subject to recommendation by the Planning Commission to the City Council); and a Certificate of Appropriateness (PHP22-015) to determine whether the Project Site is an historic resource subject to recommendation by the Historic Preservation Subcommittee to the Planning Commission/Historic Preservation Commission.

SWMSRCC is a labor union representing over 63,000 union carpenters in 10 states, including California, and has a strong interest in well-ordered land use planning and in addressing the environmental impacts of development projects. Some SWMSRCC members live, work, and recreate in the City and the surrounding communities and would be directly affected by the Project's environmental impacts.

SWMSRCC expressly reserves the right to supplement these comments at or prior to hearings on the Project, and at any later hearing and proceeding related to this Project. Gov. Code, § 65009, subd. (b); Pub. Res. Code, § 21177, subd. (a); see *Bakersfield Citizens for Local Control v. Bakersfield* (2004) 124 Cal.App.4th 1184, 1199-1203; see also *Galante Vineyards v. Monterey Water Dist.* (1997) 60 Cal.App.4th 1109, 1121.

SWMSRCC incorporates by reference all comments raising issues regarding the Project and its environmental review and associated documents and reports (including the City's Staff Report), or lack thereof. See *Citizens for Clean Energy v. City of Woodland* (2014) 225 Cal.App.4th 173, 191 (finding that any party who has objected to the project's environmental documentation may assert any issue timely raised by other parties).

Moreover, SWMSRCC requests that the City provide notice for any and all notices referring or related to the Project issued under CEQA (Pub. Res. Code § 21000 et seq.), and the California Planning and Zoning Law ("Planning and Zoning Law") (Gov. Code, §§ 65000–65010). California Public Resources Code, sections 21092.2 and 21167(f) and California Government Code, section 65092 require agencies to mail such notices to any person who has filed a written request for them with the clerk of the agency's governing body.

Response to Comment No. 1:

The comment provides background on SWMSRCC and their interest in the Project. Further, the City will provide notice on all CEQA actions, approvals, determinations, and hearings as requested. The comment does not raise a specific issue relating to the adequacy or accuracy of the EIR Addendum or provide a legitimate basis for not approving the Project..

Comment No. 2:

The City should require that the Project be built using local workers who have graduated from a Joint Labor-Management Apprenticeship Program approved by the State of California, have at least as many hours of on-the-job experience in the applicable craft which would be required to graduate from such a program, or are registered apprentices in such a program.

Community benefits such as local hire can also be helpful to reduce environmental impacts and improve the positive economic impacts of the Project. Local hire provisions requiring that a certain percentage of workers reside within 10 miles or less of the Project site can reduce the length of vendor trips, reduce greenhouse gas emissions, and provide localized economic benefits. As environmental consultants Matt Hagemann and Paul E. Rosenfeld note:

> [A]ny local hire requirement that results in a decreased worker trip length from the default value has the potential to result in a reduction of construction-related GHG emissions, though the significance of the reduction would vary based on the location and urbanization level of the project site.

March 8, 2021, SWAPE Letter to Mitchell M. Tsai re Local Hire Requirements and Considerations for Greenhouse Gas Modeling.

Workforce requirements promote the development of skilled trades that yield sustainable economic development. As the California Workforce Development Board and the University of California, Berkeley Center for Labor Research and Education concluded:

> [L]abor should be considered an investment rather than a cost—and investments in growing, diversifying, and upskilling California's workforce can positively affect returns on climate mitigation efforts. In other words, well-trained workers are key to delivering emissions reductions and moving California closer to its climate targets.[1]

Furthermore, workforce policies have significant environmental benefits given that they improve an area's jobs-housing balance, decreasing the amount and length of job commutes and the associated greenhouse gas (GHG) emissions. In fact, on May 7, 2021, the South Coast Air Quality Management District found that that the "[u]se of a local state-certified apprenticeship program" can result in air pollutant reductions.[2]

Locating jobs closer to residential areas can have significant environmental benefits. As the California Planning Roundtable noted in 2008:

> People who live and work in the same jurisdiction would be more likely to take transit, walk, or bicycle to work than residents of less balanced communities and their vehicle trips would be shorter. Benefits would include potential reductions in both vehicle miles traveled and vehicle hours traveled.[3]

Moreover, local hire mandates and skill-training are critical facets of a strategy to reduce vehicle miles traveled (VMT). As planning experts Robert Cervero and Michael Duncan have noted, simply placing jobs near housing stock is insufficient to achieve VMT reductions given that the skill requirements of available local jobs must match those held by local residents.[4] Some municipalities have even tied local hire and

---

[1] California Workforce Development Board (2020) Putting California on the High Road: A Jobs and Climate Action Plan 2030 at p. ii, *available at* https://laborcenter.berkeley.edu/ wp-content/uploads/2020/09/Putting-California-on-the-High-Road.pdf.

[2] South Coast Air Quality Management District (May 7, 2021) Certify Final Environmental Assessment and Adopt Proposed Rule 2305 – Warehouse Indirect Source Rule – Warehouse Actions and Investments to Reduce Emissions Program, and Proposed Rule 316 – Fees for Rule 2305, Submit Rule 2305 for Inclusion Into the SIP, and Approve Supporting Budget Actions, *available at* http://www.aqmd.gov/docs/default-source/Agendas/Governing-Board/2021/2021-May7-027.pdf?sfvrsn=10.

[3] California Planning Roundtable (2008) Deconstructing Jobs-Housing Balance at p. 6, *available at* https://cproundtable.org/static/media/uploads/publications/cpr-jobs- housing.pdf

[4] Cervero, Robert and Duncan, Michael (2006) Which Reduces Vehicle Travel More: Jobs- Housing Balance or Retail-Housing Mixing? Journal of the American Planning Association 72 (4), 475-490, 482, *available at* http://reconnectingamerica.org/assets/Uploads/UTCT- 825.pdf.

other workforce policies to local development permits to address transportation issues. Cervero and Duncan note that:

> In nearly built-out Berkeley, CA, the approach to balancing jobs and housing is to create local jobs rather than to develop new housing. The city's First Source program encourages businesses to hire local residents, especially for entry- and intermediate-level jobs, and sponsors vocational training to ensure residents are employment-ready. While the program is voluntary, some 300 businesses have used it to date, placing more than 3,000 city residents in local jobs since it was launched in 1986. When needed,

these carrots are matched by sticks, since the city is not shy about negotiating corporate participation in First Source as a condition of approval for development permits.

Recently, the State of California verified its commitment towards workforce development through the Affordable Housing and High Road Jobs Act of 2022, otherwise known as Assembly Bill No. 2011 (AB2011). AB2011 amended the Planning and Zoning Law to allow ministerial, by-right approval for projects being built alongside commercial corridors that meet affordability and labor requirements.

The City should consider utilizing local workforce policies and requirements to benefit the local area economically and to mitigate GHG emissions, improve air quality, and reduce transportation impacts.

Response to Comment No. 2:

The comment regarding community benefits including local hire does not raise CEQA issues regarding the adequacy or accuracy of the EIR Addendum or provide a legitimate basis for not approving the Project. There is no CEQA provision, nor any City code, that mandates the hiring or use of individual development project's construction labor. Furthermore, with specific respect to the City "utilizing local workforce policies and requirements to benefit the local area economically and to mitigate greenhouse gas, improve air quality, and reduce transportation impacts," the comment does not present any substantial evidence of a Project-specific greenhouse gas impact or transportation impact that such a condition would mitigate.

As set forth in the Addendum, the Project would not result in any GHG impacts that were not addressed in the 2022 TOP EIR. Similarly, the Proposed Project will not result in any new, increased or substantially different transportation impacts not previously considered and addressed in the 2022 TOP EIR. The Project would, at a minimum, be required to comply with the mandatory measures included in the current 2019 California Energy Code (California Code of Regulations, Title 24, Part 6) and the 2019 California Green Building Code standards. Regulatory compliance to this degree would require the Project to include energy efficiency and green building standards such as solar, water efficient landscaping, construction material diversion, low-polluting construction finishing materials, and installation of electric charging stations. Therefore, no further mitigation measures are warranted, and there is no legal nexus[1] to impose such a condition on the Project.

Comment No. 3:

A. Background Concerning Environmental Impacts Reports.

The California Environmental Quality Act is a California statute designed to inform decision-makers and the public about the potential significant environmental effects of a project. CEQA Guidelines, § 15002, subd. (a)(1).[5] At its core, its purpose is to "inform the public and its responsible officials of the environmental consequences of their decisions *before* they are made."

[1] See, e.g., *Nollan v. California Coastal Commission*, 483 U.S. 825 (1987)

Citizens of Goleta Valley v. Board of Supervisors (1990) 52 Cal.3d 553, 564.

[5] The CEQA Guidelines, codified in Title 14 of the California Code of Regulations, section 15000 et seq., are regulatory guidelines promulgated by the state Natural Resources Agency for the implementation of CEQA. Pub. Res. Code, § 21083. The CEQA Guidelines are given "great weight in interpreting CEQA except when . . . clearly unauthorized or erroneous." *Center for Biological Diversity v. Dept. of Fish & Wildlife* (2015) 62 Cal.4th 204, 217.

CEQA directs public agencies to avoid or reduce environmental damage, when possible, by requiring alternatives or mitigation measures. CEQA Guidelines, § 15002, subd. (a)(2)-(3); see also *Berkeley Keep Jets Over the Bay Committee v. Board of Port Comes* (2001) 91 Cal.App.4th 1344, 1354; *Citizens of Goleta Valley v. Board of Supervisors* (1990) 52 Cal.3d 553; *Laurel Heights Improvement Assn.*, 47 Cal.3d at p. 400. The EIR serves to provide public agencies and the public in general with information about the effect that a proposed project is likely to have on the environment and to "identify ways that environmental damage can be avoided or significantly reduced." CEQA Guidelines, § 15002, subd. (a)(2). If the project has a significant effect on the environment, the agency may approve the project only upon finding that it has "eliminated or substantially lessened all significant effects on the environment where feasible" and that any unavoidable significant effects on the environment are "acceptable due to overriding concerns" specified in Public Resources Code section 21081. See CEQA Guidelines, §§ 15092, subds. (b)(2)(A), (B).

While the courts review an EIR using an 'abuse of discretion' standard, the reviewing court is not to *uncritically* rely on every study or analysis presented by a project proponent in support of its position. *Berkeley Jets*, 91 Cal.App.4th at p. 1355 (quoting *Laurel Heights Improvement Assn.*, 47 Cal.3d at pp. 391, 409 fn. 12) (internal quotations omitted). A clearly inadequate or unsupported study is entitled to no judicial deference. *Id*. Drawing this line and determining whether the EIR complies with CEQA's information disclosure requirements presents a question of law subject to independent review by the courts. *Sierra Club v. County of Fresno* (2018) 6 Cal.5th 502, 515; *Madera Oversight Coalition, Inc. v. County of Madera* (2011) 199 Cal.App.4th 48, 102, 131. As the court stated in *Berkeley Jets*, prejudicial abuse of discretion occurs if the failure to include relevant information precludes informed decision-making and informed public participation, thereby thwarting the statutory goals of the EIR process. 91 Cal.App.4th at p. 1355 (internal quotations omitted).

The preparation and circulation of an EIR is more than a set of technical hurdles for agencies and developers to overcome. *Communities for a Better Environment v. Richmond* (2010) 184 Cal.App.4th 70, 80 (quoting *Vineyard Area Citizens for Responsible Growth, Inc. v. City of Rancho Cordova* (2007) 40 Cal.4th 412, 449-450). The EIR's function is to ensure that government officials who decide to build or approve a project do so with a full understanding of the environmental consequences and, equally important, that the public is assured those consequences have been considered. *Ibid*. For the EIR to serve these goals it must present information so that the foreseeable impacts of pursuing the project can be understood and weighed, and the public must be given an adequate opportunity to comment on that presentation before the decision to go forward is made. *Ibid*.

A strong presumption in favor of requiring preparation of an EIR is built into CEQA. This presumption is reflected in what is known as the "fair argument" standard under which an EIR must be prepared whenever substantial evidence in the record supports a fair argument that a project may have a significant effect on the environment. *Quail Botanical Gardens Found., Inc. v. City of Encinitas* (1994) 29 Cal.App.4th 1597, 1602; *Friends of "B" St*. v. *City of Hayward* (1980) 106 Cal.3d 988, 1002.

The fair argument test stems from the statutory mandate that an EIR be prepared for any project that "may have a significant effect on the environment." Pub. Res. Code, § 21151; see *No Oil, Inc. v. City of Los Angeles* (1974) 13 Cal.App.3d 68, 75; accord *Jensen v. City of Santa Rosa* (2018) 23 Cal.App.5th 877, 884. Under this test, if a proposed project is not exempt and may cause a significant effect on the environment, the lead agency must prepare an EIR. Pub. Res. Code, §§ 21100, subd. (a), 21151; CEQA Guidelines, §§ 15064, subds. (a)(1), (f)(1). An EIR may be dispensed with only if the lead agency finds no substantial evidence in the initial study or elsewhere in the record that the project may have a significant effect on the environment. *Parker Shattuck Neighbors v. Berkeley City Council* (2013) 222 Cal.App.4th 768, 785. In such a situation, the agency must adopt a negative declaration. Pub. Res. Code, § 21080, subd. (c)(1); CEQA Guidelines, §§ 15063, subd. (b)(2), 15064, subd. (f)(3).

"Significant effect upon the environment" is defined as "a substantial or potentially substantial adverse change in the environment." Pub. Res. Code, § 21068; CEQA Guidelines, § 15382. A project may have a significant effect on the environment if there is a reasonable probability that it will result in a significant impact. *No Oil, Inc.*, 13 Cal.3d at p. 83 fn. 16; see *Sundstrom v. County of Mendocino* (1988) 202 Cal.App.3d 296, 309. If any aspect of the project may result in a significant impact on the environment, an EIR must be prepared even if the overall effect of the project is beneficial. CEQA Guidelines, § 15063, subd. (b)(1); see *County Sanitation Dist. No. 2 v. County of Kern* (2005) 127 Cal.App.4th 1544, 1580.

This standard sets a "low threshold" for preparation of an EIR. *Consolidated Irrigation Dist. v. City of Selma* (2012) 204 Cal.App.4th 187, 207; *Nelson v. County of Kern* (2010) 90 Cal.App.4th 252; *Pocket Protectors v. City of Sacramento* (2004) 124 Cal.App.4th 903, 928; *Bowman v. City of Berkeley* (2004) 122 Cal.App.4th 572, 580; *Citizen Action to Serve All Students v. Thornley* (1990) 222 Cal.App.3d 748, 754; *Sundstrom*, 202 Cal.App.3d at p. 310. If substantial evidence in the record supports a fair argument that the project may have a significant environmental effect, the lead agency must prepare an EIR even if other substantial evidence before it indicates the project will have no significant effect. See *Jensen,* 23 Cal.App.5th at p. 886; *Clews Land & Livestock v. City of San Diego* (2017) 19 Cal.App.5th 161, 183; *Stanislaus Audubon Society, Inc. v. County of Stanislaus* (1995) 33 Cal.App.4th 144, 150; *Brentwood Assn. for No Drilling, Inc. v. City of Los Angeles* (1982) 134 Cal.App.3d 491; *Friends of "B" St.*, 106 Cal.App.3d 988; CEQA Guidelines, § 15064, subd. (f)(1).

B. Background Concerning Initial Studies, Negative Declarations, and Mitigated Negative Declarations.

CEQA and CEQA Guidelines are strict and unambiguous about when an MND may be used. A

public agency must prepare an EIR whenever substantial evidence supports a "fair argument" that a proposed project "may have a significant effect on the environment." Pub. Res. Code, §§ 21100, 21151; CEQA Guidelines, §§ 15002, subds. (f)(1), (2), 15063; *No Oil, Inc.*, *supra*, 13 Cal.3d at 75; *Communities for a Better Environment v. California Resources Agency* (2002) 103 Cal.App.4th 98, 111-112. Essentially, should a lead agency be presented with a fair argument that a project may have a significant effect on the environment, the lead agency shall prepare an EIR even though it may also be presented with other substantial evidence that the project will not have a significant effect. CEQA Guidelines, §§ 15064, subds. (f)(1), (2); see *No Oil Inc., supra*, 13 Cal.3d at 75 (internal citations and quotations omitted). Substantial evidence includes "enough relevant information and reasonable inferences from this information that a fair argument can be made to support a conclusion, even though other conclusions might also be reached." CEQA Guidelines, § 15384, subd. (a).

The fair argument standard is a "low threshold" test for requiring the preparation of an EIR. *No Oil Inc.*, *supra*, 13 Cal.3d at 84; *County Sanitation Dist. No. 2 of Los Angeles County v. County of Kern* (2005) 127 Cal.App.4th 1544, 1579. It "requires the preparation of an EIR where there is substantial evidence that any aspect of the project, either individually or cumulatively, may cause a significant effect on the environment, regardless of whether the overall effect of the project is adverse or beneficial[.]" *County Sanitation*, *supra*, 127 Cal.App.4th at 1580 (quoting CEQA Guidelines, § 15063, subd. (b)(1)). A lead agency may adopt an MND only if "there is no substantial evidence that the project will have a significant effect on the environment." CEQA Guidelines,§ 15074, subd. (b).

Evidence supporting a fair argument of a significant environmental impact triggers preparation of an EIR regardless of whether the record contains contrary evidence. *League for Protection of Oakland's Architectural and Historical Resources v. City of Oakland* (1997) 52 Cal.App.4th 896, 904-905. "Where the question is the sufficiency of the evidence to support a fair argument, deference to the agency's determination is not appropriate[.]" *County Sanitation*, 127 Cal.App.4th at 1579 (quoting *Sierra Club v. County of Sonoma* (1992) 6 Cal.App.4th 1307, 1317-1318).

Further, it is the duty of the lead agency, not the public, to conduct the proper environmental studies. "The agency should not be allowed to hide behind its own failure to gather relevant data." *Sundstrom*, *supra*, 202 Cal.App.3d at 311. "Deficiencies in the record may actually enlarge the scope of fair argument by lending a logical plausibility to a wider range of inferences." *Ibid*; see also *Gentry v. City of Murrieta* (1995) 36 Cal.App.4th 1359, 1382 (lack of study enlarges the scope of the fair argument which may be made based on the limited facts in the record).

Thus, refusal to complete recommended studies lowers the already low threshold to establish a fair argument. The court may not exercise its independent judgment on the omitted material by determining whether the ultimate decision of the lead agency would have been affected had the law been followed. *Environmental Protection Information Center v. Cal. Dept. of Forestry* (2008) 44 Cal.4th 459, 486 (internal citations and quotations omitted). The remedy for this

deficiency would be for the trial court to issue a writ of mandate. *Ibid.*

Both the review for failure to follow CEQA's procedures and the fair argument test are questions of law, thus, the de novo standard of review applies. *Vineyard Area Citizens for Responsible Growth v. City of Rancho Cordova* (2007) 40 Cal.4th 412, 435. "Whether the agency's record contains substantial evidence that would support a fair argument that the project may have a significant effect on the environment is treated as a question of law. *Consolidated Irrigation Dist.*, *supra*, 204 Cal.App.4th at 207; Kostka and Zischke, Practice Under the Environmental Quality Act (2017, 2d ed.) at § 6.76.

In the MND context, courts give no deference to the agency. The agency or the court should not weigh expert testimony or decide on the credibility of such evidence—this is the EIR's responsibility. As stated in *Pocket Protectors v. City of Sacramento*:

> Unlike the situation where an EIR has been prepared, neither the lead agency nor a court may "weigh" conflicting substantial evidence to determine whether an EIR must be prepared in the first instance. Guidelines section 15064, subdivision (f)(1) provides in pertinent part: if a lead agency is presented with a fair argument that a project may have a significant effect on the environment, the lead agency shall prepare an EIR even though it may also be presented with other substantial evidence that the project will not have a significant effect. Thus, as *Claremont* itself recognized, [c]onsideration is not to be given contrary evidence supporting the preparation of a negative declaration.

(2004) 124 Cal.App.4th 903, 935 (internal citations and quotations omitted).

In cases where it is not clear whether there is substantial evidence of significant environmental impacts, CEQA requires erring on the side of a "preference for resolving doubts in favor of environmental review." *Mejia v. City of Los Angeles* (2005) 130 Cal.App.4th 322, 332. The foremost principle under CEQA is that the Legislature intended the act to be interpreted in such manner as to afford the fullest possible protection to the environment within the reasonable scope of the statutory language. *Friends of Mammoth v. Bd. of Supervisors* (1972) 8 Cal.3d 247, 259.

C. Background Concerning CEQA Exemptions.

Where a lead agency chooses to dispose of CEQA by asserting a CEQA exemption, it has a duty to support its CEQA exemption findings by substantial evidence, including evidence that there are no applicable exceptions to exemptions. This duty is imposed by CEQA and related case law. CEQA Guidelines, § 15020 (lead agency shall not knowingly release a deficient document hoping that public comments will correct the defects); see *Citizens for Environmental Responsibility v. State ex rel. 14th Dist. Agriculture Assn.* (2015) 242 Cal.App.4th 555, 568 (lead agency has the burden of demonstrating that a project falls within a categorical exemption and must support the determination with substantial evidence); accord *Assn. for Protection etc. Values v. City of Ukiah* (1991) 2 Cal.App.4th 720, 732 (lead agency is required to consider exemption exceptions where there is evidence in the record that the project might have a significant impact).

The duty to support CEQA and exemption findings with substantial evidence is also required by the Code of Civil Procedure (CCP) and case law on administrative or traditional writs. Under the CCP, an abuse of discretion is established if the decision is unsupported by the findings, or the findings are unsupported by the evidence. CCP,§ 1094.5, subd. (b). In *Topanga Assn. for a Scenic Community v. County of Los Angeles*, our Supreme Court held that implicit in CCP section 1094.5 is a requirement that the agency which renders the challenged decision must set forth findings to bridge the analytic gap between the raw evidence and ultimate decision or order. (1977) 11 Cal.3d 506, 515 (internal citations and quotations omitted). The lead agency's findings may be determined to be sufficient if a court has no trouble under the circumstances discerning the analytic route the administrative agency traveled from evidence to action. *West Chandler Blvd. Neighborhood Assn. vs. City of Los Angeles* (2011) 198 Cal.App.4th 1506, 1521-1522 (internal citations and quotations omitted). However, "mere conclusory findings without reference to the record are inadequate." *Id*. at p. 1521 (finding city council findings conclusory, violating *Topanga Assn. for a Scenic Community, supra*).

Further, CEQA exemptions must be narrowly construed to accomplish CEQA's environmental objectives. *Cal. Farm Bureau Federation v. Cal. Wildlife Conservation Bd.* (2006) 143 Cal.App.4th 173, 187; accord *Save Our Carmel River v. Monterey Peninsula Water Management Dist.* (2006) 141 Cal.App.4th 677, 697 (these rules ensure that in all but the clearest cases of categorical exemptions, a project will be subject to some level of environmental review).

Finally, CEQA procedures reflect a preference for resolving doubts in favor of environmental review. See Pub. Res. Code, § 21080, subd. (c) (an EIR may be disposed of only if there is no substantial evidence, in light of the entire record before the lead agency, that the project may have a significant effect on the environment or revisions in the project); CEQA Guidelines, §§ 15061, subd. (b)(3) (common sense exemption only where it can be seen *with certainty*); 15063, subd. (b)(1) (prepare an EIR if the agency determines that there is substantial evidence that any aspect of the project, either individually or cumulatively, may cause a significant effect on the environment, regardless of whether the overall effect of the project is adverse or beneficial]; 15064, subd. (h) (the agency must consider cumulative impacts of past, current, and probable future projects); 15070 (a negative declaration may be prepared only if there is no substantial evidence, in light of the whole record, that the project may have a significant effect on the environment, or project revisions would avoid the effects or mitigate the effects to a point where clearly no significant effects would occur, and there is no substantial evidence, in light of the whole record, that the project as revised may have a significant effect on the environment); *No Oil, Inc., supra,* 13 Cal.3d at 83-84 (significant impacts are to be interpreted so as to afford the fullest possible protection).

Response to Comment No. 3:

The comment does not address the adequacy or accuracy of the EIR Addendum; rather it provides background on CEQA, much of which is not relevant as the Project is proceeding by way of a CEQA Addendum – not an MND, EIR or Exemption. The EIR Addendum thoroughly analyzed and disclosed the potentially significant Project impacts, consistent with CEQA's

information disclosure mandates. The Project has been analyzed relative to The Ontario Plan (TOP) EIR (SCH # 2021070364) (2022 TOP EIR), which analyzed the direct and physical changes in the environment that would be caused by implementation of TOP 2050. Specifically, the 2022 TOP EIR evaluated the development of a maximum of 369 residential units and approximately 142,840 square feet of non-residential development on the Overlay Planning Area, where the Project is located. The Project proposes the construction of 346 apartment units and 5,400 square feet of non-residential development, well within the scope of analysis in the 2022 TOP EIR.

Comment No. 4:

Here, the Project involves the construction of 346 apartment units and 5,400 square feet of commercial space on 9.4 acres of land. Considering the size and scope of the Project, the City must prepare and circulate a thorough, Project-specific EIR.

Section 15088.5, subsection (a) of the CEQA Guidelines provides that an EIR must be recirculated whenever there is disclosure of significant new information. Significant new information includes: (1) disclosure of a new significant environmental impact resulting from the project or from a new proposed mitigation measure; (2) disclosure of a substantial increase in the severity of an environmental impact unless mitigation measures are adopted that reduce the impact to a level of insignificance; and, (3) disclosure of a feasible project alternative or mitigation measure considerably different from others previously analyzed which would clearly lessen the significant environmental impacts of the project which the project proponents decline to adopt.

The Project requires new feasible mitigation measures not specified in the original environmental analysis for the City's General Plan or the applicable Specific Plan. Those analyses occurred, at the latest, in 2004—nearly 20 years ago. Specifically, the Project is slated to develop a new mixed-use development, yet the original environmental analyses governing this Site and its use provide no specification nor mitigation measures identifying, for example, how many or which of the Project's parking spaces must be capable of supporting electric vehicle charging stations (EVCS) and ready to be compliant with the 2022 California Green Building Standards Code, Title 24, Part 11 (CGBSC), also known as CALGreen. In fact, there is no mention of electric vehicle (EV) accommodations anywhere in the original environmental analyses. Without revisions to the original environmental analyses, allowing the Project to commence without adequate and thorough CEQA review would result in significant and unavoidable impacts on the local community and environment as well as on global climate change due to cumulative GHG emissions from vehicle exhaust, among other things. Further, the Project would be out of compliance with CALGreen and could incur for Applicant and the City extensive litigation and unnecessary turbulence in the pursuit and completion of the Project.

CALGreen, which became effective January 1, 2023, requires new buildings to designate 20 percent of the total number of parking spaces as EV-capable. See CALGreen, § 5.106.5.31 (Nonresidential Mandatory Measures). Therefore, if the Project develops 299 additional parking spaces, 60 of those spaces must have electrical panel space and load capacity to support EV charging. Additionally, this must all be laid out with sufficient detail for the City and the public

to thoroughly review, assess, and provide comments thereon.

Further, CALGreen requires new buildings to designate 25 percent of the total number of EV-capable parking spaces as EV spaces with Level 2 EV supply equipment (EVSE). *Id*. Hence, if the Project develops 299 additional parking spaces, 75 of those spaces must be equipped with a 208/240 volt 40-ampere branch circuit with the electric vehicle charging connectors, attachment plugs, and all other fittings, devices, and power outlets installed. *Id*. CALGreen also requires, among other things, that new construction of large, non-residential buildings of 50,000 square feet or larger be hold LEED Silver certification or have Alternate Reference Standard[6] per Section 101.10.2.

This analysis is entirely absent from the prior environmental analyses or of any environmental analysis of the proposed Project, and as such they must be revised and recirculated to specify the additional EV mitigation requirements addressed above, or otherwise the DAB should recommend that the Planning Commission deny the Addendum and Development Review application, and recommend that the Planning Commission order the preparation and circulation of a Project-specific EIR.

---

[6] According to Section 101.10.2 of the CGBSC, Developer may request to apply an alternate green building standard for the Project in lieu of the minimum standards per Table 101.10. In making a determination in response to an application under this section, the Building Official may allow an alternate standard if they find that the proposed alternative standard complies with all of the following: (A) Addresses a comprehensive scope of green building issues including energy efficiency, water efficiency, resource efficient materials, and healthy building practices; (B) applies standards that are, when taken as a whole, as stringent as the GPR and LEED standards; (C) includes a formalized certification process that incorporates third party verification; and, (D) the project will advance the purposes of this Chapter. See Ord. 22-2245, part, 2022; Ord. 19-2193, § 2 (part), 2019.

Response to Comment No. 4:

The commenter claims that the Project should not be compared to "the original environmental analysis for the City's General Plan or the applicable Specific Plan," both of which are 20 years old. This is not correct. The Project is subject to and consistent with The Ontario Plan 2050, which is the most current version of the TOP, and its environmental impact report is dated August 16, 2022 (State Clearinghouse No. 2021070364). The EIR Addendum is to the 2022 TOP EIR.

The Project will implement all applicable mitigation measures adopted by the City when it certified the 2022 TOP EIR. Regarding electric vehicles, TOP 2050 includes the following modified policy: LU-1.4: Multimodal Mobility. We require development and urban design, where appropriate, that reduces reliance on the automobile and capitalizes on active transportation, transit, electric vehicles, and multimodal transportation opportunities. The Project will be subject to applicable CALGreen requirements, as well as TOP 2050 EIR Mitigation Measure AQ 3-3, which requires assessment of operation-phase-related air quality impacts and, if operation-related air pollutants are determined to have the potential to exceed the

South Coast AQMD–adopted thresholds of significance, the City Planning Department shall require that applicants for new development projects incorporate mitigation measures to reduce air pollutant emissions during operational activities, which include CALGreen measures such as: (1) "Provide changing/shower facilities as specified in Section A5.106.4.3 of CALGreen (Nonresidential Voluntary Measures)," (2) "Provide bicycle parking facilities per Section A4.106.9 of CALGreen (Residential Voluntary Measures)," (3) "Provide preferential parking spaces for low-emitting, fuel-efficient, and carpool/van vehicles per Section A5.106.5.1 of CALGreen (Nonresidential Voluntary Measures)," and (4) "Provide facilities to support electric charging stations per Section A5.106.5.3 and Section A5.106.8.2 of CALGreen (Nonresidential Voluntary Measures; Residential Voluntary Measures)."

Comment No. 5:

Although the Project seeks a DAB recommendation which the City asserts is an entirely ministerial decision, this does not necessarily preclude the Project from including discretionary aspects. As the California Second District Court of Appeal discussed in *Friends of Westwood, Inc. v. City of Los Angeles* (1987), "a municipality's classification of a certain approval process as ministerial is not conclusive. The applicability of CEQA cannot be made to depend upon the unfettered discretion of local agencies, for local agencies must act in accordance with state guidelines and the objectives of CEQA." 191 Cal.App.3d 259, 270 (hereinafter, "*Friends of Westwood*") (internal citations and quotations omitted). For example, *Friends of Westwood* cited to *People v. Dept. of Housing & Community Development* in which the court deemed the issuance of a mobile park construction permit to be a discretionary act that was subject to CEQA. *Id*. at 271 (citing *People v. Dept. of Housing & Community Development* (1975) 45 Cal.App.3d 185, 194 (hereinafter, "*Ramey*")). While the *Ramey* court acknowledged that the mobile home park approval process included numerous ministerial decisions that applied "'fixed design and construction specifications[,]'" the court noted that some of the other approval decisions involved "'relatively general'" standards. *Id*. at 271 (citing *Ramey, supra,* at 193). The *Ramey* court also noted that for the construction permit at issue there, the applicant must provide a description of the water supply, ground drainage, and method of sewage disposal; there must be a sufficient supply of artificial lighting; the water supply must be adequate and potable; and the site must be well-drained and graded. *Id*. (internal citations and quotations omitted). The *Ramey* court thus concluded that these decisions rendered the entire construction permit process discretionary for purposes of CEQA given that they required "relatively personal decisions addressed to the sound judgment and enlightened choice of the administrator." *Id*.

Here, the DAB is tasked with assessing the Project's design, layout, and location on the Project Site, and, in particular, making a determination as to the Addendum and Development Plan application. The DAB will then make a recommendation to the Planning Commission for approval. Given that the DAB must *exercise its discretion* in determining whether the Project's features, including its FAR and height, are consistent with applicable codes and plans, the Project should be deemed discretionary and reviewed accordingly.

Response to Comment No. 5:

The comment does not address the adequacy or accuracy of the EIR Addendum; rather, the commenter discusses the DAB's review authority. The commenter makes the unsupported claim that the DAB's review of the Project is not a ministerial action and that because DAB must exercise discretion in determining if the Project is consistent with applicable codes and plans, "the Project should be deemed discretionary and reviewed accordingly." Regardless of whether the DAB's review authority is ministerial or discretionary, the Project was subject to thorough review, including as required by CEQA. The EIR Addendum contains thorough impact analyses relative to the 2022 TOP EIR and contains hundreds of pages of technical studies in support. The commenter provides no evidence that the Project has not been adequately reviewed or that the DAB's approval recommendation was based on inadequate review.

Comment No. 6:

CEQA permits agencies to 'tier' EIRs, in which general matters and environmental effects are considered in an EIR "prepared for a policy, plan, program or ordinance followed by narrower or site-specific [EIRs] which incorporate by reference the discussion in any prior [EIR] and which concentrate on the environmental effects which (a) are capable of being mitigated, or (b) were not analyzed as significant effects on the environment in the prior [EIR]." Pub. Res. Code, § 21068.5. The initial general policy-oriented EIR is called a programmatic EIR (PEIR) and offers the advantage of allowing "the lead agency to consider broad policy alternatives and program wide mitigation measures at an early time when the agency has greater flexibility to deal with basic problems or cumulative impacts." CCR, § 15168. "[T]iering is appropriate when it helps a public agency to focus upon the issues ripe for decision at each level of environmental review and in order to exclude duplicative analysis of environmental effects examined in previous [EIRs]." Pub. Res. Code, § 21093. CEQA regulations strongly promote tiering of EIRs, stating that "[EIRs] shall be tiered whenever feasible, as determined by the lead agency." *Ibid*.

Once a program EIR has been prepared, "[s]ubsequent activities in the program must be examined in light of the program EIR to determine whether an additional environmental document must be prepared." CCR, § 15168, subd. (c). The first consideration is whether the activity proposed is covered by the PEIR. *Id.* If a later project is outside the scope of the program, then it is treated as a separate project and the PEIR may not be relied upon in further review. *Sierra Club v. County of Sonoma* (1992) 6 Cal.App.4th 1307. The second consideration is whether the "later activity would have effects that were not examined in the program EIR." CCR, §§ 15168, subd. (c)(1). A PEIR may only serve "to the extent that it contemplates and adequately analyzes the potential environmental impacts of the project." (*Sierra Nevada Conservation v. Cnty. of El Dorado* (2012) 202 Cal.App.4th 1156. If the PEIR does not evaluate the environmental impacts of the project, a tiered EIR must be completed before the project is approved. *Id.* For these inquiries, the "fair argument test" applies. *Sierra Club, supra*, 6 Cal.App.4th at 1318; *see also Sierra Club v. Cnty. of San Diego* (2014) 231 Cal.App.4th 1152, 1164 (when a prior EIR has been prepared and certified for a program or plan, the question for a

court reviewing an agency's decision not to use a tiered EIR for a later project 'is one of law, i.e., the sufficiency of the evidence to support a fair argument).

Under the fair argument test, a new EIR must be prepared "whenever it can be fairly argued on the basis of substantial evidence that the project may have significant environmental impact. *Id.* at 1316 (quotations omitted). When applying the fair argument test, "deference to the agency's determination is not appropriate and its decision not to require an EIR can be upheld only when there is no credible evidence to the contrary." *Sierra Club, supra*, 6 Cal. App. 4th at 1312. "[I]f there is substantial evidence in the record that the later project may arguably have a significant adverse effect on the environment which was not examined in the prior program EIR, doubts must be resolved in favor of environmental review and the agency must prepare a new tiered EIR, notwithstanding the existence of contrary evidence." *Id.* at 1319.

In *Friends of College of San Mateo Gardens, supra*, the California Supreme Court explained the differing analyses that apply when a project EIR was originally approved and changes are being made to the project, and when a tiered program EIR was originally prepared and a subsequent project is proposed consistent with the program or plan:

> For project EIRs, of course, a subsequent or supplemental impact report is required in the event there are substantial changes to the project or its circumstances, or in the event of material new and previously unavailable information. (*Friends of Mammoth*, citing § 21166.) In contrast, when a tiered EIR has been prepared, review of a subsequent project proposal is more searching. If the subsequent project is consistent with the program or plan for which the EIR was certified, then 'CEQA requires a lead agency to prepare an initial study to determine if the later project may cause significant environmental effects not examined in the first tier EIR.' (*Ibid*. citing Pub. Resources Code, § 21094, subds. (a), (c).) 'If the subsequent project is not consistent with the program or plan, it is treated as a new project and must be fully analyzed in a project—or another tiered EIR if it may have a significant effect on the environment.'

(2016) 1 Cal.5th 937, 960.

Here, the City prepared an SEIR for The Ontario Plan 2050 and certified it in August 2022. As a result, CEQA requires the City to prepare, at minimum, an initial study to determine if the Project *may* cause significant environmental effects not examined in the SEIR—which the City had prepared but did not produce in its three PRA productions to this Office over the last year. Pub. Res. Code, § 21094. There exists here substantial evidence supporting a fair argument that the Project may result in significant environmental impacts that were not previously analyzed in the SEIR. Accordingly, a subsequent EIR must be prepared.

If a project *may* have a significant effect on *any* of the specified environmental factors, CEQA review must occur. *Salmon Protection & Watershed Network v. Cnty. of Marin* (2004) 125 Cal.App.4th 1098, 1107. CEQA places the duty to investigate the Project's impacts on the

City. CEQA Guidelines, § 15144 (an agency must use its best efforts to find out and disclose such impacts); *Sundstrom v. Cnty. of Mendocino* (1988) 202 Cal.App.3d 296, 311 (agency should not be allowed to hide behind its own failure to gather relevant data). "An agency's duty to provide such factual support 'is all the more important where . . . opponents of the project have raised arguments" about impacts. *Muzzy Ranch Co. v. Solano Cnty. Airport Land Use Commission* (2007) 41 Cal.4th 372, 386. In reviewing an agency's determination to prepare an Addendum, courts should assess whether the agency made a "*definitive finding"* and whether it met its initial burden to support its finding by substantial evidence. *Banker's Hill, Hillcrest, Park W. Cmty. Pres. Grp. v. City of San Diego* (2006) 139 Cal.App.4th 249, 268 (lead agency must make a *definitive finding*, at the preliminary review stage, as to whether or not there will be a significant environmental effect).

The Project's environmental review documents, including technical studies relating to the preparation of the Addendum, were not provided to my Office despite the three Public Records Act requests we submitted on or about August 30, 2022; January 6, 2023; and July 25, 2023. This Office has received at least three Public Records Act productions between August 2022 and July 2023—none of which have included the environmental review documents or studies upon which the City has based the Project's Addendum.

Unfortunately, the Addendum's environmental analyses and accompanying studies were not provided to this Office for review and comment in violation of CEQA until the early evening of August 3, 2023—just one business day before the DAB hearing is to take place. Considering that the Addendum is upwards of 1,880 pages, the City's failure to provide the Addendum earlier precludes this Office's and the public's ability to fairly and accurately assess and comment upon the Project.

According to the CEQA Guidelines:

> Each public agency should include provisions in its CEQA procedures for wide public involvement, formal and informal, consistent with its existing activities and procedures, in order to receive and evaluate public reactions to environmental issues related to the agency's activities.

CEQA Guidelines, § 15201.

As far as the public is concerned, the City's environmental review and technical studies related to the Project's environmental impacts have not occurred. Given that the Project involves a demolition and construction of a five-story-high building in an area surrounded by other developments and sensitive receptors, a thorough and Project-specific EIR is necessary. The City's failure to provide for public review and commentary the environmental analyses and studies upon which it rests its CEQA determination constitutes a prejudicial abuse of discretion. See *Bakersfield Citizens for Local Control v. City of Bakersfield* (2004) 124 Cal.App.4th 1184 (hereinafter, "*Bakersfield Citizens*"). "Failure to comply with the information disclosure requirements constitutes a prejudicial abuse of discretion when the omission of relevant information has precluded . . . informed public participation[.]" *Dry Creek Citizens Coalition v.*

Cnty. Of Tulare (1999) 70 Cal.App.4th 20, 26; accord *Assoc. of Irritated Residents v. Cnty. of Madera* (2003) 107 Cal.App.4th 1383, 1391. Further, "the ultimate decision of whether to approve a project, be that decision right or wrong, is a nullity if based upon an [environmental determination] that does not provide the . . . public with the information about the project that is required by CEQA." *Santiago Cnty. Water Dist. v. Cnty. of Orange* (1981) 118 Cal.App.3d 818, 829. Consequently, the Project approvals and associated land use entitlements also must be voided and an EIR prepared and circulated. See *Bakersfield Citizens*, *supra*, 124 Cal.App.4th at 1221 (citing *Friends of the Eel River v. Sonoma Cnty. Water Agency* (2003) 108 Cal.App.4th 859, 868).

"When the informational requirements of CEQA are not complied with, an agency has failed to proceed in 'a manner required by law.'" *Save Our Peninsula Committee v. Monterey Cnty. Bd. of Supervisors* (2001) 87 Cal.App.4th 99, 118. As a result of the City's omissions, "meaningful assessment of the true scope of numerous potentially serious adverse environmental effects was thwarted." *Bakersfield Citizens*, *supra*, 124 Cal.App.4th at 1220-1221. As such, a Project-specific EIR must be produced and circulated.

Response To Comment No. 6:

The commenter claims the City must prepare an Initial Study to determine if an SEIR must be prepared and that, because the commenter only received the EIR Addendum when it was released for public review when the staff report for the DAB hearing was issued, the City has failed to proceed in a manner required by law. As set forth below, neither contention has merit.

First, there is no requirement that an Initial Study be prepared when the lead agency, here the City, is proceeding by way of an Addendum to a certified EIR. The EIR Addendum addresses all impact areas analyzed in the 2022 TOP EIR and determined that all Project impacts were within those analyzed in that certified EIR. In any event, the initial pages of the EIR Addendum contain the Initial Study checklist for the Project. (See DAB Staff Report, Item D, pages 22-30.) The Initial Study Checklist and Addendum are a combined document. (*Ibid*. Item D, pages 1 – 1893.)

Second, an addendum is not subject to publication and public comment. (CEQA Guidelines, section 15164 (c).) The fact that the commenter, and the public, had limited time to review the detailed addendum prior to the DAB meeting is of no moment, as the DAB was not an approving body, but only a recommending body. The commenter and the public will have ample time to review and comment on the EIR Addendum before and at the Planning Commission meeting on August 22, 2023 at which the Commission will consider the DAB's recommendation. Furthermore, there has been no showing that the final EIR Addendum was available prior to its inclusion of the staff report, such that it should have been produced in response to the cited Public Records Act (PRA) requests. Draft CEQA documents are not subject to PRA requests. (Government Code section 6254(a); see *also Citizens for a Better Env't v Department of Food & Agric.* (1985) 171 CA3d 704, 711.)

Finally, there is no showing that the City has in any manner failed to proceed in a manner required by law, CEQA or other applicable laws.

Comment No. 7:

The City is mistaken in concluding that the Project may be analyzed under CEQA Guidelines, sections 15164 and 15162 given that these sections are applicable only where a project has *recently* undergone CEQA review. As the California Supreme Court explained in *San Mateo Gardens*, subsequent CEQA review provisions "can apply only if the project has been subject to initial review; they can have no application if the agency has proposed a new project that has not previously been subject to review." *Friends of Coll. of San Mateo Gardens v. San Mateo County Cmty. Coll. Dist.* (2016) 1 Cal.5th 937, 950 (hereinafter, "*San Mateo Gardens*"). Lead agencies may prepare addendums for project modifications or revisions and avoid further environmental review *only if* the project has a previously certified EIR or negative declaration. *See Save our Heritage v. City of San Diego* (2018) 28 Cal.App.5th 656, 667.

If the proposed Project here had been addressed in the SEIR, the standard for determining whether further review is required would be governed by California Code of Regulations, section 15162 and Public Resources Code, section 21166, and an addendum could potentially be allowed under California Code of Regulations, section 15164. These sections are inapplicable here, however, given that the proposed Project has never undergone CEQA review. An EIR has not been prepared, and the Project, as proposed, was never mentioned or discussed in the SEIR.

In a similar case in 2010, the City of Irvine adopted a plan to guide development of the Irvine Business Complex (IBC), which covered almost 3,000 acres in the City of Irvine. *IBC Business Owners for Sensible Development v. City of Irvine* (2023) 88 Cal.App.5th 100. The City of Irvine also prepared and approved a PEIR in 2010 that studied the effects of the development plan under CEQA. *Ibid*. Several years later, the applicant and appellant Gemdale 2400 Barranca Holdings, LLC, submitted a plan to redevelop a roughly five-acre parcel in the IBC. *Ibid*. The City of Irvine determined that all the environmental effects of the proposed project were adequately analyzed in the 2010 PEIR, and it found the project would have no additional significant environmental effects. *Ibid*. The City of Irvine approved the project over the objections of plaintiff and petitioner IBC Business Owners for Sensible Development. *Ibid*. Petitioner then filed a petition for writ of mandate. *Ibid*.

The trial court granted the writ and entered judgment in favor of Petitioner. *Ibid*. The City of Irvine and Gemdale appealed, contending that the City correctly approved the project. *Ibid*. The Fourth District Court of Appeal disagreed with the arguments made on appeal there existed insufficient evidence showing the project's GHG emissions were within the scope of the 2010 PEIR, and that no exemption applied because the project involved unusual circumstances which could cause significant environmental effects. *Ibid*. As such, the Court affirmed the judgment. *Ibid*.

Here, the environmental impacts of the Project are outside of the scope of those studied in the SEIR. Consequently, the City cannot rely on the subsequent review provisions of CEQA Guidelines, sections 15162 or 15164 and an independent, CEQA-compliance environmental analysis must be conducted and circulated in the form of an EIR.

Response To Comment No. 7:

The commenter again mistakenly claims the Project, as evaluated in the EIR Addendum, was compared to the 2010 TOP EIR. In fact, the Project was analyzed relative to 2022 TOP EIR (SCH # 2021070364), which analyzed the direct and physical changes in the environment that would be caused by implementation of TOP 2050. Specifically, the 2022 TOP EIR evaluated the development of a maximum of 369 residential units and approximately 142,840 square feet of non-residential development on the Overlay Planning Area, where the Project is located. The Project proposes the construction of 346 apartment units and 5,400 square feet of non-residential development. Thus, the Project is well within the scope of analysis in the 2022 TOP EIR, and the commenter's cited cases are inapposite. The City's review of the Proposed Project with the EIR Addendum was appropriate under CEQA, and the commenter has submitted no evidence, let alone substantial evidence, to the contrary.

Comment No.8:

An EIR must be prepared for the Project given that the SEIR determined that the Ontario Plan would cause significant and unavoidable impacts on aesthetics, air quality, biological resources, cultural resources, geology and soils, hazardous materials, hydrology and water quality, noise, public services, transportation and traffic, and utilities and service systems.

In the case of *Communities for a Better Environment v. Cal. Resources Agency*, the Third District Court of Appeal held that when a "first tier" EIR admits a significant, unavoidable environmental impact, then the agency must prepare second tier EIRs for later projects to ensure that those unmitigated impacts are "mitigated or avoided." (2002) 103 Cal.App.4th 98, 122-125 (citing CEQA Guidelines, §15152, subd. (f). There, the court reasoned that the unmitigated impacts were not "adequately addressed" in the first tier EIR given that they were not "mitigated or avoided." *Communities for a Better Environment v. Cal. Resources Agency* (2002) 103 Cal.App.4th 98, 122-125. Therefore, significant effects disclosed in first tier EIRs will trigger second tier EIRs unless such effects have been "adequately addressed," in a way that ensures the effects will be "mitigated or avoided." *Ibid*. Such a second tier EIR is required, even if the impact still cannot be fully mitigated and a statement of overriding considerations will be required. The court explained, "The requirement of a statement of overriding considerations is central to CEQA's role as a public accountability statute; it requires public officials, in approving environmental detrimental projects, to justify their decisions based on counterbalancing social, economic or other benefits, and to point to substantial evidence in support." *Id*. at 124-125.

Here, given that the SEIR admitted numerous significant, unmitigated impacts, a second tier EIR is now required to determine whether mitigation measures must now be imposed to reduce or

eliminate those impacts. Should the impacts remain significant and unavoidable, a statement of overriding considerations would be required.

Response To Comment No. 8:

The commenter claims, based on *Communities For A Better Environment v. California Resources Agency*, 103 Cal.App.4th 98, that a new EIR must be prepared for the Proposed Project because the 2022 TOP EIR concluded significant and unavoidable impacts. This is incorrect. First, the Proposed Project is not tiering off the prior 2022 TOP EIR, as discussed in CEQA Guidelines section 15152. Rather, the City has prepared an addendum to the 2022 TOP EIR pursuant to CEQA Guidelines section 15164. The EIR Addendum meets all of the criteria under section 15164, and the commenter has not demonstrated otherwise. Second, that case, while disapproved by numerous subsequent cases, is not applicable precisely because the Proposed Project is not proceeding by way of a tiered EIR, but by an adequate addendum to a certified EIR. The commenter provides no basis or substantial evidence to require the preparation of a second tier EIR.

Comment No. 9:

Legal precedent has established that Project entitlements must be approved simultaneously to a project's CEQA review. See *Coalition for Clean Air v. City of Visalia* (2012) 209 Cal.App.4th 408, 423-425, fn. 18 (noting that a CEQA document cannot be approved, and Notice of Exemption filed, before the underlying project is approved); see also *County of Amador v. El Dorado County Water Agency* (1999) 76 Cal.App.4th 931, 963, fn. 16. A project's environmental review cannot and should not occur prior to the project plans being submitted and its design review taking place, especially given that a project's environmental review must hinge on the final project design and development plan. For this reason, the DAB must not make any recommendation to the Planning Commission, but instead advise that the Addendum be revised or a Project-specific EIR be prepared.

Response to Comment No. 9:

The commenter presents no legal basis as to why the DAB could not review the Project Application and the EIR Addendum. Indeed, the DAB was not approving the Project; it was only making a recommendation. All Project approvals, including the Application and EIR Addendum, will be considered simultaneously by the Planning Commission. There is no basis to assume, let alone conclude, that the Project entitlements and CEQA evaluation will be separately considered – either by the DAB or the Planning Commission. As such, *Coalition for Clean Air v. City of Visalia* (2012) 209 Cal.App.4th 408 and *County of Amador v. El Dorade County Water Agency* (1999) 76 Cal.App.4th 93 are inapplicable.

Comment No. 10:

A project description must be stable and finite in order to afford a lead agency and the public an adequate opportunity to assess and comment on the project and its impacts. "[A]n accurate,

stable and finite project description is the sine qua non of an informative and legally sufficient" environmental document. *County of Inyo v. City of Los Angeles* (1977) 71 Cal.App.3d 185, 200. "A curtailed or distorted project description may stultify the objectives of the reporting process" as an accurate, stable, and finite project description is necessary to allow "affected outsiders and public decision- makers balance the proposal's benefit against its environmental cost, consider mitigation measures, assess the advantage of terminating the proposal (i.e., the "no project" alternative) and weigh other alternatives in the balance. *Id*. at 192-93.

CEQA Guidelines, section 15124 requires that a description describe the project in enough detail to allow for evaluation of its potential environmental impacts: (a) the project's precise location and boundaries; (b) a clearly written statement of objectives sought by the proposed project; (c) a description of the project's technical, economic, and environmental characteristics; and, (d) a statement describing a list of agencies, permits, and approval which the project expects to use.

Here, SWMSRCC respectfully requests that the Project application includes an adequate and compliant Project description with the details listed above, including objectives sought, the Project's economic characteristics, and more. The City should demand that Applicant resubmit its application materials with CEQA-compliant parameters.

Response to Comment No. 10:

The commenter claims the Project Description is CEQA-inadequate, yet identifies no inadequacies. The Project Description contained in the EIR Addendum is stable, accurate, and complete and is therefore adequate under CEQA. (See CEQA Guidelines section 15124.)

Comment No. 11:

A detailed and thorough review of the Project's impacts must be studied, supported by substantial evidence, and mitigated against where necessary. Without this in-depth analysis and a higher standard for the quantity and quality of evidence supporting it, it is impossible to determine, with a high degree of certainty, the magnitude and extent of the Project's environmental impacts.

In light of the aforementioned, SWMSRCC respectfully requests that the City: (1) require the Project utilize a local trained and skilled workforce; (2) prepare and circulate a thorough, project-specific EIR which focuses heavily on the Project's impacts that were not previously or adequately addressed in the SEIR; and, (3) order Applicant to revise the Project to ensure its consistency with all applicable laws and regulations especially those addressing human and environmental health. Should the City have any questions or concerns, it should feel free to contact my office.

Response to Comment No. 11:

The commenter provides a conclusion summarizing its demands. As demonstrated above, each of the commenter's comments and objections are without merit. The commenter has not submitted any evidence, let alone substantial evidence, that calls into question the City's use of a

CEQA addendum, demonstrates the criteria for a CEQA addendum have not been met, or otherwise provides a legitimate basis for denying the Project approvals.

File Nos. PUD22-004, PHP22-015, and PDEV22-027
Attachment A3: Mitchell M. Tsai Letter 2

(Attachment to follow this page)

P: (626) 381-9248
F: (626) 389-5414
E: info@mitchtsailaw.com

Mitchell M. Tsai
Attorney At Law

139 South Hudson Avenue
Suite 200
Pasadena, California 91101

VIA EMAIL

August 22, 2023

Alexis Vaughn, Associate Planner
303 East "B" Street
Ontario, CA 91764
Ph: (909) 395-2416
Em: avaughn@ontarioca.gov

RE: Southwest Mountain States Regional Council of Carpenters' Comments Regarding the City of Ontario's Euclid & Walnut Mixed Use Project.

Dear Ms. Vaughn and Commissioners:

On behalf of the Southwest Mountain States Regional Council of Carpenters (**SWMSRCC**), my office is submitting these comments ahead of the City of Ontario's ("**City**" or "**Lead Agency**") August 22, 2023, Planning Commission hearing for the Euclid and Walnut Mixed Use project (File Nos. PUD22-004, PHP22-015, PDEV22-027) ("**Project**").

Submitted by Legacy/Collier Residential LLC ("**Applicant**"), the Project involves an Environmental Assessment, Planned Unit Development (File No. PUD22-004), Certificate of Appropriateness (File No. PHP22-015), and Development Plan (File No. PDEV22-027) to construct 346 apartment units and 5,400 square feet of commercial space on 9.4 acres of land (10.6-acres in total) located at the northwest corner of Euclid Avenue and Walnut Avenue ("**Site**") within the Mixed Use – Neighborhood Hub 8e – Euclid and Walnut (**MU-NH 8e**) zoning district (APNs 1051-271-67, 1051-271-06, 1051-271-66). The Site is located within the Airport Influence Area of Ontario International Airport and was evaluated and claimed to have been found to be consistent with the policies and criteria of the Ontario International Airport Land Use Compatibility Plan. In conjunction with the Project, an Addendum ("**Addendum**") to The Ontario Plan 2050 (**TOP**) Supplemental Environmental Impact Report (**SEIR**) (SCH No. 2021070364) was prepared and certified by the City Council on August 16, 2022.

The Development Advisory Board (**DAB**) reviewed the Project on August 7, 2023, and made recommendations to the Planning Commission to approve the Addendum and the Development Plan. The Project now appears before the Planning Commission for final approval of the Environmental Assessment, Certificate of Appropriateness, and Development Plan; and recommendation to the City Council of the Planned Unit Development.

SWMSRCC is a labor union representing over 90,000 union carpenters in 12 states, including California, and has a strong interest in well-ordered land use planning and in addressing the environmental impacts of development projects. Some SWMSRCC members live, work, and recreate in the City and the surrounding communities and would be directly affected by the Project's environmental impacts.

SWMSRCC expressly reserves the right to supplement these comments at or prior to hearings on the Project, and at any later hearing and proceeding related to this Project. Gov. Code, § 65009, subd. (b); Pub. Res. Code, § 21177, subd. (a); see *Bakersfield Citizens for Local Control v. Bakersfield* (2004) 124 Cal.App.4th 1184, 1199-1203; see also *Galante Vineyards v. Monterey Water Dist.* (1997) 60 Cal.App.4th 1109, 1121. SWMSRCC incorporates by reference all comments raising issues regarding the Project and its environmental review and associated documents and reports (including the City's Staff Report), or lack thereof. See *Citizens for Clean Energy v. City of Woodland* (2014) 225 Cal.App.4th 173, 191 (finding that any party who has objected to the project's environmental documentation may assert any issue timely raised by other parties).

Moreover, SWMSRCC requests that the City provide notice for any and all notices referring or related to the Project issued under CEQA (Pub. Res. Code § 21000 et seq.), and the California Planning and Zoning Law ("**Planning and Zoning Law**") (Gov. Code, §§ 65000–65010). California Public Resources Code, sections 21092.2 and 21167(f) and California Government Code, section 65092 require agencies to mail such notices to any person who has filed a written request for them with the clerk of the agency's governing body.

I. THE CITY SHOULD REQUIRE THE USE OF A LOCAL WORKFORCE TO BENEFIT THE COMMUNITY'S ECONOMIC DEVELOPMENT AND ENVIRONMENT.

The City should require that the Project be built using local workers who have graduated from a Joint Labor-Management Apprenticeship Program approved by the

State of California, have at least as many hours of on-the-job experience in the applicable craft which would be required to graduate from such a program, or are registered apprentices in such a program.

Community benefits such as local hire can also be helpful to reduce environmental impacts and improve the positive economic impacts of the Project. Local hire provisions requiring that a certain percentage of workers reside within 10 miles or less of the Project site can reduce the length of vendor trips, reduce greenhouse gas emissions, and provide localized economic benefits. As environmental consultants Matt Hagemann and Paul E. Rosenfeld note:

> [A]ny local hire requirement that results in a decreased worker trip length from the default value has the potential to result in a reduction of construction-related GHG emissions, though the significance of the reduction would vary based on the location and urbanization level of the project site.

March 8, 2021, SWAPE Letter to Mitchell M. Tsai re Local Hire Requirements and Considerations for Greenhouse Gas Modeling.

Workforce requirements promote the development of skilled trades that yield sustainable economic development. As the California Workforce Development Board and the University of California, Berkeley Center for Labor Research and Education concluded:

> [L]abor should be considered an investment rather than a cost—and investments in growing, diversifying, and upskilling California's workforce can positively affect returns on climate mitigation efforts. In other words, well-trained workers are key to delivering emissions reductions and moving California closer to its climate targets.[1]

Furthermore, workforce policies have significant environmental benefits given that they improve an area's jobs-housing balance, decreasing the amount and length of job commutes and the associated greenhouse gas (**GHG**) emissions. In fact, on May 7,

[1] California Workforce Development Board (2020) Putting California on the High Road: A Jobs and Climate Action Plan 2030 at p. ii, *available at* https://laborcenter.berkeley.edu/wp-content/uploads/2020/09/Putting-California-on-the-High-Road.pdf.

2021, the South Coast Air Quality Management District found that that the "[u]se of a local state-certified apprenticeship program" can result in air pollutant reductions.[2]

Locating jobs closer to residential areas can have significant environmental benefits. As the California Planning Roundtable noted in 2008:

> People who live and work in the same jurisdiction would be more likely to take transit, walk, or bicycle to work than residents of less balanced communities and their vehicle trips would be shorter. Benefits would include potential reductions in both vehicle miles traveled and vehicle hours traveled.[3]

Moreover, local hire mandates and skill-training are critical facets of a strategy to reduce vehicle miles traveled (**VMT**). As planning experts Robert Cervero and Michael Duncan have noted, simply placing jobs near housing stock is insufficient to achieve VMT reductions given that the skill requirements of available local jobs must match those held by local residents.[4] Some municipalities have even tied local hire and other workforce policies to local development permits to address transportation issues. Cervero and Duncan note that:

> In nearly built-out Berkeley, CA, the approach to balancing jobs and housing is to create local jobs rather than to develop new housing. The city's First Source program encourages businesses to hire local residents, especially for entry- and intermediate-level jobs, and sponsors vocational training to ensure residents are employment-ready. While the program is voluntary, some 300 businesses have used it to date, placing more than 3,000 city residents in local jobs since it was launched in 1986. When

---

[2] South Coast Air Quality Management District (May 7, 2021) Certify Final Environmental Assessment and Adopt Proposed Rule 2305 – Warehouse Indirect Source Rule – Warehouse Actions and Investments to Reduce Emissions Program, and Proposed Rule 316 – Fees for Rule 2305, Submit Rule 2305 for Inclusion Into the SIP, and Approve Supporting Budget Actions, *available at* http://www.aqmd.gov/docs/default-source/Agendas/Governing-Board/2021/2021-May7-027.pdf?sfvrsn=10.

[3] California Planning Roundtable (2008) Deconstructing Jobs-Housing Balance at p. 6, *available at* https://cproundtable.org/static/media/uploads/publications/cpr-jobs-housing.pdf

[4] Cervero, Robert and Duncan, Michael (2006) Which Reduces Vehicle Travel More: Jobs-Housing Balance or Retail-Housing Mixing? Journal of the American Planning Association 72 (4), 475-490, 482, *available at* http://reconnectingamerica.org/assets/Uploads/UTCT-825.pdf.

> needed, these carrots are matched by sticks, since the city is not shy about negotiating corporate participation in First Source as a condition of approval for development permits.

Recently, the State of California verified its commitment towards workforce development through the Affordable Housing and High Road Jobs Act of 2022, otherwise known as Assembly Bill No. 2011 (**AB2011**). AB2011 amended the Planning and Zoning Law to allow ministerial, by-right approval for projects being built alongside commercial corridors that meet affordability and labor requirements.

The City should consider utilizing local workforce policies and requirements to benefit the local area economically and to mitigate GHG emissions, improve air quality, and reduce transportation impacts.

II. THE CALIFORNIA ENVIRONMENTAL QUALITY ACT.

A. Background Concerning Environmental Impacts Reports.

The California Environmental Quality Act is a California statute designed to inform decision-makers and the public about the potential significant environmental effects of a project. CEQA Guidelines, § 15002, subd. (a)(1).[5] At its core, its purpose is to "inform the public and its responsible officials of the environmental consequences of their decisions *before* they are made." *Citizens of Goleta Valley v. Board of Supervisors* (1990) 52 Cal.3d 553, 564.

CEQA directs public agencies to avoid or reduce environmental damage, when possible, by requiring alternatives or mitigation measures. CEQA Guidelines, § 15002, subd. (a)(2)-(3); see also *Berkeley Keep Jets Over the Bay Committee v. Board of Port Comes* (2001) 91 Cal.App.4th 1344, 1354; *Citizens of Goleta Valley v. Board of Supervisors* (1990) 52 Cal.3d 553; *Laurel Heights Improvement Assn.*, 47 Cal.3d at p. 400. The EIR serves to provide public agencies and the public in general with information about the effect that a proposed project is likely to have on the environment and to "identify ways that environmental damage can be avoided or significantly reduced." CEQA Guidelines, § 15002, subd. (a)(2). If the project has a significant effect on the

[5] The CEQA Guidelines, codified in Title 14 of the California Code of Regulations, section 15000 et seq., are regulatory guidelines promulgated by the state Natural Resources Agency for the implementation of CEQA. Pub. Res. Code, § 21083. The CEQA Guidelines are given "great weight in interpreting CEQA except when . . . clearly unauthorized or erroneous." *Center for Biological Diversity v. Dept. of Fish & Wildlife* (2015) 62 Cal.4th 204, 217.

environment, the agency may approve the project only upon finding that it has "eliminated or substantially lessened all significant effects on the environment where feasible" and that any unavoidable significant effects on the environment are "acceptable due to overriding concerns" specified in Public Resources Code section 21081. See CEQA Guidelines, §§ 15092, subds. (b)(2)(A), (B).

While the courts review an EIR using an 'abuse of discretion' standard, the reviewing court is not to *uncritically* rely on every study or analysis presented by a project proponent in support of its position. *Berkeley Jets*, 91 Cal.App.4th at p. 1355 (quoting *Laurel Heights Improvement Assn.*, 47 Cal.3d at pp. 391, 409 fn. 12) (internal quotations omitted). A clearly inadequate or unsupported study is entitled to no judicial deference. *Id.* Drawing this line and determining whether the EIR complies with CEQA's information disclosure requirements presents a question of law subject to independent review by the courts. *Sierra Club v. County of Fresno* (2018) 6 Cal.5th 502, 515; *Madera Oversight Coalition, Inc. v. County of Madera* (2011) 199 Cal.App.4th 48, 102, 131. As the court stated in *Berkeley Jets*, prejudicial abuse of discretion occurs if the failure to include relevant information precludes informed decision-making and informed public participation, thereby thwarting the statutory goals of the EIR process. 91 Cal.App.4th at p. 1355 (internal quotations omitted).

The preparation and circulation of an EIR is more than a set of technical hurdles for agencies and developers to overcome. *Communities for a Better Environment v. Richmond* (2010) 184 Cal.App.4th 70, 80 (quoting *Vineyard Area Citizens for Responsible Growth, Inc. v. City of Rancho Cordova* (2007) 40 Cal.4th 412, 449-450). The EIR's function is to ensure that government officials who decide to build or approve a project do so with a full understanding of the environmental consequences and, equally important, that the public is assured those consequences have been considered. *Ibid.* For the EIR to serve these goals it must present information so that the foreseeable impacts of pursuing the project can be understood and weighed, and the public must be given an adequate opportunity to comment on that presentation before the decision to go forward is made. *Ibid.*

A strong presumption in favor of requiring preparation of an EIR is built into CEQA. This presumption is reflected in what is known as the "fair argument" standard under which an EIR must be prepared whenever substantial evidence in the record supports a fair argument that a project may have a significant effect on the environment. *Quail*

Botanical Gardens Found., Inc. v. City of Encinitas (1994) 29 Cal.App.4th 1597, 1602; *Friends of "B" St.* v. *City of Hayward* (1980) 106 Cal.3d 988, 1002.

The fair argument test stems from the statutory mandate that an EIR be prepared for any project that "may have a significant effect on the environment." Pub. Res. Code, § 21151; see *No Oil, Inc. v. City of Los Angeles* (1974) 13 Cal.App.3d 68, 75; accord *Jensen v. City of Santa Rosa* (2018) 23 Cal.App.5th 877, 884. Under this test, if a proposed project is not exempt and may cause a significant effect on the environment, the lead agency must prepare an EIR. Pub. Res. Code, §§ 21100, subd. (a), 21151; CEQA Guidelines, §§ 15064, subds. (a)(1), (f)(1). An EIR may be dispensed with only if the lead agency finds no substantial evidence in the initial study or elsewhere in the record that the project may have a significant effect on the environment. *Parker Shattuck Neighbors v. Berkeley City Council* (2013) 222 Cal.App.4th 768, 785. In such a situation, the agency must adopt a negative declaration. Pub. Res. Code, § 21080, subd. (c)(1); CEQA Guidelines, §§ 15063, subd. (b)(2), 15064, subd. (f)(3).

"Significant effect upon the environment" is defined as "a substantial or potentially substantial adverse change in the environment." Pub. Res. Code, § 21068; CEQA Guidelines, § 15382. A project may have a significant effect on the environment if there is a reasonable probability that it will result in a significant impact. *No Oil, Inc.*, 13 Cal.3d at p. 83 fn. 16; see *Sundstrom v. County of Mendocino* (1988) 202 Cal.App.3d 296, 309. If any aspect of the project may result in a significant impact on the environment, an EIR must be prepared even if the overall effect of the project is beneficial. CEQA Guidelines, § 15063, subd. (b)(1); see *County Sanitation Dist. No. 2 v. County of Kern* (2005) 127 Cal.App.4th 1544, 1580.

This standard sets a "low threshold" for preparation of an EIR. *Consolidated Irrigation Dist. v. City of Selma* (2012) 204 Cal.App.4th 187, 207; *Nelson v. County of Kern* (2010) 190 Cal.App.4th 252; *Pocket Protectors v. City of Sacramento* (2004) 124 Cal.App.4th 903, 928; *Bowman v. City of Berkeley* (2004) 122 Cal.App.4th 572, 580; *Citizen Action to Serve All Students v. Thornley* (1990) 222 Cal.App.3d 748, 754; *Sundstrom*, 202 Cal.App.3d at p. 310. If substantial evidence in the record supports a fair argument that the project may have a significant environmental effect, the lead agency must prepare an EIR even if other substantial evidence before it indicates the project will have no significant effect. See *Jensen,* 23 Cal.App.5th at p. 886; *Clews Land & Livestock v. City of San Diego* (2017) 19 Cal.App.5th 161, 183; *Stanislaus Audubon Society, Inc. v. County of Stanislaus* (1995) 33 Cal.App.4th 144, 150; *Brentwood Assn. for No Drilling, Inc. v. City of*

Los Angeles (1982) 134 Cal.App.3d 491; *Friends of "B" St.*, 106 Cal.App.3d 988; CEQA Guidelines, § 15064, subd. (f)(1).

B. Background Concerning Initial Studies, Negative Declarations, and Mitigated Negative Declarations.

CEQA and CEQA Guidelines are strict and unambiguous about when an MND may be used. A public agency must prepare an EIR whenever substantial evidence supports a "fair argument" that a proposed project "may have a significant effect on the environment." Pub. Res. Code, §§ 21100, 21151; CEQA Guidelines, §§ 15002, subds. (f)(1), (2), 15063; *No Oil, Inc.*, *supra*, 13 Cal.3d at 75; *Communities for a Better Environment v. California Resources Agency* (2002) 103 Cal.App.4th 98, 111-112. Essentially, should a lead agency be presented with a fair argument that a project may have a significant effect on the environment, the lead agency shall prepare an EIR even though it may also be presented with other substantial evidence that the project will not have a significant effect. CEQA Guidelines, §§ 15064, subds. (f)(1), (2); see *No Oil Inc., supra*, 13 Cal.3d at 75 (internal citations and quotations omitted). Substantial evidence includes "enough relevant information and reasonable inferences from this information that a fair argument can be made to support a conclusion, even though other conclusions might also be reached." CEQA Guidelines, § 15384, subd. (a).

The fair argument standard is a "low threshold" test for requiring the preparation of an EIR. *No Oil Inc.*, *supra*, 13 Cal.3d at 84; *Cnty. Sanitation Dist. No. 2 of Los Angeles Cnty. v. Cnty. of Kern* (2005) 127 Cal.App.4th 1544, 1579. It "requires the preparation of an EIR where there is substantial evidence that any aspect of the project, either individually or cumulatively, may cause a significant effect on the environment, regardless of whether the overall effect of the project is adverse or beneficial[.]" *County Sanitation*, *supra*, 127 Cal.App.4th at 1580 (quoting CEQA Guidelines, § 15063, subd. (b)(1)). A lead agency may adopt an MND only if "there is no substantial evidence that the project will have a significant effect on the environment." CEQA Guidelines, § 15074, subd. (b).

Evidence supporting a fair argument of a significant environmental impact triggers preparation of an EIR regardless of whether the record contains contrary evidence. *League for Protection of Oakland's Architectural and Historical Resources v. City of Oakland* (1997) 52 Cal.App.4th 896, 904-905. "Where the question is the sufficiency of the evidence to support a fair argument, deference to the agency's determination is not appropriate[.]" *County Sanitation, supra*, 127 Cal.App.4th at 1579 (quoting *Sierra Club v. Cnty. of Sonoma* (1992) 6 Cal.App.4th 1307, 1317-1318).

Further, it is the duty of the lead agency, not the public, to conduct the proper environmental studies. "The agency should not be allowed to hide behind its own failure to gather relevant data." *Sundstrom*, *supra*, 202 Cal.App.3d at 311. "Deficiencies in the record may actually enlarge the scope of fair argument by lending a logical plausibility to a wider range of inferences." *Ibid*; see also *Gentry v. City of Murrieta* (1995) 36 Cal.App.4th 1359, 1382 (lack of study enlarges the scope of the fair argument which may be made based on the limited facts in the record).

Thus, refusal to complete recommended studies lowers the already low threshold to establish a fair argument. The court may not exercise its independent judgment on the omitted material by determining whether the ultimate decision of the lead agency would have been affected had the law been followed. *Environmental Protection Information Center v. Cal. Dept. of Forestry* (2008) 44 Cal.4th 459, 486 (internal citations and quotations omitted). The remedy for this deficiency would be for the trial court to issue a writ of mandate. *Ibid.*

Both the review for failure to follow CEQA's procedures and the fair argument test are questions of law, thus, the de novo standard of review applies. *Vineyard Area Citizens for Responsible Growth v. City of Rancho Cordova* (2007) 40 Cal.4th 412, 435. "Whether the agency's record contains substantial evidence that would support a fair argument that the project may have a significant effect on the environment is treated as a question of law. *Consolidated Irrigation Dist.*, *supra*, 204 Cal.App.4th at 207; Kostka and Zischke, Practice Under the Environmental Quality Act (2017, 2d ed.) at § 6.76.

In the MND context, courts give no deference to the agency. The agency or the court should not weigh expert testimony or decide on the credibility of such evidence—this is the EIR's responsibility. As stated in *Pocket Protectors v. City of Sacramento*:

> Unlike the situation where an EIR has been prepared, neither the lead agency nor a court may "weigh" conflicting substantial evidence to determine whether an EIR must be prepared in the first instance. Guidelines section 15064, subdivision (f)(1) provides in pertinent part: if a lead agency is presented with a fair argument that a project may have a significant effect on the environment, the lead agency shall prepare an EIR even though it may also be presented with other substantial evidence that the project will not have a significant effect. Thus, as *Claremont* itself

> recognized, [c]onsideration is not to be given contrary evidence supporting the preparation of a negative declaration.

(2004) 124 Cal.App.4th 903, 935 (internal citations and quotations omitted).

In cases where it is not clear whether there is substantial evidence of significant environmental impacts, CEQA requires erring on the side of a "preference for resolving doubts in favor of environmental review." *Mejia v. City of Los Angeles* (2005) 130 Cal.App.4th 322, 332. The foremost principle under CEQA is that the Legislature intended the act to be interpreted in such manner as to afford the fullest possible protection to the environment within the reasonable scope of the statutory language. *Friends of Mammoth v. Bd. of Supervisors* (1972) 8 Cal.3d 247, 259.

C. Background Concerning CEQA Exemptions.

Where a lead agency chooses to dispose of CEQA by asserting a CEQA exemption, it has a duty to support its CEQA exemption findings by substantial evidence, including evidence that there are no applicable exceptions to exemptions. This duty is imposed by CEQA and related case law. CEQA Guidelines, § 15020 (lead agency shall not knowingly release a deficient document hoping that public comments will correct the defects); see *Citizens for Environmental Responsibility v. State ex rel. 14th Dist. Agriculture Assn.* (2015) 242 Cal.App.4th 555, 568 (lead agency has the burden of demonstrating that a project falls within a categorical exemption and must support the determination with substantial evidence); accord *Assn. for Protection etc. Values v. City of Ukiah* (1991) 2 Cal.App.4th 720, 732 (lead agency is required to consider exemption exceptions where there is evidence in the record that the project might have a significant impact).

The duty to support CEQA and exemption findings with substantial evidence is also required by the Code of Civil Procedure (**CCP**) and case law on administrative or traditional writs. Under the CCP, an abuse of discretion is established if the decision is unsupported by the findings, or the findings are unsupported by the evidence. CCP, § 1094.5, subd. (b). In *Topanga Assn. for a Scenic Community v. County of Los Angeles*, our Supreme Court held that implicit in CCP section 1094.5 is a requirement that the agency which renders the challenged decision must set forth findings to bridge the analytic gap between the raw evidence and ultimate decision or order. (1977) 11 Cal.3d 506, 515 (internal citations and quotations omitted). The lead agency's findings may be determined to be sufficient if a court has no trouble under the circumstances discerning the analytic route the administrative agency traveled from evidence to

action. *West Chandler Blvd. Neighborhood Assn. vs. City of Los Angeles* (2011) 198 Cal.App.4th 1506, 1521-1522 (internal citations and quotations omitted). However, "mere conclusory findings without reference to the record are inadequate." *Id.* at p. 1521 (finding city council findings conclusory, violating *Topanga Assn. for a Scenic Community, supra*).

Further, CEQA exemptions must be narrowly construed to accomplish CEQA's environmental objectives. *Cal. Farm Bureau Federation v. Cal. Wildlife Conservation Bd.* (2006) 143 Cal.App.4th 173, 187; accord *Save Our Carmel River v. Monterey Peninsula Water Management Dist.* (2006) 141 Cal.App.4th 677, 697 (these rules ensure that in all but the clearest cases of categorical exemptions, a project will be subject to some level of environmental review).

Finally, CEQA procedures reflect a preference for resolving doubts in favor of environmental review. See Pub. Res. Code, § 21080, subd. (c) (an EIR may be disposed of only if there is no substantial evidence, in light of the entire record before the lead agency, that the project may have a significant effect on the environment or revisions in the project); CEQA Guidelines, §§ 15061, subd. (b)(3) (common sense exemption only where it can be seen *with certainty*); 15063, subd. (b)(1) (prepare an EIR if the agency determines that there is substantial evidence that any aspect of the project, either individually or cumulatively, may cause a significant effect on the environment, regardless of whether the overall effect of the project is adverse or beneficial]; 15064, subd. (h) (the agency must consider cumulative impacts of past, current, and probable future projects); 15070 (a negative declaration may be prepared only if there is no substantial evidence, in light of the whole record, that the project may have a significant effect on the environment, or project revisions would avoid the effects or mitigate the effects to a point where clearly no significant effects would occur, and there is no substantial evidence, in light of the whole record, that the project as revised may have a significant effect on the environment); *No Oil, Inc., supra,* 13 Cal.3d at 83-84 (significant impacts are to be interpreted so as to afford the fullest possible protection).

III. THE PROJECT WOULD BE APPROVED IN VIOLATION OF CEQA.

The Project involves the construction of 346 apartment units and 5,400 square feet of commercial space on 9.4 acres of land. Considering the size and scope of the Project, the City must prepare and circulate a thorough, Project-specific EIR. According to

section 15088.5(a) of the CEQA Guidelines, an EIR must be recirculated whenever there is disclosure of significant new information. Significant new information includes: (1) disclosure of a new significant environmental impact resulting from the project or from a new proposed mitigation measure; (2) disclosure of a substantial increase in the severity of an environmental impact unless mitigation measures are adopted that reduce the impact to a level of insignificance; and, (3) disclosure of a feasible project alternative or mitigation measure considerably different from others previously analyzed which would clearly lessen the significant environmental impacts of the project which the project proponents decline to adopt.

The Project requires new feasible mitigation measures not specified in the original environmental analysis for the City's General Plan or the applicable Specific Plan. Those analyses occurred, at the latest, in 2004—nearly 20 years ago. Specifically, the Project is slated to develop a new mixed-use development, yet the original environmental analyses governing this Site and its use provide no specification nor mitigation measures identifying, for example, how many or which of the Project's parking spaces must be capable of supporting electric vehicle charging stations (**EVCS**) and ready to be compliant with the 2022 California Green Building Standards Code, Title 24, Part 11 (**CGBSC**), also known as CALGreen. In fact, there is no mention of electric vehicle (**EV**) accommodations anywhere in the original environmental analyses. Further, the TOP EIR and the Addendum fail to adequately address environmental impacts or provide adequate mitigation measures relating to the several sensitive receptors close to the Project Site. Although the Addendum claims that the TOP EIR previously analyzed impacts to sensitive receptors, the City now seems to merely assume that the Project has been or will be "conditioned" to be sensitive to the sensitive land uses nearby including the Ontario KinderCare preschool nestled within the MU-NH area; Woodcrest Junior High School less than one mile from the Project Site; and residences to the west, south, southeast, and north of the Project Site. The Addendum acknowledges sensitive receptors exist to the west and north of the Site, yet concludes that "the size of the Site and anticipated amount of new development is not expected to result in significant short- or long-term air quality impacts to nearby sensitive receptors." Addendum, p. 30. The Addendum concludes that with the implementation of certain TOP EIR mitigation measures, including MM AQ 3-1 through 3-3, "no project specific mitigation is required" here. *Ibid.*

While Air Quality Mitigation Measure 3-3 from the original 2010 EIR has been wholly deleted from the TOP EIR, the 2010 Mitigation measures 3-1 and 3-2, and "New" Mitigation Measure AQ 1 simply state that:

> 3-1
>
> Prior to discretionary approval by the City of Ontario for development projects subject to CEQA (California Environmental Quality Act) review (i.e., nonexempt projects), project applicants shall prepare and submit a technical assessment evaluating potential project construction-related air quality impacts to the City of Ontario Planning Department for review and approval. The evaluation shall be prepared in conformance with South Coast Air Quality Management District (South Coast AQMD) methodology for assessing air quality impacts. If construction-related criteria air pollutants are determined to have the potential to exceed the South Coast AQMD–adopted thresholds of significance, City of Ontario Building Department shall require that all new construction projects incorporate feasible mitigation measures to reduce air quality emissions.
>
> . . .
>
> These identified measures shall be incorporated into all appropriate construction documents (e.g., construction management plans) submitted to the City and shall be verified by the City's Planning Department.
>
> 3-2
>
> The City of Ontario shall evaluate new development proposals within the City and require all developments to include access or linkages to alternative modes of transportation, such as transit stops, bike paths, and/or pedestrian paths (e.g. sidewalks).
>
> . . .
>
> New Mitigation Measure AQ-1
>
> Prior to discretionary approval by the City of Ontario for development projects subject to CEQA (California Environmental Quality Act) review (i.e., nonexempt projects), project applicants shall prepare and submit a technical assessment evaluating potential project operation-phase-related air quality impacts to the City of Ontario Planning Department for review

> and approval. The evaluation shall be prepared in conformance with South Coast Air Quality Management District (South Coast AQMD) methodology in assessing air quality impacts. If operation-related air pollutants are determined to have the potential to exceed the South Coast AQMD–adopted thresholds of significance, the City of Ontario Planning Department shall require that applicants for new development projects incorporate mitigation measures to reduce air pollutant emissions during operational activities. The identified measures shall be included as part of the conditions of approval.

TOP EIR, pp. 5.3-52-5.3-53.

Nothing in these mitigation measures, largely developed in 2010, adequately or directly target the potential significant environmental impacts of the Project at hand—thereby necessitating that a Project-specific EIR be produced.

According to the CEQA Guidelines:

> (a) When an EIR has been certified or a negative declaration adopted for a project, no subsequent EIR shall be prepared for that project **unless the lead agency determines**, on the basis of substantial evidence in the light of the whole record, one or more of the following:
>
> (1) Substantial changes are proposed in the project which will require major revisions of the previous EIR or negative declaration due to the involvement of **new significant environmental effects or a substantial increase in the severity of previously identified significant effects**;
>
> (2) **Substantial changes occur with respect to the circumstances under which the project is undertaken** which will require major revisions of the previous EIR or negative declaration due to the **involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects**; or
>
> (3) New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete or the negative declaration was adopted, shows any of the following:

(A) The project will have one or more significant effects not discussed in the previous EIR or negative declaration;

(B) Significant effects previously examined will be substantially more severe than shown in the previous EIR;

(C) Mitigation measures or alternatives previously found not to be feasible would in fact be feasible and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or

(D) Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.

(b) If changes to a project or its circumstances occur or new information becomes available after adoption of a negative declaration, the lead agency shall prepare a subsequent EIR if required under subdivision (a). Otherwise the lead agency shall determine whether to prepare a subsequent negative declaration, an addendum, or no further documentation.

(c) Once a project has been approved, the lead agency's role in project approval is completed, unless further discretionary approval on that project is required. Information appearing after an approval does not require reopening of that approval. If after the project is approved, any of the conditions described in subdivision (a) occurs, a subsequent EIR or negative declaration shall only be prepared by the public agency which grants the next discretionary approval for the project, if any. In this situation no other responsible agency shall grant an approval for the project until the subsequent EIR has been certified or subsequent negative declaration adopted.

(d) A subsequent EIR or subsequent negative declaration shall be given the same notice and public review as required under Section15087 or

> Section 15072. A subsequent EIR or negative declaration shall state where the previous document is available and can be reviewed.

CEQA Guidelines, § 15162 (emphs. added).

Here, the Project's Phase 1 involves the "demolition of a combined 100,950 square feet of commercial/retail buildings (not including the Carl's Jr.)[.]" Addendum, pp. 3, 5. The Project's Phase 2 involves the demolition of the Carl's Jr. restaurant building. *Ibid.* According to one resource, the commercial building at 2530 South Euclid Avenue (i.e., the former Kmart building) which is to be demolished was built over 50 years ago[6]—before the Department of Toxic Substances Control began, before Hazardous Waste Control Act of 1972 became law, and, perhaps most importantly, before the use of asbestos and lead in paint were banned in the state. Nothing in the TOP EIR adequately and thoroughly addressed demolition of structures of this scale and type and the potential impacts therefrom on nearby sensitive receptors.

Without revisions to the original environmental analyses, allowing the Project to commence without adequate and thorough CEQA review would result in significant and unavoidable impacts on the local community and environment as well as on global climate change due to cumulative GHG emissions from vehicle exhaust, among other sources. Further, the Project would be out of compliance with CALGreen and could incur for Applicant and the City unnecessary turbulence in the pursuit and completion of the Project.

CALGreen, which became effective January 1, 2023, requires new buildings to designate 20 percent of the total number of parking spaces as EV-capable. See CALGreen, § 5.106.5.31 (Nonresidential Mandatory Measures). Therefore, if the Project develops 299 additional parking spaces, 60 of those spaces must have electrical panel space and load capacity to support EV charging. Additionally, this must all be laid out with sufficient detail for the City and the public to thoroughly review, assess, and provide comments thereon.

Further, CALGreen requires new buildings to designate 25 percent of the total number of EV-capable parking spaces as EV spaces with Level 2 EV supply equipment (**EVSE**). *Id.* Hence, if the Project develops 299 additional parking spaces,

[6] See https://www.commercialcafe.com/commercial-property/us/ca/ontario/2502-2530-2556-south-euclid-avenue/.

75 of those spaces must be equipped with a 208/240 volt 40-ampere branch circuit with the electric vehicle charging connectors, attachment plugs, and all other fittings, devices, and power outlets installed. *Id.* CALGreen also requires, among other things, that new construction of large, non-residential buildings of 50,000 square feet or larger be hold LEED Silver certification or have Alternate Reference Standard[7] per Section 101.10.2.

This analysis is entirely absent from the prior environmental analyses or of any environmental analysis of the proposed Project, and as such they must be revised and recirculated to specify the additional EV mitigation requirements addressed above, or otherwise the DAB should recommend that the Planning Commission deny the Addendum and Development Review application, and recommend that the Planning Commission order the preparation and circulation of a Project-specific EIR.

IV. CEQA REQUIRES THE CITY TO PREPARE A TIERED EIR FOR THE PROJECT INSTEAD OF AN ADDENDUM.

CEQA permits agencies to 'tier' EIRs, in which general matters and environmental effects are considered in an EIR "prepared for a policy, plan, program or ordinance followed by narrower or site-specific [EIRs] which incorporate by reference the discussion in any prior [EIR] and which concentrate on the environmental effects which (a) are capable of being mitigated, or (b) were not analyzed as significant effects on the environment in the prior [EIR]." Pub. Res. Code, § 21068.5. The initial general policy-oriented EIR is called a programmatic EIR (**PEIR**) and offers the advantage of allowing "the lead agency to consider broad policy alternatives and program wide mitigation measures at an early time when the agency has greater flexibility to deal with basic problems or cumulative impacts." CCR, § 15168. "[T]iering is appropriate when it helps a public agency to focus upon the issues ripe for decision at each level of environmental review and in order to exclude duplicative analysis of environmental

[7] According to Section 101.10.2 of the CGBSC, Developer may request to apply an alternate green building standard for the Project in lieu of the minimum standards per Table 101.10. In making a determination in response to an application under this section, the Building Official may allow an alternate standard if they find that the proposed alternative standard complies with all of the following: (A) Addresses a comprehensive scope of green building issues including energy efficiency, water efficiency, resource efficient materials, and healthy building practices; (B) applies standards that are, when taken as a whole, as stringent as the GPR and LEED standards; (C) includes a formalized certification process that incorporates third party verification; and, (D) the project will advance the purposes of this Chapter. See Ord. 22-2245, part, 2022; Ord. 19-2193, § 2 (part), 2019.

effects examined in previous [EIRs]." Pub. Res. Code, § 21093. CEQA regulations strongly promote tiering of EIRs, stating that "[EIRs] shall be tiered whenever feasible, as determined by the lead agency." *Ibid.*

Once a program EIR has been prepared, "[s]ubsequent activities in the program must be examined in light of the program EIR to determine whether an additional environmental document must be prepared." CCR, § 15168, subd. (c). The first consideration is whether the activity proposed is covered by the PEIR. *Id.* If a later project is outside the scope of the program, then it is treated as a separate project and the PEIR may not be relied upon in further review. *Sierra Club v. County of Sonoma* (1992) 6 Cal.App.4th 1307. The second consideration is whether the "later activity would have effects that were not examined in the program EIR." CCR, §§ 15168, subd. (c)(1). A PEIR may only serve "to the extent that it contemplates and adequately analyzes the potential environmental impacts of the project." (*Sierra Nevada Conservation v. Cnty. of El Dorado* (2012) 202 Cal.App.4th 1156. If the PEIR does not evaluate the environmental impacts of the project, a tiered EIR must be completed before the project is approved. *Id.* For these inquiries, the "fair argument test" applies. *Sierra Club, supra*, 6 Cal.App.4th at 1318; *see also Sierra Club v. Cnty. of San Diego* (2014) 231 Cal.App.4th 1152, 1164 (when a prior EIR has been prepared and certified for a program or plan, the question for a court reviewing an agency's decision not to use a tiered EIR for a later project 'is one of law, i.e., the sufficiency of the evidence to support a fair argument).

Under the fair argument test, a new EIR must be prepared "whenever it can be fairly argued on the basis of substantial evidence that the project may have significant environmental impact. *Id.* at 1316 (quotations omitted). When applying the fair argument test, "deference to the agency's determination is not appropriate and its decision not to require an EIR can be upheld only when there is no credible evidence to the contrary." *Sierra Club, supra*, 6 Cal. App. 4th at 1312. "[I]f there is substantial evidence in the record that the later project may arguably have a significant adverse effect on the environment which was not examined in the prior program EIR, doubts must be resolved in favor of environmental review and the agency must prepare a new tiered EIR, notwithstanding the existence of contrary evidence." *Id.* at 1319.

In *Friends of College of San Mateo Gardens, supra*, the California Supreme Court explained the differing analyses that apply when a project EIR was originally approved and

changes are being made to the project, and when a tiered program EIR was originally prepared and a subsequent project is proposed consistent with the program or plan:

> For project EIRs, of course, a subsequent or supplemental impact report is required in the event there are substantial changes to the project or its circumstances, or in the event of material new and previously unavailable information. (*Friends of Mammoth*, citing § 21166.) In contrast, when a tiered EIR has been prepared, review of a subsequent project proposal is more searching. If the subsequent project is consistent with the program or plan for which the EIR was certified, then 'CEQA requires a lead agency to prepare an initial study to determine if the later project may cause significant environmental effects not examined in the first tier EIR.' (*Ibid.* citing Pub. Resources Code, § 21094, subds. (a), (c).) 'If the subsequent project is not consistent with the program or plan, it is treated as a new project and must be fully analyzed in a project—or another tiered EIR if it may have a significant effect on the environment.'

(2016) 1 Cal.5th 937, 960.

Here, the City prepared the TOP SEIR and certified it in August 2022. As a result, CEQA requires the City to prepare, at minimum, an initial study to determine if the Project *may* cause significant environmental effects not examined in the SEIR—which the City had prepared but did not produce in its three PRA productions to this Office over the last year. Pub. Res. Code, § 21094. There exists here substantial evidence supporting a fair argument that the Project may result in significant environmental impacts that were not previously analyzed in the SEIR. Accordingly, a subsequent EIR must be prepared.

If a project *may* have a significant effect on *any* of the specified environmental factors, CEQA review must occur. *Salmon Protection & Watershed Network v. Cnty. of Marin* (2004) 125 Cal.App.4th 1098, 1107. CEQA places the duty to investigate the Project's impacts on the City. CEQA Guidelines, § 15144 (an agency must use its best efforts to find out and disclose such impacts); *Sundstrom v. Cnty. of Mendocino* (1988) 202 Cal.App.3d 296, 311 (agency should not be allowed to hide behind its own failure to gather relevant data). "An agency's duty to provide such factual support 'is all the more important where . . . opponents of the project have raised arguments" about impacts. *Muzzy Ranch Co. v. Solano Cnty. Airport Land Use Commission* (2007) 41 Cal.4th 372, 386. In reviewing an agency's determination to prepare an Addendum, courts

should assess whether the agency made a "*definitive finding"* and whether it met its initial burden to support its finding by substantial evidence. *Banker's Hill, Hillcrest, Park W. Cmty. Pres. Grp. v. City of San Diego* (2006) 139 Cal.App.4th 249, 268 (lead agency must make a *definitive finding*, at the preliminary review stage, as to whether or not there will be a significant environmental effect).

According to the CEQA Guidelines:

> Each public agency should include provisions in its CEQA procedures for wide public involvement, formal and informal, consistent with its existing activities and procedures, in order to receive and evaluate public reactions to environmental issues related to the agency's activities.

CEQA Guidelines, § 15201.

As far as the public is concerned, the City's environmental review and technical studies related to the Project's environmental impacts have not occurred. Given that the Project involves a demolition and construction of a five-story-high building in an area surrounded by other developments and sensitive receptors, a thorough and Project-specific EIR is necessary. The City's failure to provide for public review and commentary the environmental analyses and studies upon which it rests its CEQA determination constitutes a prejudicial abuse of discretion. See *Bakersfield Citizens for Local Control v. City of Bakersfield* (2004) 124 Cal.App.4th 1184 (hereinafter, "*Bakersfield Citizens*"). "Failure to comply with the information disclosure requirements constitutes a prejudicial abuse of discretion when the omission of relevant information has precluded . . . informed public participation[.]" *Dry Creek Citizens Coalition v. Cnty. Of Tulare* (1999) 70 Cal.App.4th 20, 26; accord *Assoc. of Irritated Residents v. Cnty. of Madera* (2003) 107 Cal.App.4th 1383, 1391. Further, "the ultimate decision of whether to approve a project, be that decision right or wrong, is a nullity if based upon an [environmental determination] that does not provide the . . . public with the information about the project that is required by CEQA." *Santiago Cnty. Water Dist. v. Cnty. of Orange* (1981) 118 Cal.App.3d 818, 829. Consequently, the Project approvals and associated land use entitlements also must be voided and an EIR prepared and circulated. See *Bakersfield Citizens*, *supra*, 124 Cal.App.4th at 1221 (citing *Friends of the Eel River v. Sonoma Cnty. Water Agency* (2003) 108 Cal.App.4th 859, 868).

"When the informational requirements of CEQA are not complied with, an agency has failed to proceed in 'a manner required by law.'" *Save Our Peninsula Committee v.*

Monterey Cnty. Bd. of Supervisors (2001) 87 Cal.App.4th 99, 118. As a result of the City's omissions, "meaningful assessment of the true scope of numerous potentially serious adverse environmental effects was thwarted." *Bakersfield Citizens*, *supra*, 124 Cal.App.4th at 1220-1221. As such, a Project-specific EIR must be produced and circulated.

V. THE CITY CANNOT ISSUE AN ADDENDUM FOR THE PROJECT AS THE PROJECT WAS NOT ADDRESSED IN THE TOP EIR.

The City is mistaken in concluding that the Project may be analyzed under CEQA Guidelines, sections 15164 and 15162 given that these sections are applicable only where a project has *recently* undergone CEQA review. As the California Supreme Court explained in *San Mateo Gardens*, subsequent CEQA review provisions "can apply only if the project has been subject to initial review; they can have no application if the agency has proposed a new project that has not previously been subject to review." *Friends of Coll. of San Mateo Gardens v. San Mateo County Cmty. Coll. Dist.* (2016) 1 Cal.5th 937, 950 (hereinafter, "*San Mateo Gardens*"). Lead agencies may prepare addendums for project modifications or revisions and avoid further environmental review *only if* the project has a previously certified EIR or negative declaration. *See Save our Heritage v. City of San Diego* (2018) 28 Cal.App.5th 656, 667.

If the proposed Project here had been addressed in the SEIR, the standard for determining whether further review is required would be governed by California Code of Regulations, section 15162 and Public Resources Code, section 21166, and an addendum could potentially be allowed under California Code of Regulations, section 15164. These sections are inapplicable here, however, given that the proposed Project has <u>never</u> undergone CEQA review. An EIR has not been prepared, and the Project, as proposed, was never mentioned or discussed in the SEIR.

In a similar case in 2010, the City of Irvine adopted a plan to guide development of the Irvine Business Complex (**IBC**), which covered almost 3,000 acres in the City of Irvine. *IBC Business Owners for Sensible Development v. City of Irvine* (2023) 88 Cal.App.5th 100. The City of Irvine also prepared and approved a PEIR in 2010 that studied the effects of the development plan under CEQA. *Ibid.* Several years later, the applicant and appellant Gemdale 2400 Barranca Holdings, LLC, submitted a plan to redevelop a roughly five-acre parcel in the IBC. *Ibid.* The City of Irvine determined that all the environmental effects of the proposed project were adequately analyzed in the 2010 PEIR, and it found the project would have no additional significant environmental

effects. *Ibid.* The City of Irvine approved the project over the objections of plaintiff and petitioner IBC Business Owners for Sensible Development. *Ibid.* Petitioner then filed a petition for writ of mandate. *Ibid.*

The trial court granted the writ and entered judgment in favor of Petitioner. *Ibid.* The City of Irvine and Gemdale appealed, contending that the City correctly approved the project. *Ibid.* The Fourth District Court of Appeal disagreed with the arguments made on appeal there existed insufficient evidence showing the project's GHG emissions were within the scope of the 2010 PEIR, and that no exemption applied because the project involved unusual circumstances which could cause significant environmental effects. *Ibid.* As such, the Court affirmed the judgment. *Ibid.*

Here, the environmental impacts of the Project are outside of the scope of those studied in the SEIR. Consequently, the City cannot rely on the subsequent review provisions of CEQA Guidelines, sections 15162 or 15164 and an independent, CEQA-compliance environmental analysis must be conducted and circulated in the form of an EIR.

VI. THE CITY MUST PREPARE AN EIR GIVEN THAT THE SEIR ADMITS SIGNIFICANT ENVIRONMENTAL IMPACTS.

An EIR must be prepared for the Project given that the SEIR determined that the TOP would cause significant and unavoidable impacts on aesthetics, air quality, biological resources, cultural resources, geology and soils, hazardous materials, hydrology and water quality, noise, public services, transportation and traffic, and utilities and service systems.

In the case of *Communities for a Better Environment v. Cal. Resources Agency*, the Third District Court of Appeal held that when a "first tier" EIR admits a significant, unavoidable environmental impact, then the agency must prepare second tier EIRs for later projects to ensure that those unmitigated impacts are "mitigated or avoided." (2002) 103 Cal.App.4th 98, 122-125 (citing CEQA Guidelines, §15152, subd. (f). There, the court reasoned that the unmitigated impacts were not "adequately addressed" in the first tier EIR given that they were not "mitigated or avoided." *Communities for a Better Environment v. Cal. Resources Agency* (2002) 103 Cal.App.4th 98, 122-125. Therefore, significant effects disclosed in first tier EIRs will trigger second tier EIRs unless such effects have been "adequately addressed," in a way that ensures the effects will be "mitigated or avoided." *Ibid.* Such a second tier

EIR is required, even if the impact still cannot be fully mitigated and a statement of overriding considerations will be required. The court explained, "The requirement of a statement of overriding considerations is central to CEQA's role as a public accountability statute; it requires public officials, in approving environmental detrimental projects, to justify their decisions based on counterbalancing social, economic or other benefits, and to point to substantial evidence in support." *Id.* at 124-125.

Here, given that the SEIR admitted numerous significant, unmitigated impacts, a second tier EIR is now required to determine whether mitigation measures must now be imposed to reduce or eliminate those impacts. Should the impacts remain significant and unavoidable, a statement of overriding considerations would be required.

VII. THE APPLICATION MATERIALS MUST INCLUDE AN ADEQUATE DESCRIPTION OF THE PROJECT.

A project description must be stable and finite in order to afford a lead agency and the public an adequate opportunity to assess and comment on the project and its impacts. "[A]n accurate, stable and finite project description is the sine qua non of an informative and legally sufficient" environmental document. *County of Inyo v. City of Los Angeles* (1977) 71 Cal.App.3d 185, 200. "A curtailed or distorted project description may stultify the objectives of the reporting process" as an accurate, stable, and finite project description is necessary to allow "affected outsiders and public decision-makers balance the proposal's benefit against its environmental cost, consider mitigation measures, assess the advantage of terminating the proposal (i.e., the "no project" alternative) and weigh other alternatives in the balance. *Id.* at 192-93.

CEQA Guidelines, section 15124 requires that a description describe the project in enough detail to allow for evaluation of its potential environmental impacts: (a) the project's precise location and boundaries; (b) a clearly written statement of objectives sought by the proposed project; (c) a description of the project's technical, economic, and environmental characteristics; and, (d) a statement describing a list of agencies, permits, and approval which the project expects to use.

Here, SWMSRCC respectfully requests that the Project application includes an adequate and compliant Project description with the details listed above, including objectives sought, the Project's economic characteristics, and more. The City should

demand that Applicant resubmit its application materials with CEQA-compliant parameters.

VIII. CONCLUSION.

A detailed and thorough review of the Project's impacts must be studied, supported by substantial evidence, and mitigated against where necessary. Without this in-depth analysis and a higher standard for the quantity and quality of evidence supporting it, it is impossible to determine, with a high degree of certainty, the magnitude and extent of the Project's environmental impacts.

In light of the aforementioned, SWMSRCC respectfully requests that the City: (1) require the Project utilize a local trained and skilled workforce; (2) prepare and circulate a thorough, project-specific EIR which focuses heavily on the Project's impacts that were not previously or adequately addressed in the SEIR; and, (3) order Applicant to revise the Project to ensure its consistency with all applicable laws and regulations especially those addressing human and environmental health. Should the City have any questions or concerns, it should feel free to contact my office.

Sincerely,

Reza Bonachea Mohamadzadeh
Attorneys for Southwest Mountain
States Regional Council of Carpenters

Attached:

March 8, 2021, SWAPE Letter to Mitchell M. Tsai re Local Hire Requirements and Considerations for Greenhouse Gas Modeling (Exhibit A);

Air Quality and GHG Expert Paul Rosenfeld CV (Exhibit B); and,

Air Quality and GHG Expert Matt Hagemann CV (Exhibit C).

EXHIBIT A

SWAPE Technical Consultation, Data Analysis and Litigation Support for the Environment

2656 29th Street, Suite 201
Santa Monica, CA 90405

Matt Hagemann, P.G, C.Hg.
(949) 887-9013
mhagemann@swape.com

Paul E. Rosenfeld, PhD
(310) 795-2335
prosenfeld@swape.com

March 8, 2021

Mitchell M. Tsai
155 South El Molino, Suite 104
Pasadena, CA 91101

Subject: Local Hire Requirements and Considerations for Greenhouse Gas Modeling

Dear Mr. Tsai,

Soil Water Air Protection Enterprise ("SWAPE") is pleased to provide the following draft technical report explaining the significance of worker trips required for construction of land use development projects with respect to the estimation of greenhouse gas ("GHG") emissions. The report will also discuss the potential for local hire requirements to reduce the length of worker trips, and consequently, reduced or mitigate the potential GHG impacts.

Worker Trips and Greenhouse Gas Calculations

The California Emissions Estimator Model ("CalEEMod") is a "statewide land use emissions computer model designed to provide a uniform platform for government agencies, land use planners, and environmental professionals to quantify potential criteria pollutant and greenhouse gas (GHG) emissions associated with both construction and operations from a variety of land use projects."[1] CalEEMod quantifies construction-related emissions associated with land use projects resulting from off-road construction equipment; on-road mobile equipment associated with workers, vendors, and hauling; fugitive dust associated with grading, demolition, truck loading, and on-road vehicles traveling along paved and unpaved roads; and architectural coating activities; and paving.[2]

The number, length, and vehicle class of worker trips are utilized by CalEEMod to calculate emissions associated with the on-road vehicle trips required to transport workers to and from the Project site during construction.[3]

[1] "California Emissions Estimator Model." CAPCOA, 2017, *available at:* http://www.aqmd.gov/caleemod/home.
[2] "California Emissions Estimator Model." CAPCOA, 2017, *available at:* http://www.aqmd.gov/caleemod/home.
[3] "CalEEMod User's Guide." CAPCOA, November 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/01_user-39-s-guide2016-3-2_15november2017.pdf?sfvrsn=4, p. 34.

Specifically, the number and length of vehicle trips is utilized to estimate the vehicle miles travelled ("VMT") associated with construction. Then, utilizing vehicle-class specific EMFAC 2014 emission factors, CalEEMod calculates the vehicle exhaust, evaporative, and dust emissions resulting from construction-related VMT, including personal vehicles for worker commuting.[4]

Specifically, in order to calculate VMT, CalEEMod multiplies the average daily trip rate by the average overall trip length (see excerpt below):

> "$VMT_d = \Sigma(\text{Average Daily Trip Rate}_i * \text{Average Overall Trip Length}_i)_n$
>
> Where:
>
> n = Number of land uses being modeled."[5]

Furthermore, to calculate the on-road emissions associated with worker trips, CalEEMod utilizes the following equation (see excerpt below):

> "$\text{Emissions}_{pollutant} = VMT * EF_{running,pollutant}$
>
> Where:
>
> $\text{Emissions}_{pollutant}$ = emissions from vehicle running for each pollutant
>
> VMT = vehicle miles traveled
>
> $EF_{running,pollutant}$ = emission factor for running emissions."[6]

Thus, there is a direct relationship between trip length and VMT, as well as a direct relationship between VMT and vehicle running emissions. In other words, when the trip length is increased, the VMT and vehicle running emissions increase as a result. Thus, vehicle running emissions can be reduced by decreasing the average overall trip length, by way of a local hire requirement or otherwise.

Default Worker Trip Parameters and Potential Local Hire Requirements

As previously discussed, the number, length, and vehicle class of worker trips are utilized by CalEEMod to calculate emissions associated with the on-road vehicle trips required to transport workers to and from the Project site during construction.[7] In order to understand how local hire requirements and associated worker trip length reductions impact GHG emissions calculations, it is important to consider the CalEEMod default worker trip parameters. CalEEMod provides recommended default values based on site-specific information, such as land use type, meteorological data, total lot acreage, project type and typical equipment associated with project type. If more specific project information is known, the user can change the default values and input project-specific values, but the California Environmental Quality Act ("CEQA") requires that such changes be justified by substantial evidence.[8] The default number of construction-related worker trips is calculated by multiplying the

[4] "Appendix A Calculation Details for CalEEMod." CAPCOA, October 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/02_appendix-a2016-3-2.pdf?sfvrsn=6, p. 14-15.
[5] "Appendix A Calculation Details for CalEEMod." CAPCOA, October 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/02_appendix-a2016-3-2.pdf?sfvrsn=6, p. 23.
[6] "Appendix A Calculation Details for CalEEMod." CAPCOA, October 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/02_appendix-a2016-3-2.pdf?sfvrsn=6, p. 15.
[7] "CalEEMod User's Guide." CAPCOA, November 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/01_user-39-s-guide2016-3-2_15november2017.pdf?sfvrsn=4, p. 34.
[8] CalEEMod User Guide, *available at:* http://www.caleemod.com/, p. 1, 9.

number of pieces of equipment for all phases by 1.25, with the exception of worker trips required for the building construction and architectural coating phases.[9] Furthermore, the worker trip vehicle class is a 50/25/25 percent mix of light duty autos, light duty truck class 1 and light duty truck class 2, respectively."[10] Finally, the default worker trip length is consistent with the length of the operational home-to-work vehicle trips.[11] The operational home-to-work vehicle trip lengths are:

> "[B]ased on the *location* and *urbanization* selected on the project characteristic screen. These values were *supplied by the air districts or use a default average for the state*. Each district (or county) also assigns trip lengths for urban and rural settings" (emphasis added). [12]

Thus, the default worker trip length is based on the location and urbanization level selected by the User when modeling emissions. The below table shows the CalEEMod default rural and urban worker trip lengths by air basin (see excerpt below and Attachment A).[13]

Worker Trip Length by Air Basin		
Air Basin	**Rural (miles)**	**Urban (miles)**
Great Basin Valleys	16.8	10.8
Lake County	16.8	10.8
Lake Tahoe	16.8	10.8
Mojave Desert	16.8	10.8
Mountain Counties	16.8	10.8
North Central Coast	17.1	12.3
North Coast	16.8	10.8
Northeast Plateau	16.8	10.8
Sacramento Valley	16.8	10.8
Salton Sea	14.6	11
San Diego	16.8	10.8
San Francisco Bay Area	10.8	10.8
San Joaquin Valley	16.8	10.8
South Central Coast	16.8	10.8
South Coast	19.8	14.7
Average	**16.47**	**11.17**
Minimum	**10.80**	**10.80**
Maximum	**19.80**	**14.70**
Range	**9.00**	**3.90**

[9] "CalEEMod User's Guide." CAPCOA, November 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/01_user-39-s-guide2016-3-2_15november2017.pdf?sfvrsn=4, p. 34.
[10] "Appendix A Calculation Details for CalEEMod." CAPCOA, October 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/02_appendix-a2016-3-2.pdf?sfvrsn=6, p. 15.
[11] "Appendix A Calculation Details for CalEEMod." CAPCOA, October 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/02_appendix-a2016-3-2.pdf?sfvrsn=6, p. 14.
[12] "Appendix A Calculation Details for CalEEMod." CAPCOA, October 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/02_appendix-a2016-3-2.pdf?sfvrsn=6, p. 21.
[13] "Appendix D Default Data Tables." CAPCOA, October 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/05_appendix-d2016-3-2.pdf?sfvrsn=4, p. D-84 – D-86.

As demonstrated above, default rural worker trip lengths for air basins in California vary from 10.8- to 19.8-miles, with an average of 16.47 miles. Furthermore, default urban worker trip lengths vary from 10.8- to 14.7-miles, with an average of 11.17 miles. Thus, while default worker trip lengths vary by location, default urban worker trip lengths tend to be shorter in length. Based on these trends evident in the CalEEMod default worker trip lengths, we can reasonably assume that the efficacy of a local hire requirement is especially dependent upon the urbanization of the project site, as well as the project location.

Practical Application of a Local Hire Requirement and Associated Impact

To provide an example of the potential impact of a local hire provision on construction-related GHG emissions, we estimated the significance of a local hire provision for the Village South Specific Plan ("Project") located in the City of Claremont ("City"). The Project proposed to construct 1,000 residential units, 100,000-SF of retail space, 45,000-SF of office space, as well as a 50-room hotel, on the 24-acre site. The Project location is classified as Urban and lies within the Los Angeles-South Coast County. As a result, the Project has a default worker trip length of 14.7 miles.[14] In an effort to evaluate the potential for a local hire provision to reduce the Project's construction-related GHG emissions, we prepared an updated model, reducing all worker trip lengths to 10 miles (see Attachment B). Our analysis estimates that if a local hire provision with a 10-mile radius were to be implemented, the GHG emissions associated with Project construction would decrease by approximately 17% (see table below and Attachment C).

Local Hire Provision Net Change	
Without Local Hire Provision	
Total Construction GHG Emissions (MT CO_2e)	3,623
Amortized Construction GHG Emissions (MT CO_2e/year)	120.77
With Local Hire Provision	
Total Construction GHG Emissions (MT CO2e)	3,024
Amortized Construction GHG Emissions (MT CO_2e/year)	100.80
% Decrease in Construction-related GHG Emissions	***17%***

As demonstrated above, by implementing a local hire provision requiring 10 mile worker trip lengths, the Project could reduce potential GHG emissions associated with construction worker trips. More broadly, any local hire requirement that results in a decreased worker trip length from the default value has the potential to result in a reduction of construction-related GHG emissions, though the significance of the reduction would vary based on the location and urbanization level of the project site.

This serves as an example of the potential impacts of local hire requirements on estimated project-level GHG emissions, though it does not indicate that local hire requirements would result in reduced construction-related GHG emission for all projects. As previously described, the significance of a local hire requirement depends on the worker trip length enforced and the default worker trip length for the project's urbanization level and location.

[14] "Appendix D Default Data Tables." CAPCOA, October 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/05_appendix-d2016-3-2.pdf?sfvrsn=4, p. D-85.

Disclaimer

SWAPE has received limited discovery. Additional information may become available in the future; thus, we retain the right to revise or amend this report when additional information becomes available. Our professional services have been performed using that degree of care and skill ordinarily exercised, under similar circumstances, by reputable environmental consultants practicing in this or similar localities at the time of service. No other warranty, expressed or implied, is made as to the scope of work, work methodologies and protocols, site conditions, analytical testing results, and findings presented. This report reflects efforts which were limited to information that was reasonably accessible at the time of the work, and may contain informational gaps, inconsistencies, or otherwise be incomplete due to the unavailability or uncertainty of information obtained or provided by third parties.

Sincerely,



Matt Hagemann, P.G., C.Hg.



Paul E. Rosenfeld, Ph.D.

Location Type	Location Name	Rural H-W (miles)	Urban H-W (miles)
Air Basin	Great Basin	16.8	10.8
Air Basin	Lake County	16.8	10.8
Air Basin	Lake Tahoe	16.8	10.8
Air Basin	Mojave Desert	16.8	10.8
Air Basin	Mountain	16.8	10.8
Air Basin	North Central	17.1	12.3
Air Basin	North Coast	16.8	10.8
Air Basin	Northeast	16.8	10.8
Air Basin	Sacramento	16.8	10.8
Air Basin	Salton Sea	14.6	11
Air Basin	San Diego	16.8	10.8
Air Basin	San Francisco	10.8	10.8
Air Basin	San Joaquin	16.8	10.8
Air Basin	South Central	16.8	10.8
Air Basin	South Coast	19.8	14.7
Air District	Amador County	16.8	10.8
Air District	Antelope Valley	16.8	10.8
Air District	Bay Area AQMD	10.8	10.8
Air District	Butte County	12.54	12.54
Air District	Calaveras	16.8	10.8
Air District	Colusa County	16.8	10.8
Air District	El Dorado	16.8	10.8
Air District	Feather River	16.8	10.8
Air District	Glenn County	16.8	10.8
Air District	Great Basin	16.8	10.8
Air District	Imperial County	10.2	7.3
Air District	Kern County	16.8	10.8
Air District	Lake County	16.8	10.8
Air District	Lassen County	16.8	10.8
Air District	Mariposa	16.8	10.8
Air District	Mendocino	16.8	10.8
Air District	Modoc County	16.8	10.8
Air District	Mojave Desert	16.8	10.8
Air District	Monterey Bay	16.8	10.8
Air District	North Coast	16.8	10.8
Air District	Northern Sierra	16.8	10.8
Air District	Northern	16.8	10.8
Air District	Placer County	16.8	10.8
Air District	Sacramento	15	10

Air District	San Diego	16.8	10.8
Air District	San Joaquin	16.8	10.8
Air District	San Luis Obispo	13	13
Air District	Santa Barbara	8.3	8.3
Air District	Shasta County	16.8	10.8
Air District	Siskiyou County	16.8	10.8
Air District	South Coast	19.8	14.7
Air District	Tehama County	16.8	10.8
Air District	Tuolumne	16.8	10.8
Air District	Ventura County	16.8	10.8
Air District	Yolo/Solano	15	10
County	Alameda	10.8	10.8
County	Alpine	16.8	10.8
County	Amador	16.8	10.8
County	Butte	12.54	12.54
County	Calaveras	16.8	10.8
County	Colusa	16.8	10.8
County	Contra Costa	10.8	10.8
County	Del Norte	16.8	10.8
County	El Dorado-Lake	16.8	10.8
County	El Dorado-	16.8	10.8
County	Fresno	16.8	10.8
County	Glenn	16.8	10.8
County	Humboldt	16.8	10.8
County	Imperial	10.2	7.3
County	Inyo	16.8	10.8
County	Kern-Mojave	16.8	10.8
County	Kern-San	16.8	10.8
County	Kings	16.8	10.8
County	Lake	16.8	10.8
County	Lassen	16.8	10.8
County	Los Angeles-	16.8	10.8
County	Los Angeles-	19.8	14.7
County	Madera	16.8	10.8
County	Marin	10.8	10.8
County	Mariposa	16.8	10.8
County	Mendocino-	16.8	10.8
County	Mendocino-	16.8	10.8
County	Mendocino-	16.8	10.8
County	Mendocino-	16.8	10.8
County	Merced	16.8	10.8
County	Modoc	16.8	10.8
County	Mono	16.8	10.8
County	Monterey	16.8	10.8
County	Napa	10.8	10.8

County	Nevada	16.8	10.8
County	Orange	19.8	14.7
County	Placer-Lake	16.8	10.8
County	Placer-Mountain	16.8	10.8
County	Placer-	16.8	10.8
County	Plumas	16.8	10.8
County	Riverside-	16.8	10.8
County	Riverside-	19.8	14.7
County	Riverside-Salton	14.6	11
County	Riverside-South	19.8	14.7
County	Sacramento	15	10
County	San Benito	16.8	10.8
County	San Bernardino-	16.8	10.8
County	San Bernardino-	19.8	14.7
County	San Diego	16.8	10.8
County	San Francisco	10.8	10.8
County	San Joaquin	16.8	10.8
County	San Luis Obispo	13	13
County	San Mateo	10.8	10.8
County	Santa Barbara-	8.3	8.3
County	Santa Barbara-	8.3	8.3
County	Santa Clara	10.8	10.8
County	Santa Cruz	16.8	10.8
County	Shasta	16.8	10.8
County	Sierra	16.8	10.8
County	Siskiyou	16.8	10.8
County	Solano-	15	10
County	Solano-San	16.8	10.8
County	Sonoma-North	16.8	10.8
County	Sonoma-San	10.8	10.8
County	Stanislaus	16.8	10.8
County	Sutter	16.8	10.8
County	Tehama	16.8	10.8
County	Trinity	16.8	10.8
County	Tulare	16.8	10.8
County	Tuolumne	16.8	10.8
County	Ventura	16.8	10.8
County	Yolo	15	10
County	Yuba	16.8	10.8
Statewide	Statewide	16.8	10.8

Worker Trip Length by Air Basin		
Air Basin	**Rural (miles)**	**Urban (miles)**
Great Basin Valleys	16.8	10.8
Lake County	16.8	10.8
Lake Tahoe	16.8	10.8
Mojave Desert	16.8	10.8
Mountain Counties	16.8	10.8
North Central Coast	17.1	12.3
North Coast	16.8	10.8
Northeast Plateau	16.8	10.8
Sacramento Valley	16.8	10.8
Salton Sea	14.6	11
San Diego	16.8	10.8
San Francisco Bay Area	10.8	10.8
San Joaquin Valley	16.8	10.8
South Central Coast	16.8	10.8
South Coast	19.8	14.7
Average	**16.47**	**11.17**
Mininum	**10.80**	**10.80**
Maximum	**19.80**	**14.70**
Range	**9.00**	**3.90**

Village South Specific Plan (Proposed)

Los Angeles-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	45.00	1000sqft	1.03	45,000.00	0
High Turnover (Sit Down Restaurant)	36.00	1000sqft	0.83	36,000.00	0
Hotel	50.00	Room	1.67	72,600.00	0
Quality Restaurant	8.00	1000sqft	0.18	8,000.00	0
Apartments Low Rise	25.00	Dwelling Unit	1.56	25,000.00	72
Apartments Mid Rise	975.00	Dwelling Unit	25.66	975,000.00	2789
Regional Shopping Center	56.00	1000sqft	1.29	56,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2028
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Annual

Project Characteristics - Consistent with the DEIR's model.

Land Use - See SWAPE comment regarding residential and retail land uses.

Construction Phase - See SWAPE comment regarding individual construction phase lengths.

Demolition - Consistent with the DEIR's model. See SWAPE comment regarding demolition.

Vehicle Trips - Saturday trips consistent with the DEIR's model. See SWAPE comment regarding weekday and Sunday trips.

Woodstoves - Woodstoves and wood-burning fireplaces consistent with the DEIR's model. See SWAPE comment regarding gas fireplaces.

Energy Use -

Construction Off-road Equipment Mitigation - See SWAPE comment on construction-related mitigation.

Area Mitigation - See SWAPE comment regarding operational mitigation measures.

Water Mitigation - See SWAPE comment regarding operational mitigation measures.

Table Name	Column Name	Default Value	New Value
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberWood	1.25	0.00
tblFireplaces	NumberWood	48.75	0.00
tblVehicleTrips	ST_TR	7.16	6.17
tblVehicleTrips	ST_TR	6.39	3.87
tblVehicleTrips	ST_TR	2.46	1.39
tblVehicleTrips	ST_TR	158.37	79.82
tblVehicleTrips	ST_TR	8.19	3.75
tblVehicleTrips	ST_TR	94.36	63.99
tblVehicleTrips	ST_TR	49.97	10.74
tblVehicleTrips	SU_TR	6.07	6.16
tblVehicleTrips	SU_TR	5.86	4.18
tblVehicleTrips	SU_TR	1.05	0.69
tblVehicleTrips	SU_TR	131.84	78.27

tblVehicleTrips	SU_TR	5.95	3.20
tblVehicleTrips	SU_TR	72.16	57.65
tblVehicleTrips	SU_TR	25.24	6.39
tblVehicleTrips	WD_TR	6.59	5.83
tblVehicleTrips	WD_TR	6.65	4.13
tblVehicleTrips	WD_TR	11.03	6.41
tblVehicleTrips	WD_TR	127.15	65.80
tblVehicleTrips	WD_TR	8.17	3.84
tblVehicleTrips	WD_TR	89.95	62.64
tblVehicleTrips	WD_TR	42.70	9.43
tblWoodstoves	NumberCatalytic	1.25	0.00
tblWoodstoves	NumberCatalytic	48.75	0.00
tblWoodstoves	NumberNoncatalytic	1.25	0.00
tblWoodstoves	NumberNoncatalytic	48.75	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.1713	1.8242	1.1662	2.4000e-003	0.4169	0.0817	0.4986	0.1795	0.0754	0.2549	0.0000	213.1969	213.1969	0.0601	0.0000	214.6993
2022	0.6904	4.1142	6.1625	0.0189	1.3058	0.1201	1.4259	0.3460	0.1128	0.4588	0.0000	1,721.6826	1,721.6826	0.1294	0.0000	1,724.9187
2023	0.6148	3.3649	5.6747	0.0178	1.1963	0.0996	1.2959	0.3203	0.0935	0.4138	0.0000	1,627.5295	1,627.5295	0.1185	0.0000	1,630.4925
2024	4.1619	0.1335	0.2810	5.9000e-004	0.0325	6.4700e-003	0.0390	8.6300e-003	6.0400e-003	0.0147	0.0000	52.9078	52.9078	8.0200e-003	0.0000	53.1082
Maximum	**4.1619**	**4.1142**	**6.1625**	**0.0189**	**1.3058**	**0.1201**	**1.4259**	**0.3460**	**0.1128**	**0.4588**	**0.0000**	**1,721.6826**	**1,721.6826**	**0.1294**	**0.0000**	**1,724.9187**

2.1 Overall Construction

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.1713	1.8242	1.1662	2.4000e-003	0.4169	0.0817	0.4986	0.1795	0.0754	0.2549	0.0000	213.1967	213.1967	0.0601	0.0000	214.6991
2022	0.6904	4.1142	6.1625	0.0189	1.3058	0.1201	1.4259	0.3460	0.1128	0.4588	0.0000	1,721.6823	1,721.6823	0.1294	0.0000	1,724.9183
2023	0.6148	3.3648	5.6747	0.0178	1.1963	0.0996	1.2959	0.3203	0.0935	0.4138	0.0000	1,627.5291	1,627.5291	0.1185	0.0000	1,630.4921
2024	4.1619	0.1335	0.2810	5.9000e-004	0.0325	6.4700e-003	0.0390	8.6300e-003	6.0400e-003	0.0147	0.0000	52.9077	52.9077	8.0200e-003	0.0000	53.1082
Maximum	**4.1619**	**4.1142**	**6.1625**	**0.0189**	**1.3058**	**0.1201**	**1.4259**	**0.3460**	**0.1128**	**0.4588**	**0.0000**	**1,721.6823**	**1,721.6823**	**0.1294**	**0.0000**	**1,724.9183**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	**9-1-2021**	**11-30-2021**	1.4103	1.4103
2	**12-1-2021**	**2-28-2022**	1.3613	1.3613
3	**3-1-2022**	**5-31-2022**	1.1985	1.1985
4	**6-1-2022**	**8-31-2022**	1.1921	1.1921
5	**9-1-2022**	**11-30-2022**	1.1918	1.1918
6	**12-1-2022**	**2-28-2023**	1.0774	1.0774
7	**3-1-2023**	**5-31-2023**	1.0320	1.0320
8	**6-1-2023**	**8-31-2023**	1.0260	1.0260

9	**9-1-2023**	**11-30-2023**	1.0265	1.0265
10	**12-1-2023**	**2-29-2024**	2.8857	2.8857
11	**3-1-2024**	**5-31-2024**	1.6207	1.6207
		Highest	2.8857	2.8857

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	5.1437	0.2950	10.3804	1.6700e-003		0.0714	0.0714		0.0714	0.0714	0.0000	220.9670	220.9670	0.0201	3.7400e-003	222.5835
Energy	0.1398	1.2312	0.7770	7.6200e-003		0.0966	0.0966		0.0966	0.0966	0.0000	3,896.0732	3,896.0732	0.1303	0.0468	3,913.2833
Mobile	1.5857	7.9962	19.1834	0.0821	7.7979	0.0580	7.8559	2.0895	0.0539	2.1434	0.0000	7,620.4986	7,620.4986	0.3407	0.0000	7,629.0162
Waste						0.0000	0.0000		0.0000	0.0000	207.8079	0.0000	207.8079	12.2811	0.0000	514.8354
Water						0.0000	0.0000		0.0000	0.0000	29.1632	556.6420	585.8052	3.0183	0.0755	683.7567
Total	**6.8692**	**9.5223**	**30.3407**	**0.0914**	**7.7979**	**0.2260**	**8.0240**	**2.0895**	**0.2219**	**2.3114**	**236.9712**	**12,294.1807**	**12,531.1519**	**15.7904**	**0.1260**	**12,963.4751**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	5.1437	0.2950	10.3804	1.6700e-003		0.0714	0.0714		0.0714	0.0714	0.0000	220.9670	220.9670	0.0201	3.7400e-003	222.5835
Energy	0.1398	1.2312	0.7770	7.6200e-003		0.0966	0.0966		0.0966	0.0966	0.0000	3,896.0732	3,896.0732	0.1303	0.0468	3,913.2833
Mobile	1.5857	7.9962	19.1834	0.0821	7.7979	0.0580	7.8559	2.0895	0.0539	2.1434	0.0000	7,620.4986	7,620.4986	0.3407	0.0000	7,629.0162
Waste						0.0000	0.0000		0.0000	0.0000	207.8079	0.0000	207.8079	12.2811	0.0000	514.8354
Water						0.0000	0.0000		0.0000	0.0000	29.1632	556.6420	585.8052	3.0183	0.0755	683.7567
Total	**6.8692**	**9.5223**	**30.3407**	**0.0914**	**7.7979**	**0.2260**	**8.0240**	**2.0895**	**0.2219**	**2.3114**	**236.9712**	**12,294.1807**	**12,531.1519**	**15.7904**	**0.1260**	**12,963.4751**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Annual

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	9/1/2021	10/12/2021	5	30	
2	Site Preparation	Site Preparation	10/13/2021	11/9/2021	5	20	
3	Grading	Grading	11/10/2021	1/11/2022	5	45	
4	Building Construction	Building Construction	1/12/2022	12/12/2023	5	500	
5	Paving	Paving	12/13/2023	1/30/2024	5	35	
6	Architectural Coating	Architectural Coating	1/31/2024	3/19/2024	5	35	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 112.5

Acres of Paving: 0

Residential Indoor: 2,025,000; Residential Outdoor: 675,000; Non-Residential Indoor: 326,400; Non-Residential Outdoor: 108,800; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Annual

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	458.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	801.00	143.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	160.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0496	0.0000	0.0496	7.5100e-003	0.0000	7.5100e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0475	0.4716	0.3235	5.8000e-004		0.0233	0.0233		0.0216	0.0216	0.0000	51.0012	51.0012	0.0144	0.0000	51.3601
Total	**0.0475**	**0.4716**	**0.3235**	**5.8000e-004**	**0.0496**	**0.0233**	**0.0729**	**7.5100e-003**	**0.0216**	**0.0291**	**0.0000**	**51.0012**	**51.0012**	**0.0144**	**0.0000**	**51.3601**

3.2 Demolition - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.9300e-003	0.0634	0.0148	1.8000e-004	3.9400e-003	1.9000e-004	4.1300e-003	1.0800e-003	1.8000e-004	1.2600e-003	0.0000	17.4566	17.4566	1.2100e-003	0.0000	17.4869
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.7000e-004	7.5000e-004	8.5100e-003	2.0000e-005	2.4700e-003	2.0000e-005	2.4900e-003	6.5000e-004	2.0000e-005	6.7000e-004	0.0000	2.2251	2.2251	7.0000e-005	0.0000	2.2267
Total	**2.9000e-003**	**0.0641**	**0.0233**	**2.0000e-004**	**6.4100e-003**	**2.1000e-004**	**6.6200e-003**	**1.7300e-003**	**2.0000e-004**	**1.9300e-003**	**0.0000**	**19.6816**	**19.6816**	**1.2800e-003**	**0.0000**	**19.7136**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0496	0.0000	0.0496	7.5100e-003	0.0000	7.5100e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0475	0.4716	0.3235	5.8000e-004		0.0233	0.0233		0.0216	0.0216	0.0000	51.0011	51.0011	0.0144	0.0000	51.3600
Total	**0.0475**	**0.4716**	**0.3235**	**5.8000e-004**	**0.0496**	**0.0233**	**0.0729**	**7.5100e-003**	**0.0216**	**0.0291**	**0.0000**	**51.0011**	**51.0011**	**0.0144**	**0.0000**	**51.3600**

3.2 Demolition - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.9300e-003	0.0634	0.0148	1.8000e-004	3.9400e-003	1.9000e-004	4.1300e-003	1.0800e-003	1.8000e-004	1.2600e-003	0.0000	17.4566	17.4566	1.2100e-003	0.0000	17.4869
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.7000e-004	7.5000e-004	8.5100e-003	2.0000e-005	2.4700e-003	2.0000e-005	2.4900e-003	6.5000e-004	2.0000e-005	6.7000e-004	0.0000	2.2251	2.2251	7.0000e-005	0.0000	2.2267
Total	**2.9000e-003**	**0.0641**	**0.0233**	**2.0000e-004**	**6.4100e-003**	**2.1000e-004**	**6.6200e-003**	**1.7300e-003**	**2.0000e-004**	**1.9300e-003**	**0.0000**	**19.6816**	**19.6816**	**1.2800e-003**	**0.0000**	**19.7136**

3.3 Site Preparation - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1807	0.0000	0.1807	0.0993	0.0000	0.0993	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0389	0.4050	0.2115	3.8000e-004		0.0204	0.0204		0.0188	0.0188	0.0000	33.4357	33.4357	0.0108	0.0000	33.7061
Total	**0.0389**	**0.4050**	**0.2115**	**3.8000e-004**	**0.1807**	**0.0204**	**0.2011**	**0.0993**	**0.0188**	**0.1181**	**0.0000**	**33.4357**	**33.4357**	**0.0108**	**0.0000**	**33.7061**

3.3 Site Preparation - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.7000e-004	6.0000e-004	6.8100e-003	2.0000e-005	1.9700e-003	2.0000e-005	1.9900e-003	5.2000e-004	1.0000e-005	5.4000e-004	0.0000	1.7801	1.7801	5.0000e-005	0.0000	1.7814
Total	**7.7000e-004**	**6.0000e-004**	**6.8100e-003**	**2.0000e-005**	**1.9700e-003**	**2.0000e-005**	**1.9900e-003**	**5.2000e-004**	**1.0000e-005**	**5.4000e-004**	**0.0000**	**1.7801**	**1.7801**	**5.0000e-005**	**0.0000**	**1.7814**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1807	0.0000	0.1807	0.0993	0.0000	0.0993	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0389	0.4050	0.2115	3.8000e-004		0.0204	0.0204		0.0188	0.0188	0.0000	33.4357	33.4357	0.0108	0.0000	33.7060
Total	**0.0389**	**0.4050**	**0.2115**	**3.8000e-004**	**0.1807**	**0.0204**	**0.2011**	**0.0993**	**0.0188**	**0.1181**	**0.0000**	**33.4357**	**33.4357**	**0.0108**	**0.0000**	**33.7060**

3.3 Site Preparation - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.7000e-004	6.0000e-004	6.8100e-003	2.0000e-005	1.9700e-003	2.0000e-005	1.9900e-003	5.2000e-004	1.0000e-005	5.4000e-004	0.0000	1.7801	1.7801	5.0000e-005	0.0000	1.7814
Total	**7.7000e-004**	**6.0000e-004**	**6.8100e-003**	**2.0000e-005**	**1.9700e-003**	**2.0000e-005**	**1.9900e-003**	**5.2000e-004**	**1.0000e-005**	**5.4000e-004**	**0.0000**	**1.7801**	**1.7801**	**5.0000e-005**	**0.0000**	**1.7814**

3.4 Grading - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1741	0.0000	0.1741	0.0693	0.0000	0.0693	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0796	0.8816	0.5867	1.1800e-003		0.0377	0.0377		0.0347	0.0347	0.0000	103.5405	103.5405	0.0335	0.0000	104.3776
Total	**0.0796**	**0.8816**	**0.5867**	**1.1800e-003**	**0.1741**	**0.0377**	**0.2118**	**0.0693**	**0.0347**	**0.1040**	**0.0000**	**103.5405**	**103.5405**	**0.0335**	**0.0000**	**104.3776**

3.4 Grading - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.6400e-003	1.2700e-003	0.0144	4.0000e-005	4.1600e-003	3.0000e-005	4.2000e-003	1.1100e-003	3.0000e-005	1.1400e-003	0.0000	3.7579	3.7579	1.1000e-004	0.0000	3.7607
Total	**1.6400e-003**	**1.2700e-003**	**0.0144**	**4.0000e-005**	**4.1600e-003**	**3.0000e-005**	**4.2000e-003**	**1.1100e-003**	**3.0000e-005**	**1.1400e-003**	**0.0000**	**3.7579**	**3.7579**	**1.1000e-004**	**0.0000**	**3.7607**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1741	0.0000	0.1741	0.0693	0.0000	0.0693	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0796	0.8816	0.5867	1.1800e-003		0.0377	0.0377		0.0347	0.0347	0.0000	103.5403	103.5403	0.0335	0.0000	104.3775
Total	**0.0796**	**0.8816**	**0.5867**	**1.1800e-003**	**0.1741**	**0.0377**	**0.2118**	**0.0693**	**0.0347**	**0.1040**	**0.0000**	**103.5403**	**103.5403**	**0.0335**	**0.0000**	**104.3775**

3.4 Grading - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.6400e-003	1.2700e-003	0.0144	4.0000e-005	4.1600e-003	3.0000e-005	4.2000e-003	1.1100e-003	3.0000e-005	1.1400e-003	0.0000	3.7579	3.7579	1.1000e-004	0.0000	3.7607
Total	**1.6400e-003**	**1.2700e-003**	**0.0144**	**4.0000e-005**	**4.1600e-003**	**3.0000e-005**	**4.2000e-003**	**1.1100e-003**	**3.0000e-005**	**1.1400e-003**	**0.0000**	**3.7579**	**3.7579**	**1.1000e-004**	**0.0000**	**3.7607**

3.4 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0807	0.0000	0.0807	0.0180	0.0000	0.0180	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0127	0.1360	0.1017	2.2000e-004		5.7200e-003	5.7200e-003		5.2600e-003	5.2600e-003	0.0000	19.0871	19.0871	6.1700e-003	0.0000	19.2414
Total	**0.0127**	**0.1360**	**0.1017**	**2.2000e-004**	**0.0807**	**5.7200e-003**	**0.0865**	**0.0180**	**5.2600e-003**	**0.0233**	**0.0000**	**19.0871**	**19.0871**	**6.1700e-003**	**0.0000**	**19.2414**

3.4 Grading - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.8000e-004	2.1000e-004	2.4400e-003	1.0000e-005	7.7000e-004	1.0000e-005	7.7000e-004	2.0000e-004	1.0000e-005	2.1000e-004	0.0000	0.6679	0.6679	2.0000e-005	0.0000	0.6684
Total	**2.8000e-004**	**2.1000e-004**	**2.4400e-003**	**1.0000e-005**	**7.7000e-004**	**1.0000e-005**	**7.7000e-004**	**2.0000e-004**	**1.0000e-005**	**2.1000e-004**	**0.0000**	**0.6679**	**0.6679**	**2.0000e-005**	**0.0000**	**0.6684**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0807	0.0000	0.0807	0.0180	0.0000	0.0180	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0127	0.1360	0.1017	2.2000e-004		5.7200e-003	5.7200e-003		5.2600e-003	5.2600e-003	0.0000	19.0871	19.0871	6.1700e-003	0.0000	19.2414
Total	**0.0127**	**0.1360**	**0.1017**	**2.2000e-004**	**0.0807**	**5.7200e-003**	**0.0865**	**0.0180**	**5.2600e-003**	**0.0233**	**0.0000**	**19.0871**	**19.0871**	**6.1700e-003**	**0.0000**	**19.2414**

3.4 Grading - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.8000e-004	2.1000e-004	2.4400e-003	1.0000e-005	7.7000e-004	1.0000e-005	7.7000e-004	2.0000e-004	1.0000e-005	2.1000e-004	0.0000	0.6679	0.6679	2.0000e-005	0.0000	0.6684
Total	**2.8000e-004**	**2.1000e-004**	**2.4400e-003**	**1.0000e-005**	**7.7000e-004**	**1.0000e-005**	**7.7000e-004**	**2.0000e-004**	**1.0000e-005**	**2.1000e-004**	**0.0000**	**0.6679**	**0.6679**	**2.0000e-005**	**0.0000**	**0.6684**

3.5 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2158	1.9754	2.0700	3.4100e-003		0.1023	0.1023		0.0963	0.0963	0.0000	293.1324	293.1324	0.0702	0.0000	294.8881
Total	**0.2158**	**1.9754**	**2.0700**	**3.4100e-003**		**0.1023**	**0.1023**		**0.0963**	**0.0963**	**0.0000**	**293.1324**	**293.1324**	**0.0702**	**0.0000**	**294.8881**

3.5 Building Construction - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0527	1.6961	0.4580	4.5500e-003	0.1140	3.1800e-003	0.1171	0.0329	3.0400e-003	0.0359	0.0000	441.9835	441.9835	0.0264	0.0000	442.6435
Worker	0.4088	0.3066	3.5305	0.0107	1.1103	8.8700e-003	1.1192	0.2949	8.1700e-003	0.3031	0.0000	966.8117	966.8117	0.0266	0.0000	967.4773
Total	**0.4616**	**2.0027**	**3.9885**	**0.0152**	**1.2243**	**0.0121**	**1.2363**	**0.3278**	**0.0112**	**0.3390**	**0.0000**	**1,408.7952**	**1,408.7952**	**0.0530**	**0.0000**	**1,410.1208**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2158	1.9754	2.0700	3.4100e-003		0.1023	0.1023		0.0963	0.0963	0.0000	293.1321	293.1321	0.0702	0.0000	294.8877
Total	**0.2158**	**1.9754**	**2.0700**	**3.4100e-003**		**0.1023**	**0.1023**		**0.0963**	**0.0963**	**0.0000**	**293.1321**	**293.1321**	**0.0702**	**0.0000**	**294.8877**

3.5 Building Construction - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0527	1.6961	0.4580	4.5500e-003	0.1140	3.1800e-003	0.1171	0.0329	3.0400e-003	0.0359	0.0000	441.9835	441.9835	0.0264	0.0000	442.6435
Worker	0.4088	0.3066	3.5305	0.0107	1.1103	8.8700e-003	1.1192	0.2949	8.1700e-003	0.3031	0.0000	966.8117	966.8117	0.0266	0.0000	967.4773
Total	**0.4616**	**2.0027**	**3.9885**	**0.0152**	**1.2243**	**0.0121**	**1.2363**	**0.3278**	**0.0112**	**0.3390**	**0.0000**	**1,408.7952**	**1,408.7952**	**0.0530**	**0.0000**	**1,410.1208**

3.5 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1942	1.7765	2.0061	3.3300e-003		0.0864	0.0864		0.0813	0.0813	0.0000	286.2789	286.2789	0.0681	0.0000	287.9814
Total	**0.1942**	**1.7765**	**2.0061**	**3.3300e-003**		**0.0864**	**0.0864**		**0.0813**	**0.0813**	**0.0000**	**286.2789**	**286.2789**	**0.0681**	**0.0000**	**287.9814**

3.5 Building Construction - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0382	1.2511	0.4011	4.3000e-003	0.1113	1.4600e-003	0.1127	0.0321	1.4000e-003	0.0335	0.0000	417.9930	417.9930	0.0228	0.0000	418.5624
Worker	0.3753	0.2708	3.1696	0.0101	1.0840	8.4100e-003	1.0924	0.2879	7.7400e-003	0.2957	0.0000	909.3439	909.3439	0.0234	0.0000	909.9291
Total	**0.4135**	**1.5218**	**3.5707**	**0.0144**	**1.1953**	**9.8700e-003**	**1.2051**	**0.3200**	**9.1400e-003**	**0.3292**	**0.0000**	**1,327.3369**	**1,327.3369**	**0.0462**	**0.0000**	**1,328.4916**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1942	1.7765	2.0061	3.3300e-003		0.0864	0.0864		0.0813	0.0813	0.0000	286.2785	286.2785	0.0681	0.0000	287.9811
Total	**0.1942**	**1.7765**	**2.0061**	**3.3300e-003**		**0.0864**	**0.0864**		**0.0813**	**0.0813**	**0.0000**	**286.2785**	**286.2785**	**0.0681**	**0.0000**	**287.9811**

3.5 Building Construction - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0382	1.2511	0.4011	4.3000e-003	0.1113	1.4600e-003	0.1127	0.0321	1.4000e-003	0.0335	0.0000	417.9930	417.9930	0.0228	0.0000	418.5624
Worker	0.3753	0.2708	3.1696	0.0101	1.0840	8.4100e-003	1.0924	0.2879	7.7400e-003	0.2957	0.0000	909.3439	909.3439	0.0234	0.0000	909.9291
Total	**0.4135**	**1.5218**	**3.5707**	**0.0144**	**1.1953**	**9.8700e-003**	**1.2051**	**0.3200**	**9.1400e-003**	**0.3292**	**0.0000**	**1,327.3369**	**1,327.3369**	**0.0462**	**0.0000**	**1,328.4916**

3.6 Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	6.7100e-003	0.0663	0.0948	1.5000e-004		3.3200e-003	3.3200e-003		3.0500e-003	3.0500e-003	0.0000	13.0175	13.0175	4.2100e-003	0.0000	13.1227
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**6.7100e-003**	**0.0663**	**0.0948**	**1.5000e-004**		**3.3200e-003**	**3.3200e-003**		**3.0500e-003**	**3.0500e-003**	**0.0000**	**13.0175**	**13.0175**	**4.2100e-003**	**0.0000**	**13.1227**

3.6 Paving - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.7000e-004	2.7000e-004	3.1200e-003	1.0000e-005	1.0700e-003	1.0000e-005	1.0800e-003	2.8000e-004	1.0000e-005	2.9000e-004	0.0000	0.8963	0.8963	2.0000e-005	0.0000	0.8968
Total	**3.7000e-004**	**2.7000e-004**	**3.1200e-003**	**1.0000e-005**	**1.0700e-003**	**1.0000e-005**	**1.0800e-003**	**2.8000e-004**	**1.0000e-005**	**2.9000e-004**	**0.0000**	**0.8963**	**0.8963**	**2.0000e-005**	**0.0000**	**0.8968**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	6.7100e-003	0.0663	0.0948	1.5000e-004		3.3200e-003	3.3200e-003		3.0500e-003	3.0500e-003	0.0000	13.0175	13.0175	4.2100e-003	0.0000	13.1227
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**6.7100e-003**	**0.0663**	**0.0948**	**1.5000e-004**		**3.3200e-003**	**3.3200e-003**		**3.0500e-003**	**3.0500e-003**	**0.0000**	**13.0175**	**13.0175**	**4.2100e-003**	**0.0000**	**13.1227**

3.6 Paving - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.7000e-004	2.7000e-004	3.1200e-003	1.0000e-005	1.0700e-003	1.0000e-005	1.0800e-003	2.8000e-004	1.0000e-005	2.9000e-004	0.0000	0.8963	0.8963	2.0000e-005	0.0000	0.8968
Total	**3.7000e-004**	**2.7000e-004**	**3.1200e-003**	**1.0000e-005**	**1.0700e-003**	**1.0000e-005**	**1.0800e-003**	**2.8000e-004**	**1.0000e-005**	**2.9000e-004**	**0.0000**	**0.8963**	**0.8963**	**2.0000e-005**	**0.0000**	**0.8968**

3.6 Paving - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0109	0.1048	0.1609	2.5000e-004		5.1500e-003	5.1500e-003		4.7400e-003	4.7400e-003	0.0000	22.0292	22.0292	7.1200e-003	0.0000	22.2073
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0109**	**0.1048**	**0.1609**	**2.5000e-004**		**5.1500e-003**	**5.1500e-003**		**4.7400e-003**	**4.7400e-003**	**0.0000**	**22.0292**	**22.0292**	**7.1200e-003**	**0.0000**	**22.2073**

3.6 Paving - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.9000e-004	4.1000e-004	4.9200e-003	2.0000e-005	1.8100e-003	1.0000e-005	1.8200e-003	4.8000e-004	1.0000e-005	4.9000e-004	0.0000	1.4697	1.4697	4.0000e-005	0.0000	1.4706
Total	**5.9000e-004**	**4.1000e-004**	**4.9200e-003**	**2.0000e-005**	**1.8100e-003**	**1.0000e-005**	**1.8200e-003**	**4.8000e-004**	**1.0000e-005**	**4.9000e-004**	**0.0000**	**1.4697**	**1.4697**	**4.0000e-005**	**0.0000**	**1.4706**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0109	0.1048	0.1609	2.5000e-004		5.1500e-003	5.1500e-003		4.7400e-003	4.7400e-003	0.0000	22.0292	22.0292	7.1200e-003	0.0000	22.2073
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0109**	**0.1048**	**0.1609**	**2.5000e-004**		**5.1500e-003**	**5.1500e-003**		**4.7400e-003**	**4.7400e-003**	**0.0000**	**22.0292**	**22.0292**	**7.1200e-003**	**0.0000**	**22.2073**

3.6 Paving - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.9000e-004	4.1000e-004	4.9200e-003	2.0000e-005	1.8100e-003	1.0000e-005	1.8200e-003	4.8000e-004	1.0000e-005	4.9000e-004	0.0000	1.4697	1.4697	4.0000e-005	0.0000	1.4706
Total	**5.9000e-004**	**4.1000e-004**	**4.9200e-003**	**2.0000e-005**	**1.8100e-003**	**1.0000e-005**	**1.8200e-003**	**4.8000e-004**	**1.0000e-005**	**4.9000e-004**	**0.0000**	**1.4697**	**1.4697**	**4.0000e-005**	**0.0000**	**1.4706**

3.7 Architectural Coating - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	4.1372					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.1600e-003	0.0213	0.0317	5.0000e-005		1.0700e-003	1.0700e-003		1.0700e-003	1.0700e-003	0.0000	4.4682	4.4682	2.5000e-004	0.0000	4.4745
Total	**4.1404**	**0.0213**	**0.0317**	**5.0000e-005**		**1.0700e-003**	**1.0700e-003**		**1.0700e-003**	**1.0700e-003**	**0.0000**	**4.4682**	**4.4682**	**2.5000e-004**	**0.0000**	**4.4745**

3.7 Architectural Coating - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0101	6.9900e-003	0.0835	2.8000e-004	0.0307	2.3000e-004	0.0309	8.1500e-003	2.2000e-004	8.3700e-003	0.0000	24.9407	24.9407	6.1000e-004	0.0000	24.9558
Total	**0.0101**	**6.9900e-003**	**0.0835**	**2.8000e-004**	**0.0307**	**2.3000e-004**	**0.0309**	**8.1500e-003**	**2.2000e-004**	**8.3700e-003**	**0.0000**	**24.9407**	**24.9407**	**6.1000e-004**	**0.0000**	**24.9558**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	4.1372					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.1600e-003	0.0213	0.0317	5.0000e-005		1.0700e-003	1.0700e-003		1.0700e-003	1.0700e-003	0.0000	4.4682	4.4682	2.5000e-004	0.0000	4.4745
Total	**4.1404**	**0.0213**	**0.0317**	**5.0000e-005**		**1.0700e-003**	**1.0700e-003**		**1.0700e-003**	**1.0700e-003**	**0.0000**	**4.4682**	**4.4682**	**2.5000e-004**	**0.0000**	**4.4745**

3.7 Architectural Coating - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0101	6.9900e-003	0.0835	2.8000e-004	0.0307	2.3000e-004	0.0309	8.1500e-003	2.2000e-004	8.3700e-003	0.0000	24.9407	24.9407	6.1000e-004	0.0000	24.9558
Total	**0.0101**	**6.9900e-003**	**0.0835**	**2.8000e-004**	**0.0307**	**2.3000e-004**	**0.0309**	**8.1500e-003**	**2.2000e-004**	**8.3700e-003**	**0.0000**	**24.9407**	**24.9407**	**6.1000e-004**	**0.0000**	**24.9558**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	1.5857	7.9962	19.1834	0.0821	7.7979	0.0580	7.8559	2.0895	0.0539	2.1434	0.0000	7,620.4986	7,620.4986	0.3407	0.0000	7,629.0162
Unmitigated	1.5857	7.9962	19.1834	0.0821	7.7979	0.0580	7.8559	2.0895	0.0539	2.1434	0.0000	7,620.4986	7,620.4986	0.3407	0.0000	7,629.0162

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	145.75	154.25	154.00	506,227	506,227
Apartments Mid Rise	4,026.75	3,773.25	4075.50	13,660,065	13,660,065
General Office Building	288.45	62.55	31.05	706,812	706,812
High Turnover (Sit Down Restaurant)	2,368.80	2,873.52	2817.72	3,413,937	3,413,937
Hotel	192.00	187.50	160.00	445,703	445,703
Quality Restaurant	501.12	511.92	461.20	707,488	707,488
Regional Shopping Center	528.08	601.44	357.84	1,112,221	1,112,221
Total	8,050.95	8,164.43	8,057.31	20,552,452	20,552,452

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Low Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Apartments Mid Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
High Turnover (Sit Down	16.60	8.40	6.90	8.50	72.50	19.00	37	20	43
Hotel	16.60	8.40	6.90	19.40	61.60	19.00	58	38	4
Quality Restaurant	16.60	8.40	6.90	12.00	69.00	19.00	38	18	44
Regional Shopping Center	16.60	8.40	6.90	16.30	64.70	19.00	54	35	11

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Low Rise	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Apartments Mid Rise	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
General Office Building	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
High Turnover (Sit Down Restaurant)	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Hotel	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Quality Restaurant	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Regional Shopping Center	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Annual

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	2,512.6465	2,512.6465	0.1037	0.0215	2,521.6356
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	2,512.6465	2,512.6465	0.1037	0.0215	2,521.6356
NaturalGas Mitigated	0.1398	1.2312	0.7770	7.6200e-003		0.0966	0.0966		0.0966	0.0966	0.0000	1,383.4267	1,383.4267	0.0265	0.0254	1,391.6478
NaturalGas Unmitigated	0.1398	1.2312	0.7770	7.6200e-003		0.0966	0.0966		0.0966	0.0966	0.0000	1,383.4267	1,383.4267	0.0265	0.0254	1,391.6478

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Low Rise	408494	2.2000e-003	0.0188	8.0100e-003	1.2000e-004		1.5200e-003	1.5200e-003		1.5200e-003	1.5200e-003	0.0000	21.7988	21.7988	4.2000e-004	4.0000e-004	21.9284
Apartments Mid Rise	1.30613e+007	0.0704	0.6018	0.2561	3.8400e-003		0.0487	0.0487		0.0487	0.0487	0.0000	696.9989	696.9989	0.0134	0.0128	701.1408
General Office Building	468450	2.5300e-003	0.0230	0.0193	1.4000e-004		1.7500e-003	1.7500e-003		1.7500e-003	1.7500e-003	0.0000	24.9983	24.9983	4.8000e-004	4.6000e-004	25.1468
High Turnover (Sit Down Restaurant)	8.30736e+006	0.0448	0.4072	0.3421	2.4400e-003		0.0310	0.0310		0.0310	0.0310	0.0000	443.3124	443.3124	8.5000e-003	8.1300e-003	445.9468
Hotel	1.74095e+006	9.3900e-003	0.0853	0.0717	5.1000e-004		6.4900e-003	6.4900e-003		6.4900e-003	6.4900e-003	0.0000	92.9036	92.9036	1.7800e-003	1.7000e-003	93.4557
Quality Restaurant	1.84608e+006	9.9500e-003	0.0905	0.0760	5.4000e-004		6.8800e-003	6.8800e-003		6.8800e-003	6.8800e-003	0.0000	98.5139	98.5139	1.8900e-003	1.8100e-003	99.0993
Regional Shopping Center	91840	5.0000e-004	4.5000e-003	3.7800e-003	3.0000e-005		3.4000e-004	3.4000e-004		3.4000e-004	3.4000e-004	0.0000	4.9009	4.9009	9.0000e-005	9.0000e-005	4.9301
Total		**0.1398**	**1.2312**	**0.7770**	**7.6200e-003**		**0.0966**	**0.0966**		**0.0966**	**0.0966**	**0.0000**	**1,383.4268**	**1,383.4268**	**0.0265**	**0.0254**	**1,391.6478**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Low Rise	408494	2.2000e-003	0.0188	8.0100e-003	1.2000e-004		1.5200e-003	1.5200e-003		1.5200e-003	1.5200e-003	0.0000	21.7988	21.7988	4.2000e-004	4.0000e-004	21.9284
Apartments Mid Rise	1.30613e+007	0.0704	0.6018	0.2561	3.8400e-003		0.0487	0.0487		0.0487	0.0487	0.0000	696.9989	696.9989	0.0134	0.0128	701.1408
General Office Building	468450	2.5300e-003	0.0230	0.0193	1.4000e-004		1.7500e-003	1.7500e-003		1.7500e-003	1.7500e-003	0.0000	24.9983	24.9983	4.8000e-004	4.6000e-004	25.1468
High Turnover (Sit Down Restaurant)	8.30736e+006	0.0448	0.4072	0.3421	2.4400e-003		0.0310	0.0310		0.0310	0.0310	0.0000	443.3124	443.3124	8.5000e-003	8.1300e-003	445.9468
Hotel	1.74095e+006	9.3900e-003	0.0853	0.0717	5.1000e-004		6.4900e-003	6.4900e-003		6.4900e-003	6.4900e-003	0.0000	92.9036	92.9036	1.7800e-003	1.7000e-003	93.4557
Quality Restaurant	1.84608e+006	9.9500e-003	0.0905	0.0760	5.4000e-004		6.8800e-003	6.8800e-003		6.8800e-003	6.8800e-003	0.0000	98.5139	98.5139	1.8900e-003	1.8100e-003	99.0993
Regional Shopping Center	91840	5.0000e-004	4.5000e-003	3.7800e-003	3.0000e-005		3.4000e-004	3.4000e-004		3.4000e-004	3.4000e-004	0.0000	4.9009	4.9009	9.0000e-005	9.0000e-005	4.9301
Total		**0.1398**	**1.2312**	**0.7770**	**7.6200e-003**		**0.0966**	**0.0966**		**0.0966**	**0.0966**	**0.0000**	**1,383.4268**	**1,383.4268**	**0.0265**	**0.0254**	**1,391.6478**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Low Rise	106010	33.7770	1.3900e-003	2.9000e-004	33.8978
Apartments Mid Rise	3.94697e+006	1,257.5879	0.0519	0.0107	1,262.0869
General Office Building	584550	186.2502	7.6900e-003	1.5900e-003	186.9165
High Turnover (Sit Down Restaurant)	1.58904e+006	506.3022	0.0209	4.3200e-003	508.1135
Hotel	550308	175.3399	7.2400e-003	1.5000e-003	175.9672
Quality Restaurant	353120	112.5116	4.6500e-003	9.6000e-004	112.9141
Regional Shopping Center	756000	240.8778	9.9400e-003	2.0600e-003	241.7395
Total		**2,512.6465**	**0.1037**	**0.0215**	**2,521.6356**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Low Rise	106010	33.7770	1.3900e-003	2.9000e-004	33.8978
Apartments Mid Rise	3.94697e+006	1,257.5879	0.0519	0.0107	1,262.0869
General Office Building	584550	186.2502	7.6900e-003	1.5900e-003	186.9165
High Turnover (Sit Down Restaurant)	1.58904e+006	506.3022	0.0209	4.3200e-003	508.1135
Hotel	550308	175.3399	7.2400e-003	1.5000e-003	175.9672
Quality Restaurant	353120	112.5116	4.6500e-003	9.6000e-004	112.9141
Regional Shopping Center	756000	240.8778	9.9400e-003	2.0600e-003	241.7395
Total		**2,512.6465**	**0.1037**	**0.0215**	**2,521.6356**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	5.1437	0.2950	10.3804	1.6700e-003		0.0714	0.0714		0.0714	0.0714	0.0000	220.9670	220.9670	0.0201	3.7400e-003	222.5835
Unmitigated	5.1437	0.2950	10.3804	1.6700e-003		0.0714	0.0714		0.0714	0.0714	0.0000	220.9670	220.9670	0.0201	3.7400e-003	222.5835

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.4137					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	4.3998					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0206	0.1763	0.0750	1.1200e-003		0.0143	0.0143		0.0143	0.0143	0.0000	204.1166	204.1166	3.9100e-003	3.7400e-003	205.3295
Landscaping	0.3096	0.1187	10.3054	5.4000e-004		0.0572	0.0572		0.0572	0.0572	0.0000	16.8504	16.8504	0.0161	0.0000	17.2540
Total	**5.1437**	**0.2950**	**10.3804**	**1.6600e-003**		**0.0714**	**0.0714**		**0.0714**	**0.0714**	**0.0000**	**220.9670**	**220.9670**	**0.0201**	**3.7400e-003**	**222.5835**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.4137					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	4.3998					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0206	0.1763	0.0750	1.1200e-003		0.0143	0.0143		0.0143	0.0143	0.0000	204.1166	204.1166	3.9100e-003	3.7400e-003	205.3295
Landscaping	0.3096	0.1187	10.3054	5.4000e-004		0.0572	0.0572		0.0572	0.0572	0.0000	16.8504	16.8504	0.0161	0.0000	17.2540
Total	**5.1437**	**0.2950**	**10.3804**	**1.6600e-003**		**0.0714**	**0.0714**		**0.0714**	**0.0714**	**0.0000**	**220.9670**	**220.9670**	**0.0201**	**3.7400e-003**	**222.5835**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	585.8052	3.0183	0.0755	683.7567
Unmitigated	585.8052	3.0183	0.0755	683.7567

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Low Rise	1.62885 / 1.02688	10.9095	0.0535	1.3400e-003	12.6471
Apartments Mid Rise	63.5252 / 40.0485	425.4719	2.0867	0.0523	493.2363
General Office Building	7.99802 / 4.90201	53.0719	0.2627	6.5900e-003	61.6019
High Turnover (Sit Down Restaurant)	10.9272 / 0.697482	51.2702	0.3580	8.8200e-003	62.8482
Hotel	1.26834 / 0.140927	6.1633	0.0416	1.0300e-003	7.5079
Quality Restaurant	2.42827 / 0.154996	11.3934	0.0796	1.9600e-003	13.9663
Regional Shopping Center	4.14806 / 2.54236	27.5250	0.1363	3.4200e-003	31.9490
Total		**585.8052**	**3.0183**	**0.0755**	**683.7567**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Low Rise	1.62885 / 1.02688	10.9095	0.0535	1.3400e-003	12.6471
Apartments Mid Rise	63.5252 / 40.0485	425.4719	2.0867	0.0523	493.2363
General Office Building	7.99802 / 4.90201	53.0719	0.2627	6.5900e-003	61.6019
High Turnover (Sit Down Restaurant)	10.9272 / 0.697482	51.2702	0.3580	8.8200e-003	62.8482
Hotel	1.26834 / 0.140927	6.1633	0.0416	1.0300e-003	7.5079
Quality Restaurant	2.42827 / 0.154996	11.3934	0.0796	1.9600e-003	13.9663
Regional Shopping Center	4.14806 / 2.54236	27.5250	0.1363	3.4200e-003	31.9490
Total		**585.8052**	**3.0183**	**0.0755**	**683.7567**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	207.8079	12.2811	0.0000	514.8354
Unmitigated	207.8079	12.2811	0.0000	514.8354

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Low Rise	11.5	2.3344	0.1380	0.0000	5.7834
Apartments Mid Rise	448.5	91.0415	5.3804	0.0000	225.5513
General Office Building	41.85	8.4952	0.5021	0.0000	21.0464
High Turnover (Sit Down Restaurant)	428.4	86.9613	5.1393	0.0000	215.4430
Hotel	27.38	5.5579	0.3285	0.0000	13.7694
Quality Restaurant	7.3	1.4818	0.0876	0.0000	3.6712
Regional Shopping Center	58.8	11.9359	0.7054	0.0000	29.5706
Total		**207.8079**	**12.2811**	**0.0000**	**514.8354**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Low Rise	11.5	2.3344	0.1380	0.0000	5.7834
Apartments Mid Rise	448.5	91.0415	5.3804	0.0000	225.5513
General Office Building	41.85	8.4952	0.5021	0.0000	21.0464
High Turnover (Sit Down Restaurant)	428.4	86.9613	5.1393	0.0000	215.4430
Hotel	27.38	5.5579	0.3285	0.0000	13.7694
Quality Restaurant	7.3	1.4818	0.0876	0.0000	3.6712
Regional Shopping Center	58.8	11.9359	0.7054	0.0000	29.5706
Total		**207.8079**	**12.2811**	**0.0000**	**514.8354**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Village South Specific Plan (Proposed)

Los Angeles-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	45.00	1000sqft	1.03	45,000.00	0
High Turnover (Sit Down Restaurant)	36.00	1000sqft	0.83	36,000.00	0
Hotel	50.00	Room	1.67	72,600.00	0
Quality Restaurant	8.00	1000sqft	0.18	8,000.00	0
Apartments Low Rise	25.00	Dwelling Unit	1.56	25,000.00	72
Apartments Mid Rise	975.00	Dwelling Unit	25.66	975,000.00	2789
Regional Shopping Center	56.00	1000sqft	1.29	56,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2028
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

Project Characteristics - Consistent with the DEIR's model.

Land Use - See SWAPE comment regarding residential and retail land uses.

Construction Phase - See SWAPE comment regarding individual construction phase lengths.

Demolition - Consistent with the DEIR's model. See SWAPE comment regarding demolition.

Vehicle Trips - Saturday trips consistent with the DEIR's model. See SWAPE comment regarding weekday and Sunday trips.

Woodstoves - Woodstoves and wood-burning fireplaces consistent with the DEIR's model. See SWAPE comment regarding gas fireplaces.

Energy Use -

Construction Off-road Equipment Mitigation - See SWAPE comment on construction-related mitigation.

Area Mitigation - See SWAPE comment regarding operational mitigation measures.

Water Mitigation - See SWAPE comment regarding operational mitigation measures.

Table Name	Column Name	Default Value	New Value
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberWood	1.25	0.00
tblFireplaces	NumberWood	48.75	0.00
tblVehicleTrips	ST_TR	7.16	6.17
tblVehicleTrips	ST_TR	6.39	3.87
tblVehicleTrips	ST_TR	2.46	1.39
tblVehicleTrips	ST_TR	158.37	79.82
tblVehicleTrips	ST_TR	8.19	3.75
tblVehicleTrips	ST_TR	94.36	63.99
tblVehicleTrips	ST_TR	49.97	10.74
tblVehicleTrips	SU_TR	6.07	6.16
tblVehicleTrips	SU_TR	5.86	4.18
tblVehicleTrips	SU_TR	1.05	0.69
tblVehicleTrips	SU_TR	131.84	78.27

tblVehicleTrips	SU_TR	5.95	3.20
tblVehicleTrips	SU_TR	72.16	57.65
tblVehicleTrips	SU_TR	25.24	6.39
tblVehicleTrips	WD_TR	6.59	5.83
tblVehicleTrips	WD_TR	6.65	4.13
tblVehicleTrips	WD_TR	11.03	6.41
tblVehicleTrips	WD_TR	127.15	65.80
tblVehicleTrips	WD_TR	8.17	3.84
tblVehicleTrips	WD_TR	89.95	62.64
tblVehicleTrips	WD_TR	42.70	9.43
tblWoodstoves	NumberCatalytic	1.25	0.00
tblWoodstoves	NumberCatalytic	48.75	0.00
tblWoodstoves	NumberNoncatalytic	1.25	0.00
tblWoodstoves	NumberNoncatalytic	48.75	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	4.2769	46.4588	31.6840	0.0643	18.2675	2.0461	20.3135	9.9840	1.8824	11.8664	0.0000	6,234.7974	6,234.7974	1.9495	0.0000	6,283.5352
2022	5.3304	38.8967	49.5629	0.1517	9.8688	1.6366	10.7727	3.6558	1.5057	5.1615	0.0000	15,251.5674	15,251.5674	1.9503	0.0000	15,278.5288
2023	4.8957	26.3317	46.7567	0.1472	9.8688	0.7794	10.6482	2.6381	0.7322	3.3702	0.0000	14,807.5269	14,807.5269	1.0250	0.0000	14,833.1521
2024	237.1630	9.5575	15.1043	0.0244	1.7884	0.4698	1.8628	0.4743	0.4322	0.5476	0.0000	2,361.3989	2,361.3989	0.7177	0.0000	2,379.3421
Maximum	**237.1630**	**46.4588**	**49.5629**	**0.1517**	**18.2675**	**2.0461**	**20.3135**	**9.9840**	**1.8824**	**11.8664**	**0.0000**	**15,251.5674**	**15,251.5674**	**1.9503**	**0.0000**	**15,278.5288**

2.1 Overall Construction (Maximum Daily Emission)

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	4.2769	46.4588	31.6840	0.0643	18.2675	2.0461	20.3135	9.9840	1.8824	11.8664	0.0000	6,234.7974	6,234.7974	1.9495	0.0000	6,283.5352
2022	5.3304	38.8967	49.5629	0.1517	9.8688	1.6366	10.7727	3.6558	1.5057	5.1615	0.0000	15,251.5674	15,251.5674	1.9503	0.0000	15,278.5288
2023	4.8957	26.3317	46.7567	0.1472	9.8688	0.7794	10.6482	2.6381	0.7322	3.3702	0.0000	14,807.5269	14,807.5269	1.0250	0.0000	14,833.1520
2024	237.1630	9.5575	15.1043	0.0244	1.7884	0.4698	1.8628	0.4743	0.4322	0.5476	0.0000	2,361.3989	2,361.3989	0.7177	0.0000	2,379.3421
Maximum	**237.1630**	**46.4588**	**49.5629**	**0.1517**	**18.2675**	**2.0461**	**20.3135**	**9.9840**	**1.8824**	**11.8664**	**0.0000**	**15,251.5674**	**15,251.5674**	**1.9503**	**0.0000**	**15,278.5288**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192
Energy	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.6387
Mobile	9.8489	45.4304	114.8495	0.4917	45.9592	0.3360	46.2951	12.2950	0.3119	12.6070		50,306.6034	50,306.6034	2.1807		50,361.1208
Total	**41.1168**	**67.2262**	**207.5497**	**0.6278**	**45.9592**	**2.4626**	**48.4217**	**12.2950**	**2.4385**	**14.7336**	**0.0000**	**76,811.1816**	**76,811.1816**	**2.8282**	**0.4832**	**77,025.8786**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192
Energy	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.6387
Mobile	9.8489	45.4304	114.8495	0.4917	45.9592	0.3360	46.2951	12.2950	0.3119	12.6070		50,306.6034	50,306.6034	2.1807		50,361.1208
Total	**41.1168**	**67.2262**	**207.5497**	**0.6278**	**45.9592**	**2.4626**	**48.4217**	**12.2950**	**2.4385**	**14.7336**	**0.0000**	**76,811.1816**	**76,811.1816**	**2.8282**	**0.4832**	**77,025.8786**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	9/1/2021	10/12/2021	5	30	
2	Site Preparation	Site Preparation	10/13/2021	11/9/2021	5	20	
3	Grading	Grading	11/10/2021	1/11/2022	5	45	
4	Building Construction	Building Construction	1/12/2022	12/12/2023	5	500	
5	Paving	Paving	12/13/2023	1/30/2024	5	35	
6	Architectural Coating	Architectural Coating	1/31/2024	3/19/2024	5	35	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 112.5

Acres of Paving: 0

Residential Indoor: 2,025,000; Residential Outdoor: 675,000; Non-Residential Indoor: 326,400; Non-Residential Outdoor: 108,800; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	458.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	801.00	143.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	160.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.3074	0.0000	3.3074	0.5008	0.0000	0.5008			0.0000			0.0000
Off-Road	3.1651	31.4407	21.5650	0.0388		1.5513	1.5513		1.4411	1.4411		3,747.9449	3,747.9449	1.0549		3,774.3174
Total	**3.1651**	**31.4407**	**21.5650**	**0.0388**	**3.3074**	**1.5513**	**4.8588**	**0.5008**	**1.4411**	**1.9419**		**3,747.9449**	**3,747.9449**	**1.0549**		**3,774.3174**

3.2 Demolition - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1273	4.0952	0.9602	0.0119	0.2669	0.0126	0.2795	0.0732	0.0120	0.0852		1,292.2413	1,292.2413	0.0877		1,294.4337
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0643	0.0442	0.6042	1.7100e-003	0.1677	1.3500e-003	0.1690	0.0445	1.2500e-003	0.0457		170.8155	170.8155	5.0300e-003		170.9413
Total	**0.1916**	**4.1394**	**1.5644**	**0.0136**	**0.4346**	**0.0139**	**0.4485**	**0.1176**	**0.0133**	**0.1309**		**1,463.0568**	**1,463.0568**	**0.0927**		**1,465.3750**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.3074	0.0000	3.3074	0.5008	0.0000	0.5008			0.0000			0.0000
Off-Road	3.1651	31.4407	21.5650	0.0388		1.5513	1.5513		1.4411	1.4411	0.0000	3,747.9449	3,747.9449	1.0549		3,774.3174
Total	**3.1651**	**31.4407**	**21.5650**	**0.0388**	**3.3074**	**1.5513**	**4.8588**	**0.5008**	**1.4411**	**1.9419**	**0.0000**	**3,747.9449**	**3,747.9449**	**1.0549**		**3,774.3174**

3.2 Demolition - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1273	4.0952	0.9602	0.0119	0.2669	0.0126	0.2795	0.0732	0.0120	0.0852		1,292.2413	1,292.2413	0.0877		1,294.4337
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0643	0.0442	0.6042	1.7100e-003	0.1677	1.3500e-003	0.1690	0.0445	1.2500e-003	0.0457		170.8155	170.8155	5.0300e-003		170.9413
Total	**0.1916**	**4.1394**	**1.5644**	**0.0136**	**0.4346**	**0.0139**	**0.4485**	**0.1176**	**0.0133**	**0.1309**		**1,463.0568**	**1,463.0568**	**0.0927**		**1,465.3750**

3.3 Site Preparation - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809		3,685.6569	3,685.6569	1.1920		3,715.4573
Total	**3.8882**	**40.4971**	**21.1543**	**0.0380**	**18.0663**	**2.0445**	**20.1107**	**9.9307**	**1.8809**	**11.8116**		**3,685.6569**	**3,685.6569**	**1.1920**		**3,715.4573**

3.3 Site Preparation - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0772	0.0530	0.7250	2.0600e-003	0.2012	1.6300e-003	0.2028	0.0534	1.5000e-003	0.0549		204.9786	204.9786	6.0400e-003		205.1296
Total	**0.0772**	**0.0530**	**0.7250**	**2.0600e-003**	**0.2012**	**1.6300e-003**	**0.2028**	**0.0534**	**1.5000e-003**	**0.0549**		**204.9786**	**204.9786**	**6.0400e-003**		**205.1296**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809	0.0000	3,685.6569	3,685.6569	1.1920		3,715.4573
Total	**3.8882**	**40.4971**	**21.1543**	**0.0380**	**18.0663**	**2.0445**	**20.1107**	**9.9307**	**1.8809**	**11.8116**	**0.0000**	**3,685.6569**	**3,685.6569**	**1.1920**		**3,715.4573**

3.3 Site Preparation - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0772	0.0530	0.7250	2.0600e-003	0.2012	1.6300e-003	0.2028	0.0534	1.5000e-003	0.0549		204.9786	204.9786	6.0400e-003		205.1296
Total	**0.0772**	**0.0530**	**0.7250**	**2.0600e-003**	**0.2012**	**1.6300e-003**	**0.2028**	**0.0534**	**1.5000e-003**	**0.0549**		**204.9786**	**204.9786**	**6.0400e-003**		**205.1296**

3.4 Grading - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	4.1912	46.3998	30.8785	0.0620		1.9853	1.9853		1.8265	1.8265		6,007.0434	6,007.0434	1.9428		6,055.6134
Total	**4.1912**	**46.3998**	**30.8785**	**0.0620**	**8.6733**	**1.9853**	**10.6587**	**3.5965**	**1.8265**	**5.4230**		**6,007.0434**	**6,007.0434**	**1.9428**		**6,055.6134**

3.4 Grading - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0857	0.0589	0.8056	2.2900e-003	0.2236	1.8100e-003	0.2254	0.0593	1.6600e-003	0.0610		227.7540	227.7540	6.7100e-003		227.9217
Total	**0.0857**	**0.0589**	**0.8056**	**2.2900e-003**	**0.2236**	**1.8100e-003**	**0.2254**	**0.0593**	**1.6600e-003**	**0.0610**		**227.7540**	**227.7540**	**6.7100e-003**		**227.9217**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	4.1912	46.3998	30.8785	0.0620		1.9853	1.9853		1.8265	1.8265	0.0000	6,007.0434	6,007.0434	1.9428		6,055.6134
Total	**4.1912**	**46.3998**	**30.8785**	**0.0620**	**8.6733**	**1.9853**	**10.6587**	**3.5965**	**1.8265**	**5.4230**	**0.0000**	**6,007.0434**	**6,007.0434**	**1.9428**		**6,055.6134**

3.4 Grading - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0857	0.0589	0.8056	2.2900e-003	0.2236	1.8100e-003	0.2254	0.0593	1.6600e-003	0.0610		227.7540	227.7540	6.7100e-003		227.9217
Total	**0.0857**	**0.0589**	**0.8056**	**2.2900e-003**	**0.2236**	**1.8100e-003**	**0.2254**	**0.0593**	**1.6600e-003**	**0.0610**		**227.7540**	**227.7540**	**6.7100e-003**		**227.9217**

3.4 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041		6,011.4105	6,011.4105	1.9442		6,060.0158
Total	**3.6248**	**38.8435**	**29.0415**	**0.0621**	**8.6733**	**1.6349**	**10.3082**	**3.5965**	**1.5041**	**5.1006**		**6,011.4105**	**6,011.4105**	**1.9442**		**6,060.0158**

3.4 Grading - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0803	0.0532	0.7432	2.2100e-003	0.2236	1.7500e-003	0.2253	0.0593	1.6100e-003	0.0609		219.7425	219.7425	6.0600e-003		219.8941
Total	**0.0803**	**0.0532**	**0.7432**	**2.2100e-003**	**0.2236**	**1.7500e-003**	**0.2253**	**0.0593**	**1.6100e-003**	**0.0609**		**219.7425**	**219.7425**	**6.0600e-003**		**219.8941**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041	0.0000	6,011.4105	6,011.4105	1.9442		6,060.0158
Total	**3.6248**	**38.8435**	**29.0415**	**0.0621**	**8.6733**	**1.6349**	**10.3082**	**3.5965**	**1.5041**	**5.1006**	**0.0000**	**6,011.4105**	**6,011.4105**	**1.9442**		**6,060.0158**

3.4 Grading - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0803	0.0532	0.7432	2.2100e-003	0.2236	1.7500e-003	0.2253	0.0593	1.6100e-003	0.0609		219.7425	219.7425	6.0600e-003		219.8941
Total	**0.0803**	**0.0532**	**0.7432**	**2.2100e-003**	**0.2236**	**1.7500e-003**	**0.2253**	**0.0593**	**1.6100e-003**	**0.0609**		**219.7425**	**219.7425**	**6.0600e-003**		**219.8941**

3.5 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**		**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

3.5 Building Construction - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.4079	13.2032	3.4341	0.0364	0.9155	0.0248	0.9404	0.2636	0.0237	0.2873		3,896.5482	3,896.5482	0.2236		3,902.1384
Worker	3.2162	2.1318	29.7654	0.0883	8.9533	0.0701	9.0234	2.3745	0.0646	2.4390		8,800.6857	8,800.6857	0.2429		8,806.7582
Total	**3.6242**	**15.3350**	**33.1995**	**0.1247**	**9.8688**	**0.0949**	**9.9637**	**2.6381**	**0.0883**	**2.7263**		**12,697.2339**	**12,697.2339**	**0.4665**		**12,708.8966**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612	0.0000	2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**	**0.0000**	**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

3.5 Building Construction - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.4079	13.2032	3.4341	0.0364	0.9155	0.0248	0.9404	0.2636	0.0237	0.2873		3,896.5482	3,896.5482	0.2236		3,902.1384
Worker	3.2162	2.1318	29.7654	0.0883	8.9533	0.0701	9.0234	2.3745	0.0646	2.4390		8,800.6857	8,800.6857	0.2429		8,806.7582
Total	**3.6242**	**15.3350**	**33.1995**	**0.1247**	**9.8688**	**0.0949**	**9.9637**	**2.6381**	**0.0883**	**2.7263**		**12,697.2339**	**12,697.2339**	**0.4665**		**12,708.8966**

3.5 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**		**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

3.5 Building Construction - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.3027	10.0181	3.1014	0.0352	0.9156	0.0116	0.9271	0.2636	0.0111	0.2747		3,773.8762	3,773.8762	0.1982		3,778.8300
Worker	3.0203	1.9287	27.4113	0.0851	8.9533	0.0681	9.0214	2.3745	0.0627	2.4372		8,478.4408	8,478.4408	0.2190		8,483.9160
Total	**3.3229**	**11.9468**	**30.5127**	**0.1203**	**9.8688**	**0.0797**	**9.9485**	**2.6381**	**0.0738**	**2.7118**		**12,252.3170**	**12,252.3170**	**0.4172**		**12,262.7460**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**	**0.0000**	**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

3.5 Building Construction - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.3027	10.0181	3.1014	0.0352	0.9156	0.0116	0.9271	0.2636	0.0111	0.2747		3,773.8762	3,773.8762	0.1982		3,778.8300
Worker	3.0203	1.9287	27.4113	0.0851	8.9533	0.0681	9.0214	2.3745	0.0627	2.4372		8,478.4408	8,478.4408	0.2190		8,483.9160
Total	**3.3229**	**11.9468**	**30.5127**	**0.1203**	**9.8688**	**0.0797**	**9.9485**	**2.6381**	**0.0738**	**2.7118**		**12,252.3170**	**12,252.3170**	**0.4172**		**12,262.7460**

3.6 Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694		2,207.5841	2,207.5841	0.7140		2,225.4336
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.0327**	**10.1917**	**14.5842**	**0.0228**		**0.5102**	**0.5102**		**0.4694**	**0.4694**		**2,207.5841**	**2,207.5841**	**0.7140**		**2,225.4336**

3.6 Paving - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0566	0.0361	0.5133	1.5900e-003	0.1677	1.2800e-003	0.1689	0.0445	1.1700e-003	0.0456		158.7723	158.7723	4.1000e-003		158.8748
Total	**0.0566**	**0.0361**	**0.5133**	**1.5900e-003**	**0.1677**	**1.2800e-003**	**0.1689**	**0.0445**	**1.1700e-003**	**0.0456**		**158.7723**	**158.7723**	**4.1000e-003**		**158.8748**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694	0.0000	2,207.5841	2,207.5841	0.7140		2,225.4336
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.0327**	**10.1917**	**14.5842**	**0.0228**		**0.5102**	**0.5102**		**0.4694**	**0.4694**	**0.0000**	**2,207.5841**	**2,207.5841**	**0.7140**		**2,225.4336**

3.6 Paving - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0566	0.0361	0.5133	1.5900e-003	0.1677	1.2800e-003	0.1689	0.0445	1.1700e-003	0.0456		158.7723	158.7723	4.1000e-003		158.8748
Total	**0.0566**	**0.0361**	**0.5133**	**1.5900e-003**	**0.1677**	**1.2800e-003**	**0.1689**	**0.0445**	**1.1700e-003**	**0.0456**		**158.7723**	**158.7723**	**4.1000e-003**		**158.8748**

3.6 Paving - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310		2,207.5472	2,207.5472	0.7140		2,225.3963
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9882**	**9.5246**	**14.6258**	**0.0228**		**0.4685**	**0.4685**		**0.4310**	**0.4310**		**2,207.5472**	**2,207.5472**	**0.7140**		**2,225.3963**

3.6 Paving - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0535	0.0329	0.4785	1.5400e-003	0.1677	1.2600e-003	0.1689	0.0445	1.1600e-003	0.0456		153.8517	153.8517	3.7600e-003		153.9458
Total	**0.0535**	**0.0329**	**0.4785**	**1.5400e-003**	**0.1677**	**1.2600e-003**	**0.1689**	**0.0445**	**1.1600e-003**	**0.0456**		**153.8517**	**153.8517**	**3.7600e-003**		**153.9458**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310	0.0000	2,207.5472	2,207.5472	0.7140		2,225.3963
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9882**	**9.5246**	**14.6258**	**0.0228**		**0.4685**	**0.4685**		**0.4310**	**0.4310**	**0.0000**	**2,207.5472**	**2,207.5472**	**0.7140**		**2,225.3963**

3.6 Paving - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0535	0.0329	0.4785	1.5400e-003	0.1677	1.2600e-003	0.1689	0.0445	1.1600e-003	0.0456		153.8517	153.8517	3.7600e-003		153.9458
Total	**0.0535**	**0.0329**	**0.4785**	**1.5400e-003**	**0.1677**	**1.2600e-003**	**0.1689**	**0.0445**	**1.1600e-003**	**0.0456**		**153.8517**	**153.8517**	**3.7600e-003**		**153.9458**

3.7 Architectural Coating - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	236.4115					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443
Total	**236.5923**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**		**281.4481**	**281.4481**	**0.0159**		**281.8443**

3.7 Architectural Coating - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.5707	0.3513	5.1044	0.0165	1.7884	0.0134	1.8018	0.4743	0.0123	0.4866		1,641.0852	1,641.0852	0.0401		1,642.0886
Total	**0.5707**	**0.3513**	**5.1044**	**0.0165**	**1.7884**	**0.0134**	**1.8018**	**0.4743**	**0.0123**	**0.4866**		**1,641.0852**	**1,641.0852**	**0.0401**		**1,642.0886**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	236.4115					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609	0.0000	281.4481	281.4481	0.0159		281.8443
Total	**236.5923**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**	**0.0000**	**281.4481**	**281.4481**	**0.0159**		**281.8443**

3.7 Architectural Coating - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.5707	0.3513	5.1044	0.0165	1.7884	0.0134	1.8018	0.4743	0.0123	0.4866		1,641.0852	1,641.0852	0.0401		1,642.0886
Total	**0.5707**	**0.3513**	**5.1044**	**0.0165**	**1.7884**	**0.0134**	**1.8018**	**0.4743**	**0.0123**	**0.4866**		**1,641.0852**	**1,641.0852**	**0.0401**		**1,642.0886**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	9.8489	45.4304	114.8495	0.4917	45.9592	0.3360	46.2951	12.2950	0.3119	12.6070		50,306.6034	50,306.6034	2.1807		50,361.1208
Unmitigated	9.8489	45.4304	114.8495	0.4917	45.9592	0.3360	46.2951	12.2950	0.3119	12.6070		50,306.6034	50,306.6034	2.1807		50,361.1208

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	145.75	154.25	154.00	506,227	506,227
Apartments Mid Rise	4,026.75	3,773.25	4075.50	13,660,065	13,660,065
General Office Building	288.45	62.55	31.05	706,812	706,812
High Turnover (Sit Down Restaurant)	2,368.80	2,873.52	2817.72	3,413,937	3,413,937
Hotel	192.00	187.50	160.00	445,703	445,703
Quality Restaurant	501.12	511.92	461.20	707,488	707,488
Regional Shopping Center	528.08	601.44	357.84	1,112,221	1,112,221
Total	8,050.95	8,164.43	8,057.31	20,552,452	20,552,452

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Low Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Apartments Mid Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
High Turnover (Sit Down	16.60	8.40	6.90	8.50	72.50	19.00	37	20	43
Hotel	16.60	8.40	6.90	19.40	61.60	19.00	58	38	4
Quality Restaurant	16.60	8.40	6.90	12.00	69.00	19.00	38	18	44
Regional Shopping Center	16.60	8.40	6.90	16.30	64.70	19.00	54	35	11

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Low Rise	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Apartments Mid Rise	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
General Office Building	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
High Turnover (Sit Down Restaurant)	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Hotel	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Quality Restaurant	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Regional Shopping Center	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.6387
NaturalGas Unmitigated	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.6387

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Low Rise	1119.16	0.0121	0.1031	0.0439	6.6000e-004		8.3400e-003	8.3400e-003		8.3400e-003	8.3400e-003		131.6662	131.6662	2.5200e-003	2.4100e-003	132.4486
Apartments Mid Rise	35784.3	0.3859	3.2978	1.4033	0.0211		0.2666	0.2666		0.2666	0.2666		4,209.9164	4,209.9164	0.0807	0.0772	4,234.9339
General Office Building	1283.42	0.0138	0.1258	0.1057	7.5000e-004		9.5600e-003	9.5600e-003		9.5600e-003	9.5600e-003		150.9911	150.9911	2.8900e-003	2.7700e-003	151.8884
High Turnover (Sit Down Restaurant)	22759.9	0.2455	2.2314	1.8743	0.0134		0.1696	0.1696		0.1696	0.1696		2,677.6342	2,677.6342	0.0513	0.0491	2,693.5460
Hotel	4769.72	0.0514	0.4676	0.3928	2.8100e-003		0.0355	0.0355		0.0355	0.0355		561.1436	561.1436	0.0108	0.0103	564.4782
Quality Restaurant	5057.75	0.0545	0.4959	0.4165	2.9800e-003		0.0377	0.0377		0.0377	0.0377		595.0298	595.0298	0.0114	0.0109	598.5658
Regional Shopping Center	251.616	2.7100e-003	0.0247	0.0207	1.5000e-004		1.8700e-003	1.8700e-003		1.8700e-003	1.8700e-003		29.6019	29.6019	5.7000e-004	5.4000e-004	29.7778
Total		**0.7660**	**6.7463**	**4.2573**	**0.0418**		**0.5292**	**0.5292**		**0.5292**	**0.5292**		**8,355.9832**	**8,355.9832**	**0.1602**	**0.1532**	**8,405.6387**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Low Rise	1.11916	0.0121	0.1031	0.0439	6.6000e-004		8.3400e-003	8.3400e-003		8.3400e-003	8.3400e-003		131.6662	131.6662	2.5200e-003	2.4100e-003	132.4486
Apartments Mid Rise	35.7843	0.3859	3.2978	1.4033	0.0211		0.2666	0.2666		0.2666	0.2666		4,209.9164	4,209.9164	0.0807	0.0772	4,234.9339
General Office Building	1.28342	0.0138	0.1258	0.1057	7.5000e-004		9.5600e-003	9.5600e-003		9.5600e-003	9.5600e-003		150.9911	150.9911	2.8900e-003	2.7700e-003	151.8884
High Turnover (Sit Down Restaurant)	22.7599	0.2455	2.2314	1.8743	0.0134		0.1696	0.1696		0.1696	0.1696		2,677.6342	2,677.6342	0.0513	0.0491	2,693.5460
Hotel	4.76972	0.0514	0.4676	0.3928	2.8100e-003		0.0355	0.0355		0.0355	0.0355		561.1436	561.1436	0.0108	0.0103	564.4782
Quality Restaurant	5.05775	0.0545	0.4959	0.4165	2.9800e-003		0.0377	0.0377		0.0377	0.0377		595.0298	595.0298	0.0114	0.0109	598.5658
Regional Shopping Center	0.251616	2.7100e-003	0.0247	0.0207	1.5000e-004		1.8700e-003	1.8700e-003		1.8700e-003	1.8700e-003		29.6019	29.6019	5.7000e-004	5.4000e-004	29.7778
Total		**0.7660**	**6.7463**	**4.2573**	**0.0418**		**0.5292**	**0.5292**		**0.5292**	**0.5292**		**8,355.9832**	**8,355.9832**	**0.1602**	**0.1532**	**8,405.6387**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192
Unmitigated	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	2.2670					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	24.1085					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	1.6500	14.1000	6.0000	0.0900		1.1400	1.1400		1.1400	1.1400	0.0000	18,000.0000	18,000.0000	0.3450	0.3300	18,106.9650
Landscaping	2.4766	0.9496	82.4430	4.3600e-003		0.4574	0.4574		0.4574	0.4574		148.5950	148.5950	0.1424		152.1542
Total	**30.5020**	**15.0496**	**88.4430**	**0.0944**		**1.5974**	**1.5974**		**1.5974**	**1.5974**	**0.0000**	**18,148.5950**	**18,148.5950**	**0.4874**	**0.3300**	**18,259.1192**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	2.2670					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	24.1085					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	1.6500	14.1000	6.0000	0.0900		1.1400	1.1400		1.1400	1.1400	0.0000	18,000.0000	18,000.0000	0.3450	0.3300	18,106.9650
Landscaping	2.4766	0.9496	82.4430	4.3600e-003		0.4574	0.4574		0.4574	0.4574		148.5950	148.5950	0.1424		152.1542
Total	**30.5020**	**15.0496**	**88.4430**	**0.0944**		**1.5974**	**1.5974**		**1.5974**	**1.5974**	**0.0000**	**18,148.5950**	**18,148.5950**	**0.4874**	**0.3300**	**18,259.1192**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Village South Specific Plan (Proposed)

Los Angeles-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	45.00	1000sqft	1.03	45,000.00	0
High Turnover (Sit Down Restaurant)	36.00	1000sqft	0.83	36,000.00	0
Hotel	50.00	Room	1.67	72,600.00	0
Quality Restaurant	8.00	1000sqft	0.18	8,000.00	0
Apartments Low Rise	25.00	Dwelling Unit	1.56	25,000.00	72
Apartments Mid Rise	975.00	Dwelling Unit	25.66	975,000.00	2789
Regional Shopping Center	56.00	1000sqft	1.29	56,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2028
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

Project Characteristics - Consistent with the DEIR's model.

Land Use - See SWAPE comment regarding residential and retail land uses.

Construction Phase - See SWAPE comment regarding individual construction phase lengths.

Demolition - Consistent with the DEIR's model. See SWAPE comment regarding demolition.

Vehicle Trips - Saturday trips consistent with the DEIR's model. See SWAPE comment regarding weekday and Sunday trips.

Woodstoves - Woodstoves and wood-burning fireplaces consistent with the DEIR's model. See SWAPE comment regarding gas fireplaces.

Energy Use -

Construction Off-road Equipment Mitigation - See SWAPE comment on construction-related mitigation.

Area Mitigation - See SWAPE comment regarding operational mitigation measures.

Water Mitigation - See SWAPE comment regarding operational mitigation measures.

Table Name	Column Name	Default Value	New Value
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberWood	1.25	0.00
tblFireplaces	NumberWood	48.75	0.00
tblVehicleTrips	ST_TR	7.16	6.17
tblVehicleTrips	ST_TR	6.39	3.87
tblVehicleTrips	ST_TR	2.46	1.39
tblVehicleTrips	ST_TR	158.37	79.82
tblVehicleTrips	ST_TR	8.19	3.75
tblVehicleTrips	ST_TR	94.36	63.99
tblVehicleTrips	ST_TR	49.97	10.74
tblVehicleTrips	SU_TR	6.07	6.16
tblVehicleTrips	SU_TR	5.86	4.18
tblVehicleTrips	SU_TR	1.05	0.69
tblVehicleTrips	SU_TR	131.84	78.27

tblVehicleTrips	SU_TR	5.95	3.20
tblVehicleTrips	SU_TR	72.16	57.65
tblVehicleTrips	SU_TR	25.24	6.39
tblVehicleTrips	WD_TR	6.59	5.83
tblVehicleTrips	WD_TR	6.65	4.13
tblVehicleTrips	WD_TR	11.03	6.41
tblVehicleTrips	WD_TR	127.15	65.80
tblVehicleTrips	WD_TR	8.17	3.84
tblVehicleTrips	WD_TR	89.95	62.64
tblVehicleTrips	WD_TR	42.70	9.43
tblWoodstoves	NumberCatalytic	1.25	0.00
tblWoodstoves	NumberCatalytic	48.75	0.00
tblWoodstoves	NumberNoncatalytic	1.25	0.00
tblWoodstoves	NumberNoncatalytic	48.75	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	4.2865	46.4651	31.6150	0.0642	18.2675	2.0461	20.3135	9.9840	1.8824	11.8664	0.0000	6,221.4937	6,221.4937	1.9491	0.0000	6,270.2214
2022	5.7218	38.9024	47.3319	0.1455	9.8688	1.6366	10.7736	3.6558	1.5057	5.1615	0.0000	14,630.3099	14,630.3099	1.9499	0.0000	14,657.2663
2023	5.2705	26.4914	44.5936	0.1413	9.8688	0.7800	10.6488	2.6381	0.7328	3.3708	0.0000	14,210.3424	14,210.3424	1.0230	0.0000	14,235.9160
2024	237.2328	9.5610	15.0611	0.0243	1.7884	0.4698	1.8628	0.4743	0.4322	0.5476	0.0000	2,352.4178	2,352.4178	0.7175	0.0000	2,370.3550
Maximum	**237.2328**	**46.4651**	**47.3319**	**0.1455**	**18.2675**	**2.0461**	**20.3135**	**9.9840**	**1.8824**	**11.8664**	**0.0000**	**14,630.3099**	**14,630.3099**	**1.9499**	**0.0000**	**14,657.2663**

2.1 Overall Construction (Maximum Daily Emission)

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	4.2865	46.4651	31.6150	0.0642	18.2675	2.0461	20.3135	9.9840	1.8824	11.8664	0.0000	6,221.4937	6,221.4937	1.9491	0.0000	6,270.2214
2022	5.7218	38.9024	47.3319	0.1455	9.8688	1.6366	10.7736	3.6558	1.5057	5.1615	0.0000	14,630.3099	14,630.3099	1.9499	0.0000	14,657.2663
2023	5.2705	26.4914	44.5936	0.1413	9.8688	0.7800	10.6488	2.6381	0.7328	3.3708	0.0000	14,210.3424	14,210.3424	1.0230	0.0000	14,235.9160
2024	237.2328	9.5610	15.0611	0.0243	1.7884	0.4698	1.8628	0.4743	0.4322	0.5476	0.0000	2,352.4178	2,352.4178	0.7175	0.0000	2,370.3550
Maximum	**237.2328**	**46.4651**	**47.3319**	**0.1455**	**18.2675**	**2.0461**	**20.3135**	**9.9840**	**1.8824**	**11.8664**	**0.0000**	**14,630.3099**	**14,630.3099**	**1.9499**	**0.0000**	**14,657.2663**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192
Energy	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.6387
Mobile	9.5233	45.9914	110.0422	0.4681	45.9592	0.3373	46.2965	12.2950	0.3132	12.6083		47,917.8005	47,917.8005	2.1953		47,972.6839
Total	**40.7912**	**67.7872**	**202.7424**	**0.6043**	**45.9592**	**2.4640**	**48.4231**	**12.2950**	**2.4399**	**14.7349**	**0.0000**	**74,422.3787**	**74,422.3787**	**2.8429**	**0.4832**	**74,637.4417**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192
Energy	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.6387
Mobile	9.5233	45.9914	110.0422	0.4681	45.9592	0.3373	46.2965	12.2950	0.3132	12.6083		47,917.8005	47,917.8005	2.1953		47,972.6839
Total	**40.7912**	**67.7872**	**202.7424**	**0.6043**	**45.9592**	**2.4640**	**48.4231**	**12.2950**	**2.4399**	**14.7349**	**0.0000**	**74,422.3787**	**74,422.3787**	**2.8429**	**0.4832**	**74,637.4417**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	9/1/2021	10/12/2021	5	30	
2	Site Preparation	Site Preparation	10/13/2021	11/9/2021	5	20	
3	Grading	Grading	11/10/2021	1/11/2022	5	45	
4	Building Construction	Building Construction	1/12/2022	12/12/2023	5	500	
5	Paving	Paving	12/13/2023	1/30/2024	5	35	
6	Architectural Coating	Architectural Coating	1/31/2024	3/19/2024	5	35	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 112.5

Acres of Paving: 0

Residential Indoor: 2,025,000; Residential Outdoor: 675,000; Non-Residential Indoor: 326,400; Non-Residential Outdoor: 108,800; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	458.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	801.00	143.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	160.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.3074	0.0000	3.3074	0.5008	0.0000	0.5008			0.0000			0.0000
Off-Road	3.1651	31.4407	21.5650	0.0388		1.5513	1.5513		1.4411	1.4411		3,747.9449	3,747.9449	1.0549		3,774.3174
Total	**3.1651**	**31.4407**	**21.5650**	**0.0388**	**3.3074**	**1.5513**	**4.8588**	**0.5008**	**1.4411**	**1.9419**		**3,747.9449**	**3,747.9449**	**1.0549**		**3,774.3174**

3.2 Demolition - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1304	4.1454	1.0182	0.0117	0.2669	0.0128	0.2797	0.0732	0.0122	0.0854		1,269.8555	1,269.8555	0.0908		1,272.1252
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0715	0.0489	0.5524	1.6100e-003	0.1677	1.3500e-003	0.1690	0.0445	1.2500e-003	0.0457		160.8377	160.8377	4.7300e-003		160.9560
Total	**0.2019**	**4.1943**	**1.5706**	**0.0133**	**0.4346**	**0.0141**	**0.4487**	**0.1176**	**0.0135**	**0.1311**		**1,430.6932**	**1,430.6932**	**0.0955**		**1,433.0812**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.3074	0.0000	3.3074	0.5008	0.0000	0.5008			0.0000			0.0000
Off-Road	3.1651	31.4407	21.5650	0.0388		1.5513	1.5513		1.4411	1.4411	0.0000	3,747.9449	3,747.9449	1.0549		3,774.3174
Total	**3.1651**	**31.4407**	**21.5650**	**0.0388**	**3.3074**	**1.5513**	**4.8588**	**0.5008**	**1.4411**	**1.9419**	**0.0000**	**3,747.9449**	**3,747.9449**	**1.0549**		**3,774.3174**

3.2 Demolition - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1304	4.1454	1.0182	0.0117	0.2669	0.0128	0.2797	0.0732	0.0122	0.0854		1,269.8555	1,269.8555	0.0908		1,272.1252
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0715	0.0489	0.5524	1.6100e-003	0.1677	1.3500e-003	0.1690	0.0445	1.2500e-003	0.0457		160.8377	160.8377	4.7300e-003		160.9560
Total	**0.2019**	**4.1943**	**1.5706**	**0.0133**	**0.4346**	**0.0141**	**0.4487**	**0.1176**	**0.0135**	**0.1311**		**1,430.6932**	**1,430.6932**	**0.0955**		**1,433.0812**

3.3 Site Preparation - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809		3,685.6569	3,685.6569	1.1920		3,715.4573
Total	**3.8882**	**40.4971**	**21.1543**	**0.0380**	**18.0663**	**2.0445**	**20.1107**	**9.9307**	**1.8809**	**11.8116**		**3,685.6569**	**3,685.6569**	**1.1920**		**3,715.4573**

3.3 Site Preparation - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0858	0.0587	0.6629	1.9400e-003	0.2012	1.6300e-003	0.2028	0.0534	1.5000e-003	0.0549		193.0052	193.0052	5.6800e-003		193.1472
Total	**0.0858**	**0.0587**	**0.6629**	**1.9400e-003**	**0.2012**	**1.6300e-003**	**0.2028**	**0.0534**	**1.5000e-003**	**0.0549**		**193.0052**	**193.0052**	**5.6800e-003**		**193.1472**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809	0.0000	3,685.6569	3,685.6569	1.1920		3,715.4573
Total	**3.8882**	**40.4971**	**21.1543**	**0.0380**	**18.0663**	**2.0445**	**20.1107**	**9.9307**	**1.8809**	**11.8116**	**0.0000**	**3,685.6569**	**3,685.6569**	**1.1920**		**3,715.4573**

3.3 Site Preparation - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0858	0.0587	0.6629	1.9400e-003	0.2012	1.6300e-003	0.2028	0.0534	1.5000e-003	0.0549		193.0052	193.0052	5.6800e-003		193.1472
Total	**0.0858**	**0.0587**	**0.6629**	**1.9400e-003**	**0.2012**	**1.6300e-003**	**0.2028**	**0.0534**	**1.5000e-003**	**0.0549**		**193.0052**	**193.0052**	**5.6800e-003**		**193.1472**

3.4 Grading - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	4.1912	46.3998	30.8785	0.0620		1.9853	1.9853		1.8265	1.8265		6,007.0434	6,007.0434	1.9428		6,055.6134
Total	**4.1912**	**46.3998**	**30.8785**	**0.0620**	**8.6733**	**1.9853**	**10.6587**	**3.5965**	**1.8265**	**5.4230**		**6,007.0434**	**6,007.0434**	**1.9428**		**6,055.6134**

3.4 Grading - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0954	0.0652	0.7365	2.1500e-003	0.2236	1.8100e-003	0.2254	0.0593	1.6600e-003	0.0610		214.4502	214.4502	6.3100e-003		214.6080
Total	**0.0954**	**0.0652**	**0.7365**	**2.1500e-003**	**0.2236**	**1.8100e-003**	**0.2254**	**0.0593**	**1.6600e-003**	**0.0610**		**214.4502**	**214.4502**	**6.3100e-003**		**214.6080**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	4.1912	46.3998	30.8785	0.0620		1.9853	1.9853		1.8265	1.8265	0.0000	6,007.0434	6,007.0434	1.9428		6,055.6134
Total	**4.1912**	**46.3998**	**30.8785**	**0.0620**	**8.6733**	**1.9853**	**10.6587**	**3.5965**	**1.8265**	**5.4230**	**0.0000**	**6,007.0434**	**6,007.0434**	**1.9428**		**6,055.6134**

3.4 Grading - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0954	0.0652	0.7365	2.1500e-003	0.2236	1.8100e-003	0.2254	0.0593	1.6600e-003	0.0610		214.4502	214.4502	6.3100e-003		214.6080
Total	**0.0954**	**0.0652**	**0.7365**	**2.1500e-003**	**0.2236**	**1.8100e-003**	**0.2254**	**0.0593**	**1.6600e-003**	**0.0610**		**214.4502**	**214.4502**	**6.3100e-003**		**214.6080**

3.4 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041		6,011.4105	6,011.4105	1.9442		6,060.0158
Total	**3.6248**	**38.8435**	**29.0415**	**0.0621**	**8.6733**	**1.6349**	**10.3082**	**3.5965**	**1.5041**	**5.1006**		**6,011.4105**	**6,011.4105**	**1.9442**		**6,060.0158**

3.4 Grading - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0896	0.0589	0.6784	2.0800e-003	0.2236	1.7500e-003	0.2253	0.0593	1.6100e-003	0.0609		206.9139	206.9139	5.7000e-003		207.0563
Total	**0.0896**	**0.0589**	**0.6784**	**2.0800e-003**	**0.2236**	**1.7500e-003**	**0.2253**	**0.0593**	**1.6100e-003**	**0.0609**		**206.9139**	**206.9139**	**5.7000e-003**		**207.0563**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041	0.0000	6,011.4105	6,011.4105	1.9442		6,060.0158
Total	**3.6248**	**38.8435**	**29.0415**	**0.0621**	**8.6733**	**1.6349**	**10.3082**	**3.5965**	**1.5041**	**5.1006**	**0.0000**	**6,011.4105**	**6,011.4105**	**1.9442**		**6,060.0158**

3.4 Grading - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0896	0.0589	0.6784	2.0800e-003	0.2236	1.7500e-003	0.2253	0.0593	1.6100e-003	0.0609		206.9139	206.9139	5.7000e-003		207.0563
Total	**0.0896**	**0.0589**	**0.6784**	**2.0800e-003**	**0.2236**	**1.7500e-003**	**0.2253**	**0.0593**	**1.6100e-003**	**0.0609**		**206.9139**	**206.9139**	**5.7000e-003**		**207.0563**

3.5 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**		**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

3.5 Building Construction - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.4284	13.1673	3.8005	0.0354	0.9155	0.0256	0.9412	0.2636	0.0245	0.2881		3,789.0750	3,789.0750	0.2381		3,795.0283
Worker	3.5872	2.3593	27.1680	0.0832	8.9533	0.0701	9.0234	2.3745	0.0646	2.4390		8,286.9013	8,286.9013	0.2282		8,292.6058
Total	**4.0156**	**15.5266**	**30.9685**	**0.1186**	**9.8688**	**0.0957**	**9.9645**	**2.6381**	**0.0891**	**2.7271**		**12,075.9763**	**12,075.9763**	**0.4663**		**12,087.6341**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612	0.0000	2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**	**0.0000**	**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

3.5 Building Construction - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.4284	13.1673	3.8005	0.0354	0.9155	0.0256	0.9412	0.2636	0.0245	0.2881		3,789.0750	3,789.0750	0.2381		3,795.0283
Worker	3.5872	2.3593	27.1680	0.0832	8.9533	0.0701	9.0234	2.3745	0.0646	2.4390		8,286.9013	8,286.9013	0.2282		8,292.6058
Total	**4.0156**	**15.5266**	**30.9685**	**0.1186**	**9.8688**	**0.0957**	**9.9645**	**2.6381**	**0.0891**	**2.7271**		**12,075.9763**	**12,075.9763**	**0.4663**		**12,087.6341**

3.5 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**		**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

3.5 Building Construction - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.3183	9.9726	3.3771	0.0343	0.9156	0.0122	0.9277	0.2636	0.0116	0.2752		3,671.4007	3,671.4007	0.2096		3,676.6417
Worker	3.3795	2.1338	24.9725	0.0801	8.9533	0.0681	9.0214	2.3745	0.0627	2.4372		7,983.7318	7,983.7318	0.2055		7,988.8683
Total	**3.6978**	**12.1065**	**28.3496**	**0.1144**	**9.8688**	**0.0803**	**9.9491**	**2.6381**	**0.0743**	**2.7124**		**11,655.1325**	**11,655.1325**	**0.4151**		**11,665.5099**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**	**0.0000**	**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

3.5 Building Construction - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.3183	9.9726	3.3771	0.0343	0.9156	0.0122	0.9277	0.2636	0.0116	0.2752		3,671.4007	3,671.4007	0.2096		3,676.6417
Worker	3.3795	2.1338	24.9725	0.0801	8.9533	0.0681	9.0214	2.3745	0.0627	2.4372		7,983.7318	7,983.7318	0.2055		7,988.8683
Total	**3.6978**	**12.1065**	**28.3496**	**0.1144**	**9.8688**	**0.0803**	**9.9491**	**2.6381**	**0.0743**	**2.7124**		**11,655.1325**	**11,655.1325**	**0.4151**		**11,665.5099**

3.6 Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694		2,207.5841	2,207.5841	0.7140		2,225.4336
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.0327**	**10.1917**	**14.5842**	**0.0228**		**0.5102**	**0.5102**		**0.4694**	**0.4694**		**2,207.5841**	**2,207.5841**	**0.7140**		**2,225.4336**

3.6 Paving - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0633	0.0400	0.4677	1.5000e-003	0.1677	1.2800e-003	0.1689	0.0445	1.1700e-003	0.0456		149.5081	149.5081	3.8500e-003		149.6043
Total	**0.0633**	**0.0400**	**0.4677**	**1.5000e-003**	**0.1677**	**1.2800e-003**	**0.1689**	**0.0445**	**1.1700e-003**	**0.0456**		**149.5081**	**149.5081**	**3.8500e-003**		**149.6043**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694	0.0000	2,207.5841	2,207.5841	0.7140		2,225.4336
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.0327**	**10.1917**	**14.5842**	**0.0228**		**0.5102**	**0.5102**		**0.4694**	**0.4694**	**0.0000**	**2,207.5841**	**2,207.5841**	**0.7140**		**2,225.4336**

3.6 Paving - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0633	0.0400	0.4677	1.5000e-003	0.1677	1.2800e-003	0.1689	0.0445	1.1700e-003	0.0456		149.5081	149.5081	3.8500e-003		149.6043
Total	**0.0633**	**0.0400**	**0.4677**	**1.5000e-003**	**0.1677**	**1.2800e-003**	**0.1689**	**0.0445**	**1.1700e-003**	**0.0456**		**149.5081**	**149.5081**	**3.8500e-003**		**149.6043**

3.6 Paving - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310		2,207.5472	2,207.5472	0.7140		2,225.3963
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9882**	**9.5246**	**14.6258**	**0.0228**		**0.4685**	**0.4685**		**0.4310**	**0.4310**		**2,207.5472**	**2,207.5472**	**0.7140**		**2,225.3963**

3.6 Paving - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0601	0.0364	0.4354	1.4500e-003	0.1677	1.2600e-003	0.1689	0.0445	1.1600e-003	0.0456		144.8706	144.8706	3.5300e-003		144.9587
Total	**0.0601**	**0.0364**	**0.4354**	**1.4500e-003**	**0.1677**	**1.2600e-003**	**0.1689**	**0.0445**	**1.1600e-003**	**0.0456**		**144.8706**	**144.8706**	**3.5300e-003**		**144.9587**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310	0.0000	2,207.5472	2,207.5472	0.7140		2,225.3963
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9882**	**9.5246**	**14.6258**	**0.0228**		**0.4685**	**0.4685**		**0.4310**	**0.4310**	**0.0000**	**2,207.5472**	**2,207.5472**	**0.7140**		**2,225.3963**

3.6 Paving - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0601	0.0364	0.4354	1.4500e-003	0.1677	1.2600e-003	0.1689	0.0445	1.1600e-003	0.0456		144.8706	144.8706	3.5300e-003		144.9587
Total	**0.0601**	**0.0364**	**0.4354**	**1.4500e-003**	**0.1677**	**1.2600e-003**	**0.1689**	**0.0445**	**1.1600e-003**	**0.0456**		**144.8706**	**144.8706**	**3.5300e-003**		**144.9587**

3.7 Architectural Coating - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	236.4115					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443
Total	**236.5923**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**		**281.4481**	**281.4481**	**0.0159**		**281.8443**

3.7 Architectural Coating - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.6406	0.3886	4.6439	0.0155	1.7884	0.0134	1.8018	0.4743	0.0123	0.4866		1,545.2860	1,545.2860	0.0376		1,546.2262
Total	**0.6406**	**0.3886**	**4.6439**	**0.0155**	**1.7884**	**0.0134**	**1.8018**	**0.4743**	**0.0123**	**0.4866**		**1,545.2860**	**1,545.2860**	**0.0376**		**1,546.2262**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	236.4115					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609	0.0000	281.4481	281.4481	0.0159		281.8443
Total	**236.5923**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**	**0.0000**	**281.4481**	**281.4481**	**0.0159**		**281.8443**

3.7 Architectural Coating - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.6406	0.3886	4.6439	0.0155	1.7884	0.0134	1.8018	0.4743	0.0123	0.4866		1,545.2860	1,545.2860	0.0376		1,546.2262
Total	**0.6406**	**0.3886**	**4.6439**	**0.0155**	**1.7884**	**0.0134**	**1.8018**	**0.4743**	**0.0123**	**0.4866**		**1,545.2860**	**1,545.2860**	**0.0376**		**1,546.2262**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	9.5233	45.9914	110.0422	0.4681	45.9592	0.3373	46.2965	12.2950	0.3132	12.6083		47,917.8005	47,917.8005	2.1953		47,972.6839
Unmitigated	9.5233	45.9914	110.0422	0.4681	45.9592	0.3373	46.2965	12.2950	0.3132	12.6083		47,917.8005	47,917.8005	2.1953		47,972.6839

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	145.75	154.25	154.00	506,227	506,227
Apartments Mid Rise	4,026.75	3,773.25	4075.50	13,660,065	13,660,065
General Office Building	288.45	62.55	31.05	706,812	706,812
High Turnover (Sit Down Restaurant)	2,368.80	2,873.52	2817.72	3,413,937	3,413,937
Hotel	192.00	187.50	160.00	445,703	445,703
Quality Restaurant	501.12	511.92	461.20	707,488	707,488
Regional Shopping Center	528.08	601.44	357.84	1,112,221	1,112,221
Total	8,050.95	8,164.43	8,057.31	20,552,452	20,552,452

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Low Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Apartments Mid Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
High Turnover (Sit Down	16.60	8.40	6.90	8.50	72.50	19.00	37	20	43
Hotel	16.60	8.40	6.90	19.40	61.60	19.00	58	38	4
Quality Restaurant	16.60	8.40	6.90	12.00	69.00	19.00	38	18	44
Regional Shopping Center	16.60	8.40	6.90	16.30	64.70	19.00	54	35	11

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Low Rise	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Apartments Mid Rise	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
General Office Building	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
High Turnover (Sit Down Restaurant)	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Hotel	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Quality Restaurant	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Regional Shopping Center	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.6387
NaturalGas Unmitigated	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.6387

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Low Rise	1119.16	0.0121	0.1031	0.0439	6.6000e-004		8.3400e-003	8.3400e-003		8.3400e-003	8.3400e-003		131.6662	131.6662	2.5200e-003	2.4100e-003	132.4486
Apartments Mid Rise	35784.3	0.3859	3.2978	1.4033	0.0211		0.2666	0.2666		0.2666	0.2666		4,209.9164	4,209.9164	0.0807	0.0772	4,234.9339
General Office Building	1283.42	0.0138	0.1258	0.1057	7.5000e-004		9.5600e-003	9.5600e-003		9.5600e-003	9.5600e-003		150.9911	150.9911	2.8900e-003	2.7700e-003	151.8884
High Turnover (Sit Down Restaurant)	22759.9	0.2455	2.2314	1.8743	0.0134		0.1696	0.1696		0.1696	0.1696		2,677.6342	2,677.6342	0.0513	0.0491	2,693.5460
Hotel	4769.72	0.0514	0.4676	0.3928	2.8100e-003		0.0355	0.0355		0.0355	0.0355		561.1436	561.1436	0.0108	0.0103	564.4782
Quality Restaurant	5057.75	0.0545	0.4959	0.4165	2.9800e-003		0.0377	0.0377		0.0377	0.0377		595.0298	595.0298	0.0114	0.0109	598.5658
Regional Shopping Center	251.616	2.7100e-003	0.0247	0.0207	1.5000e-004		1.8700e-003	1.8700e-003		1.8700e-003	1.8700e-003		29.6019	29.6019	5.7000e-004	5.4000e-004	29.7778
Total		**0.7660**	**6.7463**	**4.2573**	**0.0418**		**0.5292**	**0.5292**		**0.5292**	**0.5292**		**8,355.9832**	**8,355.9832**	**0.1602**	**0.1532**	**8,405.6387**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Low Rise	1.11916	0.0121	0.1031	0.0439	6.6000e-004		8.3400e-003	8.3400e-003		8.3400e-003	8.3400e-003		131.6662	131.6662	2.5200e-003	2.4100e-003	132.4486
Apartments Mid Rise	35.7843	0.3859	3.2978	1.4033	0.0211		0.2666	0.2666		0.2666	0.2666		4,209.9164	4,209.9164	0.0807	0.0772	4,234.9339
General Office Building	1.28342	0.0138	0.1258	0.1057	7.5000e-004		9.5600e-003	9.5600e-003		9.5600e-003	9.5600e-003		150.9911	150.9911	2.8900e-003	2.7700e-003	151.8884
High Turnover (Sit Down Restaurant)	22.7599	0.2455	2.2314	1.8743	0.0134		0.1696	0.1696		0.1696	0.1696		2,677.6342	2,677.6342	0.0513	0.0491	2,693.5460
Hotel	4.76972	0.0514	0.4676	0.3928	2.8100e-003		0.0355	0.0355		0.0355	0.0355		561.1436	561.1436	0.0108	0.0103	564.4782
Quality Restaurant	5.05775	0.0545	0.4959	0.4165	2.9800e-003		0.0377	0.0377		0.0377	0.0377		595.0298	595.0298	0.0114	0.0109	598.5658
Regional Shopping Center	0.251616	2.7100e-003	0.0247	0.0207	1.5000e-004		1.8700e-003	1.8700e-003		1.8700e-003	1.8700e-003		29.6019	29.6019	5.7000e-004	5.4000e-004	29.7778
Total		**0.7660**	**6.7463**	**4.2573**	**0.0418**		**0.5292**	**0.5292**		**0.5292**	**0.5292**		**8,355.9832**	**8,355.9832**	**0.1602**	**0.1532**	**8,405.6387**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192
Unmitigated	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	2.2670					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	24.1085					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	1.6500	14.1000	6.0000	0.0900		1.1400	1.1400		1.1400	1.1400	0.0000	18,000.0000	18,000.0000	0.3450	0.3300	18,106.9650
Landscaping	2.4766	0.9496	82.4430	4.3600e-003		0.4574	0.4574		0.4574	0.4574		148.5950	148.5950	0.1424		152.1542
Total	**30.5020**	**15.0496**	**88.4430**	**0.0944**		**1.5974**	**1.5974**		**1.5974**	**1.5974**	**0.0000**	**18,148.5950**	**18,148.5950**	**0.4874**	**0.3300**	**18,259.1192**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	2.2670					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	24.1085					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	1.6500	14.1000	6.0000	0.0900		1.1400	1.1400		1.1400	1.1400	0.0000	18,000.0000	18,000.0000	0.3450	0.3300	18,106.9650
Landscaping	2.4766	0.9496	82.4430	4.3600e-003		0.4574	0.4574		0.4574	0.4574		148.5950	148.5950	0.1424		152.1542
Total	**30.5020**	**15.0496**	**88.4430**	**0.0944**		**1.5974**	**1.5974**		**1.5974**	**1.5974**	**0.0000**	**18,148.5950**	**18,148.5950**	**0.4874**	**0.3300**	**18,259.1192**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Village South Specific Plan (Proposed)

Los Angeles-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	45.00	1000sqft	1.03	45,000.00	0
High Turnover (Sit Down Restaurant)	36.00	1000sqft	0.83	36,000.00	0
Hotel	50.00	Room	1.67	72,600.00	0
Quality Restaurant	8.00	1000sqft	0.18	8,000.00	0
Apartments Low Rise	25.00	Dwelling Unit	1.56	25,000.00	72
Apartments Mid Rise	975.00	Dwelling Unit	25.66	975,000.00	2789
Regional Shopping Center	56.00	1000sqft	1.29	56,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2028
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Annual

Project Characteristics - Consistent with the DEIR's model.

Land Use - See SWAPE comment regarding residential and retail land uses.

Construction Phase - See SWAPE comment regarding individual construction phase lengths.

Demolition - Consistent with the DEIR's model. See SWAPE comment regarding demolition.

Vehicle Trips - Saturday trips consistent with the DEIR's model. See SWAPE comment regarding weekday and Sunday trips.

Woodstoves - Woodstoves and wood-burning fireplaces consistent with the DEIR's model. See SWAPE comment regarding gas fireplaces.

Energy Use -

Construction Off-road Equipment Mitigation - See SWAPE comment on construction-related mitigation.

Area Mitigation - See SWAPE comment regarding operational mitigation measures.

Water Mitigation - See SWAPE comment regarding operational mitigation measures.

Trips and VMT - Local hire provision

Table Name	Column Name	Default Value	New Value
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberWood	1.25	0.00
tblFireplaces	NumberWood	48.75	0.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblVehicleTrips	ST_TR	7.16	6.17
tblVehicleTrips	ST_TR	6.39	3.87
tblVehicleTrips	ST_TR	2.46	1.39
tblVehicleTrips	ST_TR	158.37	79.82

tblVehicleTrips	ST_TR	8.19	3.75
tblVehicleTrips	ST_TR	94.36	63.99
tblVehicleTrips	ST_TR	49.97	10.74
tblVehicleTrips	SU_TR	6.07	6.16
tblVehicleTrips	SU_TR	5.86	4.18
tblVehicleTrips	SU_TR	1.05	0.69
tblVehicleTrips	SU_TR	131.84	78.27
tblVehicleTrips	SU_TR	5.95	3.20
tblVehicleTrips	SU_TR	72.16	57.65
tblVehicleTrips	SU_TR	25.24	6.39
tblVehicleTrips	WD_TR	6.59	5.83
tblVehicleTrips	WD_TR	6.65	4.13
tblVehicleTrips	WD_TR	11.03	6.41
tblVehicleTrips	WD_TR	127.15	65.80
tblVehicleTrips	WD_TR	8.17	3.84
tblVehicleTrips	WD_TR	89.95	62.64
tblVehicleTrips	WD_TR	42.70	9.43
tblWoodstoves	NumberCatalytic	1.25	0.00
tblWoodstoves	NumberCatalytic	48.75	0.00
tblWoodstoves	NumberNoncatalytic	1.25	0.00
tblWoodstoves	NumberNoncatalytic	48.75	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.1704	1.8234	1.1577	2.3800e-003	0.4141	0.0817	0.4958	0.1788	0.0754	0.2542	0.0000	210.7654	210.7654	0.0600	0.0000	212.2661
2022	0.5865	4.0240	5.1546	0.0155	0.9509	0.1175	1.0683	0.2518	0.1103	0.3621	0.0000	1,418.6554	1,418.6554	0.1215	0.0000	1,421.6925
2023	0.5190	3.2850	4.7678	0.0147	0.8497	0.0971	0.9468	0.2283	0.0912	0.3195	0.0000	1,342.4412	1,342.4412	0.1115	0.0000	1,345.2291
2024	4.1592	0.1313	0.2557	5.0000e-004	0.0221	6.3900e-003	0.0285	5.8700e-003	5.9700e-003	0.0118	0.0000	44.6355	44.6355	7.8300e-003	0.0000	44.8311
Maximum	**4.1592**	**4.0240**	**5.1546**	**0.0155**	**0.9509**	**0.1175**	**1.0683**	**0.2518**	**0.1103**	**0.3621**	**0.0000**	**1,418.6554**	**1,418.6554**	**0.1215**	**0.0000**	**1,421.6925**

2.1 Overall Construction

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.1704	1.8234	1.1577	2.3800e-003	0.4141	0.0817	0.4958	0.1788	0.0754	0.2542	0.0000	210.7651	210.7651	0.0600	0.0000	212.2658
2022	0.5865	4.0240	5.1546	0.0155	0.9509	0.1175	1.0683	0.2518	0.1103	0.3621	0.0000	1,418.6550	1,418.6550	0.1215	0.0000	1,421.6921
2023	0.5190	3.2850	4.7678	0.0147	0.8497	0.0971	0.9468	0.2283	0.0912	0.3195	0.0000	1,342.4409	1,342.4409	0.1115	0.0000	1,345.2287
2024	4.1592	0.1313	0.2557	5.0000e-004	0.0221	6.3900e-003	0.0285	5.8700e-003	5.9700e-003	0.0118	0.0000	44.6354	44.6354	7.8300e-003	0.0000	44.8311
Maximum	**4.1592**	**4.0240**	**5.1546**	**0.0155**	**0.9509**	**0.1175**	**1.0683**	**0.2518**	**0.1103**	**0.3621**	**0.0000**	**1,418.6550**	**1,418.6550**	**0.1215**	**0.0000**	**1,421.6921**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	**9-1-2021**	**11-30-2021**	1.4091	1.4091
2	**12-1-2021**	**2-28-2022**	1.3329	1.3329
3	**3-1-2022**	**5-31-2022**	1.1499	1.1499
4	**6-1-2022**	**8-31-2022**	1.1457	1.1457
5	**9-1-2022**	**11-30-2022**	1.1415	1.1415
6	**12-1-2022**	**2-28-2023**	1.0278	1.0278
7	**3-1-2023**	**5-31-2023**	0.9868	0.9868
8	**6-1-2023**	**8-31-2023**	0.9831	0.9831

9	**9-1-2023**	**11-30-2023**	0.9798	0.9798
10	**12-1-2023**	**2-29-2024**	2.8757	2.8757
11	**3-1-2024**	**5-31-2024**	1.6188	1.6188
		Highest	2.8757	2.8757

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	5.1437	0.2950	10.3804	1.6700e-003		0.0714	0.0714		0.0714	0.0714	0.0000	220.9670	220.9670	0.0201	3.7400e-003	222.5835
Energy	0.1398	1.2312	0.7770	7.6200e-003		0.0966	0.0966		0.0966	0.0966	0.0000	3,896.0732	3,896.0732	0.1303	0.0468	3,913.2833
Mobile	1.5857	7.9962	19.1834	0.0821	7.7979	0.0580	7.8559	2.0895	0.0539	2.1434	0.0000	7,620.4986	7,620.4986	0.3407	0.0000	7,629.0162
Waste						0.0000	0.0000		0.0000	0.0000	207.8079	0.0000	207.8079	12.2811	0.0000	514.8354
Water						0.0000	0.0000		0.0000	0.0000	29.1632	556.6420	585.8052	3.0183	0.0755	683.7567
Total	**6.8692**	**9.5223**	**30.3407**	**0.0914**	**7.7979**	**0.2260**	**8.0240**	**2.0895**	**0.2219**	**2.3114**	**236.9712**	**12,294.1807**	**12,531.1519**	**15.7904**	**0.1260**	**12,963.4751**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	5.1437	0.2950	10.3804	1.6700e-003		0.0714	0.0714		0.0714	0.0714	0.0000	220.9670	220.9670	0.0201	3.7400e-003	222.5835
Energy	0.1398	1.2312	0.7770	7.6200e-003		0.0966	0.0966		0.0966	0.0966	0.0000	3,896.0732	3,896.0732	0.1303	0.0468	3,913.2833
Mobile	1.5857	7.9962	19.1834	0.0821	7.7979	0.0580	7.8559	2.0895	0.0539	2.1434	0.0000	7,620.4986	7,620.4986	0.3407	0.0000	7,629.0162
Waste						0.0000	0.0000		0.0000	0.0000	207.8079	0.0000	207.8079	12.2811	0.0000	514.8354
Water						0.0000	0.0000		0.0000	0.0000	29.1632	556.6420	585.8052	3.0183	0.0755	683.7567
Total	**6.8692**	**9.5223**	**30.3407**	**0.0914**	**7.7979**	**0.2260**	**8.0240**	**2.0895**	**0.2219**	**2.3114**	**236.9712**	**12,294.1807**	**12,531.1519**	**15.7904**	**0.1260**	**12,963.4751**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Annual

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	9/1/2021	10/12/2021	5	30	
2	Site Preparation	Site Preparation	10/13/2021	11/9/2021	5	20	
3	Grading	Grading	11/10/2021	1/11/2022	5	45	
4	Building Construction	Building Construction	1/12/2022	12/12/2023	5	500	
5	Paving	Paving	12/13/2023	1/30/2024	5	35	
6	Architectural Coating	Architectural Coating	1/31/2024	3/19/2024	5	35	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 112.5

Acres of Paving: 0

Residential Indoor: 2,025,000; Residential Outdoor: 675,000; Non-Residential Indoor: 326,400; Non-Residential Outdoor: 108,800; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Annual

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	458.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	801.00	143.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	160.00	0.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0496	0.0000	0.0496	7.5100e-003	0.0000	7.5100e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0475	0.4716	0.3235	5.8000e-004		0.0233	0.0233		0.0216	0.0216	0.0000	51.0012	51.0012	0.0144	0.0000	51.3601
Total	**0.0475**	**0.4716**	**0.3235**	**5.8000e-004**	**0.0496**	**0.0233**	**0.0729**	**7.5100e-003**	**0.0216**	**0.0291**	**0.0000**	**51.0012**	**51.0012**	**0.0144**	**0.0000**	**51.3601**

3.2 Demolition - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.9300e-003	0.0634	0.0148	1.8000e-004	3.9400e-003	1.9000e-004	4.1300e-003	1.0800e-003	1.8000e-004	1.2600e-003	0.0000	17.4566	17.4566	1.2100e-003	0.0000	17.4869
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.2000e-004	5.3000e-004	6.0900e-003	2.0000e-005	1.6800e-003	1.0000e-005	1.6900e-003	4.5000e-004	1.0000e-005	4.6000e-004	0.0000	1.5281	1.5281	5.0000e-005	0.0000	1.5293
Total	**2.6500e-003**	**0.0639**	**0.0209**	**2.0000e-004**	**5.6200e-003**	**2.0000e-004**	**5.8200e-003**	**1.5300e-003**	**1.9000e-004**	**1.7200e-003**	**0.0000**	**18.9847**	**18.9847**	**1.2600e-003**	**0.0000**	**19.0161**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0496	0.0000	0.0496	7.5100e-003	0.0000	7.5100e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0475	0.4716	0.3235	5.8000e-004		0.0233	0.0233		0.0216	0.0216	0.0000	51.0011	51.0011	0.0144	0.0000	51.3600
Total	**0.0475**	**0.4716**	**0.3235**	**5.8000e-004**	**0.0496**	**0.0233**	**0.0729**	**7.5100e-003**	**0.0216**	**0.0291**	**0.0000**	**51.0011**	**51.0011**	**0.0144**	**0.0000**	**51.3600**

3.2 Demolition - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.9300e-003	0.0634	0.0148	1.8000e-004	3.9400e-003	1.9000e-004	4.1300e-003	1.0800e-003	1.8000e-004	1.2600e-003	0.0000	17.4566	17.4566	1.2100e-003	0.0000	17.4869
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.2000e-004	5.3000e-004	6.0900e-003	2.0000e-005	1.6800e-003	1.0000e-005	1.6900e-003	4.5000e-004	1.0000e-005	4.6000e-004	0.0000	1.5281	1.5281	5.0000e-005	0.0000	1.5293
Total	**2.6500e-003**	**0.0639**	**0.0209**	**2.0000e-004**	**5.6200e-003**	**2.0000e-004**	**5.8200e-003**	**1.5300e-003**	**1.9000e-004**	**1.7200e-003**	**0.0000**	**18.9847**	**18.9847**	**1.2600e-003**	**0.0000**	**19.0161**

3.3 Site Preparation - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1807	0.0000	0.1807	0.0993	0.0000	0.0993	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0389	0.4050	0.2115	3.8000e-004		0.0204	0.0204		0.0188	0.0188	0.0000	33.4357	33.4357	0.0108	0.0000	33.7061
Total	**0.0389**	**0.4050**	**0.2115**	**3.8000e-004**	**0.1807**	**0.0204**	**0.2011**	**0.0993**	**0.0188**	**0.1181**	**0.0000**	**33.4357**	**33.4357**	**0.0108**	**0.0000**	**33.7061**

3.3 Site Preparation - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.8000e-004	4.3000e-004	4.8700e-003	1.0000e-005	1.3400e-003	1.0000e-005	1.3500e-003	3.6000e-004	1.0000e-005	3.7000e-004	0.0000	1.2225	1.2225	4.0000e-005	0.0000	1.2234
Total	**5.8000e-004**	**4.3000e-004**	**4.8700e-003**	**1.0000e-005**	**1.3400e-003**	**1.0000e-005**	**1.3500e-003**	**3.6000e-004**	**1.0000e-005**	**3.7000e-004**	**0.0000**	**1.2225**	**1.2225**	**4.0000e-005**	**0.0000**	**1.2234**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1807	0.0000	0.1807	0.0993	0.0000	0.0993	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0389	0.4050	0.2115	3.8000e-004		0.0204	0.0204		0.0188	0.0188	0.0000	33.4357	33.4357	0.0108	0.0000	33.7060
Total	**0.0389**	**0.4050**	**0.2115**	**3.8000e-004**	**0.1807**	**0.0204**	**0.2011**	**0.0993**	**0.0188**	**0.1181**	**0.0000**	**33.4357**	**33.4357**	**0.0108**	**0.0000**	**33.7060**

3.3 Site Preparation - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.8000e-004	4.3000e-004	4.8700e-003	1.0000e-005	1.3400e-003	1.0000e-005	1.3500e-003	3.6000e-004	1.0000e-005	3.7000e-004	0.0000	1.2225	1.2225	4.0000e-005	0.0000	1.2234
Total	**5.8000e-004**	**4.3000e-004**	**4.8700e-003**	**1.0000e-005**	**1.3400e-003**	**1.0000e-005**	**1.3500e-003**	**3.6000e-004**	**1.0000e-005**	**3.7000e-004**	**0.0000**	**1.2225**	**1.2225**	**4.0000e-005**	**0.0000**	**1.2234**

3.4 Grading - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1741	0.0000	0.1741	0.0693	0.0000	0.0693	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0796	0.8816	0.5867	1.1800e-003		0.0377	0.0377		0.0347	0.0347	0.0000	103.5405	103.5405	0.0335	0.0000	104.3776
Total	**0.0796**	**0.8816**	**0.5867**	**1.1800e-003**	**0.1741**	**0.0377**	**0.2118**	**0.0693**	**0.0347**	**0.1040**	**0.0000**	**103.5405**	**103.5405**	**0.0335**	**0.0000**	**104.3776**

3.4 Grading - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.2200e-003	9.0000e-004	0.0103	3.0000e-005	2.8300e-003	2.0000e-005	2.8600e-003	7.5000e-004	2.0000e-005	7.8000e-004	0.0000	2.5808	2.5808	8.0000e-005	0.0000	2.5828
Total	**1.2200e-003**	**9.0000e-004**	**0.0103**	**3.0000e-005**	**2.8300e-003**	**2.0000e-005**	**2.8600e-003**	**7.5000e-004**	**2.0000e-005**	**7.8000e-004**	**0.0000**	**2.5808**	**2.5808**	**8.0000e-005**	**0.0000**	**2.5828**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1741	0.0000	0.1741	0.0693	0.0000	0.0693	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0796	0.8816	0.5867	1.1800e-003		0.0377	0.0377		0.0347	0.0347	0.0000	103.5403	103.5403	0.0335	0.0000	104.3775
Total	**0.0796**	**0.8816**	**0.5867**	**1.1800e-003**	**0.1741**	**0.0377**	**0.2118**	**0.0693**	**0.0347**	**0.1040**	**0.0000**	**103.5403**	**103.5403**	**0.0335**	**0.0000**	**104.3775**

3.4 Grading - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.2200e-003	9.0000e-004	0.0103	3.0000e-005	2.8300e-003	2.0000e-005	2.8600e-003	7.5000e-004	2.0000e-005	7.8000e-004	0.0000	2.5808	2.5808	8.0000e-005	0.0000	2.5828
Total	**1.2200e-003**	**9.0000e-004**	**0.0103**	**3.0000e-005**	**2.8300e-003**	**2.0000e-005**	**2.8600e-003**	**7.5000e-004**	**2.0000e-005**	**7.8000e-004**	**0.0000**	**2.5808**	**2.5808**	**8.0000e-005**	**0.0000**	**2.5828**

3.4 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0807	0.0000	0.0807	0.0180	0.0000	0.0180	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0127	0.1360	0.1017	2.2000e-004		5.7200e-003	5.7200e-003		5.2600e-003	5.2600e-003	0.0000	19.0871	19.0871	6.1700e-003	0.0000	19.2414
Total	**0.0127**	**0.1360**	**0.1017**	**2.2000e-004**	**0.0807**	**5.7200e-003**	**0.0865**	**0.0180**	**5.2600e-003**	**0.0233**	**0.0000**	**19.0871**	**19.0871**	**6.1700e-003**	**0.0000**	**19.2414**

3.4 Grading - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.1000e-004	1.5000e-004	1.7400e-003	1.0000e-005	5.2000e-004	0.0000	5.3000e-004	1.4000e-004	0.0000	1.4000e-004	0.0000	0.4587	0.4587	1.0000e-005	0.0000	0.4590
Total	**2.1000e-004**	**1.5000e-004**	**1.7400e-003**	**1.0000e-005**	**5.2000e-004**	**0.0000**	**5.3000e-004**	**1.4000e-004**	**0.0000**	**1.4000e-004**	**0.0000**	**0.4587**	**0.4587**	**1.0000e-005**	**0.0000**	**0.4590**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0807	0.0000	0.0807	0.0180	0.0000	0.0180	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0127	0.1360	0.1017	2.2000e-004		5.7200e-003	5.7200e-003		5.2600e-003	5.2600e-003	0.0000	19.0871	19.0871	6.1700e-003	0.0000	19.2414
Total	**0.0127**	**0.1360**	**0.1017**	**2.2000e-004**	**0.0807**	**5.7200e-003**	**0.0865**	**0.0180**	**5.2600e-003**	**0.0233**	**0.0000**	**19.0871**	**19.0871**	**6.1700e-003**	**0.0000**	**19.2414**

3.4 Grading - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.1000e-004	1.5000e-004	1.7400e-003	1.0000e-005	5.2000e-004	0.0000	5.3000e-004	1.4000e-004	0.0000	1.4000e-004	0.0000	0.4587	0.4587	1.0000e-005	0.0000	0.4590
Total	**2.1000e-004**	**1.5000e-004**	**1.7400e-003**	**1.0000e-005**	**5.2000e-004**	**0.0000**	**5.3000e-004**	**1.4000e-004**	**0.0000**	**1.4000e-004**	**0.0000**	**0.4587**	**0.4587**	**1.0000e-005**	**0.0000**	**0.4590**

3.5 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2158	1.9754	2.0700	3.4100e-003		0.1023	0.1023		0.0963	0.0963	0.0000	293.1324	293.1324	0.0702	0.0000	294.8881
Total	**0.2158**	**1.9754**	**2.0700**	**3.4100e-003**		**0.1023**	**0.1023**		**0.0963**	**0.0963**	**0.0000**	**293.1324**	**293.1324**	**0.0702**	**0.0000**	**294.8881**

3.5 Building Construction - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0527	1.6961	0.4580	4.5500e-003	0.1140	3.1800e-003	0.1171	0.0329	3.0400e-003	0.0359	0.0000	441.9835	441.9835	0.0264	0.0000	442.6435
Worker	0.3051	0.2164	2.5233	7.3500e-003	0.7557	6.2300e-003	0.7619	0.2007	5.7400e-003	0.2065	0.0000	663.9936	663.9936	0.0187	0.0000	664.4604
Total	**0.3578**	**1.9125**	**2.9812**	**0.0119**	**0.8696**	**9.4100e-003**	**0.8790**	**0.2336**	**8.7800e-003**	**0.2424**	**0.0000**	**1,105.9771**	**1,105.9771**	**0.0451**	**0.0000**	**1,107.1039**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2158	1.9754	2.0700	3.4100e-003		0.1023	0.1023		0.0963	0.0963	0.0000	293.1321	293.1321	0.0702	0.0000	294.8877
Total	**0.2158**	**1.9754**	**2.0700**	**3.4100e-003**		**0.1023**	**0.1023**		**0.0963**	**0.0963**	**0.0000**	**293.1321**	**293.1321**	**0.0702**	**0.0000**	**294.8877**

3.5 Building Construction - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0527	1.6961	0.4580	4.5500e-003	0.1140	3.1800e-003	0.1171	0.0329	3.0400e-003	0.0359	0.0000	441.9835	441.9835	0.0264	0.0000	442.6435
Worker	0.3051	0.2164	2.5233	7.3500e-003	0.7557	6.2300e-003	0.7619	0.2007	5.7400e-003	0.2065	0.0000	663.9936	663.9936	0.0187	0.0000	664.4604
Total	**0.3578**	**1.9125**	**2.9812**	**0.0119**	**0.8696**	**9.4100e-003**	**0.8790**	**0.2336**	**8.7800e-003**	**0.2424**	**0.0000**	**1,105.9771**	**1,105.9771**	**0.0451**	**0.0000**	**1,107.1039**

3.5 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1942	1.7765	2.0061	3.3300e-003		0.0864	0.0864		0.0813	0.0813	0.0000	286.2789	286.2789	0.0681	0.0000	287.9814
Total	**0.1942**	**1.7765**	**2.0061**	**3.3300e-003**		**0.0864**	**0.0864**		**0.0813**	**0.0813**	**0.0000**	**286.2789**	**286.2789**	**0.0681**	**0.0000**	**287.9814**

3.5 Building Construction - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0382	1.2511	0.4011	4.3000e-003	0.1113	1.4600e-003	0.1127	0.0321	1.4000e-003	0.0335	0.0000	417.9930	417.9930	0.0228	0.0000	418.5624
Worker	0.2795	0.1910	2.2635	6.9100e-003	0.7377	5.9100e-003	0.7436	0.1960	5.4500e-003	0.2014	0.0000	624.5363	624.5363	0.0164	0.0000	624.9466
Total	**0.3177**	**1.4420**	**2.6646**	**0.0112**	**0.8490**	**7.3700e-003**	**0.8564**	**0.2281**	**6.8500e-003**	**0.2349**	**0.0000**	**1,042.5294**	**1,042.5294**	**0.0392**	**0.0000**	**1,043.5090**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1942	1.7765	2.0061	3.3300e-003		0.0864	0.0864		0.0813	0.0813	0.0000	286.2785	286.2785	0.0681	0.0000	287.9811
Total	**0.1942**	**1.7765**	**2.0061**	**3.3300e-003**		**0.0864**	**0.0864**		**0.0813**	**0.0813**	**0.0000**	**286.2785**	**286.2785**	**0.0681**	**0.0000**	**287.9811**

3.5 Building Construction - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0382	1.2511	0.4011	4.3000e-003	0.1113	1.4600e-003	0.1127	0.0321	1.4000e-003	0.0335	0.0000	417.9930	417.9930	0.0228	0.0000	418.5624
Worker	0.2795	0.1910	2.2635	6.9100e-003	0.7377	5.9100e-003	0.7436	0.1960	5.4500e-003	0.2014	0.0000	624.5363	624.5363	0.0164	0.0000	624.9466
Total	**0.3177**	**1.4420**	**2.6646**	**0.0112**	**0.8490**	**7.3700e-003**	**0.8564**	**0.2281**	**6.8500e-003**	**0.2349**	**0.0000**	**1,042.5294**	**1,042.5294**	**0.0392**	**0.0000**	**1,043.5090**

3.6 Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	6.7100e-003	0.0663	0.0948	1.5000e-004		3.3200e-003	3.3200e-003		3.0500e-003	3.0500e-003	0.0000	13.0175	13.0175	4.2100e-003	0.0000	13.1227
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**6.7100e-003**	**0.0663**	**0.0948**	**1.5000e-004**		**3.3200e-003**	**3.3200e-003**		**3.0500e-003**	**3.0500e-003**	**0.0000**	**13.0175**	**13.0175**	**4.2100e-003**	**0.0000**	**13.1227**

3.6 Paving - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.8000e-004	1.9000e-004	2.2300e-003	1.0000e-005	7.3000e-004	1.0000e-005	7.3000e-004	1.9000e-004	1.0000e-005	2.0000e-004	0.0000	0.6156	0.6156	2.0000e-005	0.0000	0.6160
Total	**2.8000e-004**	**1.9000e-004**	**2.2300e-003**	**1.0000e-005**	**7.3000e-004**	**1.0000e-005**	**7.3000e-004**	**1.9000e-004**	**1.0000e-005**	**2.0000e-004**	**0.0000**	**0.6156**	**0.6156**	**2.0000e-005**	**0.0000**	**0.6160**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	6.7100e-003	0.0663	0.0948	1.5000e-004		3.3200e-003	3.3200e-003		3.0500e-003	3.0500e-003	0.0000	13.0175	13.0175	4.2100e-003	0.0000	13.1227
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**6.7100e-003**	**0.0663**	**0.0948**	**1.5000e-004**		**3.3200e-003**	**3.3200e-003**		**3.0500e-003**	**3.0500e-003**	**0.0000**	**13.0175**	**13.0175**	**4.2100e-003**	**0.0000**	**13.1227**

3.6 Paving - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.8000e-004	1.9000e-004	2.2300e-003	1.0000e-005	7.3000e-004	1.0000e-005	7.3000e-004	1.9000e-004	1.0000e-005	2.0000e-004	0.0000	0.6156	0.6156	2.0000e-005	0.0000	0.6160
Total	**2.8000e-004**	**1.9000e-004**	**2.2300e-003**	**1.0000e-005**	**7.3000e-004**	**1.0000e-005**	**7.3000e-004**	**1.9000e-004**	**1.0000e-005**	**2.0000e-004**	**0.0000**	**0.6156**	**0.6156**	**2.0000e-005**	**0.0000**	**0.6160**

3.6 Paving - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0109	0.1048	0.1609	2.5000e-004		5.1500e-003	5.1500e-003		4.7400e-003	4.7400e-003	0.0000	22.0292	22.0292	7.1200e-003	0.0000	22.2073
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0109**	**0.1048**	**0.1609**	**2.5000e-004**		**5.1500e-003**	**5.1500e-003**		**4.7400e-003**	**4.7400e-003**	**0.0000**	**22.0292**	**22.0292**	**7.1200e-003**	**0.0000**	**22.2073**

3.6 Paving - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.4000e-004	2.9000e-004	3.5100e-003	1.0000e-005	1.2300e-003	1.0000e-005	1.2400e-003	3.3000e-004	1.0000e-005	3.4000e-004	0.0000	1.0094	1.0094	3.0000e-005	0.0000	1.0100
Total	**4.4000e-004**	**2.9000e-004**	**3.5100e-003**	**1.0000e-005**	**1.2300e-003**	**1.0000e-005**	**1.2400e-003**	**3.3000e-004**	**1.0000e-005**	**3.4000e-004**	**0.0000**	**1.0094**	**1.0094**	**3.0000e-005**	**0.0000**	**1.0100**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0109	0.1048	0.1609	2.5000e-004		5.1500e-003	5.1500e-003		4.7400e-003	4.7400e-003	0.0000	22.0292	22.0292	7.1200e-003	0.0000	22.2073
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0109**	**0.1048**	**0.1609**	**2.5000e-004**		**5.1500e-003**	**5.1500e-003**		**4.7400e-003**	**4.7400e-003**	**0.0000**	**22.0292**	**22.0292**	**7.1200e-003**	**0.0000**	**22.2073**

3.6 Paving - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.4000e-004	2.9000e-004	3.5100e-003	1.0000e-005	1.2300e-003	1.0000e-005	1.2400e-003	3.3000e-004	1.0000e-005	3.4000e-004	0.0000	1.0094	1.0094	3.0000e-005	0.0000	1.0100
Total	**4.4000e-004**	**2.9000e-004**	**3.5100e-003**	**1.0000e-005**	**1.2300e-003**	**1.0000e-005**	**1.2400e-003**	**3.3000e-004**	**1.0000e-005**	**3.4000e-004**	**0.0000**	**1.0094**	**1.0094**	**3.0000e-005**	**0.0000**	**1.0100**

3.7 Architectural Coating - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	4.1372					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.1600e-003	0.0213	0.0317	5.0000e-005		1.0700e-003	1.0700e-003		1.0700e-003	1.0700e-003	0.0000	4.4682	4.4682	2.5000e-004	0.0000	4.4745
Total	**4.1404**	**0.0213**	**0.0317**	**5.0000e-005**		**1.0700e-003**	**1.0700e-003**		**1.0700e-003**	**1.0700e-003**	**0.0000**	**4.4682**	**4.4682**	**2.5000e-004**	**0.0000**	**4.4745**

3.7 Architectural Coating - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.4800e-003	4.9300e-003	0.0596	1.9000e-004	0.0209	1.6000e-004	0.0211	5.5500e-003	1.5000e-004	5.7000e-003	0.0000	17.1287	17.1287	4.3000e-004	0.0000	17.1394
Total	**7.4800e-003**	**4.9300e-003**	**0.0596**	**1.9000e-004**	**0.0209**	**1.6000e-004**	**0.0211**	**5.5500e-003**	**1.5000e-004**	**5.7000e-003**	**0.0000**	**17.1287**	**17.1287**	**4.3000e-004**	**0.0000**	**17.1394**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	4.1372					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.1600e-003	0.0213	0.0317	5.0000e-005		1.0700e-003	1.0700e-003		1.0700e-003	1.0700e-003	0.0000	4.4682	4.4682	2.5000e-004	0.0000	4.4745
Total	**4.1404**	**0.0213**	**0.0317**	**5.0000e-005**		**1.0700e-003**	**1.0700e-003**		**1.0700e-003**	**1.0700e-003**	**0.0000**	**4.4682**	**4.4682**	**2.5000e-004**	**0.0000**	**4.4745**

3.7 Architectural Coating - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.4800e-003	4.9300e-003	0.0596	1.9000e-004	0.0209	1.6000e-004	0.0211	5.5500e-003	1.5000e-004	5.7000e-003	0.0000	17.1287	17.1287	4.3000e-004	0.0000	17.1394
Total	**7.4800e-003**	**4.9300e-003**	**0.0596**	**1.9000e-004**	**0.0209**	**1.6000e-004**	**0.0211**	**5.5500e-003**	**1.5000e-004**	**5.7000e-003**	**0.0000**	**17.1287**	**17.1287**	**4.3000e-004**	**0.0000**	**17.1394**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	1.5857	7.9962	19.1834	0.0821	7.7979	0.0580	7.8559	2.0895	0.0539	2.1434	0.0000	7,620.4986	7,620.4986	0.3407	0.0000	7,629.0162
Unmitigated	1.5857	7.9962	19.1834	0.0821	7.7979	0.0580	7.8559	2.0895	0.0539	2.1434	0.0000	7,620.4986	7,620.4986	0.3407	0.0000	7,629.0162

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	145.75	154.25	154.00	506,227	506,227
Apartments Mid Rise	4,026.75	3,773.25	4075.50	13,660,065	13,660,065
General Office Building	288.45	62.55	31.05	706,812	706,812
High Turnover (Sit Down Restaurant)	2,368.80	2,873.52	2817.72	3,413,937	3,413,937
Hotel	192.00	187.50	160.00	445,703	445,703
Quality Restaurant	501.12	511.92	461.20	707,488	707,488
Regional Shopping Center	528.08	601.44	357.84	1,112,221	1,112,221
Total	8,050.95	8,164.43	8,057.31	20,552,452	20,552,452

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Low Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Apartments Mid Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
High Turnover (Sit Down	16.60	8.40	6.90	8.50	72.50	19.00	37	20	43
Hotel	16.60	8.40	6.90	19.40	61.60	19.00	58	38	4
Quality Restaurant	16.60	8.40	6.90	12.00	69.00	19.00	38	18	44
Regional Shopping Center	16.60	8.40	6.90	16.30	64.70	19.00	54	35	11

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Low Rise	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Apartments Mid Rise	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
General Office Building	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
High Turnover (Sit Down Restaurant)	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Hotel	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Quality Restaurant	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Regional Shopping Center	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Annual

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	2,512.6465	2,512.6465	0.1037	0.0215	2,521.6356
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	2,512.6465	2,512.6465	0.1037	0.0215	2,521.6356
NaturalGas Mitigated	0.1398	1.2312	0.7770	7.6200e-003		0.0966	0.0966		0.0966	0.0966	0.0000	1,383.4267	1,383.4267	0.0265	0.0254	1,391.6478
NaturalGas Unmitigated	0.1398	1.2312	0.7770	7.6200e-003		0.0966	0.0966		0.0966	0.0966	0.0000	1,383.4267	1,383.4267	0.0265	0.0254	1,391.6478

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Low Rise	408494	2.2000e-003	0.0188	8.0100e-003	1.2000e-004		1.5200e-003	1.5200e-003		1.5200e-003	1.5200e-003	0.0000	21.7988	21.7988	4.2000e-004	4.0000e-004	21.9284
Apartments Mid Rise	1.30613e+007	0.0704	0.6018	0.2561	3.8400e-003		0.0487	0.0487		0.0487	0.0487	0.0000	696.9989	696.9989	0.0134	0.0128	701.1408
General Office Building	468450	2.5300e-003	0.0230	0.0193	1.4000e-004		1.7500e-003	1.7500e-003		1.7500e-003	1.7500e-003	0.0000	24.9983	24.9983	4.8000e-004	4.6000e-004	25.1468
High Turnover (Sit Down Restaurant)	8.30736e+006	0.0448	0.4072	0.3421	2.4400e-003		0.0310	0.0310		0.0310	0.0310	0.0000	443.3124	443.3124	8.5000e-003	8.1300e-003	445.9468
Hotel	1.74095e+006	9.3900e-003	0.0853	0.0717	5.1000e-004		6.4900e-003	6.4900e-003		6.4900e-003	6.4900e-003	0.0000	92.9036	92.9036	1.7800e-003	1.7000e-003	93.4557
Quality Restaurant	1.84608e+006	9.9500e-003	0.0905	0.0760	5.4000e-004		6.8800e-003	6.8800e-003		6.8800e-003	6.8800e-003	0.0000	98.5139	98.5139	1.8900e-003	1.8100e-003	99.0993
Regional Shopping Center	91840	5.0000e-004	4.5000e-003	3.7800e-003	3.0000e-005		3.4000e-004	3.4000e-004		3.4000e-004	3.4000e-004	0.0000	4.9009	4.9009	9.0000e-005	9.0000e-005	4.9301
Total		**0.1398**	**1.2312**	**0.7770**	**7.6200e-003**		**0.0966**	**0.0966**		**0.0966**	**0.0966**	**0.0000**	**1,383.4268**	**1,383.4268**	**0.0265**	**0.0254**	**1,391.6478**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Low Rise	408494	2.2000e-003	0.0188	8.0100e-003	1.2000e-004		1.5200e-003	1.5200e-003		1.5200e-003	1.5200e-003	0.0000	21.7988	21.7988	4.2000e-004	4.0000e-004	21.9284
Apartments Mid Rise	1.30613e+007	0.0704	0.6018	0.2561	3.8400e-003		0.0487	0.0487		0.0487	0.0487	0.0000	696.9989	696.9989	0.0134	0.0128	701.1408
General Office Building	468450	2.5300e-003	0.0230	0.0193	1.4000e-004		1.7500e-003	1.7500e-003		1.7500e-003	1.7500e-003	0.0000	24.9983	24.9983	4.8000e-004	4.6000e-004	25.1468
High Turnover (Sit Down Restaurant)	8.30736e+006	0.0448	0.4072	0.3421	2.4400e-003		0.0310	0.0310		0.0310	0.0310	0.0000	443.3124	443.3124	8.5000e-003	8.1300e-003	445.9468
Hotel	1.74095e+006	9.3900e-003	0.0853	0.0717	5.1000e-004		6.4900e-003	6.4900e-003		6.4900e-003	6.4900e-003	0.0000	92.9036	92.9036	1.7800e-003	1.7000e-003	93.4557
Quality Restaurant	1.84608e+006	9.9500e-003	0.0905	0.0760	5.4000e-004		6.8800e-003	6.8800e-003		6.8800e-003	6.8800e-003	0.0000	98.5139	98.5139	1.8900e-003	1.8100e-003	99.0993
Regional Shopping Center	91840	5.0000e-004	4.5000e-003	3.7800e-003	3.0000e-005		3.4000e-004	3.4000e-004		3.4000e-004	3.4000e-004	0.0000	4.9009	4.9009	9.0000e-005	9.0000e-005	4.9301
Total		**0.1398**	**1.2312**	**0.7770**	**7.6200e-003**		**0.0966**	**0.0966**		**0.0966**	**0.0966**	**0.0000**	**1,383.4268**	**1,383.4268**	**0.0265**	**0.0254**	**1,391.6478**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Low Rise	106010	33.7770	1.3900e-003	2.9000e-004	33.8978
Apartments Mid Rise	3.94697e+006	1,257.5879	0.0519	0.0107	1,262.0869
General Office Building	584550	186.2502	7.6900e-003	1.5900e-003	186.9165
High Turnover (Sit Down Restaurant)	1.58904e+006	506.3022	0.0209	4.3200e-003	508.1135
Hotel	550308	175.3399	7.2400e-003	1.5000e-003	175.9672
Quality Restaurant	353120	112.5116	4.6500e-003	9.6000e-004	112.9141
Regional Shopping Center	756000	240.8778	9.9400e-003	2.0600e-003	241.7395
Total		**2,512.6465**	**0.1037**	**0.0215**	**2,521.6356**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Low Rise	106010	33.7770	1.3900e-003	2.9000e-004	33.8978
Apartments Mid Rise	3.94697e+006	1,257.5879	0.0519	0.0107	1,262.0869
General Office Building	584550	186.2502	7.6900e-003	1.5900e-003	186.9165
High Turnover (Sit Down Restaurant)	1.58904e+006	506.3022	0.0209	4.3200e-003	508.1135
Hotel	550308	175.3399	7.2400e-003	1.5000e-003	175.9672
Quality Restaurant	353120	112.5116	4.6500e-003	9.6000e-004	112.9141
Regional Shopping Center	756000	240.8778	9.9400e-003	2.0600e-003	241.7395
Total		**2,512.6465**	**0.1037**	**0.0215**	**2,521.6356**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	5.1437	0.2950	10.3804	1.6700e-003		0.0714	0.0714		0.0714	0.0714	0.0000	220.9670	220.9670	0.0201	3.7400e-003	222.5835
Unmitigated	5.1437	0.2950	10.3804	1.6700e-003		0.0714	0.0714		0.0714	0.0714	0.0000	220.9670	220.9670	0.0201	3.7400e-003	222.5835

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.4137					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	4.3998					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0206	0.1763	0.0750	1.1200e-003		0.0143	0.0143		0.0143	0.0143	0.0000	204.1166	204.1166	3.9100e-003	3.7400e-003	205.3295
Landscaping	0.3096	0.1187	10.3054	5.4000e-004		0.0572	0.0572		0.0572	0.0572	0.0000	16.8504	16.8504	0.0161	0.0000	17.2540
Total	**5.1437**	**0.2950**	**10.3804**	**1.6600e-003**		**0.0714**	**0.0714**		**0.0714**	**0.0714**	**0.0000**	**220.9670**	**220.9670**	**0.0201**	**3.7400e-003**	**222.5835**

6.2 Area by SubCategory

Mitigated

SubCategory	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	tons/yr										MT/yr					
Architectural Coating	0.4137					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	4.3998					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0206	0.1763	0.0750	1.1200e-003		0.0143	0.0143		0.0143	0.0143	0.0000	204.1166	204.1166	3.9100e-003	3.7400e-003	205.3295
Landscaping	0.3096	0.1187	10.3054	5.4000e-004		0.0572	0.0572		0.0572	0.0572	0.0000	16.8504	16.8504	0.0161	0.0000	17.2540
Total	**5.1437**	**0.2950**	**10.3804**	**1.6600e-003**		**0.0714**	**0.0714**		**0.0714**	**0.0714**	**0.0000**	**220.9670**	**220.9670**	**0.0201**	**3.7400e-003**	**222.5835**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	585.8052	3.0183	0.0755	683.7567
Unmitigated	585.8052	3.0183	0.0755	683.7567

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Low Rise	1.62885 / 1.02688	10.9095	0.0535	1.3400e-003	12.6471
Apartments Mid Rise	63.5252 / 40.0485	425.4719	2.0867	0.0523	493.2363
General Office Building	7.99802 / 4.90201	53.0719	0.2627	6.5900e-003	61.6019
High Turnover (Sit Down Restaurant)	10.9272 / 0.697482	51.2702	0.3580	8.8200e-003	62.8482
Hotel	1.26834 / 0.140927	6.1633	0.0416	1.0300e-003	7.5079
Quality Restaurant	2.42827 / 0.154996	11.3934	0.0796	1.9600e-003	13.9663
Regional Shopping Center	4.14806 / 2.54236	27.5250	0.1363	3.4200e-003	31.9490
Total		**585.8052**	**3.0183**	**0.0755**	**683.7567**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Low Rise	1.62885 / 1.02688	10.9095	0.0535	1.3400e-003	12.6471
Apartments Mid Rise	63.5252 / 40.0485	425.4719	2.0867	0.0523	493.2363
General Office Building	7.99802 / 4.90201	53.0719	0.2627	6.5900e-003	61.6019
High Turnover (Sit Down Restaurant)	10.9272 / 0.697482	51.2702	0.3580	8.8200e-003	62.8482
Hotel	1.26834 / 0.140927	6.1633	0.0416	1.0300e-003	7.5079
Quality Restaurant	2.42827 / 0.154996	11.3934	0.0796	1.9600e-003	13.9663
Regional Shopping Center	4.14806 / 2.54236	27.5250	0.1363	3.4200e-003	31.9490
Total		**585.8052**	**3.0183**	**0.0755**	**683.7567**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	207.8079	12.2811	0.0000	514.8354
Unmitigated	207.8079	12.2811	0.0000	514.8354

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Low Rise	11.5	2.3344	0.1380	0.0000	5.7834
Apartments Mid Rise	448.5	91.0415	5.3804	0.0000	225.5513
General Office Building	41.85	8.4952	0.5021	0.0000	21.0464
High Turnover (Sit Down Restaurant)	428.4	86.9613	5.1393	0.0000	215.4430
Hotel	27.38	5.5579	0.3285	0.0000	13.7694
Quality Restaurant	7.3	1.4818	0.0876	0.0000	3.6712
Regional Shopping Center	58.8	11.9359	0.7054	0.0000	29.5706
Total		**207.8079**	**12.2811**	**0.0000**	**514.8354**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Low Rise	11.5	2.3344	0.1380	0.0000	5.7834
Apartments Mid Rise	448.5	91.0415	5.3804	0.0000	225.5513
General Office Building	41.85	8.4952	0.5021	0.0000	21.0464
High Turnover (Sit Down Restaurant)	428.4	86.9613	5.1393	0.0000	215.4430
Hotel	27.38	5.5579	0.3285	0.0000	13.7694
Quality Restaurant	7.3	1.4818	0.0876	0.0000	3.6712
Regional Shopping Center	58.8	11.9359	0.7054	0.0000	29.5706
Total		**207.8079**	**12.2811**	**0.0000**	**514.8354**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Village South Specific Plan (Proposed)

Los Angeles-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	45.00	1000sqft	1.03	45,000.00	0
High Turnover (Sit Down Restaurant)	36.00	1000sqft	0.83	36,000.00	0
Hotel	50.00	Room	1.67	72,600.00	0
Quality Restaurant	8.00	1000sqft	0.18	8,000.00	0
Apartments Low Rise	25.00	Dwelling Unit	1.56	25,000.00	72
Apartments Mid Rise	975.00	Dwelling Unit	25.66	975,000.00	2789
Regional Shopping Center	56.00	1000sqft	1.29	56,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2028
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

Project Characteristics - Consistent with the DEIR's model.

Land Use - See SWAPE comment regarding residential and retail land uses.

Construction Phase - See SWAPE comment regarding individual construction phase lengths.

Demolition - Consistent with the DEIR's model. See SWAPE comment regarding demolition.

Vehicle Trips - Saturday trips consistent with the DEIR's model. See SWAPE comment regarding weekday and Sunday trips.

Woodstoves - Woodstoves and wood-burning fireplaces consistent with the DEIR's model. See SWAPE comment regarding gas fireplaces.

Energy Use -

Construction Off-road Equipment Mitigation - See SWAPE comment on construction-related mitigation.

Area Mitigation - See SWAPE comment regarding operational mitigation measures.

Water Mitigation - See SWAPE comment regarding operational mitigation measures.

Trips and VMT - Local hire provision

Table Name	Column Name	Default Value	New Value
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberWood	1.25	0.00
tblFireplaces	NumberWood	48.75	0.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblVehicleTrips	ST_TR	7.16	6.17
tblVehicleTrips	ST_TR	6.39	3.87
tblVehicleTrips	ST_TR	2.46	1.39
tblVehicleTrips	ST_TR	158.37	79.82

tblVehicleTrips	ST_TR	8.19	3.75
tblVehicleTrips	ST_TR	94.36	63.99
tblVehicleTrips	ST_TR	49.97	10.74
tblVehicleTrips	SU_TR	6.07	6.16
tblVehicleTrips	SU_TR	5.86	4.18
tblVehicleTrips	SU_TR	1.05	0.69
tblVehicleTrips	SU_TR	131.84	78.27
tblVehicleTrips	SU_TR	5.95	3.20
tblVehicleTrips	SU_TR	72.16	57.65
tblVehicleTrips	SU_TR	25.24	6.39
tblVehicleTrips	WD_TR	6.59	5.83
tblVehicleTrips	WD_TR	6.65	4.13
tblVehicleTrips	WD_TR	11.03	6.41
tblVehicleTrips	WD_TR	127.15	65.80
tblVehicleTrips	WD_TR	8.17	3.84
tblVehicleTrips	WD_TR	89.95	62.64
tblVehicleTrips	WD_TR	42.70	9.43
tblWoodstoves	NumberCatalytic	1.25	0.00
tblWoodstoves	NumberCatalytic	48.75	0.00
tblWoodstoves	NumberNoncatalytic	1.25	0.00
tblWoodstoves	NumberNoncatalytic	48.75	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	4.2561	46.4415	31.4494	0.0636	18.2032	2.0456	20.2488	9.9670	1.8820	11.8490	0.0000	6,163.4166	6,163.4166	1.9475	0.0000	6,212.1039
2022	4.5441	38.8811	40.8776	0.1240	8.8255	1.6361	10.4616	3.6369	1.5052	5.1421	0.0000	12,493.4403	12,493.4403	1.9485	0.0000	12,518.5707
2023	4.1534	25.7658	38.7457	0.1206	7.0088	0.7592	7.7679	1.8799	0.7136	2.5935	0.0000	12,150.4890	12,150.4890	0.9589	0.0000	12,174.4615
2024	237.0219	9.5478	14.9642	0.0239	1.2171	0.4694	1.2875	0.3229	0.4319	0.4621	0.0000	2,313.1808	2,313.1808	0.7166	0.0000	2,331.0956
Maximum	**237.0219**	**46.4415**	**40.8776**	**0.1240**	**18.2032**	**2.0456**	**20.2488**	**9.9670**	**1.8820**	**11.8490**	**0.0000**	**12,493.4403**	**12,493.4403**	**1.9485**	**0.0000**	**12,518.5707**

2.1 Overall Construction (Maximum Daily Emission)

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	4.2561	46.4415	31.4494	0.0636	18.2032	2.0456	20.2488	9.9670	1.8820	11.8490	0.0000	6,163.4166	6,163.4166	1.9475	0.0000	6,212.1039
2022	4.5441	38.8811	40.8776	0.1240	8.8255	1.6361	10.4616	3.6369	1.5052	5.1421	0.0000	12,493.4403	12,493.4403	1.9485	0.0000	12,518.5707
2023	4.1534	25.7658	38.7457	0.1206	7.0088	0.7592	7.7679	1.8799	0.7136	2.5935	0.0000	12,150.4890	12,150.4890	0.9589	0.0000	12,174.4615
2024	237.0219	9.5478	14.9642	0.0239	1.2171	0.4694	1.2875	0.3229	0.4319	0.4621	0.0000	2,313.1808	2,313.1808	0.7166	0.0000	2,331.0955
Maximum	**237.0219**	**46.4415**	**40.8776**	**0.1240**	**18.2032**	**2.0456**	**20.2488**	**9.9670**	**1.8820**	**11.8490**	**0.0000**	**12,493.4403**	**12,493.4403**	**1.9485**	**0.0000**	**12,518.5707**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192
Energy	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.6387
Mobile	9.8489	45.4304	114.8495	0.4917	45.9592	0.3360	46.2951	12.2950	0.3119	12.6070		50,306.6034	50,306.6034	2.1807		50,361.1208
Total	**41.1168**	**67.2262**	**207.5497**	**0.6278**	**45.9592**	**2.4626**	**48.4217**	**12.2950**	**2.4385**	**14.7336**	**0.0000**	**76,811.1816**	**76,811.1816**	**2.8282**	**0.4832**	**77,025.8786**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192
Energy	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.6387
Mobile	9.8489	45.4304	114.8495	0.4917	45.9592	0.3360	46.2951	12.2950	0.3119	12.6070		50,306.6034	50,306.6034	2.1807		50,361.1208
Total	**41.1168**	**67.2262**	**207.5497**	**0.6278**	**45.9592**	**2.4626**	**48.4217**	**12.2950**	**2.4385**	**14.7336**	**0.0000**	**76,811.1816**	**76,811.1816**	**2.8282**	**0.4832**	**77,025.8786**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	9/1/2021	10/12/2021	5	30	
2	Site Preparation	Site Preparation	10/13/2021	11/9/2021	5	20	
3	Grading	Grading	11/10/2021	1/11/2022	5	45	
4	Building Construction	Building Construction	1/12/2022	12/12/2023	5	500	
5	Paving	Paving	12/13/2023	1/30/2024	5	35	
6	Architectural Coating	Architectural Coating	1/31/2024	3/19/2024	5	35	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 112.5

Acres of Paving: 0

Residential Indoor: 2,025,000; Residential Outdoor: 675,000; Non-Residential Indoor: 326,400; Non-Residential Outdoor: 108,800; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	458.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	801.00	143.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	160.00	0.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.3074	0.0000	3.3074	0.5008	0.0000	0.5008			0.0000			0.0000
Off-Road	3.1651	31.4407	21.5650	0.0388		1.5513	1.5513		1.4411	1.4411		3,747.9449	3,747.9449	1.0549		3,774.3174
Total	**3.1651**	**31.4407**	**21.5650**	**0.0388**	**3.3074**	**1.5513**	**4.8588**	**0.5008**	**1.4411**	**1.9419**		**3,747.9449**	**3,747.9449**	**1.0549**		**3,774.3174**

3.2 Demolition - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1273	4.0952	0.9602	0.0119	0.2669	0.0126	0.2795	0.0732	0.0120	0.0852		1,292.2413	1,292.2413	0.0877		1,294.4337
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0487	0.0313	0.4282	1.1800e-003	0.1141	9.5000e-004	0.1151	0.0303	8.8000e-004	0.0311		117.2799	117.2799	3.5200e-003		117.3678
Total	**0.1760**	**4.1265**	**1.3884**	**0.0131**	**0.3810**	**0.0135**	**0.3946**	**0.1034**	**0.0129**	**0.1163**		**1,409.5212**	**1,409.5212**	**0.0912**		**1,411.8015**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.3074	0.0000	3.3074	0.5008	0.0000	0.5008			0.0000			0.0000
Off-Road	3.1651	31.4407	21.5650	0.0388		1.5513	1.5513		1.4411	1.4411	0.0000	3,747.9449	3,747.9449	1.0549		3,774.3174
Total	**3.1651**	**31.4407**	**21.5650**	**0.0388**	**3.3074**	**1.5513**	**4.8588**	**0.5008**	**1.4411**	**1.9419**	**0.0000**	**3,747.9449**	**3,747.9449**	**1.0549**		**3,774.3174**

3.2 Demolition - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1273	4.0952	0.9602	0.0119	0.2669	0.0126	0.2795	0.0732	0.0120	0.0852		1,292.2413	1,292.2413	0.0877		1,294.4337
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0487	0.0313	0.4282	1.1800e-003	0.1141	9.5000e-004	0.1151	0.0303	8.8000e-004	0.0311		117.2799	117.2799	3.5200e-003		117.3678
Total	**0.1760**	**4.1265**	**1.3884**	**0.0131**	**0.3810**	**0.0135**	**0.3946**	**0.1034**	**0.0129**	**0.1163**		**1,409.5212**	**1,409.5212**	**0.0912**		**1,411.8015**

3.3 Site Preparation - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809		3,685.6569	3,685.6569	1.1920		3,715.4573
Total	**3.8882**	**40.4971**	**21.1543**	**0.0380**	**18.0663**	**2.0445**	**20.1107**	**9.9307**	**1.8809**	**11.8116**		**3,685.6569**	**3,685.6569**	**1.1920**		**3,715.4573**

3.3 Site Preparation - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0584	0.0375	0.5139	1.4100e-003	0.1369	1.1400e-003	0.1381	0.0363	1.0500e-003	0.0374		140.7359	140.7359	4.2200e-003		140.8414
Total	**0.0584**	**0.0375**	**0.5139**	**1.4100e-003**	**0.1369**	**1.1400e-003**	**0.1381**	**0.0363**	**1.0500e-003**	**0.0374**		**140.7359**	**140.7359**	**4.2200e-003**		**140.8414**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809	0.0000	3,685.6569	3,685.6569	1.1920		3,715.4573
Total	**3.8882**	**40.4971**	**21.1543**	**0.0380**	**18.0663**	**2.0445**	**20.1107**	**9.9307**	**1.8809**	**11.8116**	**0.0000**	**3,685.6569**	**3,685.6569**	**1.1920**		**3,715.4573**

3.3 Site Preparation - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0584	0.0375	0.5139	1.4100e-003	0.1369	1.1400e-003	0.1381	0.0363	1.0500e-003	0.0374		140.7359	140.7359	4.2200e-003		140.8414
Total	**0.0584**	**0.0375**	**0.5139**	**1.4100e-003**	**0.1369**	**1.1400e-003**	**0.1381**	**0.0363**	**1.0500e-003**	**0.0374**		**140.7359**	**140.7359**	**4.2200e-003**		**140.8414**

3.4 Grading - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	4.1912	46.3998	30.8785	0.0620		1.9853	1.9853		1.8265	1.8265		6,007.0434	6,007.0434	1.9428		6,055.6134
Total	**4.1912**	**46.3998**	**30.8785**	**0.0620**	**8.6733**	**1.9853**	**10.6587**	**3.5965**	**1.8265**	**5.4230**		**6,007.0434**	**6,007.0434**	**1.9428**		**6,055.6134**

3.4 Grading - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0649	0.0417	0.5710	1.5700e-003	0.1521	1.2700e-003	0.1534	0.0404	1.1700e-003	0.0415		156.3732	156.3732	4.6900e-003		156.4904
Total	**0.0649**	**0.0417**	**0.5710**	**1.5700e-003**	**0.1521**	**1.2700e-003**	**0.1534**	**0.0404**	**1.1700e-003**	**0.0415**		**156.3732**	**156.3732**	**4.6900e-003**		**156.4904**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	4.1912	46.3998	30.8785	0.0620		1.9853	1.9853		1.8265	1.8265	0.0000	6,007.0434	6,007.0434	1.9428		6,055.6134
Total	**4.1912**	**46.3998**	**30.8785**	**0.0620**	**8.6733**	**1.9853**	**10.6587**	**3.5965**	**1.8265**	**5.4230**	**0.0000**	**6,007.0434**	**6,007.0434**	**1.9428**		**6,055.6134**

3.4 Grading - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0649	0.0417	0.5710	1.5700e-003	0.1521	1.2700e-003	0.1534	0.0404	1.1700e-003	0.0415		156.3732	156.3732	4.6900e-003		156.4904
Total	**0.0649**	**0.0417**	**0.5710**	**1.5700e-003**	**0.1521**	**1.2700e-003**	**0.1534**	**0.0404**	**1.1700e-003**	**0.0415**		**156.3732**	**156.3732**	**4.6900e-003**		**156.4904**

3.4 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041		6,011.4105	6,011.4105	1.9442		6,060.0158
Total	**3.6248**	**38.8435**	**29.0415**	**0.0621**	**8.6733**	**1.6349**	**10.3082**	**3.5965**	**1.5041**	**5.1006**		**6,011.4105**	**6,011.4105**	**1.9442**		**6,060.0158**

3.4 Grading - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0607	0.0376	0.5263	1.5100e-003	0.1521	1.2300e-003	0.1534	0.0404	1.1300e-003	0.0415		150.8754	150.8754	4.2400e-003		150.9813
Total	**0.0607**	**0.0376**	**0.5263**	**1.5100e-003**	**0.1521**	**1.2300e-003**	**0.1534**	**0.0404**	**1.1300e-003**	**0.0415**		**150.8754**	**150.8754**	**4.2400e-003**		**150.9813**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041	0.0000	6,011.4105	6,011.4105	1.9442		6,060.0158
Total	**3.6248**	**38.8435**	**29.0415**	**0.0621**	**8.6733**	**1.6349**	**10.3082**	**3.5965**	**1.5041**	**5.1006**	**0.0000**	**6,011.4105**	**6,011.4105**	**1.9442**		**6,060.0158**

3.4 Grading - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0607	0.0376	0.5263	1.5100e-003	0.1521	1.2300e-003	0.1534	0.0404	1.1300e-003	0.0415		150.8754	150.8754	4.2400e-003		150.9813
Total	**0.0607**	**0.0376**	**0.5263**	**1.5100e-003**	**0.1521**	**1.2300e-003**	**0.1534**	**0.0404**	**1.1300e-003**	**0.0415**		**150.8754**	**150.8754**	**4.2400e-003**		**150.9813**

3.5 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**		**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

3.5 Building Construction - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.4079	13.2032	3.4341	0.0364	0.9155	0.0248	0.9404	0.2636	0.0237	0.2873		3,896.5482	3,896.5482	0.2236		3,902.1384
Worker	2.4299	1.5074	21.0801	0.0607	6.0932	0.0493	6.1425	1.6163	0.0454	1.6617		6,042.5585	6,042.5585	0.1697		6,046.8000
Total	**2.8378**	**14.7106**	**24.5142**	**0.0971**	**7.0087**	**0.0741**	**7.0828**	**1.8799**	**0.0691**	**1.9490**		**9,939.1067**	**9,939.1067**	**0.3933**		**9,948.9384**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612	0.0000	2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**	**0.0000**	**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

3.5 Building Construction - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.4079	13.2032	3.4341	0.0364	0.9155	0.0248	0.9404	0.2636	0.0237	0.2873		3,896.5482	3,896.5482	0.2236		3,902.1384
Worker	2.4299	1.5074	21.0801	0.0607	6.0932	0.0493	6.1425	1.6163	0.0454	1.6617		6,042.5585	6,042.5585	0.1697		6,046.8000
Total	**2.8378**	**14.7106**	**24.5142**	**0.0971**	**7.0087**	**0.0741**	**7.0828**	**1.8799**	**0.0691**	**1.9490**		**9,939.1067**	**9,939.1067**	**0.3933**		**9,948.9384**

3.5 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**		**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

3.5 Building Construction - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.3027	10.0181	3.1014	0.0352	0.9156	0.0116	0.9271	0.2636	0.0111	0.2747		3,773.8762	3,773.8762	0.1982		3,778.8300
Worker	2.2780	1.3628	19.4002	0.0584	6.0932	0.0479	6.1411	1.6163	0.0441	1.6604		5,821.4028	5,821.4028	0.1529		5,825.2254
Total	**2.5807**	**11.3809**	**22.5017**	**0.0936**	**7.0088**	**0.0595**	**7.0682**	**1.8799**	**0.0552**	**1.9350**		**9,595.2790**	**9,595.2790**	**0.3511**		**9,604.0554**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**	**0.0000**	**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

3.5 Building Construction - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.3027	10.0181	3.1014	0.0352	0.9156	0.0116	0.9271	0.2636	0.0111	0.2747		3,773.8762	3,773.8762	0.1982		3,778.8300
Worker	2.2780	1.3628	19.4002	0.0584	6.0932	0.0479	6.1411	1.6163	0.0441	1.6604		5,821.4028	5,821.4028	0.1529		5,825.2254
Total	**2.5807**	**11.3809**	**22.5017**	**0.0936**	**7.0088**	**0.0595**	**7.0682**	**1.8799**	**0.0552**	**1.9350**		**9,595.2790**	**9,595.2790**	**0.3511**		**9,604.0554**

3.6 Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694		2,207.5841	2,207.5841	0.7140		2,225.4336
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.0327**	**10.1917**	**14.5842**	**0.0228**		**0.5102**	**0.5102**		**0.4694**	**0.4694**		**2,207.5841**	**2,207.5841**	**0.7140**		**2,225.4336**

3.6 Paving - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0427	0.0255	0.3633	1.0900e-003	0.1141	9.0000e-004	0.1150	0.0303	8.3000e-004	0.0311		109.0150	109.0150	2.8600e-003		109.0866
Total	**0.0427**	**0.0255**	**0.3633**	**1.0900e-003**	**0.1141**	**9.0000e-004**	**0.1150**	**0.0303**	**8.3000e-004**	**0.0311**		**109.0150**	**109.0150**	**2.8600e-003**		**109.0866**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694	0.0000	2,207.5841	2,207.5841	0.7140		2,225.4336
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.0327**	**10.1917**	**14.5842**	**0.0228**		**0.5102**	**0.5102**		**0.4694**	**0.4694**	**0.0000**	**2,207.5841**	**2,207.5841**	**0.7140**		**2,225.4336**

3.6 Paving - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0427	0.0255	0.3633	1.0900e-003	0.1141	9.0000e-004	0.1150	0.0303	8.3000e-004	0.0311		109.0150	109.0150	2.8600e-003		109.0866
Total	**0.0427**	**0.0255**	**0.3633**	**1.0900e-003**	**0.1141**	**9.0000e-004**	**0.1150**	**0.0303**	**8.3000e-004**	**0.0311**		**109.0150**	**109.0150**	**2.8600e-003**		**109.0866**

3.6 Paving - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310		2,207.5472	2,207.5472	0.7140		2,225.3963
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9882**	**9.5246**	**14.6258**	**0.0228**		**0.4685**	**0.4685**		**0.4310**	**0.4310**		**2,207.5472**	**2,207.5472**	**0.7140**		**2,225.3963**

3.6 Paving - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0403	0.0233	0.3384	1.0600e-003	0.1141	8.8000e-004	0.1150	0.0303	8.1000e-004	0.0311		105.6336	105.6336	2.6300e-003		105.6992
Total	**0.0403**	**0.0233**	**0.3384**	**1.0600e-003**	**0.1141**	**8.8000e-004**	**0.1150**	**0.0303**	**8.1000e-004**	**0.0311**		**105.6336**	**105.6336**	**2.6300e-003**		**105.6992**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310	0.0000	2,207.5472	2,207.5472	0.7140		2,225.3963
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9882**	**9.5246**	**14.6258**	**0.0228**		**0.4685**	**0.4685**		**0.4310**	**0.4310**	**0.0000**	**2,207.5472**	**2,207.5472**	**0.7140**		**2,225.3963**

3.6 Paving - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0403	0.0233	0.3384	1.0600e-003	0.1141	8.8000e-004	0.1150	0.0303	8.1000e-004	0.0311		105.6336	105.6336	2.6300e-003		105.6992
Total	**0.0403**	**0.0233**	**0.3384**	**1.0600e-003**	**0.1141**	**8.8000e-004**	**0.1150**	**0.0303**	**8.1000e-004**	**0.0311**		**105.6336**	**105.6336**	**2.6300e-003**		**105.6992**

3.7 Architectural Coating - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	236.4115					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443
Total	**236.5923**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**		**281.4481**	**281.4481**	**0.0159**		**281.8443**

3.7 Architectural Coating - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.4296	0.2481	3.6098	0.0113	1.2171	9.4300e-003	1.2266	0.3229	8.6800e-003	0.3315		1,126.7583	1,126.7583	0.0280		1,127.4583
Total	**0.4296**	**0.2481**	**3.6098**	**0.0113**	**1.2171**	**9.4300e-003**	**1.2266**	**0.3229**	**8.6800e-003**	**0.3315**		**1,126.7583**	**1,126.7583**	**0.0280**		**1,127.4583**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	236.4115					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609	0.0000	281.4481	281.4481	0.0159		281.8443
Total	**236.5923**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**	**0.0000**	**281.4481**	**281.4481**	**0.0159**		**281.8443**

3.7 Architectural Coating - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.4296	0.2481	3.6098	0.0113	1.2171	9.4300e-003	1.2266	0.3229	8.6800e-003	0.3315		1,126.7583	1,126.7583	0.0280		1,127.4583
Total	**0.4296**	**0.2481**	**3.6098**	**0.0113**	**1.2171**	**9.4300e-003**	**1.2266**	**0.3229**	**8.6800e-003**	**0.3315**		**1,126.7583**	**1,126.7583**	**0.0280**		**1,127.4583**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	9.8489	45.4304	114.8495	0.4917	45.9592	0.3360	46.2951	12.2950	0.3119	12.6070		50,306.6034	50,306.6034	2.1807		50,361.1208
Unmitigated	9.8489	45.4304	114.8495	0.4917	45.9592	0.3360	46.2951	12.2950	0.3119	12.6070		50,306.6034	50,306.6034	2.1807		50,361.1208

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	145.75	154.25	154.00	506,227	506,227
Apartments Mid Rise	4,026.75	3,773.25	4075.50	13,660,065	13,660,065
General Office Building	288.45	62.55	31.05	706,812	706,812
High Turnover (Sit Down Restaurant)	2,368.80	2,873.52	2817.72	3,413,937	3,413,937
Hotel	192.00	187.50	160.00	445,703	445,703
Quality Restaurant	501.12	511.92	461.20	707,488	707,488
Regional Shopping Center	528.08	601.44	357.84	1,112,221	1,112,221
Total	8,050.95	8,164.43	8,057.31	20,552,452	20,552,452

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Low Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Apartments Mid Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
High Turnover (Sit Down	16.60	8.40	6.90	8.50	72.50	19.00	37	20	43
Hotel	16.60	8.40	6.90	19.40	61.60	19.00	58	38	4
Quality Restaurant	16.60	8.40	6.90	12.00	69.00	19.00	38	18	44
Regional Shopping Center	16.60	8.40	6.90	16.30	64.70	19.00	54	35	11

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Low Rise	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Apartments Mid Rise	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
General Office Building	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
High Turnover (Sit Down Restaurant)	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Hotel	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Quality Restaurant	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Regional Shopping Center	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.6387
NaturalGas Unmitigated	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.6387

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Low Rise	1119.16	0.0121	0.1031	0.0439	6.6000e-004		8.3400e-003	8.3400e-003		8.3400e-003	8.3400e-003		131.6662	131.6662	2.5200e-003	2.4100e-003	132.4486
Apartments Mid Rise	35784.3	0.3859	3.2978	1.4033	0.0211		0.2666	0.2666		0.2666	0.2666		4,209.9164	4,209.9164	0.0807	0.0772	4,234.9339
General Office Building	1283.42	0.0138	0.1258	0.1057	7.5000e-004		9.5600e-003	9.5600e-003		9.5600e-003	9.5600e-003		150.9911	150.9911	2.8900e-003	2.7700e-003	151.8884
High Turnover (Sit Down Restaurant)	22759.9	0.2455	2.2314	1.8743	0.0134		0.1696	0.1696		0.1696	0.1696		2,677.6342	2,677.6342	0.0513	0.0491	2,693.5460
Hotel	4769.72	0.0514	0.4676	0.3928	2.8100e-003		0.0355	0.0355		0.0355	0.0355		561.1436	561.1436	0.0108	0.0103	564.4782
Quality Restaurant	5057.75	0.0545	0.4959	0.4165	2.9800e-003		0.0377	0.0377		0.0377	0.0377		595.0298	595.0298	0.0114	0.0109	598.5658
Regional Shopping Center	251.616	2.7100e-003	0.0247	0.0207	1.5000e-004		1.8700e-003	1.8700e-003		1.8700e-003	1.8700e-003		29.6019	29.6019	5.7000e-004	5.4000e-004	29.7778
Total		**0.7660**	**6.7463**	**4.2573**	**0.0418**		**0.5292**	**0.5292**		**0.5292**	**0.5292**		**8,355.9832**	**8,355.9832**	**0.1602**	**0.1532**	**8,405.6387**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Low Rise	1.11916	0.0121	0.1031	0.0439	6.6000e-004		8.3400e-003	8.3400e-003		8.3400e-003	8.3400e-003		131.6662	131.6662	2.5200e-003	2.4100e-003	132.4486
Apartments Mid Rise	35.7843	0.3859	3.2978	1.4033	0.0211		0.2666	0.2666		0.2666	0.2666		4,209.9164	4,209.9164	0.0807	0.0772	4,234.9339
General Office Building	1.28342	0.0138	0.1258	0.1057	7.5000e-004		9.5600e-003	9.5600e-003		9.5600e-003	9.5600e-003		150.9911	150.9911	2.8900e-003	2.7700e-003	151.8884
High Turnover (Sit Down Restaurant)	22.7599	0.2455	2.2314	1.8743	0.0134		0.1696	0.1696		0.1696	0.1696		2,677.6342	2,677.6342	0.0513	0.0491	2,693.5460
Hotel	4.76972	0.0514	0.4676	0.3928	2.8100e-003		0.0355	0.0355		0.0355	0.0355		561.1436	561.1436	0.0108	0.0103	564.4782
Quality Restaurant	5.05775	0.0545	0.4959	0.4165	2.9800e-003		0.0377	0.0377		0.0377	0.0377		595.0298	595.0298	0.0114	0.0109	598.5658
Regional Shopping Center	0.251616	2.7100e-003	0.0247	0.0207	1.5000e-004		1.8700e-003	1.8700e-003		1.8700e-003	1.8700e-003		29.6019	29.6019	5.7000e-004	5.4000e-004	29.7778
Total		**0.7660**	**6.7463**	**4.2573**	**0.0418**		**0.5292**	**0.5292**		**0.5292**	**0.5292**		**8,355.9832**	**8,355.9832**	**0.1602**	**0.1532**	**8,405.6387**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192
Unmitigated	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	2.2670					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	24.1085					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	1.6500	14.1000	6.0000	0.0900		1.1400	1.1400		1.1400	1.1400	0.0000	18,000.0000	18,000.0000	0.3450	0.3300	18,106.9650
Landscaping	2.4766	0.9496	82.4430	4.3600e-003		0.4574	0.4574		0.4574	0.4574		148.5950	148.5950	0.1424		152.1542
Total	**30.5020**	**15.0496**	**88.4430**	**0.0944**		**1.5974**	**1.5974**		**1.5974**	**1.5974**	**0.0000**	**18,148.5950**	**18,148.5950**	**0.4874**	**0.3300**	**18,259.1192**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	2.2670					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	24.1085					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	1.6500	14.1000	6.0000	0.0900		1.1400	1.1400		1.1400	1.1400	0.0000	18,000.0000	18,000.0000	0.3450	0.3300	18,106.9650
Landscaping	2.4766	0.9496	82.4430	4.3600e-003		0.4574	0.4574		0.4574	0.4574		148.5950	148.5950	0.1424		152.1542
Total	**30.5020**	**15.0496**	**88.4430**	**0.0944**		**1.5974**	**1.5974**		**1.5974**	**1.5974**	**0.0000**	**18,148.5950**	**18,148.5950**	**0.4874**	**0.3300**	**18,259.1192**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Village South Specific Plan (Proposed)

Los Angeles-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	45.00	1000sqft	1.03	45,000.00	0
High Turnover (Sit Down Restaurant)	36.00	1000sqft	0.83	36,000.00	0
Hotel	50.00	Room	1.67	72,600.00	0
Quality Restaurant	8.00	1000sqft	0.18	8,000.00	0
Apartments Low Rise	25.00	Dwelling Unit	1.56	25,000.00	72
Apartments Mid Rise	975.00	Dwelling Unit	25.66	975,000.00	2789
Regional Shopping Center	56.00	1000sqft	1.29	56,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2028
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

Project Characteristics - Consistent with the DEIR's model.

Land Use - See SWAPE comment regarding residential and retail land uses.

Construction Phase - See SWAPE comment regarding individual construction phase lengths.

Demolition - Consistent with the DEIR's model. See SWAPE comment regarding demolition.

Vehicle Trips - Saturday trips consistent with the DEIR's model. See SWAPE comment regarding weekday and Sunday trips.

Woodstoves - Woodstoves and wood-burning fireplaces consistent with the DEIR's model. See SWAPE comment regarding gas fireplaces.

Energy Use -

Construction Off-road Equipment Mitigation - See SWAPE comment on construction-related mitigation.

Area Mitigation - See SWAPE comment regarding operational mitigation measures.

Water Mitigation - See SWAPE comment regarding operational mitigation measures.

Trips and VMT - Local hire provision

Table Name	Column Name	Default Value	New Value
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberWood	1.25	0.00
tblFireplaces	NumberWood	48.75	0.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblVehicleTrips	ST_TR	7.16	6.17
tblVehicleTrips	ST_TR	6.39	3.87
tblVehicleTrips	ST_TR	2.46	1.39
tblVehicleTrips	ST_TR	158.37	79.82

tblVehicleTrips	ST_TR	8.19	3.75
tblVehicleTrips	ST_TR	94.36	63.99
tblVehicleTrips	ST_TR	49.97	10.74
tblVehicleTrips	SU_TR	6.07	6.16
tblVehicleTrips	SU_TR	5.86	4.18
tblVehicleTrips	SU_TR	1.05	0.69
tblVehicleTrips	SU_TR	131.84	78.27
tblVehicleTrips	SU_TR	5.95	3.20
tblVehicleTrips	SU_TR	72.16	57.65
tblVehicleTrips	SU_TR	25.24	6.39
tblVehicleTrips	WD_TR	6.59	5.83
tblVehicleTrips	WD_TR	6.65	4.13
tblVehicleTrips	WD_TR	11.03	6.41
tblVehicleTrips	WD_TR	127.15	65.80
tblVehicleTrips	WD_TR	8.17	3.84
tblVehicleTrips	WD_TR	89.95	62.64
tblVehicleTrips	WD_TR	42.70	9.43
tblWoodstoves	NumberCatalytic	1.25	0.00
tblWoodstoves	NumberCatalytic	48.75	0.00
tblWoodstoves	NumberNoncatalytic	1.25	0.00
tblWoodstoves	NumberNoncatalytic	48.75	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	4.2621	46.4460	31.4068	0.0635	18.2032	2.0456	20.2488	9.9670	1.8820	11.8490	0.0000	6,154.3377	6,154.3377	1.9472	0.0000	6,203.0186
2022	4.7966	38.8851	39.6338	0.1195	8.8255	1.6361	10.4616	3.6369	1.5052	5.1421	0.0000	12,035.3440	12,035.3440	1.9482	0.0000	12,060.6013
2023	4.3939	25.8648	37.5031	0.1162	7.0088	0.7598	7.7685	1.8799	0.7142	2.5940	0.0000	11,710.4080	11,710.4080	0.9617	0.0000	11,734.4497
2024	237.0656	9.5503	14.9372	0.0238	1.2171	0.4694	1.2875	0.3229	0.4319	0.4621	0.0000	2,307.0517	2,307.0517	0.7164	0.0000	2,324.9627
Maximum	**237.0656**	**46.4460**	**39.6338**	**0.1195**	**18.2032**	**2.0456**	**20.2488**	**9.9670**	**1.8820**	**11.8490**	**0.0000**	**12,035.3440**	**12,035.3440**	**1.9482**	**0.0000**	**12,060.6013**

2.1 Overall Construction (Maximum Daily Emission)

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	4.2621	46.4460	31.4068	0.0635	18.2032	2.0456	20.2488	9.9670	1.8820	11.8490	0.0000	6,154.3377	6,154.3377	1.9472	0.0000	6,203.0186
2022	4.7966	38.8851	39.6338	0.1195	8.8255	1.6361	10.4616	3.6369	1.5052	5.1421	0.0000	12,035.3440	12,035.3440	1.9482	0.0000	12,060.6013
2023	4.3939	25.8648	37.5031	0.1162	7.0088	0.7598	7.7685	1.8799	0.7142	2.5940	0.0000	11,710.4080	11,710.4080	0.9617	0.0000	11,734.4497
2024	237.0656	9.5503	14.9372	0.0238	1.2171	0.4694	1.2875	0.3229	0.4319	0.4621	0.0000	2,307.0517	2,307.0517	0.7164	0.0000	2,324.9627
Maximum	**237.0656**	**46.4460**	**39.6338**	**0.1195**	**18.2032**	**2.0456**	**20.2488**	**9.9670**	**1.8820**	**11.8490**	**0.0000**	**12,035.3440**	**12,035.3440**	**1.9482**	**0.0000**	**12,060.6013**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192
Energy	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.6387
Mobile	9.5233	45.9914	110.0422	0.4681	45.9592	0.3373	46.2965	12.2950	0.3132	12.6083		47,917.8005	47,917.8005	2.1953		47,972.6839
Total	**40.7912**	**67.7872**	**202.7424**	**0.6043**	**45.9592**	**2.4640**	**48.4231**	**12.2950**	**2.4399**	**14.7349**	**0.0000**	**74,422.3787**	**74,422.3787**	**2.8429**	**0.4832**	**74,637.4417**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192
Energy	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.6387
Mobile	9.5233	45.9914	110.0422	0.4681	45.9592	0.3373	46.2965	12.2950	0.3132	12.6083		47,917.8005	47,917.8005	2.1953		47,972.6839
Total	**40.7912**	**67.7872**	**202.7424**	**0.6043**	**45.9592**	**2.4640**	**48.4231**	**12.2950**	**2.4399**	**14.7349**	**0.0000**	**74,422.3787**	**74,422.3787**	**2.8429**	**0.4832**	**74,637.4417**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	9/1/2021	10/12/2021	5	30	
2	Site Preparation	Site Preparation	10/13/2021	11/9/2021	5	20	
3	Grading	Grading	11/10/2021	1/11/2022	5	45	
4	Building Construction	Building Construction	1/12/2022	12/12/2023	5	500	
5	Paving	Paving	12/13/2023	1/30/2024	5	35	
6	Architectural Coating	Architectural Coating	1/31/2024	3/19/2024	5	35	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 112.5

Acres of Paving: 0

Residential Indoor: 2,025,000; Residential Outdoor: 675,000; Non-Residential Indoor: 326,400; Non-Residential Outdoor: 108,800; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	458.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	801.00	143.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	160.00	0.00	0.00	10.00	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.3074	0.0000	3.3074	0.5008	0.0000	0.5008			0.0000			0.0000
Off-Road	3.1651	31.4407	21.5650	0.0388		1.5513	1.5513		1.4411	1.4411		3,747.9449	3,747.9449	1.0549		3,774.3174
Total	**3.1651**	**31.4407**	**21.5650**	**0.0388**	**3.3074**	**1.5513**	**4.8588**	**0.5008**	**1.4411**	**1.9419**		**3,747.9449**	**3,747.9449**	**1.0549**		**3,774.3174**

3.2 Demolition - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1304	4.1454	1.0182	0.0117	0.2669	0.0128	0.2797	0.0732	0.0122	0.0854		1,269.8555	1,269.8555	0.0908		1,272.1252
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0532	0.0346	0.3963	1.1100e-003	0.1141	9.5000e-004	0.1151	0.0303	8.8000e-004	0.0311		110.4707	110.4707	3.3300e-003		110.5539
Total	**0.1835**	**4.1800**	**1.4144**	**0.0128**	**0.3810**	**0.0137**	**0.3948**	**0.1034**	**0.0131**	**0.1165**		**1,380.3262**	**1,380.3262**	**0.0941**		**1,382.6791**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.3074	0.0000	3.3074	0.5008	0.0000	0.5008			0.0000			0.0000
Off-Road	3.1651	31.4407	21.5650	0.0388		1.5513	1.5513		1.4411	1.4411	0.0000	3,747.9449	3,747.9449	1.0549		3,774.3174
Total	**3.1651**	**31.4407**	**21.5650**	**0.0388**	**3.3074**	**1.5513**	**4.8588**	**0.5008**	**1.4411**	**1.9419**	**0.0000**	**3,747.9449**	**3,747.9449**	**1.0549**		**3,774.3174**

3.2 Demolition - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1304	4.1454	1.0182	0.0117	0.2669	0.0128	0.2797	0.0732	0.0122	0.0854		1,269.8555	1,269.8555	0.0908		1,272.1252
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0532	0.0346	0.3963	1.1100e-003	0.1141	9.5000e-004	0.1151	0.0303	8.8000e-004	0.0311		110.4707	110.4707	3.3300e-003		110.5539
Total	**0.1835**	**4.1800**	**1.4144**	**0.0128**	**0.3810**	**0.0137**	**0.3948**	**0.1034**	**0.0131**	**0.1165**		**1,380.3262**	**1,380.3262**	**0.0941**		**1,382.6791**

3.3 Site Preparation - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809		3,685.6569	3,685.6569	1.1920		3,715.4573
Total	**3.8882**	**40.4971**	**21.1543**	**0.0380**	**18.0663**	**2.0445**	**20.1107**	**9.9307**	**1.8809**	**11.8116**		**3,685.6569**	**3,685.6569**	**1.1920**		**3,715.4573**

3.3 Site Preparation - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0638	0.0415	0.4755	1.3300e-003	0.1369	1.1400e-003	0.1381	0.0363	1.0500e-003	0.0374		132.5649	132.5649	3.9900e-003		132.6646
Total	**0.0638**	**0.0415**	**0.4755**	**1.3300e-003**	**0.1369**	**1.1400e-003**	**0.1381**	**0.0363**	**1.0500e-003**	**0.0374**		**132.5649**	**132.5649**	**3.9900e-003**		**132.6646**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809	0.0000	3,685.6569	3,685.6569	1.1920		3,715.4573
Total	**3.8882**	**40.4971**	**21.1543**	**0.0380**	**18.0663**	**2.0445**	**20.1107**	**9.9307**	**1.8809**	**11.8116**	**0.0000**	**3,685.6569**	**3,685.6569**	**1.1920**		**3,715.4573**

3.3 Site Preparation - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0638	0.0415	0.4755	1.3300e-003	0.1369	1.1400e-003	0.1381	0.0363	1.0500e-003	0.0374		132.5649	132.5649	3.9900e-003		132.6646
Total	**0.0638**	**0.0415**	**0.4755**	**1.3300e-003**	**0.1369**	**1.1400e-003**	**0.1381**	**0.0363**	**1.0500e-003**	**0.0374**		**132.5649**	**132.5649**	**3.9900e-003**		**132.6646**

3.4 Grading - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	4.1912	46.3998	30.8785	0.0620		1.9853	1.9853		1.8265	1.8265		6,007.0434	6,007.0434	1.9428		6,055.6134
Total	**4.1912**	**46.3998**	**30.8785**	**0.0620**	**8.6733**	**1.9853**	**10.6587**	**3.5965**	**1.8265**	**5.4230**		**6,007.0434**	**6,007.0434**	**1.9428**		**6,055.6134**

3.4 Grading - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0709	0.0462	0.5284	1.4800e-003	0.1521	1.2700e-003	0.1534	0.0404	1.1700e-003	0.0415		147.2943	147.2943	4.4300e-003		147.4051
Total	**0.0709**	**0.0462**	**0.5284**	**1.4800e-003**	**0.1521**	**1.2700e-003**	**0.1534**	**0.0404**	**1.1700e-003**	**0.0415**		**147.2943**	**147.2943**	**4.4300e-003**		**147.4051**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	4.1912	46.3998	30.8785	0.0620		1.9853	1.9853		1.8265	1.8265	0.0000	6,007.0434	6,007.0434	1.9428		6,055.6134
Total	**4.1912**	**46.3998**	**30.8785**	**0.0620**	**8.6733**	**1.9853**	**10.6587**	**3.5965**	**1.8265**	**5.4230**	**0.0000**	**6,007.0434**	**6,007.0434**	**1.9428**		**6,055.6134**

3.4 Grading - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0709	0.0462	0.5284	1.4800e-003	0.1521	1.2700e-003	0.1534	0.0404	1.1700e-003	0.0415		147.2943	147.2943	4.4300e-003		147.4051
Total	**0.0709**	**0.0462**	**0.5284**	**1.4800e-003**	**0.1521**	**1.2700e-003**	**0.1534**	**0.0404**	**1.1700e-003**	**0.0415**		**147.2943**	**147.2943**	**4.4300e-003**		**147.4051**

3.4 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041		6,011.4105	6,011.4105	1.9442		6,060.0158
Total	**3.6248**	**38.8435**	**29.0415**	**0.0621**	**8.6733**	**1.6349**	**10.3082**	**3.5965**	**1.5041**	**5.1006**		**6,011.4105**	**6,011.4105**	**1.9442**		**6,060.0158**

3.4 Grading - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0665	0.0416	0.4861	1.4300e-003	0.1521	1.2300e-003	0.1534	0.0404	1.1300e-003	0.0415		142.1207	142.1207	4.0000e-003		142.2207
Total	**0.0665**	**0.0416**	**0.4861**	**1.4300e-003**	**0.1521**	**1.2300e-003**	**0.1534**	**0.0404**	**1.1300e-003**	**0.0415**		**142.1207**	**142.1207**	**4.0000e-003**		**142.2207**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041	0.0000	6,011.4105	6,011.4105	1.9442		6,060.0158
Total	**3.6248**	**38.8435**	**29.0415**	**0.0621**	**8.6733**	**1.6349**	**10.3082**	**3.5965**	**1.5041**	**5.1006**	**0.0000**	**6,011.4105**	**6,011.4105**	**1.9442**		**6,060.0158**

3.4 Grading - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0665	0.0416	0.4861	1.4300e-003	0.1521	1.2300e-003	0.1534	0.0404	1.1300e-003	0.0415		142.1207	142.1207	4.0000e-003		142.2207
Total	**0.0665**	**0.0416**	**0.4861**	**1.4300e-003**	**0.1521**	**1.2300e-003**	**0.1534**	**0.0404**	**1.1300e-003**	**0.0415**		**142.1207**	**142.1207**	**4.0000e-003**		**142.2207**

3.5 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**		**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

3.5 Building Construction - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.4284	13.1673	3.8005	0.0354	0.9155	0.0256	0.9412	0.2636	0.0245	0.2881		3,789.0750	3,789.0750	0.2381		3,795.0283
Worker	2.6620	1.6677	19.4699	0.0571	6.0932	0.0493	6.1425	1.6163	0.0454	1.6617		5,691.9354	5,691.9354	0.1602		5,695.9408
Total	**3.0904**	**14.8350**	**23.2704**	**0.0926**	**7.0087**	**0.0749**	**7.0836**	**1.8799**	**0.0699**	**1.9498**		**9,481.0104**	**9,481.0104**	**0.3984**		**9,490.9691**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612	0.0000	2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**	**0.0000**	**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

3.5 Building Construction - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.4284	13.1673	3.8005	0.0354	0.9155	0.0256	0.9412	0.2636	0.0245	0.2881		3,789.0750	3,789.0750	0.2381		3,795.0283
Worker	2.6620	1.6677	19.4699	0.0571	6.0932	0.0493	6.1425	1.6163	0.0454	1.6617		5,691.9354	5,691.9354	0.1602		5,695.9408
Total	**3.0904**	**14.8350**	**23.2704**	**0.0926**	**7.0087**	**0.0749**	**7.0836**	**1.8799**	**0.0699**	**1.9498**		**9,481.0104**	**9,481.0104**	**0.3984**		**9,490.9691**

3.5 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**		**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

3.5 Building Construction - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.3183	9.9726	3.3771	0.0343	0.9156	0.0122	0.9277	0.2636	0.0116	0.2752		3,671.4007	3,671.4007	0.2096		3,676.6417
Worker	2.5029	1.5073	17.8820	0.0550	6.0932	0.0479	6.1411	1.6163	0.0441	1.6604		5,483.7974	5,483.7974	0.1442		5,487.4020
Total	**2.8211**	**11.4799**	**21.2591**	**0.0893**	**7.0088**	**0.0601**	**7.0688**	**1.8799**	**0.0557**	**1.9356**		**9,155.1981**	**9,155.1981**	**0.3538**		**9,164.0437**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**	**0.0000**	**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

3.5 Building Construction - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.3183	9.9726	3.3771	0.0343	0.9156	0.0122	0.9277	0.2636	0.0116	0.2752		3,671.4007	3,671.4007	0.2096		3,676.6417
Worker	2.5029	1.5073	17.8820	0.0550	6.0932	0.0479	6.1411	1.6163	0.0441	1.6604		5,483.7974	5,483.7974	0.1442		5,487.4020
Total	**2.8211**	**11.4799**	**21.2591**	**0.0893**	**7.0088**	**0.0601**	**7.0688**	**1.8799**	**0.0557**	**1.9356**		**9,155.1981**	**9,155.1981**	**0.3538**		**9,164.0437**

3.6 Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694		2,207.5841	2,207.5841	0.7140		2,225.4336
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.0327**	**10.1917**	**14.5842**	**0.0228**		**0.5102**	**0.5102**		**0.4694**	**0.4694**		**2,207.5841**	**2,207.5841**	**0.7140**		**2,225.4336**

3.6 Paving - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0469	0.0282	0.3349	1.0300e-003	0.1141	9.0000e-004	0.1150	0.0303	8.3000e-004	0.0311		102.6928	102.6928	2.7000e-003		102.7603
Total	**0.0469**	**0.0282**	**0.3349**	**1.0300e-003**	**0.1141**	**9.0000e-004**	**0.1150**	**0.0303**	**8.3000e-004**	**0.0311**		**102.6928**	**102.6928**	**2.7000e-003**		**102.7603**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694	0.0000	2,207.5841	2,207.5841	0.7140		2,225.4336
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.0327**	**10.1917**	**14.5842**	**0.0228**		**0.5102**	**0.5102**		**0.4694**	**0.4694**	**0.0000**	**2,207.5841**	**2,207.5841**	**0.7140**		**2,225.4336**

3.6 Paving - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0469	0.0282	0.3349	1.0300e-003	0.1141	9.0000e-004	0.1150	0.0303	8.3000e-004	0.0311		102.6928	102.6928	2.7000e-003		102.7603
Total	**0.0469**	**0.0282**	**0.3349**	**1.0300e-003**	**0.1141**	**9.0000e-004**	**0.1150**	**0.0303**	**8.3000e-004**	**0.0311**		**102.6928**	**102.6928**	**2.7000e-003**		**102.7603**

3.6 Paving - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310		2,207.5472	2,207.5472	0.7140		2,225.3963
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9882**	**9.5246**	**14.6258**	**0.0228**		**0.4685**	**0.4685**		**0.4310**	**0.4310**		**2,207.5472**	**2,207.5472**	**0.7140**		**2,225.3963**

3.6 Paving - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0444	0.0257	0.3114	1.0000e-003	0.1141	8.8000e-004	0.1150	0.0303	8.1000e-004	0.0311		99.5045	99.5045	2.4700e-003		99.5663
Total	**0.0444**	**0.0257**	**0.3114**	**1.0000e-003**	**0.1141**	**8.8000e-004**	**0.1150**	**0.0303**	**8.1000e-004**	**0.0311**		**99.5045**	**99.5045**	**2.4700e-003**		**99.5663**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310	0.0000	2,207.5472	2,207.5472	0.7140		2,225.3963
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9882**	**9.5246**	**14.6258**	**0.0228**		**0.4685**	**0.4685**		**0.4310**	**0.4310**	**0.0000**	**2,207.5472**	**2,207.5472**	**0.7140**		**2,225.3963**

3.6 Paving - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0444	0.0257	0.3114	1.0000e-003	0.1141	8.8000e-004	0.1150	0.0303	8.1000e-004	0.0311		99.5045	99.5045	2.4700e-003		99.5663
Total	**0.0444**	**0.0257**	**0.3114**	**1.0000e-003**	**0.1141**	**8.8000e-004**	**0.1150**	**0.0303**	**8.1000e-004**	**0.0311**		**99.5045**	**99.5045**	**2.4700e-003**		**99.5663**

3.7 Architectural Coating - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	236.4115					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443
Total	**236.5923**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**		**281.4481**	**281.4481**	**0.0159**		**281.8443**

3.7 Architectural Coating - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.4734	0.2743	3.3220	0.0107	1.2171	9.4300e-003	1.2266	0.3229	8.6800e-003	0.3315		1,061.3818	1,061.3818	0.0264		1,062.0410
Total	**0.4734**	**0.2743**	**3.3220**	**0.0107**	**1.2171**	**9.4300e-003**	**1.2266**	**0.3229**	**8.6800e-003**	**0.3315**		**1,061.3818**	**1,061.3818**	**0.0264**		**1,062.0410**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	236.4115					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609	0.0000	281.4481	281.4481	0.0159		281.8443
Total	**236.5923**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**	**0.0000**	**281.4481**	**281.4481**	**0.0159**		**281.8443**

3.7 Architectural Coating - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.4734	0.2743	3.3220	0.0107	1.2171	9.4300e-003	1.2266	0.3229	8.6800e-003	0.3315		1,061.3818	1,061.3818	0.0264		1,062.0410
Total	**0.4734**	**0.2743**	**3.3220**	**0.0107**	**1.2171**	**9.4300e-003**	**1.2266**	**0.3229**	**8.6800e-003**	**0.3315**		**1,061.3818**	**1,061.3818**	**0.0264**		**1,062.0410**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	9.5233	45.9914	110.0422	0.4681	45.9592	0.3373	46.2965	12.2950	0.3132	12.6083		47,917.8005	47,917.8005	2.1953		47,972.6839
Unmitigated	9.5233	45.9914	110.0422	0.4681	45.9592	0.3373	46.2965	12.2950	0.3132	12.6083		47,917.8005	47,917.8005	2.1953		47,972.6839

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	145.75	154.25	154.00	506,227	506,227
Apartments Mid Rise	4,026.75	3,773.25	4075.50	13,660,065	13,660,065
General Office Building	288.45	62.55	31.05	706,812	706,812
High Turnover (Sit Down Restaurant)	2,368.80	2,873.52	2817.72	3,413,937	3,413,937
Hotel	192.00	187.50	160.00	445,703	445,703
Quality Restaurant	501.12	511.92	461.20	707,488	707,488
Regional Shopping Center	528.08	601.44	357.84	1,112,221	1,112,221
Total	8,050.95	8,164.43	8,057.31	20,552,452	20,552,452

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Low Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Apartments Mid Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
High Turnover (Sit Down	16.60	8.40	6.90	8.50	72.50	19.00	37	20	43
Hotel	16.60	8.40	6.90	19.40	61.60	19.00	58	38	4
Quality Restaurant	16.60	8.40	6.90	12.00	69.00	19.00	38	18	44
Regional Shopping Center	16.60	8.40	6.90	16.30	64.70	19.00	54	35	11

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Low Rise	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Apartments Mid Rise	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
General Office Building	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
High Turnover (Sit Down Restaurant)	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Hotel	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Quality Restaurant	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821
Regional Shopping Center	0.543088	0.044216	0.209971	0.116369	0.014033	0.006332	0.021166	0.033577	0.002613	0.001817	0.005285	0.000712	0.000821

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.6387
NaturalGas Unmitigated	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.6387

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Low Rise	1119.16	0.0121	0.1031	0.0439	6.6000e-004		8.3400e-003	8.3400e-003		8.3400e-003	8.3400e-003		131.6662	131.6662	2.5200e-003	2.4100e-003	132.4486
Apartments Mid Rise	35784.3	0.3859	3.2978	1.4033	0.0211		0.2666	0.2666		0.2666	0.2666		4,209.9164	4,209.9164	0.0807	0.0772	4,234.9339
General Office Building	1283.42	0.0138	0.1258	0.1057	7.5000e-004		9.5600e-003	9.5600e-003		9.5600e-003	9.5600e-003		150.9911	150.9911	2.8900e-003	2.7700e-003	151.8884
High Turnover (Sit Down Restaurant)	22759.9	0.2455	2.2314	1.8743	0.0134		0.1696	0.1696		0.1696	0.1696		2,677.6342	2,677.6342	0.0513	0.0491	2,693.5460
Hotel	4769.72	0.0514	0.4676	0.3928	2.8100e-003		0.0355	0.0355		0.0355	0.0355		561.1436	561.1436	0.0108	0.0103	564.4782
Quality Restaurant	5057.75	0.0545	0.4959	0.4165	2.9800e-003		0.0377	0.0377		0.0377	0.0377		595.0298	595.0298	0.0114	0.0109	598.5658
Regional Shopping Center	251.616	2.7100e-003	0.0247	0.0207	1.5000e-004		1.8700e-003	1.8700e-003		1.8700e-003	1.8700e-003		29.6019	29.6019	5.7000e-004	5.4000e-004	29.7778
Total		**0.7660**	**6.7463**	**4.2573**	**0.0418**		**0.5292**	**0.5292**		**0.5292**	**0.5292**		**8,355.9832**	**8,355.9832**	**0.1602**	**0.1532**	**8,405.6387**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Low Rise	1.11916	0.0121	0.1031	0.0439	6.6000e-004		8.3400e-003	8.3400e-003		8.3400e-003	8.3400e-003		131.6662	131.6662	2.5200e-003	2.4100e-003	132.4486
Apartments Mid Rise	35.7843	0.3859	3.2978	1.4033	0.0211		0.2666	0.2666		0.2666	0.2666		4,209.9164	4,209.9164	0.0807	0.0772	4,234.9339
General Office Building	1.28342	0.0138	0.1258	0.1057	7.5000e-004		9.5600e-003	9.5600e-003		9.5600e-003	9.5600e-003		150.9911	150.9911	2.8900e-003	2.7700e-003	151.8884
High Turnover (Sit Down Restaurant)	22.7599	0.2455	2.2314	1.8743	0.0134		0.1696	0.1696		0.1696	0.1696		2,677.6342	2,677.6342	0.0513	0.0491	2,693.5460
Hotel	4.76972	0.0514	0.4676	0.3928	2.8100e-003		0.0355	0.0355		0.0355	0.0355		561.1436	561.1436	0.0108	0.0103	564.4782
Quality Restaurant	5.05775	0.0545	0.4959	0.4165	2.9800e-003		0.0377	0.0377		0.0377	0.0377		595.0298	595.0298	0.0114	0.0109	598.5658
Regional Shopping Center	0.251616	2.7100e-003	0.0247	0.0207	1.5000e-004		1.8700e-003	1.8700e-003		1.8700e-003	1.8700e-003		29.6019	29.6019	5.7000e-004	5.4000e-004	29.7778
Total		**0.7660**	**6.7463**	**4.2573**	**0.0418**		**0.5292**	**0.5292**		**0.5292**	**0.5292**		**8,355.9832**	**8,355.9832**	**0.1602**	**0.1532**	**8,405.6387**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192
Unmitigated	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	2.2670					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	24.1085					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	1.6500	14.1000	6.0000	0.0900		1.1400	1.1400		1.1400	1.1400	0.0000	18,000.0000	18,000.0000	0.3450	0.3300	18,106.9650
Landscaping	2.4766	0.9496	82.4430	4.3600e-003		0.4574	0.4574		0.4574	0.4574		148.5950	148.5950	0.1424		152.1542
Total	**30.5020**	**15.0496**	**88.4430**	**0.0944**		**1.5974**	**1.5974**		**1.5974**	**1.5974**	**0.0000**	**18,148.5950**	**18,148.5950**	**0.4874**	**0.3300**	**18,259.1192**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	2.2670					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	24.1085					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	1.6500	14.1000	6.0000	0.0900		1.1400	1.1400		1.1400	1.1400	0.0000	18,000.0000	18,000.0000	0.3450	0.3300	18,106.9650
Landscaping	2.4766	0.9496	82.4430	4.3600e-003		0.4574	0.4574		0.4574	0.4574		148.5950	148.5950	0.1424		152.1542
Total	**30.5020**	**15.0496**	**88.4430**	**0.0944**		**1.5974**	**1.5974**		**1.5974**	**1.5974**	**0.0000**	**18,148.5950**	**18,148.5950**	**0.4874**	**0.3300**	**18,259.1192**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Local Hire Provision Net Change	
Without Local Hire Provision	
Total Construction GHG Emissions (MT CO2e)	3,623
Amortized (MT CO2e/year)	120.77
With Local Hire Provision	
Total Construction GHG Emissions (MT CO2e)	3,024
Amortized (MT CO2e/year)	100.80
% Decrease in Construction-related GHG Emissions	***17%***

EXHIBIT B

SWAPE Technical Consultation, Data Analysis and Litigation Support for the Environment

SOIL WATER AIR PROTECTION ENTERPRISE
2656 29th Street, Suite 201
Santa Monica, California 90405
Attn: Paul Rosenfeld, Ph.D.
Mobil: (310) 795-2335
Office: (310) 452-5555
Fax: (310) 452-5550
Email: prosenfeld@swape.com

Paul Rosenfeld, Ph.D.

Chemical Fate and Transport & Air Dispersion Modeling

Principal Environmental Chemist

Risk Assessment & Remediation Specialist

Education

Ph.D. Soil Chemistry, University of Washington, 1999. Dissertation on volatile organic compound filtration.

M.S. Environmental Science, U.C. Berkeley, 1995. Thesis on organic waste economics.

B.A. Environmental Studies, U.C. Santa Barbara, 1991. Thesis on wastewater treatment.

Professional Experience

Dr. Rosenfeld has over 25 years' experience conducting environmental investigations and risk assessments for evaluating impacts to human health, property, and ecological receptors. His expertise focuses on the fate and transport of environmental contaminants, human health risk, exposure assessment, and ecological restoration. Dr. Rosenfeld has evaluated and modeled emissions from unconventional oil drilling operations, oil spills, landfills, boilers and incinerators, process stacks, storage tanks, confined animal feeding operations, and many other industrial and agricultural sources. His project experience ranges from monitoring and modeling of pollution sources to evaluating impacts of pollution on workers at industrial facilities and residents in surrounding communities.

Dr. Rosenfeld has investigated and designed remediation programs and risk assessments for contaminated sites containing lead, heavy metals, mold, bacteria, particulate matter, petroleum hydrocarbons, chlorinated solvents, pesticides, radioactive waste, dioxins and furans, semi- and volatile organic compounds, PCBs, PAHs, perchlorate, asbestos, per- and poly-fluoroalkyl substances (PFOA/PFOS), unusual polymers, fuel oxygenates (MTBE), among other pollutants. Dr. Rosenfeld also has experience evaluating greenhouse gas emissions from various projects and is an expert on the assessment of odors from industrial and agricultural sites, as well as the evaluation of odor nuisance impacts and technologies for abatement of odorous emissions. As a principal scientist at SWAPE, Dr. Rosenfeld directs air dispersion modeling and exposure assessments. He has served as an expert witness and testified about pollution sources causing nuisance and/or personal injury at dozens of sites and has testified as an expert witness on more than ten cases involving exposure to air contaminants from industrial sources.

Professional History:

Soil Water Air Protection Enterprise (SWAPE); 2003 to present; Principal and Founding Partner
UCLA School of Public Health; 2007 to 2011; Lecturer (Assistant Researcher)
UCLA School of Public Health; 2003 to 2006; Adjunct Professor
UCLA Environmental Science and Engineering Program; 2002-2004; Doctoral Intern Coordinator
UCLA Institute of the Environment, 2001-2002; Research Associate
Komex H_2O Science, 2001 to 2003; Senior Remediation Scientist
National Groundwater Association, 2002-2004; Lecturer
San Diego State University, 1999-2001; Adjunct Professor
Anteon Corp., San Diego, 2000-2001; Remediation Project Manager
Ogden (now Amec), San Diego, 2000-2000; Remediation Project Manager
Bechtel, San Diego, California, 1999 – 2000; Risk Assessor
King County, Seattle, 1996 – 1999; Scientist
James River Corp., Washington, 1995-96; Scientist
Big Creek Lumber, Davenport, California, 1995; Scientist
Plumas Corp., California and USFS, Tahoe 1993-1995; Scientist
Peace Corps and World Wildlife Fund, St. Kitts, West Indies, 1991-1993; Scientist

Publications:

Remy, L.L., Clay T., Byers, V., **Rosenfeld P. E.** (2019) Hospital, Health, and Community Burden After Oil Refinery Fires, Richmond, California 2007 and 2012. *Environmental Health.* 18:48

Simons, R.A., Seo, Y. **Rosenfeld, P**., (2015) Modeling the Effect of Refinery Emission On Residential Property Value. Journal of Real Estate Research. 27(3):321-342

Chen, J. A, Zapata A. R., Sutherland A. J., Molmen, D.R., Chow, B. S., Wu, L. E., **Rosenfeld, P. E.,** Hesse, R. C., (2012) Sulfur Dioxide and Volatile Organic Compound Exposure To A Community In Texas City Texas Evaluated Using Aermod and Empirical Data. *American Journal of Environmental Science*, 8(6), 622-632.

Rosenfeld, P.E. & Feng, L. (2011). *The Risks of Hazardous Waste.* Amsterdam: Elsevier Publishing.

Cheremisinoff, N.P., & **Rosenfeld, P.E.** (2011). *Handbook of Pollution Prevention and Cleaner Production: Best Practices in the Agrochemical Industry*, Amsterdam: Elsevier Publishing.

Gonzalez, J., Feng, L., Sutherland, A., Waller, C., Sok, H., Hesse, R., **Rosenfeld, P.** (2010). PCBs and Dioxins/Furans in Attic Dust Collected Near Former PCB Production and Secondary Copper Facilities in Sauget, IL. *Procedia Environmental Sciences*. 113–125.

Feng, L., Wu, C., Tam, L., Sutherland, A.J., Clark, J.J., **Rosenfeld, P.E.** (2010). Dioxin and Furan Blood Lipid and Attic Dust Concentrations in Populations Living Near Four Wood Treatment Facilities in the United States. *Journal of Environmental Health*. 73(6), 34-46.

Cheremisinoff, N.P., & **Rosenfeld, P.E.** (2010). *Handbook of Pollution Prevention and Cleaner Production: Best Practices in the Wood and Paper Industries.* Amsterdam: Elsevier Publishing.

Cheremisinoff, N.P., & **Rosenfeld, P.E.** (2009). *Handbook of Pollution Prevention and Cleaner Production: Best Practices in the Petroleum Industry*. Amsterdam: Elsevier Publishing.

Wu, C., Tam, L., Clark, J., **Rosenfeld, P**. (2009). Dioxin and furan blood lipid concentrations in populations living near four wood treatment facilities in the United States. *WIT Transactions on Ecology and the Environment, Air Pollution,* 123 (17), 319-327.

Tam L. K.., Wu C. D., Clark J. J. and **Rosenfeld, P.E.** (2008). A Statistical Analysis Of Attic Dust And Blood Lipid Concentrations Of Tetrachloro-p-Dibenzodioxin (TCDD) Toxicity Equivalency Quotients (TEQ) In Two Populations Near Wood Treatment Facilities. *Organohalogen Compounds*, 70, 002252-002255.

Tam L. K.., Wu C. D., Clark J. J. and **Rosenfeld, P.E.** (2008). Methods For Collect Samples For Assessing Dioxins And Other Environmental Contaminants In Attic Dust: A Review. *Organohalogen Compounds*, 70, 000527-000530.

Hensley, A.R. A. Scott, J. J. J. Clark, **Rosenfeld, P.E.** (2007). Attic Dust and Human Blood Samples Collected near a Former Wood Treatment Facility. *Environmental Research*. 105, 194-197.

Rosenfeld, P.E., J. J. J. Clark, A. R. Hensley, M. Suffet. (2007). The Use of an Odor Wheel Classification for Evaluation of Human Health Risk Criteria for Compost Facilities. *Water Science & Technology* 55(5), 345-357.

Rosenfeld, P. E., M. Suffet. (2007). The Anatomy Of Odour Wheels For Odours Of Drinking Water, Wastewater, Compost And The Urban Environment. *Water Science & Technology* 55(5), 335-344.

Sullivan, P. J. Clark, J.J.J., Agardy, F. J., **Rosenfeld, P.E.** (2007). *Toxic Legacy, Synthetic Toxins in the Food, Water, and Air in American Cities.* Boston Massachusetts: Elsevier Publishing

Rosenfeld, P.E., and Suffet I.H. (2004). Control of Compost Odor Using High Carbon Wood Ash. *Water Science and Technology*. 49(9),171-178.

Rosenfeld P. E., J.J. Clark, I.H. (Mel) Suffet (2004). The Value of An Odor-Quality-Wheel Classification Scheme For The Urban Environment. *Water Environment Federation's Technical Exhibition and Conference (WEFTEC) 2004.* New Orleans, October 2-6, 2004.

Rosenfeld, P.E., and Suffet, I.H. (2004). Understanding Odorants Associated With Compost, Biomass Facilities, and the Land Application of Biosolids. *Water Science and Technology*. 49(9), 193-199.

Rosenfeld, P.E., and Suffet I.H. (2004). Control of Compost Odor Using High Carbon Wood Ash, *Water Science and Technology*, 49(9), 171-178.

Rosenfeld, P. E., Grey, M. A., Sellew, P. (2004). Measurement of Biosolids Odor and Odorant Emissions from Windrows, Static Pile and Biofilter. *Water Environment Research*. 76(4), 310-315.

Rosenfeld, P.E., Grey, M and Suffet, M. (2002). Compost Demonstration Project, Sacramento California Using High-Carbon Wood Ash to Control Odor at a Green Materials Composting Facility. *Integrated Waste Management Board Public Affairs Office*, Publications Clearinghouse (MS–6), Sacramento, CA Publication #442-02-008.

Rosenfeld, P.E., and C.L. Henry. (2001). Characterization of odor emissions from three different biosolids. *Water Soil and Air Pollution*. 127(1-4), 173-191.

Rosenfeld, P.E., and Henry C. L., (2000). Wood ash control of odor emissions from biosolids application. *Journal of Environmental Quality.* 29, 1662-1668.

Rosenfeld, P.E., C.L. Henry and D. Bennett. (2001). Wastewater dewatering polymer affect on biosolids odor emissions and microbial activity. *Water Environment Research*. 73(4), 363-367.

Rosenfeld, P.E., and C.L. Henry. (2001). Activated Carbon and Wood Ash Sorption of Wastewater, Compost, and Biosolids Odorants. *Water Environment Research*, 73, 388-393.

Rosenfeld, P.E., and Henry C. L., (2001). High carbon wood ash effect on biosolids microbial activity and odor. *Water Environment Research*. 131(1-4), 247-262.

Chollack, T. and **P. Rosenfeld. (**1998). Compost Amendment Handbook For Landscaping. Prepared for and distributed by the City of Redmond, Washington State.

Rosenfeld, P. E. (1992). The Mount Liamuiga Crater Trail. *Heritage Magazine of St. Kitts*, 3(2).

Rosenfeld, P. E. (1993). High School Biogas Project to Prevent Deforestation On St. Kitts. *Biomass Users Network*, 7(1).

Rosenfeld, P. E. (1998). Characterization, Quantification, and Control of Odor Emissions From Biosolids Application To Forest Soil. Doctoral Thesis. University of Washington College of Forest Resources.

Rosenfeld, P. E. (1994). Potential Utilization of Small Diameter Trees on Sierra County Public Land. Masters thesis reprinted by the Sierra County Economic Council. Sierra County, California.

Rosenfeld, P. E. (1991). How to Build a Small Rural Anaerobic Digester & Uses Of Biogas In The First And Third World. Bachelors Thesis. University of California.

Presentations:

Rosenfeld, P.E., Sutherland, A; Hesse, R.; Zapata, A. (October 3-6, 2013). Air dispersion modeling of volatile organic emissions from multiple natural gas wells in Decatur, TX. *44th Western Regional Meeting, American Chemical Society.* Lecture conducted from Santa Clara, CA.

Sok, H.L.; Waller, C.C.; Feng, L.; Gonzalez, J.; Sutherland, A.J.; Wisdom-Stack, T.; Sahai, R.K.; Hesse, R.C.; **Rosenfeld, P.E.** (June 20-23, 2010). Atrazine: A Persistent Pesticide in Urban Drinking Water. *Urban Environmental Pollution*. Lecture conducted from Boston, MA.

Feng, L.; Gonzalez, J.; Sok, H.L.; Sutherland, A.J.; Waller, C.C.; Wisdom-Stack, T.; Sahai, R.K.; La, M.; Hesse, R.C.; **Rosenfeld, P.E.** (June 20-23, 2010). Bringing Environmental Justice to East St. Louis, Illinois. *Urban Environmental Pollution.* Lecture conducted from Boston, MA.

Rosenfeld, P.E. (April 19-23, 2009). Perfluoroctanoic Acid (PFOA) and Perfluoroactane Sulfonate (PFOS) Contamination in Drinking Water From the Use of Aqueous Film Forming Foams (AFFF) at Airports in the United States. *2009 Ground Water Summit and 2009 Ground Water Protection Council Spring Meeting*, Lecture conducted from Tuscon, AZ.

Rosenfeld, P.E. (April 19-23, 2009). Cost to Filter Atrazine Contamination from Drinking Water in the United States" Contamination in Drinking Water From the Use of Aqueous Film Forming Foams (AFFF) at Airports in the United States. *2009 Ground Water Summit and 2009 Ground Water Protection Council Spring Meeting*. Lecture conducted from Tuscon, AZ.

Wu, C., Tam, L., Clark, J., **Rosenfeld, P**. (20-22 July, 2009). Dioxin and furan blood lipid concentrations in populations living near four wood treatment facilities in the United States. Brebbia, C.A. and Popov, V., eds., *Air Pollution XVII: Proceedings of the Seventeenth International Conference on Modeling, Monitoring and Management of Air Pollution*. Lecture conducted from Tallinn, Estonia.

Rosenfeld, P. E. (October 15-18, 2007). Moss Point Community Exposure To Contaminants From A Releasing Facility. *The 23rd Annual International Conferences on Soils Sediment and Water.* Platform lecture conducted from University of Massachusetts, Amherst MA.

Rosenfeld, P. E. (October 15-18, 2007). The Repeated Trespass of Tritium-Contaminated Water Into A Surrounding Community Form Repeated Waste Spills From A Nuclear Power Plant. *The 23rd Annual International Conferences on Soils Sediment and Water*. Platform lecture conducted from University of Massachusetts, Amherst MA.

Rosenfeld, P. E. (October 15-18, 2007). Somerville Community Exposure To Contaminants From Wood Treatment Facility Emissions. The *23rd Annual International Conferences on Soils Sediment and Water*. Lecture conducted from University of Massachusetts, Amherst MA.

Rosenfeld P. E. (March 2007). Production, Chemical Properties, Toxicology, & Treatment Case Studies of 1,2,3-Trichloropropane (TCP). *The Association for Environmental Health and Sciences (AEHS) Annual Meeting*. Lecture conducted from San Diego, CA.

Rosenfeld P. E. (March 2007). Blood and Attic Sampling for Dioxin/Furan, PAH, and Metal Exposure in Florala, Alabama. *The AEHS Annual Meeting.* Lecture conducted from San Diego, CA.

Hensley A.R., Scott, A., **Rosenfeld P.E.,** Clark, J.J.J. (August 21 – 25, 2006). Dioxin Containing Attic Dust And Human Blood Samples Collected Near A Former Wood Treatment Facility. *The 26th International Symposium on Halogenated Persistent Organic Pollutants – DIOXIN2006*. Lecture conducted from Radisson SAS Scandinavia Hotel in Oslo Norway.

Hensley A.R., Scott, A., **Rosenfeld P.E.,** Clark, J.J.J. (November 4-8, 2006). Dioxin Containing Attic Dust And Human Blood Samples Collected Near A Former Wood Treatment Facility. *APHA 134 Annual Meeting & Exposition.* Lecture conducted from Boston Massachusetts.

Paul Rosenfeld Ph.D. (October 24-25, 2005). Fate, Transport and Persistence of PFOA and Related Chemicals. Mealey's C8/PFOA. *Science, Risk & Litigation Conference.* Lecture conducted from The Rittenhouse Hotel, Philadelphia, PA.

Paul Rosenfeld Ph.D. (September 19, 2005). Brominated Flame Retardants in Groundwater: Pathways to Human Ingestion, *Toxicology and Remediation PEMA Emerging Contaminant Conference*. Lecture conducted from Hilton Hotel, Irvine California.

Paul Rosenfeld Ph.D. (September 19, 2005). Fate, Transport, Toxicity, And Persistence of 1,2,3-TCP. *PEMA Emerging Contaminant Conference.* Lecture conducted from Hilton Hotel in Irvine, California.

Paul Rosenfeld Ph.D. (September 26-27, 2005). Fate, Transport and Persistence of PDBEs. *Mealey's Groundwater Conference.* Lecture conducted from Ritz Carlton Hotel, Marina Del Ray, California.

Paul Rosenfeld Ph.D. (June 7-8, 2005). Fate, Transport and Persistence of PFOA and Related Chemicals. *International Society of Environmental Forensics: Focus On Emerging Contaminants*. Lecture conducted from Sheraton Oceanfront Hotel, Virginia Beach, Virginia.

Paul Rosenfeld Ph.D. (July 21-22, 2005). Fate Transport, Persistence and Toxicology of PFOA and Related Perfluorochemicals. *2005 National Groundwater Association Ground Water And Environmental Law Conference*. Lecture conducted from Wyndham Baltimore Inner Harbor, Baltimore Maryland.

Paul Rosenfeld Ph.D. (July 21-22, 2005). Brominated Flame Retardants in Groundwater: Pathways to Human Ingestion, Toxicology and Remediation. *2005 National Groundwater Association Ground Water and Environmental Law Conference.* Lecture conducted from Wyndham Baltimore Inner Harbor, Baltimore Maryland.

Paul Rosenfeld, Ph.D. and James Clark Ph.D. and Rob Hesse R.G. (May 5-6, 2004). Tert-butyl Alcohol Liability and Toxicology, A National Problem and Unquantified Liability. *National Groundwater Association. Environmental Law Conference*. Lecture conducted from Congress Plaza Hotel, Chicago Illinois.

Paul Rosenfeld, Ph.D. (March 2004). Perchlorate Toxicology. *Meeting of the American Groundwater Trust*. Lecture conducted from Phoenix Arizona.

Hagemann, M.F., **Paul Rosenfeld, Ph.D.** and Rob Hesse (2004). Perchlorate Contamination of the Colorado River. *Meeting of tribal representatives*. Lecture conducted from Parker, AZ.

Paul Rosenfeld, Ph.D. (April 7, 2004). A National Damage Assessment Model For PCE and Dry Cleaners. *Drycleaner Symposium. California Ground Water Association*. Lecture conducted from Radison Hotel, Sacramento, California.

Rosenfeld, P. E., Grey, M., (June 2003) Two stage biofilter for biosolids composting odor control. *Seventh International In Situ And On Site Bioremediation Symposium Battelle Conference* Orlando, FL.

Paul Rosenfeld, Ph.D. and James Clark Ph.D. (February 20-21, 2003) Understanding Historical Use, Chemical Properties, Toxicity and Regulatory Guidance of 1,4 Dioxane. *National Groundwater Association. Southwest Focus Conference. Water Supply and Emerging Contaminants*.. Lecture conducted from Hyatt Regency Phoenix Arizona.

Paul Rosenfeld, Ph.D. (February 6-7, 2003). Underground Storage Tank Litigation and Remediation. *California CUPA Forum*. Lecture conducted from Marriott Hotel, Anaheim California.

Paul Rosenfeld, Ph.D. (October 23, 2002) Underground Storage Tank Litigation and Remediation. *EPA Underground Storage Tank Roundtable*. Lecture conducted from Sacramento California.

Rosenfeld, P.E. and Suffet, M. (October 7- 10, 2002). Understanding Odor from Compost, *Wastewater and Industrial Processes. Sixth Annual Symposium On Off Flavors in the Aquatic Environment. International Water Association*. Lecture conducted from Barcelona Spain.

Rosenfeld, P.E. and Suffet, M. (October 7- 10, 2002). Using High Carbon Wood Ash to Control Compost Odor. *Sixth Annual Symposium On Off Flavors in the Aquatic Environment. International Water Association*. Lecture conducted from Barcelona Spain.

Rosenfeld, P.E. and Grey, M. A. (September 22-24, 2002). Biocycle Composting For Coastal Sage Restoration. *Northwest Biosolids Management Association*. Lecture conducted from Vancouver Washington..

Rosenfeld, P.E. and Grey, M. A. (November 11-14, 2002). Using High-Carbon Wood Ash to Control Odor at a Green Materials Composting Facility. *Soil Science Society Annual Conferenc*e. Lecture conducted from Indianapolis, Maryland.

Rosenfeld. P.E. (September 16, 2000). Two stage biofilter for biosolids composting odor control. *Water Environment Federation.* Lecture conducted from Anaheim California.

Rosenfeld. P.E. (October 16, 2000). Wood ash and biofilter control of compost odor. *Biofest.* Lecture conducted from Ocean Shores, California.

Rosenfeld, P.E. (2000). Bioremediation Using Organic Soil Amendments. *California Resource Recovery Association*. Lecture conducted from Sacramento California.

Rosenfeld, P.E., C.L. Henry, R. Harrison. (1998). Oat and Grass Seed Germination and Nitrogen and Sulfur Emissions Following Biosolids Incorporation With High-Carbon Wood-Ash. *Water Environment Federation 12th Annual Residuals and Biosolids Management Conference Proceedings*. Lecture conducted from Bellevue Washington.

Rosenfeld, P.E., and C.L. Henry. (1999). An evaluation of ash incorporation with biosolids for odor reduction. *Soil Science Society of America*. Lecture conducted from Salt Lake City Utah.

Rosenfeld, P.E., C.L. Henry, R. Harrison. (1998). Comparison of Microbial Activity and Odor Emissions from Three Different Biosolids Applied to Forest Soil. *Brown and Caldwell.* Lecture conducted from Seattle Washington.

Rosenfeld, P.E., C.L. Henry. (1998). Characterization, Quantification, and Control of Odor Emissions from Biosolids Application To Forest Soil. *Biofest.* Lecture conducted from Lake Chelan, Washington.

Rosenfeld, P.E, C.L. Henry, R. Harrison. (1998). Oat and Grass Seed Germination and Nitrogen and Sulfur Emissions Following Biosolids Incorporation With High-Carbon Wood-Ash. Water Environment Federation 12th Annual Residuals and Biosolids Management Conference Proceedings. Lecture conducted from Bellevue Washington.

Rosenfeld, P.E., C.L. Henry, R. B. Harrison, and R. Dills. (1997). Comparison of Odor Emissions From Three Different Biosolids Applied to Forest Soil. *Soil Science Society of America*. Lecture conducted from Anaheim California.

Teaching Experience:

UCLA Department of Environmental Health (Summer 2003 through 20010) Taught Environmental Health Science 100 to students, including undergrad, medical doctors, public health professionals and nurses. Course focused on the health effects of environmental contaminants.

National Ground Water Association, Successful Remediation Technologies. Custom Course in Sante Fe, New Mexico. May 21, 2002. Focused on fate and transport of fuel contaminants associated with underground storage tanks.

National Ground Water Association; Successful Remediation Technologies Course in Chicago Illinois. April 1, 2002. Focused on fate and transport of contaminants associated with Superfund and RCRA sites.

California Integrated Waste Management Board, April and May, 2001. Alternative Landfill Caps Seminar in San Diego, Ventura, and San Francisco. Focused on both prescriptive and innovative landfill cover design.

UCLA Department of Environmental Engineering, February 5, 2002. Seminar on Successful Remediation Technologies focusing on Groundwater Remediation.

University Of Washington, Soil Science Program, Teaching Assistant for several courses including: Soil Chemistry, Organic Soil Amendments, and Soil Stability.

U.C. Berkeley, Environmental Science Program Teaching Assistant for Environmental Science 10.

Academic Grants Awarded:

California Integrated Waste Management Board. $41,000 grant awarded to UCLA Institute of the Environment. Goal: To investigate effect of high carbon wood ash on volatile organic emissions from compost. 2001.

Synagro Technologies, Corona California: $10,000 grant awarded to San Diego State University.
Goal: investigate effect of biosolids for restoration and remediation of degraded coastal sage soils. 2000.

King County, Department of Research and Technology, Washington State. $100,000 grant awarded to University of Washington: Goal: To investigate odor emissions from biosolids application and the effect of polymers and ash on VOC emissions. 1998.

Northwest Biosolids Management Association, Washington State. $20,000 grant awarded to investigate effect of polymers and ash on VOC emissions from biosolids. 1997.

James River Corporation, Oregon: $10,000 grant was awarded to investigate the success of genetically engineered Poplar trees with resistance to round-up. 1996.

United State Forest Service, Tahoe National Forest: $15,000 grant was awarded to investigating fire ecology of the Tahoe National Forest. 1995.

Kellogg Foundation, Washington D.C. $500 grant was awarded to construct a large anaerobic digester on St. Kitts in West Indies. 1993

Deposition and/or Trial Testimony:

In the United States District Court For The District of New Jersey
Duarte et al, *Plaintiffs,* vs. United States Metals Refining Company et. al. *Defendant.*
Case No.: 2:17-cv-01624-ES-SCM
Rosenfeld Deposition. 6-7-2019

In the United States District Court of Southern District of Texas Galveston Division
M/T Carla Maersk, *Plaintiffs,* vs. Conti 168., Schiffahrts-GMBH & Co. Bulker KG MS "Conti Perdido" *Defendant.*
Case No.: 3:15-CV-00106 consolidated with 3:15-CV-00237
Rosenfeld Deposition. 5-9-2019

In The Superior Court of the State of California In And For The County Of Los Angeles – Santa Monica
Carole-Taddeo-Bates et al., vs. Ifran Khan et al., Defendants
Case No.: No. BC615636
Rosenfeld Deposition, 1-26-2019

In The Superior Court of the State of California In And For The County Of Los Angeles – Santa Monica
The San Gabriel Valley Council of Governments et al. vs El Adobe Apts. Inc. et al., Defendants
Case No.: No. BC646857
Rosenfeld Deposition, 10-6-2018; Trial 3-7-19

In United States District Court For The District of Colorado
Bells et al. Plaintiff vs. The 3M Company et al., Defendants
Case: No 1:16-cv-02531-RBJ
Rosenfeld Deposition, 3-15-2018 and 4-3-2018

In The District Court Of Regan County, Texas, 112th Judicial District
Phillip Bales et al., Plaintiff vs. Dow Agrosciences, LLC, et al., Defendants
Cause No 1923
Rosenfeld Deposition, 11-17-2017

In The Superior Court of the State of California In And For The County Of Contra Costa
Simons et al., Plaintiffs vs. Chevron Corporation, et al., Defendants
Cause No C12-01481
Rosenfeld Deposition, 11-20-2017

In The Circuit Court Of The Twentieth Judicial Circuit, St Clair County, Illinois
Martha Custer et al., Plaintiff vs. Cerro Flow Products, Inc., Defendants
Case No.: No. 0i9-L-2295
Rosenfeld Deposition, 8-23-2017

In The Superior Court of the State of California, For The County of Los Angeles
Warrn Gilbert and Penny Gilber, Plaintiff vs. BMW of North America LLC
Case No.: LC102019 (c/w BC582154)
Rosenfeld Deposition, 8-16-2017, Trail 8-28-2018

In the Northern District Court of Mississippi, Greenville Division
Brenda J. Cooper, et al., *Plaintiffs,* vs. Meritor Inc., et al., *Defendants*
Case Number: 4:16-cv-52-DMB-JVM
Rosenfeld Deposition: July 2017

In The Superior Court of the State of Washington, County of Snohomish
Michael Davis and Julie Davis et al., Plaintiff vs. Cedar Grove Composting Inc., Defendants
Case No.: No. 13-2-03987-5
Rosenfeld Deposition, February 2017
Trial, March 2017

In The Superior Court of the State of California, County of Alameda
Charles Spain., Plaintiff vs. Thermo Fisher Scientific, et al., Defendants
Case No.: RG14711115
Rosenfeld Deposition, September 2015

In The Iowa District Court In And For Poweshiek County
Russell D. Winburn, et al., Plaintiffs vs. Doug Hoksbergen, et al., Defendants
Case No.: LALA002187
Rosenfeld Deposition, August 2015

In The Iowa District Court For Wapello County
Jerry Dovico, et al., Plaintiffs vs. Valley View Sine LLC, et al., Defendants
Law No,: LALA105144 - Division A
Rosenfeld Deposition, August 2015

In The Iowa District Court For Wapello County
Doug Pauls, et al.,, et al., Plaintiffs vs. Richard Warren, et al., Defendants
Law No,: LALA105144 - Division A
Rosenfeld Deposition, August 2015

In The Circuit Court of Ohio County, West Virginia
Robert Andrews, et al. v. Antero, et al.
Civil Action N0. 14-C-30000
Rosenfeld Deposition, June 2015

In The Third Judicial District County of Dona Ana, New Mexico
Betty Gonzalez, et al. Plaintiffs vs. Del Oro Dairy, Del Oro Real Estate LLC, Jerry Settles and Deward DeRuyter, Defendants
Rosenfeld Deposition: July 2015

In The Iowa District Court For Muscatine County
Laurie Freeman et. al. Plaintiffs vs. Grain Processing Corporation, Defendant
Case No 4980
Rosenfeld Deposition: May 2015

In the Circuit Court of the 17th Judicial Circuit, in and For Broward County, Florida
Walter Hinton, et. al. Plaintiff, vs. City of Fort Lauderdale, Florida, a Municipality, Defendant.
Case Number CACE07030358 (26)
Rosenfeld Deposition: December 2014

In the United States District Court Western District of Oklahoma
Tommy McCarty, et al., Plaintiffs, v. Oklahoma City Landfill, LLC d/b/a Southeast Oklahoma City Landfill, et al. Defendants.
Case No. 5:12-cv-01152-C
Rosenfeld Deposition: July 2014

In the County Court of Dallas County Texas
Lisa Parr et al, *Plaintiff*, vs. Aruba et al, *Defendant.*
Case Number cc-11-01650-E
Rosenfeld Deposition: March and September 2013
Rosenfeld Trial: April 2014

In the Court of Common Pleas of Tuscarawas County Ohio
John Michael Abicht, et al., *Plaintiffs,* vs. Republic Services, Inc., et al., *Defendants*
Case Number: 2008 CT 10 0741 (Cons. w/ 2009 CV 10 0987)
Rosenfeld Deposition: October 2012

In the United States District Court of Southern District of Texas Galveston Division
Kyle Cannon, Eugene Donovan, Genaro Ramirez, Carol Sassler, and Harvey Walton, each Individually and on behalf of those similarly situated, *Plaintiffs,* vs. BP Products North America, Inc., *Defendant.*
Case 3:10-cv-00622
Rosenfeld Deposition: February 2012
Rosenfeld Trial: April 2013

In the Circuit Court of Baltimore County Maryland
Philip E. Cvach, II et al., *Plaintiffs* vs. Two Farms, Inc. d/b/a Royal Farms, Defendants
Case Number: 03-C-12-012487 OT
Rosenfeld Deposition: September 2013

EXHIBIT C

SWAPE Technical Consultation, Data Analysis and Litigation Support for the Environment

1640 5th St.., Suite 204 Santa
Santa Monica, California 90401
Tel: (949) 887-9013
Email: mhagemann@swape.com

Matthew F. Hagemann, P.G., C.Hg., QSD, QSP

Geologic and Hydrogeologic Characterization
Industrial Stormwater Compliance
Investigation and Remediation Strategies
Litigation Support and Testifying Expert
CEQA Review

Education:

M.S. Degree, Geology, California State University Los Angeles, Los Angeles, CA, 1984.
B.A. Degree, Geology, Humboldt State University, Arcata, CA, 1982.

Professional Certifications:

California Professional Geologist
California Certified Hydrogeologist
Qualified SWPPP Developer and Practitioner

Professional Experience:

Matt has 25 years of experience in environmental policy, assessment and remediation. He spent nine years with the U.S. EPA in the RCRA and Superfund programs and served as EPA's Senior Science Policy Advisor in the Western Regional Office where he identified emerging threats to groundwater from perchlorate and MTBE. While with EPA, Matt also served as a Senior Hydrogeologist in the oversight of the assessment of seven major military facilities undergoing base closure. He led numerous enforcement actions under provisions of the Resource Conservation and Recovery Act (RCRA) while also working with permit holders to improve hydrogeologic characterization and water quality monitoring.

Matt has worked closely with U.S. EPA legal counsel and the technical staff of several states in the application and enforcement of RCRA, Safe Drinking Water Act and Clean Water Act regulations. Matt has trained the technical staff in the States of California, Hawaii, Nevada, Arizona and the Territory of Guam in the conduct of investigations, groundwater fundamentals, and sampling techniques.

Positions Matt has held include:

- Founding Partner, Soil/Water/Air Protection Enterprise (SWAPE) (2003 – present);
- Geology Instructor, Golden West College, 2010 – 2014;
- Senior Environmental Analyst, Komex H2O Science, Inc. (2000 -- 2003);

- Executive Director, Orange Coast Watch (2001 – 2004);
- Senior Science Policy Advisor and Hydrogeologist, U.S. Environmental Protection Agency (1989–1998);
- Hydrogeologist, National Park Service, Water Resources Division (1998 – 2000);
- Adjunct Faculty Member, San Francisco State University, Department of Geosciences (1993 – 1998);
- Instructor, College of Marin, Department of Science (1990 – 1995);
- Geologist, U.S. Forest Service (1986 – 1998); and
- Geologist, Dames & Moore (1984 – 1986).

Senior Regulatory and Litigation Support Analyst:

With SWAPE, Matt's responsibilities have included:

- Lead analyst and testifying expert in the review of over 100 environmental impact reports since 2003 under CEQA that identify significant issues with regard to hazardous waste, water resources, water quality, air quality, Valley Fever, greenhouse gas emissions, and geologic hazards. Make recommendations for additional mitigation measures to lead agencies at the local and county level to include additional characterization of health risks and implementation of protective measures to reduce worker exposure to hazards from toxins and Valley Fever.
- Stormwater analysis, sampling and best management practice evaluation at industrial facilities.
- Manager of a project to provide technical assistance to a community adjacent to a former Naval shipyard under a grant from the U.S. EPA.
- Technical assistance and litigation support for vapor intrusion concerns.
- Lead analyst and testifying expert in the review of environmental issues in license applications for large solar power plants before the California Energy Commission.
- Manager of a project to evaluate numerous formerly used military sites in the western U.S.
- Manager of a comprehensive evaluation of potential sources of perchlorate contamination in Southern California drinking water wells.
- Manager and designated expert for litigation support under provisions of Proposition 65 in the review of releases of gasoline to sources drinking water at major refineries and hundreds of gas stations throughout California.
- Expert witness on two cases involving MTBE litigation.
- Expert witness and litigation support on the impact of air toxins and hazards at a school.
- Expert witness in litigation at a former plywood plant.

With Komex H2O Science Inc., Matt's duties included the following:

- Senior author of a report on the extent of perchlorate contamination that was used in testimony by the former U.S. EPA Administrator and General Counsel.
- Senior researcher in the development of a comprehensive, electronically interactive chronology of MTBE use, research, and regulation.
- Senior researcher in the development of a comprehensive, electronically interactive chronology of perchlorate use, research, and regulation.
- Senior researcher in a study that estimates nationwide costs for MTBE remediation and drinking water treatment, results of which were published in newspapers nationwide and in testimony against provisions of an energy bill that would limit liability for oil companies.
- Research to support litigation to restore drinking water supplies that have been contaminated by MTBE in California and New York.

- Expert witness testimony in a case of oil production-related contamination in Mississippi.
- Lead author for a multi-volume remedial investigation report for an operating school in Los Angeles that met strict regulatory requirements and rigorous deadlines.

- Development of strategic approaches for cleanup of contaminated sites in consultation with clients and regulators.

Executive Director:

As Executive Director with Orange Coast Watch, Matt led efforts to restore water quality at Orange County beaches from multiple sources of contamination including urban runoff and the discharge of wastewater. In reporting to a Board of Directors that included representatives from leading Orange County universities and businesses, Matt prepared issue papers in the areas of treatment and disinfection of wastewater and control of the discharge of grease to sewer systems. Matt actively participated in the development of countywide water quality permits for the control of urban runoff and permits for the discharge of wastewater. Matt worked with other nonprofits to protect and restore water quality, including Surfrider, Natural Resources Defense Council and Orange County CoastKeeper as well as with business institutions including the Orange County Business Council.

Hydrogeology:

As a Senior Hydrogeologist with the U.S. Environmental Protection Agency, Matt led investigations to characterize and cleanup closing military bases, including Mare Island Naval Shipyard, Hunters Point Naval Shipyard, Treasure Island Naval Station, Alameda Naval Station, Moffett Field, Mather Army Airfield, and Sacramento Army Depot. Specific activities were as follows:

- Led efforts to model groundwater flow and contaminant transport, ensured adequacy of monitoring networks, and assessed cleanup alternatives for contaminated sediment, soil, and groundwater.
- Initiated a regional program for evaluation of groundwater sampling practices and laboratory analysis at military bases.
- Identified emerging issues, wrote technical guidance, and assisted in policy and regulation development through work on four national U.S. EPA workgroups, including the Superfund Groundwater Technical Forum and the Federal Facilities Forum.

At the request of the State of Hawaii, Matt developed a methodology to determine the vulnerability of groundwater to contamination on the islands of Maui and Oahu. He used analytical models and a GIS to show zones of vulnerability, and the results were adopted and published by the State of Hawaii and County of Maui.

As a hydrogeologist with the EPA Groundwater Protection Section, Matt worked with provisions of the Safe Drinking Water Act and NEPA to prevent drinking water contamination. Specific activities included the following:

- Received an EPA Bronze Medal for his contribution to the development of national guidance for the protection of drinking water.
- Managed the Sole Source Aquifer Program and protected the drinking water of two communities through designation under the Safe Drinking Water Act. He prepared geologic reports, conducted public hearings, and responded to public comments from residents who were very concerned about the impact of designation.

- Reviewed a number of Environmental Impact Statements for planned major developments, including large hazardous and solid waste disposal facilities, mine reclamation, and water transfer.

Matt served as a hydrogeologist with the RCRA Hazardous Waste program. Duties were as follows:

- Supervised the hydrogeologic investigation of hazardous waste sites to determine compliance with Subtitle C requirements.
- Reviewed and wrote "part B" permits for the disposal of hazardous waste.
- Conducted RCRA Corrective Action investigations of waste sites and led inspections that formed the basis for significant enforcement actions that were developed in close coordination with U.S. EPA legal counsel.
- Wrote contract specifications and supervised contractor's investigations of waste sites.

With the National Park Service, Matt directed service-wide investigations of contaminant sources to prevent degradation of water quality, including the following tasks:

- Applied pertinent laws and regulations including CERCLA, RCRA, NEPA, NRDA, and the Clean Water Act to control military, mining, and landfill contaminants.
- Conducted watershed-scale investigations of contaminants at parks, including Yellowstone and Olympic National Park.
- Identified high-levels of perchlorate in soil adjacent to a national park in New Mexico and advised park superintendent on appropriate response actions under CERCLA.
- Served as a Park Service representative on the Interagency Perchlorate Steering Committee, a national workgroup.
- Developed a program to conduct environmental compliance audits of all National Parks while serving on a national workgroup.
- Co-authored two papers on the potential for water contamination from the operation of personal watercraft and snowmobiles, these papers serving as the basis for the development of nation-wide policy on the use of these vehicles in National Parks.
- Contributed to the Federal Multi-Agency Source Water Agreement under the Clean Water Action Plan.

Policy:

Served senior management as the Senior Science Policy Advisor with the U.S. Environmental Protection Agency, Region 9. Activities included the following:

- Advised the Regional Administrator and senior management on emerging issues such as the potential for the gasoline additive MTBE and ammonium perchlorate to contaminate drinking water supplies.
- Shaped EPA's national response to these threats by serving on workgroups and by contributing to guidance, including the Office of Research and Development publication, Oxygenates in Water: Critical Information and Research Needs.
- Improved the technical training of EPA's scientific and engineering staff.
- Earned an EPA Bronze Medal for representing the region's 300 scientists and engineers in negotiations with the Administrator and senior management to better integrate scientific principles into the policy-making process.
- Established national protocol for the peer review of scientific documents.

Geology:

With the U.S. Forest Service, Matt led investigations to determine hillslope stability of areas proposed for timber harvest in the central Oregon Coast Range. Specific activities were as follows:

- Mapped geology in the field, and used aerial photographic interpretation and mathematical models to determine slope stability.
- Coordinated his research with community members who were concerned with natural resource protection.
- Characterized the geology of an aquifer that serves as the sole source of drinking water for the city of Medford, Oregon.

As a consultant with Dames and Moore, Matt led geologic investigations of two contaminated sites (later listed on the Superfund NPL) in the Portland, Oregon, area and a large hazardous waste site in eastern Oregon. Duties included the following:

- Supervised year-long effort for soil and groundwater sampling.
- Conducted aquifer tests.
- Investigated active faults beneath sites proposed for hazardous waste disposal.

Teaching:

From 1990 to 1998, Matt taught at least one course per semester at the community college and university levels:

- At San Francisco State University, held an adjunct faculty position and taught courses in environmental geology, oceanography (lab and lecture), hydrogeology, and groundwater contamination.
- Served as a committee member for graduate and undergraduate students.
- Taught courses in environmental geology and oceanography at the College of Marin.

Matt taught physical geology (lecture and lab and introductory geology at Golden West College in Huntington Beach, California from 2010 to 2014.

Invited Testimony, Reports, Papers and Presentations:

Hagemann, M.F., 2008. Disclosure of Hazardous Waste Issues under CEQA. Presentation to the Public Environmental Law Conference, Eugene, Oregon.

Hagemann, M.F., 2008. Disclosure of Hazardous Waste Issues under CEQA. Invited presentation to U.S. EPA Region 9, San Francisco, California.

Hagemann, M.F., 2005. Use of Electronic Databases in Environmental Regulation, Policy Making and Public Participation. Brownfields 2005, Denver, Coloradao.

Hagemann, M.F., 2004. Perchlorate Contamination of the Colorado River and Impacts to Drinking Water in Nevada and the Southwestern U.S. Presentation to a meeting of the American Groundwater Trust, Las Vegas, NV (served on conference organizing committee).

Hagemann, M.F., 2004. Invited testimony to a California Senate committee hearing on air toxins at schools in Southern California, Los Angeles.

Brown, A., Farrow, J., Gray, A. and **Hagemann, M.**, 2004. An Estimate of Costs to Address MTBE Releases from Underground Storage Tanks and the Resulting Impact to Drinking Water Wells. Presentation to the Ground Water and Environmental Law Conference, National Groundwater Association.

Hagemann, M.F., 2004. Perchlorate Contamination of the Colorado River and Impacts to Drinking Water in Arizona and the Southwestern U.S. Presentation to a meeting of the American Groundwater Trust, Phoenix, AZ (served on conference organizing committee).

Hagemann, M.F., 2003. Perchlorate Contamination of the Colorado River and Impacts to Drinking Water in the Southwestern U.S. Invited presentation to a special committee meeting of the National Academy of Sciences, Irvine, CA.

Hagemann, M.F., 2003. Perchlorate Contamination of the Colorado River. Invited presentation to a tribal EPA meeting, Pechanga, CA.

Hagemann, M.F., 2003. Perchlorate Contamination of the Colorado River. Invited presentation to a meeting of tribal repesentatives, Parker, AZ.

Hagemann, M.F., 2003. Impact of Perchlorate on the Colorado River and Associated Drinking Water Supplies. Invited presentation to the Inter-Tribal Meeting, Torres Martinez Tribe.

Hagemann, M.F., 2003. The Emergence of Perchlorate as a Widespread Drinking Water Contaminant. Invited presentation to the U.S. EPA Region 9.

Hagemann, M.F., 2003. A Deductive Approach to the Assessment of Perchlorate Contamination. Invited presentation to the California Assembly Natural Resources Committee.

Hagemann, M.F., 2003. Perchlorate: A Cold War Legacy in Drinking Water. Presentation to a meeting of the National Groundwater Association.

Hagemann, M.F., 2002. From Tank to Tap: A Chronology of MTBE in Groundwater. Presentation to a meeting of the National Groundwater Association.

Hagemann, M.F., 2002. A Chronology of MTBE in Groundwater and an Estimate of Costs to Address Impacts to Groundwater. Presentation to the annual meeting of the Society of Environmental Journalists.

Hagemann, M.F., 2002. An Estimate of the Cost to Address MTBE Contamination in Groundwater (and Who Will Pay). Presentation to a meeting of the National Groundwater Association.

Hagemann, M.F., 2002. An Estimate of Costs to Address MTBE Releases from Underground Storage Tanks and the Resulting Impact to Drinking Water Wells. Presentation to a meeting of the U.S. EPA and State Underground Storage Tank Program managers.

Hagemann, M.F., 2001. From Tank to Tap: A Chronology of MTBE in Groundwater. Unpublished report.

Hagemann, M.F., 2001. Estimated Cleanup Cost for MTBE in Groundwater Used as Drinking Water. Unpublished report.

Hagemann, M.F., 2001. Estimated Costs to Address MTBE Releases from Leaking Underground Storage Tanks. Unpublished report.

Hagemann, M.F., and VanMouwerik, M., 1999. Potential Water Quality Concerns Related to Snowmobile Usage. Water Resources Division, National Park Service, Technical Report.

VanMouwerik, M. and **Hagemann, M.F**. 1999, Water Quality Concerns Related to Personal Watercraft Usage. Water Resources Division, National Park Service, Technical Report.

Hagemann, M.F., 1999, Is Dilution the Solution to Pollution in National Parks? The George Wright Society Biannual Meeting, Asheville, North Carolina.

Hagemann, M.F., 1997, The Potential for MTBE to Contaminate Groundwater. U.S. EPA Superfund Groundwater Technical Forum Annual Meeting, Las Vegas, Nevada.

Hagemann, M.F., and Gill, M., 1996, Impediments to Intrinsic Remediation, Moffett Field Naval Air Station, Conference on Intrinsic Remediation of Chlorinated Hydrocarbons, Salt Lake City.

Hagemann, M.F., Fukunaga, G.L., 1996, The Vulnerability of Groundwater to Anthropogenic Contaminants on the Island of Maui, Hawaii. Hawaii Water Works Association Annual Meeting, Maui, October 1996.

Hagemann, M. F., Fukanaga, G. L., 1996, Ranking Groundwater Vulnerability in Central Oahu, Hawaii. Proceedings, Geographic Information Systems in Environmental Resources Management, Air and Waste Management Association Publication VIP-61.

Hagemann, M.F., 1994. Groundwater Characterization and Cleanup at Closing Military Bases in California. Proceedings, California Groundwater Resources Association Meeting.

Hagemann, M.F. and Sabol, M.A., 1993. Role of the U.S. EPA in the High Plains States Groundwater Recharge Demonstration Program. Proceedings, Sixth Biennial Symposium on the Artificial Recharge of Groundwater.

Hagemann, M.F., 1993. U.S. EPA Policy on the Technical Impracticability of the Cleanup of DNAPL-contaminated Groundwater. California Groundwater Resources Association Meeting.

Hagemann, M.F., 1992. Dense Nonaqueous Phase Liquid Contamination of Groundwater: An Ounce of Prevention... Proceedings, Association of Engineering Geologists Annual Meeting, v. 35.

Other Experience:

Selected as subject matter expert for the California Professional Geologist licensing examination, 2009-2011.

File Nos. PUD22-004, PHP22-015, and PDEV22-027
Attachment A4: Applicant Response to Attachment A3: Mitchell M. Tsai Letter 2

(Attachment to follow this page)

DALE J. GOLDSMITH
T: 310.254.9054
E: Dale@AGD-Landuse.com

September 14, 2023

BY EMAIL

The Honorable City Planning Commission
of the City of Ontario
City Hall, 303 East "B" Street,
Ontario, California 91764

Email: planningdirector@ontarioca.gov

Re: Legacy/Collier Residential LLC, PUD22-004, PHP22-015, and PDEV22-027
(Scheduled for the Planning Commission's September 26, 2023, agenda)

Dear Commissioners:

We represent Legacy/Collier Residential LLC, which is seeking to develop approximately 9.4 acres of land located at the northwest corner of Euclid Avenue and Walnut Street (the "Site") with 346 apartment units and 5,400 square feet of commercial space (the "Project"). The Project will redevelop an underutilized site with a well-designed residential project with ample residential amenities and provide needed housing to help the City meet its Regional Housing Needs Allocation ("RHNA") obligations.

In compliance with CEQA, the City required preparation of an addendum ("Addendum") to the 2022 The Ontario Plan ("TOP") 2050 EIR ("TOP EIR"). The Addendum, which is supported by expert technical studies, shows that the Project's environmental impacts are within the scope of the TOP EIR and the conditions for requiring a subsequent or supplemental EIR are not met.

The law office of Mitchell Tsai ("Tsai"), representing Southwest Mountain States Regional Council of Carpenters, submitted a letter dated August 7, 2023, just prior to the Design Advisory Board hearing, objecting to the Addendum. As set forth in our detailed response letter dated August 16, 2023 (copy attached), none of Tsia's arguments have merit.

Tsai submitted a second letter dated August 22, 2023, just prior to the originally scheduled Planning Commission hearing. It is for the most part a rehash of the August 7 letter, to which we have already replied, but it includes two additional arguments. We are writing on behalf of our client to address these arguments. For the reasons set forth below, they are also without merit.

A. Discussion

1. The Project Will Not Result in Impacts to Sensitive Receptors

Tsai speculates that the Project will result in air quality impacts to sensitive receptors but provides no evidence. The Addendum determined that the Project's air quality would be within the scope of the TOP EIR, and with mitigation, Project-level impacts would be less than significant**.** This conclusion is supported by detailed air quality modeling of the Project's construction and operational emissions. This modeling, which is based on very conservative (i.e., environmentally protective) assumptions, includes an analysis of impacts to sensitive receptors based on the South Coast Air Quality Management District's ("SCAQMD") health-based Localized Significance Thresholds ("LSTs"). The modeling shows that the Project's construction and operational emissions will be below all applicable significance thresholds, including the LSTs. Therefore, the Project's impacts on sensitive receptors will be less than signficant.

2. The Project Will Not Result In Hazardous Waste Impacts.

Tsai also speculates that demolition of the existing buildings on the Site will result in the release of hazardous materials due to lead based paint ("LBP") and asbestos containing building materials ("ACBM") in the buildings. However, Tsai provides no evidence of such LBP or ACBM. Moreover, the Project will comply with mandatory regulations that require pre-demolition surveys for LBP and ACBM. Any LBP or ACBM found will be safely removed by qualified experts in accordance with applicable regulations, including, but not limited to: SCAQMD Rule 1403, California Health and Safety Code Section 39650 et seq.; California Code of Regulations Title 8, Section 1529; California Occupational Safety and Health Administration regulations (California Code of Regulations, Title 8, Section 1529 [asbestos] and Section 1532.1 [lead]); and the Code of Federal Regulations (Title 40, Part 61 [asbestos], Title 40, Part 763 [asbestos], and Title 29, Part 1926 [asbestos and lead]). Therefore, the Project will not result in significant hazardous waste impacts.

B. Conclusion

Based on the foregoing and our August 16, 2023 letter, all of Tsai's arguments are without merit. The Addendum is the appropriate CEQA review for the Project, and no supplemental or subsequent EIR is required. Therefore, we respectfully request that you adopt the Addendum and approve the Project.

Thank you for your consideration. We are available to answer any questions you may have.

.

Very truly yours,



Dale J. Goldsmith

cc: Planning Department
Legacy/Collier Residential LLC

ATTACHMENT

DALE J. GOLDSMITH
T: 310.254.9054
E: Dale@AGD-Landuse.com

August 16, 2023

BY EMAIL

City of Ontario Planning Commission
City Hall, 303 E. B Street
City of Ontario, CA 91764

Email: planningdirector@ontarioca.gov

Re: *Legacy/Collier Residential LLC, Proposed Development Plan, File No. PDEV22-027*; Planning Commission Hearing August 22, 2023

Dear Commissioners:

We represent Legacy Partners, the applicant for the above Development Plan for the construction of 346 apartments and 5,400 square feet of commercial space (Project) on 9.4 acres located at the northwest corner of Euclid Avenue and Walnut Street in the City of Ontario (City). On the eve of the Design Advisory Board (DAB) hearing, Mitchell Tsai, representing Southwest Mountain States Regional Council of Carpenters (SWMSRCC), submitted a lengthy legal letter objecting to DAB's review of the Proposed Project. None of the arguments in this letter provides substantial evidence as to the inadequacy of the EIR Addendum prepared for the Proposed Project, and none have merit. Nonetheless, we have attached detailed responses to SWMSRCC's comment letter to provide a more complete record for the Planning Commission.

In summary, (1) there is no legal requirement for local hire of construction workers, (2) the use of an addendum off of the 2022 The Ontario Plan (TOP) 2050 EIR is appropriate, (3) the Project was thoroughly and adequately reviewed, including by DAB, (4) a tiered EIR is not required, (5) all Project impacts are within those considered in the 2022 TOP EIR, (6) as there are no new significant impacts or increase in severity of significant impacts created by the Project as compared to the 2022 TOP EIR, a supplemental/subsequent EIR is not required, and (7) the Project Description for the Proposed Project is CEQA compliant.

Therefore, we respectfully request you approve DAB's recommendation to approve the EIR Addendum and the Development Plan application.

Very truly yours,



Dale J. Goldsmith

cc: Alexis Vaughn, AVaughn@ontarioca.gov

Response to Mitchell Tsai August 7, 2023 Comment Letter on behalf of Southwest Mountain States Regional Council of Carpenters (SWMSRCC)

Comment No. 1:

On behalf of the Southwest Mountain States Regional Council of Carpenters (SWMSRCC), my Office is submitting these comments ahead of the City of Ontario's ("City" or "Lead Agency") August 7, 2023, Development Advisory Board (DAB) pubic [*sic*] hearing for the Euclid and Walnut Mixed Use project ("Project").

Submitted by Legacy/Collier Residential LLC ("Applicant"), the Project involves a Development Plan (File No. PDEV22-027) to construct 346 apartment units and 5,400 square feet of commercial space on 9.4 acres of land located at the northwest corner of Euclid Avenue and Walnut Avenue ("Site") within the Mixed Use – Neighborhood Hub 8e – Euclid and Walnut (MU-NH 8e) zoning district. The Site is located within the Airport Influence Area of Ontario International Airport and was evaluated and claimed to have been found to be consistent with the policies and criteria of the Ontario International Airport Land Use Compatibility Plan. In conjunction with the Project, an Addendum ("Addendum") to The Ontario Plan 2050 Supplemental Environmental Impact Report (SEIR) (SCH No. 2021070364) was prepared and certified by the City Council on August 16, 2022. The application before the City is claimed to introduce no new significant environmental impacts.

The DAB will review the Project and make two recommendations to the Planning Commission—to approve or deny the Addendum and to approve or deny the Development Plan.

According to the Staff Report, the Project has been submitted in conjunction with two other applications, namely, the Euclid Walnut Planned Unit Development (PUD) (File No. PUD22-004) to establish the development standards and design guidelines for an overall 10.6-acre Project site (subject to recommendation by the Planning Commission to the City Council); and a Certificate of Appropriateness (PHP22-015) to determine whether the Project Site is an historic resource subject to recommendation by the Historic Preservation Subcommittee to the Planning Commission/Historic Preservation Commission.

SWMSRCC is a labor union representing over 63,000 union carpenters in 10 states, including California, and has a strong interest in well-ordered land use planning and in addressing the environmental impacts of development projects. Some SWMSRCC members live, work, and recreate in the City and the surrounding communities and would be directly affected by the Project's environmental impacts.

SWMSRCC expressly reserves the right to supplement these comments at or prior to hearings on the Project, and at any later hearing and proceeding related to this Project. Gov. Code, § 65009, subd. (b); Pub. Res. Code, § 21177, subd. (a); see *Bakersfield Citizens for Local Control v. Bakersfield* (2004) 124 Cal.App.4th 1184, 1199-1203; see also *Galante Vineyards v. Monterey Water Dist.* (1997) 60 Cal.App.4th 1109, 1121.

SWMSRCC incorporates by reference all comments raising issues regarding the Project and its environmental review and associated documents and reports (including the City's Staff Report), or lack thereof. See *Citizens for Clean Energy v. City of Woodland* (2014) 225 Cal.App.4th 173, 191 (finding that any party who has objected to the project's environmental documentation may assert any issue timely raised by other parties).

Moreover, SWMSRCC requests that the City provide notice for any and all notices referring or related to the Project issued under CEQA (Pub. Res. Code § 21000 et seq.), and the California Planning and Zoning Law ("Planning and Zoning Law") (Gov. Code, §§ 65000–65010). California Public Resources Code, sections 21092.2 and 21167(f) and California Government Code, section 65092 require agencies to mail such notices to any person who has filed a written request for them with the clerk of the agency's governing body.

Response to Comment No. 1:

The comment provides background on SWMSRCC and their interest in the Project. Further, the City will provide notice on all CEQA actions, approvals, determinations, and hearings as requested. The comment does not raise a specific issue relating to the adequacy or accuracy of the EIR Addendum or provide a legitimate basis for not approving the Project..

Comment No. 2:

The City should require that the Project be built using local workers who have graduated from a Joint Labor-Management Apprenticeship Program approved by the State of California, have at least as many hours of on-the-job experience in the applicable craft which would be required to graduate from such a program, or are registered apprentices in such a program.

Community benefits such as local hire can also be helpful to reduce environmental impacts and improve the positive economic impacts of the Project. Local hire provisions requiring that a certain percentage of workers reside within 10 miles or less of the Project site can reduce the length of vendor trips, reduce greenhouse gas emissions, and provide localized economic benefits. As environmental consultants Matt Hagemann and Paul E. Rosenfeld note:

> [A]ny local hire requirement that results in a decreased worker trip length from the default value has the potential to result in a reduction of construction-related GHG emissions, though the significance of the reduction would vary based on the location and urbanization level of the project site.

March 8, 2021, SWAPE Letter to Mitchell M. Tsai re Local Hire Requirements and Considerations for Greenhouse Gas Modeling.

Workforce requirements promote the development of skilled trades that yield sustainable economic development. As the California Workforce Development Board and the University of California, Berkeley Center for Labor Research and Education concluded:

> [L]abor should be considered an investment rather than a cost—and investments in growing, diversifying, and upskilling California's workforce can positively affect returns on climate mitigation efforts. In other words, well-trained workers are key to delivering emissions reductions and moving California closer to its climate targets.[1]

Furthermore, workforce policies have significant environmental benefits given that they improve an area's jobs-housing balance, decreasing the amount and length of job commutes and the associated greenhouse gas (GHG) emissions. In fact, on May 7, 2021, the South Coast Air Quality Management District found that that the "[u]se of a local state-certified apprenticeship program" can result in air pollutant reductions.[2]

Locating jobs closer to residential areas can have significant environmental benefits. As the California Planning Roundtable noted in 2008:

> People who live and work in the same jurisdiction would be more likely to take transit, walk, or bicycle to work than residents of less balanced communities and their vehicle trips would be shorter. Benefits would include potential reductions in both vehicle miles traveled and vehicle hours traveled.[3]

Moreover, local hire mandates and skill-training are critical facets of a strategy to reduce vehicle miles traveled (VMT). As planning experts Robert Cervero and Michael Duncan have noted, simply placing jobs near housing stock is insufficient to achieve VMT reductions given that the skill requirements of available local jobs must match those held by local residents.[4] Some municipalities have even tied local hire and

---

[1] California Workforce Development Board (2020) Putting California on the High Road: A Jobs and Climate Action Plan 2030 at p. ii, *available at* https://laborcenter.berkeley.edu/ wp-content/uploads/2020/09/Putting-California-on-the-High-Road.pdf.

[2] South Coast Air Quality Management District (May 7, 2021) Certify Final Environmental Assessment and Adopt Proposed Rule 2305 – Warehouse Indirect Source Rule – Warehouse Actions and Investments to Reduce Emissions Program, and Proposed Rule 316 – Fees for Rule 2305, Submit Rule 2305 for Inclusion Into the SIP, and Approve Supporting Budget Actions, *available at* http://www.aqmd.gov/docs/default-source/Agendas/Governing-Board/2021/2021-May7-027.pdf?sfvrsn=10.

[3] California Planning Roundtable (2008) Deconstructing Jobs-Housing Balance at p. 6, *available at* https://cproundtable.org/static/media/uploads/publications/cpr-jobs- housing.pdf

[4] Cervero, Robert and Duncan, Michael (2006) Which Reduces Vehicle Travel More: Jobs- Housing Balance or Retail-Housing Mixing? Journal of the American Planning Association 72 (4), 475-490, 482, *available at* http://reconnectingamerica.org/assets/Uploads/UTCT- 825.pdf.

other workforce policies to local development permits to address transportation issues. Cervero and Duncan note that:

> In nearly built-out Berkeley, CA, the approach to balancing jobs and housing is to create local jobs rather than to develop new housing. The city's First Source program encourages businesses to hire local residents, especially for entry- and intermediate-level jobs, and sponsors vocational training to ensure residents are employment-ready. While the program is voluntary, some 300 businesses have used it to date, placing more than 3,000 city residents in local jobs since it was launched in 1986. When needed,

these carrots are matched by sticks, since the city is not shy about negotiating corporate participation in First Source as a condition of approval for development permits.

Recently, the State of California verified its commitment towards workforce development through the Affordable Housing and High Road Jobs Act of 2022, otherwise known as Assembly Bill No. 2011 (AB2011). AB2011 amended the Planning and Zoning Law to allow ministerial, by-right approval for projects being built alongside commercial corridors that meet affordability and labor requirements.

The City should consider utilizing local workforce policies and requirements to benefit the local area economically and to mitigate GHG emissions, improve air quality, and reduce transportation impacts.

Response to Comment No. 2:

The comment regarding community benefits including local hire does not raise CEQA issues regarding the adequacy or accuracy of the EIR Addendum or provide a legitimate basis for not approving the Project. There is no CEQA provision, nor any City code, that mandates the hiring or use of individual development project's construction labor. Furthermore, with specific respect to the City "utilizing local workforce policies and requirements to benefit the local area economically and to mitigate greenhouse gas, improve air quality, and reduce transportation impacts," the comment does not present any substantial evidence of a Project-specific greenhouse gas impact or transportation impact that such a condition would mitigate.

As set forth in the Addendum, the Project would not result in any GHG impacts that were not addressed in the 2022 TOP EIR. Similarly, the Proposed Project will not result in any new, increased or substantially different transportation impacts not previously considered and addressed in the 2022 TOP EIR. The Project would, at a minimum, be required to comply with the mandatory measures included in the current 2019 California Energy Code (California Code of Regulations, Title 24, Part 6) and the 2019 California Green Building Code standards. Regulatory compliance to this degree would require the Project to include energy efficiency and green building standards such as solar, water efficient landscaping, construction material diversion, low-polluting construction finishing materials, and installation of electric charging stations. Therefore, no further mitigation measures are warranted, and there is no legal nexus[1] to impose such a condition on the Project.

Comment No. 3:

A. Background Concerning Environmental Impacts Reports.

The California Environmental Quality Act is a California statute designed to inform decision-makers and the public about the potential significant environmental effects of a project. CEQA Guidelines, § 15002, subd. (a)(1).[5] At its core, its purpose is to "inform the public and its responsible officials of the environmental consequences of their decisions *before* they are made."

[1] See, e.g., *Nollan v. California Coastal Commission*, 483 U.S. 825 (1987)

Citizens of Goleta Valley v. Board of Supervisors (1990) 52 Cal.3d 553, 564.

---

[5] The CEQA Guidelines, codified in Title 14 of the California Code of Regulations, section 15000 et seq., are regulatory guidelines promulgated by the state Natural Resources Agency for the implementation of CEQA. Pub. Res. Code, § 21083. The CEQA Guidelines are given "great weight in interpreting CEQA except when . . . clearly unauthorized or erroneous." *Center for Biological Diversity v. Dept. of Fish & Wildlife* (2015) 62 Cal.4th 204, 217.

CEQA directs public agencies to avoid or reduce environmental damage, when possible, by requiring alternatives or mitigation measures. CEQA Guidelines, § 15002, subd. (a)(2)-(3); see also *Berkeley Keep Jets Over the Bay Committee v. Board of Port Comes* (2001) 91 Cal.App.4th 1344, 1354; *Citizens of Goleta Valley v. Board of Supervisors* (1990) 52 Cal.3d 553; *Laurel Heights Improvement Assn.*, 47 Cal.3d at p. 400. The EIR serves to provide public agencies and the public in general with information about the effect that a proposed project is likely to have on the environment and to "identify ways that environmental damage can be avoided or significantly reduced." CEQA Guidelines, § 15002, subd. (a)(2). If the project has a significant effect on the environment, the agency may approve the project only upon finding that it has "eliminated or substantially lessened all significant effects on the environment where feasible" and that any unavoidable significant effects on the environment are "acceptable due to overriding concerns" specified in Public Resources Code section 21081. See CEQA Guidelines, §§ 15092, subds. (b)(2)(A), (B).

While the courts review an EIR using an 'abuse of discretion' standard, the reviewing court is not to *uncritically* rely on every study or analysis presented by a project proponent in support of its position. *Berkeley Jets*, 91 Cal.App.4th at p. 1355 (quoting *Laurel Heights Improvement Assn.*, 47 Cal.3d at pp. 391, 409 fn. 12) (internal quotations omitted). A clearly inadequate or unsupported study is entitled to no judicial deference. *Id*. Drawing this line and determining whether the EIR complies with CEQA's information disclosure requirements presents a question of law subject to independent review by the courts. *Sierra Club v. County of Fresno* (2018) 6 Cal.5th 502, 515; *Madera Oversight Coalition, Inc. v. County of Madera* (2011) 199 Cal.App.4th 48, 102, 131. As the court stated in *Berkeley Jets*, prejudicial abuse of discretion occurs if the failure to include relevant information precludes informed decision-making and informed public participation, thereby thwarting the statutory goals of the EIR process. 91 Cal.App.4th at p. 1355 (internal quotations omitted).

The preparation and circulation of an EIR is more than a set of technical hurdles for agencies and developers to overcome. *Communities for a Better Environment v. Richmond* (2010) 184 Cal.App.4th 70, 80 (quoting *Vineyard Area Citizens for Responsible Growth, Inc. v. City of Rancho Cordova* (2007) 40 Cal.4th 412, 449-450). The EIR's function is to ensure that government officials who decide to build or approve a project do so with a full understanding of the environmental consequences and, equally important, that the public is assured those consequences have been considered. *Ibid*. For the EIR to serve these goals it must present information so that the foreseeable impacts of pursuing the project can be understood and weighed, and the public must be given an adequate opportunity to comment on that presentation before the decision to go forward is made. *Ibid*.

A strong presumption in favor of requiring preparation of an EIR is built into CEQA. This presumption is reflected in what is known as the "fair argument" standard under which an EIR must be prepared whenever substantial evidence in the record supports a fair argument that a project may have a significant effect on the environment. *Quail Botanical Gardens Found., Inc. v. City of Encinitas* (1994) 29 Cal.App.4th 1597, 1602; *Friends of "B" St*. v. *City of Hayward* (1980) 106 Cal.3d 988, 1002.

The fair argument test stems from the statutory mandate that an EIR be prepared for any project that "may have a significant effect on the environment." Pub. Res. Code, § 21151; see *No Oil, Inc. v. City of Los Angeles* (1974) 13 Cal.App.3d 68, 75; accord *Jensen v. City of Santa Rosa* (2018) 23 Cal.App.5th 877, 884. Under this test, if a proposed project is not exempt and may cause a significant effect on the environment, the lead agency must prepare an EIR. Pub. Res. Code, §§ 21100, subd. (a), 21151; CEQA Guidelines, §§ 15064, subds. (a)(1), (f)(1). An EIR may be dispensed with only if the lead agency finds no substantial evidence in the initial study or elsewhere in the record that the project may have a significant effect on the environment. *Parker Shattuck Neighbors v. Berkeley City Council* (2013) 222 Cal.App.4th 768, 785. In such a situation, the agency must adopt a negative declaration. Pub. Res. Code, § 21080, subd. (c)(1); CEQA Guidelines, §§ 15063, subd. (b)(2), 15064, subd. (f)(3).

"Significant effect upon the environment" is defined as "a substantial or potentially substantial adverse change in the environment." Pub. Res. Code, § 21068; CEQA Guidelines, § 15382. A project may have a significant effect on the environment if there is a reasonable probability that it will result in a significant impact. *No Oil, Inc.*, 13 Cal.3d at p. 83 fn. 16; see *Sundstrom v. County of Mendocino* (1988) 202 Cal.App.3d 296, 309. If any aspect of the project may result in a significant impact on the environment, an EIR must be prepared even if the overall effect of the project is beneficial. CEQA Guidelines, § 15063, subd. (b)(1); see *County Sanitation Dist. No. 2 v. County of Kern* (2005) 127 Cal.App.4th 1544, 1580.

This standard sets a "low threshold" for preparation of an EIR. *Consolidated Irrigation Dist. v. City of Selma* (2012) 204 Cal.App.4th 187, 207; *Nelson v. County of Kern* (2010) 90 Cal.App.4th 252; *Pocket Protectors v. City of Sacramento* (2004) 124 Cal.App.4th 903, 928; *Bowman v. City of Berkeley* (2004) 122 Cal.App.4th 572, 580; *Citizen Action to Serve All Students v. Thornley* (1990) 222 Cal.App.3d 748, 754; *Sundstrom*, 202 Cal.App.3d at p. 310. If substantial evidence in the record supports a fair argument that the project may have a significant environmental effect, the lead agency must prepare an EIR even if other substantial evidence before it indicates the project will have no significant effect. See *Jensen,* 23 Cal.App.5th at p. 886; *Clews Land & Livestock v. City of San Diego* (2017) 19 Cal.App.5th 161, 183; *Stanislaus Audubon Society, Inc. v. County of Stanislaus* (1995) 33 Cal.App.4th 144, 150; *Brentwood Assn. for No Drilling, Inc. v. City of Los Angeles* (1982) 134 Cal.App.3d 491; *Friends of "B" St.*, 106 Cal.App.3d 988; CEQA Guidelines, § 15064, subd. (f)(1).

B. Background Concerning Initial Studies, Negative Declarations, and Mitigated Negative Declarations.

CEQA and CEQA Guidelines are strict and unambiguous about when an MND may be used. A

public agency must prepare an EIR whenever substantial evidence supports a "fair argument" that a proposed project "may have a significant effect on the environment." Pub. Res. Code, §§ 21100, 21151; CEQA Guidelines, §§ 15002, subds. (f)(1), (2), 15063; *No Oil, Inc.*, *supra*, 13 Cal.3d at 75; *Communities for a Better Environment v. California Resources Agency* (2002) 103 Cal.App.4th 98, 111-112. Essentially, should a lead agency be presented with a fair argument that a project may have a significant effect on the environment, the lead agency shall prepare an EIR even though it may also be presented with other substantial evidence that the project will not have a significant effect. CEQA Guidelines, §§ 15064, subds. (f)(1), (2); see *No Oil Inc., supra*, 13 Cal.3d at 75 (internal citations and quotations omitted). Substantial evidence includes "enough relevant information and reasonable inferences from this information that a fair argument can be made to support a conclusion, even though other conclusions might also be reached." CEQA Guidelines, § 15384, subd. (a).

The fair argument standard is a "low threshold" test for requiring the preparation of an EIR. *No Oil Inc.*, *supra*, 13 Cal.3d at 84; *County Sanitation Dist. No. 2 of Los Angeles County v. County of Kern* (2005) 127 Cal.App.4th 1544, 1579. It "requires the preparation of an EIR where there is substantial evidence that any aspect of the project, either individually or cumulatively, may cause a significant effect on the environment, regardless of whether the overall effect of the project is adverse or beneficial[.]" *County Sanitation*, *supra*, 127 Cal.App.4th at 1580 (quoting CEQA Guidelines, § 15063, subd. (b)(1)). A lead agency may adopt an MND only if "there is no substantial evidence that the project will have a significant effect on the environment." CEQA Guidelines,§ 15074, subd. (b).

Evidence supporting a fair argument of a significant environmental impact triggers preparation of an EIR regardless of whether the record contains contrary evidence. *League for Protection of Oakland's Architectural and Historical Resources v. City of Oakland* (1997) 52 Cal.App.4th 896, 904-905. "Where the question is the sufficiency of the evidence to support a fair argument, deference to the agency's determination is not appropriate[.]" *County Sanitation*, 127 Cal.App.4th at 1579 (quoting *Sierra Club v. County of Sonoma* (1992) 6 Cal.App.4th 1307, 1317-1318).

Further, it is the duty of the lead agency, not the public, to conduct the proper environmental studies. "The agency should not be allowed to hide behind its own failure to gather relevant data." *Sundstrom*, *supra*, 202 Cal.App.3d at 311. "Deficiencies in the record may actually enlarge the scope of fair argument by lending a logical plausibility to a wider range of inferences." *Ibid*; see also *Gentry v. City of Murrieta* (1995) 36 Cal.App.4th 1359, 1382 (lack of study enlarges the scope of the fair argument which may be made based on the limited facts in the record).

Thus, refusal to complete recommended studies lowers the already low threshold to establish a fair argument. The court may not exercise its independent judgment on the omitted material by determining whether the ultimate decision of the lead agency would have been affected had the law been followed. *Environmental Protection Information Center v. Cal. Dept. of Forestry* (2008) 44 Cal.4th 459, 486 (internal citations and quotations omitted). The remedy for this

deficiency would be for the trial court to issue a writ of mandate. *Ibid.*

Both the review for failure to follow CEQA's procedures and the fair argument test are questions of law, thus, the de novo standard of review applies. *Vineyard Area Citizens for Responsible Growth v. City of Rancho Cordova* (2007) 40 Cal.4th 412, 435. "Whether the agency's record contains substantial evidence that would support a fair argument that the project may have a significant effect on the environment is treated as a question of law. *Consolidated Irrigation Dist.*, *supra*, 204 Cal.App.4th at 207; Kostka and Zischke, Practice Under the Environmental Quality Act (2017, 2d ed.) at § 6.76.

In the MND context, courts give no deference to the agency. The agency or the court should not weigh expert testimony or decide on the credibility of such evidence—this is the EIR's responsibility. As stated in *Pocket Protectors v. City of Sacramento*:

> Unlike the situation where an EIR has been prepared, neither the lead agency nor a court may "weigh" conflicting substantial evidence to determine whether an EIR must be prepared in the first instance. Guidelines section 15064, subdivision (f)(1) provides in pertinent part: if a lead agency is presented with a fair argument that a project may have a significant effect on the environment, the lead agency shall prepare an EIR even though it may also be presented with other substantial evidence that the project will not have a significant effect. Thus, as *Claremont* itself recognized, [c]onsideration is not to be given contrary evidence supporting the preparation of a negative declaration.

(2004) 124 Cal.App.4th 903, 935 (internal citations and quotations omitted).

In cases where it is not clear whether there is substantial evidence of significant environmental impacts, CEQA requires erring on the side of a "preference for resolving doubts in favor of environmental review." *Mejia v. City of Los Angeles* (2005) 130 Cal.App.4th 322, 332. The foremost principle under CEQA is that the Legislature intended the act to be interpreted in such manner as to afford the fullest possible protection to the environment within the reasonable scope of the statutory language. *Friends of Mammoth v. Bd. of Supervisors* (1972) 8 Cal.3d 247, 259.

C. Background Concerning CEQA Exemptions.

Where a lead agency chooses to dispose of CEQA by asserting a CEQA exemption, it has a duty to support its CEQA exemption findings by substantial evidence, including evidence that there are no applicable exceptions to exemptions. This duty is imposed by CEQA and related case law. CEQA Guidelines, § 15020 (lead agency shall not knowingly release a deficient document hoping that public comments will correct the defects); see *Citizens for Environmental Responsibility v. State ex rel. 14th Dist. Agriculture Assn.* (2015) 242 Cal.App.4th 555, 568 (lead agency has the burden of demonstrating that a project falls within a categorical exemption and must support the determination with substantial evidence); accord *Assn. for Protection etc. Values v. City of Ukiah* (1991) 2 Cal.App.4th 720, 732 (lead agency is required to consider exemption exceptions where there is evidence in the record that the project might have a significant impact).

The duty to support CEQA and exemption findings with substantial evidence is also required by the Code of Civil Procedure (CCP) and case law on administrative or traditional writs. Under the CCP, an abuse of discretion is established if the decision is unsupported by the findings, or the findings are unsupported by the evidence. CCP,§ 1094.5, subd. (b). In *Topanga Assn. for a Scenic Community v. County of Los Angeles*, our Supreme Court held that implicit in CCP section 1094.5 is a requirement that the agency which renders the challenged decision must set forth findings to bridge the analytic gap between the raw evidence and ultimate decision or order. (1977) 11 Cal.3d 506, 515 (internal citations and quotations omitted). The lead agency's findings may be determined to be sufficient if a court has no trouble under the circumstances discerning the analytic route the administrative agency traveled from evidence to action. *West Chandler Blvd. Neighborhood Assn. vs. City of Los Angeles* (2011) 198 Cal.App.4th 1506, 1521-1522 (internal citations and quotations omitted). However, "mere conclusory findings without reference to the record are inadequate." *Id*. at p. 1521 (finding city council findings conclusory, violating *Topanga Assn. for a Scenic Community, supra*).

Further, CEQA exemptions must be narrowly construed to accomplish CEQA's environmental objectives. *Cal. Farm Bureau Federation v. Cal. Wildlife Conservation Bd.* (2006) 143 Cal.App.4th 173, 187; accord *Save Our Carmel River v. Monterey Peninsula Water Management Dist.* (2006) 141 Cal.App.4th 677, 697 (these rules ensure that in all but the clearest cases of categorical exemptions, a project will be subject to some level of environmental review).

Finally, CEQA procedures reflect a preference for resolving doubts in favor of environmental review. See Pub. Res. Code, § 21080, subd. (c) (an EIR may be disposed of only if there is no substantial evidence, in light of the entire record before the lead agency, that the project may have a significant effect on the environment or revisions in the project); CEQA Guidelines, §§ 15061, subd. (b)(3) (common sense exemption only where it can be seen *with certainty*); 15063, subd. (b)(1) (prepare an EIR if the agency determines that there is substantial evidence that any aspect of the project, either individually or cumulatively, may cause a significant effect on the environment, regardless of whether the overall effect of the project is adverse or beneficial]; 15064, subd. (h) (the agency must consider cumulative impacts of past, current, and probable future projects); 15070 (a negative declaration may be prepared only if there is no substantial evidence, in light of the whole record, that the project may have a significant effect on the environment, or project revisions would avoid the effects or mitigate the effects to a point where clearly no significant effects would occur, and there is no substantial evidence, in light of the whole record, that the project as revised may have a significant effect on the environment); *No Oil, Inc., supra,* 13 Cal.3d at 83-84 (significant impacts are to be interpreted so as to afford the fullest possible protection).

Response to Comment No. 3:

The comment does not address the adequacy or accuracy of the EIR Addendum; rather it provides background on CEQA, much of which is not relevant as the Project is proceeding by way of a CEQA Addendum – not an MND, EIR or Exemption. The EIR Addendum thoroughly analyzed and disclosed the potentially significant Project impacts, consistent with CEQA's

information disclosure mandates. The Project has been analyzed relative to The Ontario Plan (TOP) EIR (SCH # 2021070364) (2022 TOP EIR), which analyzed the direct and physical changes in the environment that would be caused by implementation of TOP 2050. Specifically, the 2022 TOP EIR evaluated the development of a maximum of 369 residential units and approximately 142,840 square feet of non-residential development on the Overlay Planning Area, where the Project is located. The Project proposes the construction of 346 apartment units and 5,400 square feet of non-residential development, well within the scope of analysis in the 2022 TOP EIR.

Comment No. 4:

Here, the Project involves the construction of 346 apartment units and 5,400 square feet of commercial space on 9.4 acres of land. Considering the size and scope of the Project, the City must prepare and circulate a thorough, Project-specific EIR.

Section 15088.5, subsection (a) of the CEQA Guidelines provides that an EIR must be recirculated whenever there is disclosure of significant new information. Significant new information includes: (1) disclosure of a new significant environmental impact resulting from the project or from a new proposed mitigation measure; (2) disclosure of a substantial increase in the severity of an environmental impact unless mitigation measures are adopted that reduce the impact to a level of insignificance; and, (3) disclosure of a feasible project alternative or mitigation measure considerably different from others previously analyzed which would clearly lessen the significant environmental impacts of the project which the project proponents decline to adopt.

The Project requires new feasible mitigation measures not specified in the original environmental analysis for the City's General Plan or the applicable Specific Plan. Those analyses occurred, at the latest, in 2004—nearly 20 years ago. Specifically, the Project is slated to develop a new mixed-use development, yet the original environmental analyses governing this Site and its use provide no specification nor mitigation measures identifying, for example, how many or which of the Project's parking spaces must be capable of supporting electric vehicle charging stations (EVCS) and ready to be compliant with the 2022 California Green Building Standards Code, Title 24, Part 11 (CGBSC), also known as CALGreen. In fact, there is no mention of electric vehicle (EV) accommodations anywhere in the original environmental analyses. Without revisions to the original environmental analyses, allowing the Project to commence without adequate and thorough CEQA review would result in significant and unavoidable impacts on the local community and environment as well as on global climate change due to cumulative GHG emissions from vehicle exhaust, among other things. Further, the Project would be out of compliance with CALGreen and could incur for Applicant and the City extensive litigation and unnecessary turbulence in the pursuit and completion of the Project.

CALGreen, which became effective January 1, 2023, requires new buildings to designate 20 percent of the total number of parking spaces as EV-capable. See CALGreen, § 5.106.5.31 (Nonresidential Mandatory Measures). Therefore, if the Project develops 299 additional parking spaces, 60 of those spaces must have electrical panel space and load capacity to support EV charging. Additionally, this must all be laid out with sufficient detail for the City and the public

to thoroughly review, assess, and provide comments thereon.

Further, CALGreen requires new buildings to designate 25 percent of the total number of EV-capable parking spaces as EV spaces with Level 2 EV supply equipment (EVSE). *Id*. Hence, if the Project develops 299 additional parking spaces, 75 of those spaces must be equipped with a 208/240 volt 40-ampere branch circuit with the electric vehicle charging connectors, attachment plugs, and all other fittings, devices, and power outlets installed. *Id*. CALGreen also requires, among other things, that new construction of large, non-residential buildings of 50,000 square feet or larger be hold LEED Silver certification or have Alternate Reference Standard[6] per Section 101.10.2.

This analysis is entirely absent from the prior environmental analyses or of any environmental analysis of the proposed Project, and as such they must be revised and recirculated to specify the additional EV mitigation requirements addressed above, or otherwise the DAB should recommend that the Planning Commission deny the Addendum and Development Review application, and recommend that the Planning Commission order the preparation and circulation of a Project-specific EIR.

---

[6] According to Section 101.10.2 of the CGBSC, Developer may request to apply an alternate green building standard for the Project in lieu of the minimum standards per Table 101.10. In making a determination in response to an application under this section, the Building Official may allow an alternate standard if they find that the proposed alternative standard complies with all of the following: (A) Addresses a comprehensive scope of green building issues including energy efficiency, water efficiency, resource efficient materials, and healthy building practices; (B) applies standards that are, when taken as a whole, as stringent as the GPR and LEED standards; (C) includes a formalized certification process that incorporates third party verification; and, (D) the project will advance the purposes of this Chapter. See Ord. 22-2245, part, 2022; Ord. 19-2193, § 2 (part), 2019.

Response to Comment No. 4:

The commenter claims that the Project should not be compared to "the original environmental analysis for the City's General Plan or the applicable Specific Plan," both of which are 20 years old. This is not correct. The Project is subject to and consistent with The Ontario Plan 2050, which is the most current version of the TOP, and its environmental impact report is dated August 16, 2022 (State Clearinghouse No. 2021070364). The EIR Addendum is to the 2022 TOP EIR.

The Project will implement all applicable mitigation measures adopted by the City when it certified the 2022 TOP EIR. Regarding electric vehicles, TOP 2050 includes the following modified policy: LU-1.4: Multimodal Mobility. We require development and urban design, where appropriate, that reduces reliance on the automobile and capitalizes on active transportation, transit, electric vehicles, and multimodal transportation opportunities. The Project will be subject to applicable CALGreen requirements, as well as TOP 2050 EIR Mitigation Measure AQ 3-3, which requires assessment of operation-phase-related air quality impacts and, if operation-related air pollutants are determined to have the potential to exceed the

South Coast AQMD–adopted thresholds of significance, the City Planning Department shall require that applicants for new development projects incorporate mitigation measures to reduce air pollutant emissions during operational activities, which include CALGreen measures such as: (1) "Provide changing/shower facilities as specified in Section A5.106.4.3 of CALGreen (Nonresidential Voluntary Measures)," (2) "Provide bicycle parking facilities per Section A4.106.9 of CALGreen (Residential Voluntary Measures)," (3) "Provide preferential parking spaces for low-emitting, fuel-efficient, and carpool/van vehicles per Section A5.106.5.1 of CALGreen (Nonresidential Voluntary Measures)," and (4) "Provide facilities to support electric charging stations per Section A5.106.5.3 and Section A5.106.8.2 of CALGreen (Nonresidential Voluntary Measures; Residential Voluntary Measures)."

Comment No. 5:

Although the Project seeks a DAB recommendation which the City asserts is an entirely ministerial decision, this does not necessarily preclude the Project from including discretionary aspects. As the California Second District Court of Appeal discussed in *Friends of Westwood, Inc. v. City of Los Angeles* (1987), "a municipality's classification of a certain approval process as ministerial is not conclusive. The applicability of CEQA cannot be made to depend upon the unfettered discretion of local agencies, for local agencies must act in accordance with state guidelines and the objectives of CEQA." 191 Cal.App.3d 259, 270 (hereinafter, "*Friends of Westwood*") (internal citations and quotations omitted). For example, *Friends of Westwood* cited to *People v. Dept. of Housing & Community Development* in which the court deemed the issuance of a mobile park construction permit to be a discretionary act that was subject to CEQA. *Id*. at 271 (citing *People v. Dept. of Housing & Community Development* (1975) 45 Cal.App.3d 185, 194 (hereinafter, "*Ramey*")). While the *Ramey* court acknowledged that the mobile home park approval process included numerous ministerial decisions that applied "'fixed design and construction specifications[,]'" the court noted that some of the other approval decisions involved "'relatively general'" standards. *Id*. at 271 (citing *Ramey, supra,* at 193). The *Ramey* court also noted that for the construction permit at issue there, the applicant must provide a description of the water supply, ground drainage, and method of sewage disposal; there must be a sufficient supply of artificial lighting; the water supply must be adequate and potable; and the site must be well-drained and graded. *Id*. (internal citations and quotations omitted). The *Ramey* court thus concluded that these decisions rendered the entire construction permit process discretionary for purposes of CEQA given that they required "relatively personal decisions addressed to the sound judgment and enlightened choice of the administrator." *Id*.

Here, the DAB is tasked with assessing the Project's design, layout, and location on the Project Site, and, in particular, making a determination as to the Addendum and Development Plan application. The DAB will then make a recommendation to the Planning Commission for approval. Given that the DAB must *exercise its discretion* in determining whether the Project's features, including its FAR and height, are consistent with applicable codes and plans, the Project should be deemed discretionary and reviewed accordingly.

Response to Comment No. 5:

The comment does not address the adequacy or accuracy of the EIR Addendum; rather, the commenter discusses the DAB's review authority. The commenter makes the unsupported claim that the DAB's review of the Project is not a ministerial action and that because DAB must exercise discretion in determining if the Project is consistent with applicable codes and plans, "the Project should be deemed discretionary and reviewed accordingly." Regardless of whether the DAB's review authority is ministerial or discretionary, the Project was subject to thorough review, including as required by CEQA. The EIR Addendum contains thorough impact analyses relative to the 2022 TOP EIR and contains hundreds of pages of technical studies in support. The commenter provides no evidence that the Project has not been adequately reviewed or that the DAB's approval recommendation was based on inadequate review.

Comment No. 6:

CEQA permits agencies to 'tier' EIRs, in which general matters and environmental effects are considered in an EIR "prepared for a policy, plan, program or ordinance followed by narrower or site-specific [EIRs] which incorporate by reference the discussion in any prior [EIR] and which concentrate on the environmental effects which (a) are capable of being mitigated, or (b) were not analyzed as significant effects on the environment in the prior [EIR]." Pub. Res. Code, § 21068.5. The initial general policy-oriented EIR is called a programmatic EIR (PEIR) and offers the advantage of allowing "the lead agency to consider broad policy alternatives and program wide mitigation measures at an early time when the agency has greater flexibility to deal with basic problems or cumulative impacts." CCR, § 15168. "[T]iering is appropriate when it helps a public agency to focus upon the issues ripe for decision at each level of environmental review and in order to exclude duplicative analysis of environmental effects examined in previous [EIRs]." Pub. Res. Code, § 21093. CEQA regulations strongly promote tiering of EIRs, stating that "[EIRs] shall be tiered whenever feasible, as determined by the lead agency." *Ibid*.

Once a program EIR has been prepared, "[s]ubsequent activities in the program must be examined in light of the program EIR to determine whether an additional environmental document must be prepared." CCR, § 15168, subd. (c). The first consideration is whether the activity proposed is covered by the PEIR. *Id.* If a later project is outside the scope of the program, then it is treated as a separate project and the PEIR may not be relied upon in further review. *Sierra Club v. County of Sonoma* (1992) 6 Cal.App.4th 1307. The second consideration is whether the "later activity would have effects that were not examined in the program EIR." CCR, §§ 15168, subd. (c)(1). A PEIR may only serve "to the extent that it contemplates and adequately analyzes the potential environmental impacts of the project." (*Sierra Nevada Conservation v. Cnty. of El Dorado* (2012) 202 Cal.App.4th 1156. If the PEIR does not evaluate the environmental impacts of the project, a tiered EIR must be completed before the project is approved. *Id.* For these inquiries, the "fair argument test" applies. *Sierra Club, supra*, 6 Cal.App.4th at 1318; *see also Sierra Club v. Cnty. of San Diego* (2014) 231 Cal.App.4th 1152, 1164 (when a prior EIR has been prepared and certified for a program or plan, the question for a

court reviewing an agency's decision not to use a tiered EIR for a later project 'is one of law, i.e., the sufficiency of the evidence to support a fair argument).

Under the fair argument test, a new EIR must be prepared "whenever it can be fairly argued on the basis of substantial evidence that the project may have significant environmental impact. *Id.* at 1316 (quotations omitted). When applying the fair argument test, "deference to the agency's determination is not appropriate and its decision not to require an EIR can be upheld only when there is no credible evidence to the contrary." *Sierra Club, supra*, 6 Cal. App. 4th at 1312. "[I]f there is substantial evidence in the record that the later project may arguably have a significant adverse effect on the environment which was not examined in the prior program EIR, doubts must be resolved in favor of environmental review and the agency must prepare a new tiered EIR, notwithstanding the existence of contrary evidence." *Id.* at 1319.

In *Friends of College of San Mateo Gardens, supra*, the California Supreme Court explained the differing analyses that apply when a project EIR was originally approved and changes are being made to the project, and when a tiered program EIR was originally prepared and a subsequent project is proposed consistent with the program or plan:

> For project EIRs, of course, a subsequent or supplemental impact report is required in the event there are substantial changes to the project or its circumstances, or in the event of material new and previously unavailable information. (*Friends of Mammoth*, citing § 21166.) In contrast, when a tiered EIR has been prepared, review of a subsequent project proposal is more searching. If the subsequent project is consistent with the program or plan for which the EIR was certified, then 'CEQA requires a lead agency to prepare an initial study to determine if the later project may cause significant environmental effects not examined in the first tier EIR.' (*Ibid*. citing Pub. Resources Code, § 21094, subds. (a), (c).) 'If the subsequent project is not consistent with the program or plan, it is treated as a new project and must be fully analyzed in a project—or another tiered EIR if it may have a significant effect on the environment.'

(2016) 1 Cal.5th 937, 960.

Here, the City prepared an SEIR for The Ontario Plan 2050 and certified it in August 2022. As a result, CEQA requires the City to prepare, at minimum, an initial study to determine if the Project *may* cause significant environmental effects not examined in the SEIR—which the City had prepared but did not produce in its three PRA productions to this Office over the last year. Pub. Res. Code, § 21094. There exists here substantial evidence supporting a fair argument that the Project may result in significant environmental impacts that were not previously analyzed in the SEIR. Accordingly, a subsequent EIR must be prepared.

If a project *may* have a significant effect on *any* of the specified environmental factors, CEQA review must occur. *Salmon Protection & Watershed Network v. Cnty. of Marin* (2004) 125 Cal.App.4th 1098, 1107. CEQA places the duty to investigate the Project's impacts on the

City. CEQA Guidelines, § 15144 (an agency must use its best efforts to find out and disclose such impacts); *Sundstrom v. Cnty. of Mendocino* (1988) 202 Cal.App.3d 296, 311 (agency should not be allowed to hide behind its own failure to gather relevant data). "An agency's duty to provide such factual support 'is all the more important where . . . opponents of the project have raised arguments" about impacts. *Muzzy Ranch Co. v. Solano Cnty. Airport Land Use Commission* (2007) 41 Cal.4th 372, 386. In reviewing an agency's determination to prepare an Addendum, courts should assess whether the agency made a "*definitive finding"* and whether it met its initial burden to support its finding by substantial evidence. *Banker's Hill, Hillcrest, Park W. Cmty. Pres. Grp. v. City of San Diego* (2006) 139 Cal.App.4th 249, 268 (lead agency must make a *definitive finding*, at the preliminary review stage, as to whether or not there will be a significant environmental effect).

The Project's environmental review documents, including technical studies relating to the preparation of the Addendum, were not provided to my Office despite the three Public Records Act requests we submitted on or about August 30, 2022; January 6, 2023; and July 25, 2023. This Office has received at least three Public Records Act productions between August 2022 and July 2023—none of which have included the environmental review documents or studies upon which the City has based the Project's Addendum.

Unfortunately, the Addendum's environmental analyses and accompanying studies were not provided to this Office for review and comment in violation of CEQA until the early evening of August 3, 2023—just one business day before the DAB hearing is to take place. Considering that the Addendum is upwards of 1,880 pages, the City's failure to provide the Addendum earlier precludes this Office's and the public's ability to fairly and accurately assess and comment upon the Project.

According to the CEQA Guidelines:

> Each public agency should include provisions in its CEQA procedures for wide public involvement, formal and informal, consistent with its existing activities and procedures, in order to receive and evaluate public reactions to environmental issues related to the agency's activities.

CEQA Guidelines, § 15201.

As far as the public is concerned, the City's environmental review and technical studies related to the Project's environmental impacts have not occurred. Given that the Project involves a demolition and construction of a five-story-high building in an area surrounded by other developments and sensitive receptors, a thorough and Project-specific EIR is necessary. The City's failure to provide for public review and commentary the environmental analyses and studies upon which it rests its CEQA determination constitutes a prejudicial abuse of discretion. See *Bakersfield Citizens for Local Control v. City of Bakersfield* (2004) 124 Cal.App.4th 1184 (hereinafter, "*Bakersfield Citizens*"). "Failure to comply with the information disclosure requirements constitutes a prejudicial abuse of discretion when the omission of relevant information has precluded . . . informed public participation[.]" *Dry Creek Citizens Coalition v.*

Cnty. Of Tulare (1999) 70 Cal.App.4th 20, 26; accord *Assoc. of Irritated Residents v. Cnty. of Madera* (2003) 107 Cal.App.4th 1383, 1391. Further, "the ultimate decision of whether to approve a project, be that decision right or wrong, is a nullity if based upon an [environmental determination] that does not provide the . . . public with the information about the project that is required by CEQA." *Santiago Cnty. Water Dist. v. Cnty. of Orange* (1981) 118 Cal.App.3d 818, 829. Consequently, the Project approvals and associated land use entitlements also must be voided and an EIR prepared and circulated. See *Bakersfield Citizens*, *supra*, 124 Cal.App.4th at 1221 (citing *Friends of the Eel River v. Sonoma Cnty. Water Agency* (2003) 108 Cal.App.4th 859, 868).

"When the informational requirements of CEQA are not complied with, an agency has failed to proceed in 'a manner required by law.'" *Save Our Peninsula Committee v. Monterey Cnty. Bd. of Supervisors* (2001) 87 Cal.App.4th 99, 118. As a result of the City's omissions, "meaningful assessment of the true scope of numerous potentially serious adverse environmental effects was thwarted." *Bakersfield Citizens*, *supra*, 124 Cal.App.4th at 1220-1221. As such, a Project-specific EIR must be produced and circulated.

Response To Comment No. 6:

The commenter claims the City must prepare an Initial Study to determine if an SEIR must be prepared and that, because the commenter only received the EIR Addendum when it was released for public review when the staff report for the DAB hearing was issued, the City has failed to proceed in a manner required by law. As set forth below, neither contention has merit.

First, there is no requirement that an Initial Study be prepared when the lead agency, here the City, is proceeding by way of an Addendum to a certified EIR. The EIR Addendum addresses all impact areas analyzed in the 2022 TOP EIR and determined that all Project impacts were within those analyzed in that certified EIR. In any event, the initial pages of the EIR Addendum contain the Initial Study checklist for the Project. (See DAB Staff Report, Item D, pages 22-30.) The Initial Study Checklist and Addendum are a combined document. (*Ibid*. Item D, pages 1 – 1893.)

Second, an addendum is not subject to publication and public comment. (CEQA Guidelines, section 15164 (c).) The fact that the commenter, and the public, had limited time to review the detailed addendum prior to the DAB meeting is of no moment, as the DAB was not an approving body, but only a recommending body. The commenter and the public will have ample time to review and comment on the EIR Addendum before and at the Planning Commission meeting on August 22, 2023 at which the Commission will consider the DAB's recommendation. Furthermore, there has been no showing that the final EIR Addendum was available prior to its inclusion of the staff report, such that it should have been produced in response to the cited Public Records Act (PRA) requests. Draft CEQA documents are not subject to PRA requests. (Government Code section 6254(a); see *also Citizens for a Better Env't v Department of Food & Agric.* (1985) 171 CA3d 704, 711.)

Finally, there is no showing that the City has in any manner failed to proceed in a manner required by law, CEQA or other applicable laws.

Comment No. 7:

The City is mistaken in concluding that the Project may be analyzed under CEQA Guidelines, sections 15164 and 15162 given that these sections are applicable only where a project has *recently* undergone CEQA review. As the California Supreme Court explained in *San Mateo Gardens*, subsequent CEQA review provisions "can apply only if the project has been subject to initial review; they can have no application if the agency has proposed a new project that has not previously been subject to review." *Friends of Coll. of San Mateo Gardens v. San Mateo County Cmty. Coll. Dist.* (2016) 1 Cal.5th 937, 950 (hereinafter, "*San Mateo Gardens*"). Lead agencies may prepare addendums for project modifications or revisions and avoid further environmental review *only if* the project has a previously certified EIR or negative declaration. *See Save our Heritage v. City of San Diego* (2018) 28 Cal.App.5th 656, 667.

If the proposed Project here had been addressed in the SEIR, the standard for determining whether further review is required would be governed by California Code of Regulations, section 15162 and Public Resources Code, section 21166, and an addendum could potentially be allowed under California Code of Regulations, section 15164. These sections are inapplicable here, however, given that the proposed Project has never undergone CEQA review. An EIR has not been prepared, and the Project, as proposed, was never mentioned or discussed in the SEIR.

In a similar case in 2010, the City of Irvine adopted a plan to guide development of the Irvine Business Complex (IBC), which covered almost 3,000 acres in the City of Irvine. *IBC Business Owners for Sensible Development v. City of Irvine* (2023) 88 Cal.App.5th 100. The City of Irvine also prepared and approved a PEIR in 2010 that studied the effects of the development plan under CEQA. *Ibid*. Several years later, the applicant and appellant Gemdale 2400 Barranca Holdings, LLC, submitted a plan to redevelop a roughly five-acre parcel in the IBC. *Ibid*. The City of Irvine determined that all the environmental effects of the proposed project were adequately analyzed in the 2010 PEIR, and it found the project would have no additional significant environmental effects. *Ibid*. The City of Irvine approved the project over the objections of plaintiff and petitioner IBC Business Owners for Sensible Development. *Ibid*. Petitioner then filed a petition for writ of mandate. *Ibid*.

The trial court granted the writ and entered judgment in favor of Petitioner. *Ibid*. The City of Irvine and Gemdale appealed, contending that the City correctly approved the project. *Ibid*. The Fourth District Court of Appeal disagreed with the arguments made on appeal there existed insufficient evidence showing the project's GHG emissions were within the scope of the 2010 PEIR, and that no exemption applied because the project involved unusual circumstances which could cause significant environmental effects. *Ibid*. As such, the Court affirmed the judgment. *Ibid*.

Here, the environmental impacts of the Project are outside of the scope of those studied in the SEIR. Consequently, the City cannot rely on the subsequent review provisions of CEQA Guidelines, sections 15162 or 15164 and an independent, CEQA-compliance environmental analysis must be conducted and circulated in the form of an EIR.

Response To Comment No. 7:

The commenter again mistakenly claims the Project, as evaluated in the EIR Addendum, was compared to the 2010 TOP EIR. In fact, the Project was analyzed relative to 2022 TOP EIR (SCH # 2021070364), which analyzed the direct and physical changes in the environment that would be caused by implementation of TOP 2050. Specifically, the 2022 TOP EIR evaluated the development of a maximum of 369 residential units and approximately 142,840 square feet of non-residential development on the Overlay Planning Area, where the Project is located. The Project proposes the construction of 346 apartment units and 5,400 square feet of non-residential development. Thus, the Project is well within the scope of analysis in the 2022 TOP EIR, and the commenter's cited cases are inapposite. The City's review of the Proposed Project with the EIR Addendum was appropriate under CEQA, and the commenter has submitted no evidence, let alone substantial evidence, to the contrary.

Comment No.8:

An EIR must be prepared for the Project given that the SEIR determined that the Ontario Plan would cause significant and unavoidable impacts on aesthetics, air quality, biological resources, cultural resources, geology and soils, hazardous materials, hydrology and water quality, noise, public services, transportation and traffic, and utilities and service systems.

In the case of *Communities for a Better Environment v. Cal. Resources Agency*, the Third District Court of Appeal held that when a "first tier" EIR admits a significant, unavoidable environmental impact, then the agency must prepare second tier EIRs for later projects to ensure that those unmitigated impacts are "mitigated or avoided." (2002) 103 Cal.App.4th 98, 122-125 (citing CEQA Guidelines, §15152, subd. (f). There, the court reasoned that the unmitigated impacts were not "adequately addressed" in the first tier EIR given that they were not "mitigated or avoided." *Communities for a Better Environment v. Cal. Resources Agency* (2002) 103 Cal.App.4th 98, 122-125. Therefore, significant effects disclosed in first tier EIRs will trigger second tier EIRs unless such effects have been "adequately addressed," in a way that ensures the effects will be "mitigated or avoided." *Ibid*. Such a second tier EIR is required, even if the impact still cannot be fully mitigated and a statement of overriding considerations will be required. The court explained, "The requirement of a statement of overriding considerations is central to CEQA's role as a public accountability statute; it requires public officials, in approving environmental detrimental projects, to justify their decisions based on counterbalancing social, economic or other benefits, and to point to substantial evidence in support." *Id*. at 124-125.

Here, given that the SEIR admitted numerous significant, unmitigated impacts, a second tier EIR is now required to determine whether mitigation measures must now be imposed to reduce or

eliminate those impacts. Should the impacts remain significant and unavoidable, a statement of overriding considerations would be required.

Response To Comment No. 8:

The commenter claims, based on *Communities For A Better Environment v. California Resources Agency*, 103 Cal.App.4th 98, that a new EIR must be prepared for the Proposed Project because the 2022 TOP EIR concluded significant and unavoidable impacts. This is incorrect. First, the Proposed Project is not tiering off the prior 2022 TOP EIR, as discussed in CEQA Guidelines section 15152. Rather, the City has prepared an addendum to the 2022 TOP EIR pursuant to CEQA Guidelines section 15164. The EIR Addendum meets all of the criteria under section 15164, and the commenter has not demonstrated otherwise. Second, that case, while disapproved by numerous subsequent cases, is not applicable precisely because the Proposed Project is not proceeding by way of a tiered EIR, but by an adequate addendum to a certified EIR. The commenter provides no basis or substantial evidence to require the preparation of a second tier EIR.

Comment No. 9:

Legal precedent has established that Project entitlements must be approved simultaneously to a project's CEQA review. See *Coalition for Clean Air v. City of Visalia* (2012) 209 Cal.App.4th 408, 423-425, fn. 18 (noting that a CEQA document cannot be approved, and Notice of Exemption filed, before the underlying project is approved); see also *County of Amador v. El Dorado County Water Agency* (1999) 76 Cal.App.4th 931, 963, fn. 16. A project's environmental review cannot and should not occur prior to the project plans being submitted and its design review taking place, especially given that a project's environmental review must hinge on the final project design and development plan. For this reason, the DAB must not make any recommendation to the Planning Commission, but instead advise that the Addendum be revised or a Project-specific EIR be prepared.

Response to Comment No. 9:

The commenter presents no legal basis as to why the DAB could not review the Project Application and the EIR Addendum. Indeed, the DAB was not approving the Project; it was only making a recommendation. All Project approvals, including the Application and EIR Addendum, will be considered simultaneously by the Planning Commission. There is no basis to assume, let alone conclude, that the Project entitlements and CEQA evaluation will be separately considered – either by the DAB or the Planning Commission. As such, *Coalition for Clean Air v. City of Visalia* (2012) 209 Cal.App.4th 408 and *County of Amador v. El Dorade County Water Agency* (1999) 76 Cal.App.4th 93 are inapplicable.

Comment No. 10:

A project description must be stable and finite in order to afford a lead agency and the public an adequate opportunity to assess and comment on the project and its impacts. "[A]n accurate,

stable and finite project description is the sine qua non of an informative and legally sufficient" environmental document. *County of Inyo v. City of Los Angeles* (1977) 71 Cal.App.3d 185, 200. "A curtailed or distorted project description may stultify the objectives of the reporting process" as an accurate, stable, and finite project description is necessary to allow "affected outsiders and public decision- makers balance the proposal's benefit against its environmental cost, consider mitigation measures, assess the advantage of terminating the proposal (i.e., the "no project" alternative) and weigh other alternatives in the balance. *Id*. at 192-93.

CEQA Guidelines, section 15124 requires that a description describe the project in enough detail to allow for evaluation of its potential environmental impacts: (a) the project's precise location and boundaries; (b) a clearly written statement of objectives sought by the proposed project; (c) a description of the project's technical, economic, and environmental characteristics; and, (d) a statement describing a list of agencies, permits, and approval which the project expects to use.

Here, SWMSRCC respectfully requests that the Project application includes an adequate and compliant Project description with the details listed above, including objectives sought, the Project's economic characteristics, and more. The City should demand that Applicant resubmit its application materials with CEQA-compliant parameters.

Response to Comment No. 10:

The commenter claims the Project Description is CEQA-inadequate, yet identifies no inadequacies. The Project Description contained in the EIR Addendum is stable, accurate, and complete and is therefore adequate under CEQA. (See CEQA Guidelines section 15124.)

Comment No. 11:

A detailed and thorough review of the Project's impacts must be studied, supported by substantial evidence, and mitigated against where necessary. Without this in-depth analysis and a higher standard for the quantity and quality of evidence supporting it, it is impossible to determine, with a high degree of certainty, the magnitude and extent of the Project's environmental impacts.

In light of the aforementioned, SWMSRCC respectfully requests that the City: (1) require the Project utilize a local trained and skilled workforce; (2) prepare and circulate a thorough, project-specific EIR which focuses heavily on the Project's impacts that were not previously or adequately addressed in the SEIR; and, (3) order Applicant to revise the Project to ensure its consistency with all applicable laws and regulations especially those addressing human and environmental health. Should the City have any questions or concerns, it should feel free to contact my office.

Response to Comment No. 11:

The commenter provides a conclusion summarizing its demands. As demonstrated above, each of the commenter's comments and objections are without merit. The commenter has not submitted any evidence, let alone substantial evidence, that calls into question the City's use of a

CEQA addendum, demonstrates the criteria for a CEQA addendum have not been met, or otherwise provides a legitimate basis for denying the Project approvals.

File Nos. PUD22-004, PHP22-015, and PDEV22-027
Attachment B: Addendum Resolution

(Attachment to follow this page)

RESOLUTION NO. PC23-074

A RESOLUTION OF THE PLANNING COMMISSION OF THE CITY OF ONTARIO RECOMMENDING CITY COUNCIL APPROVAL OF AN ADDENDUM TO THE ONTARIO PLAN 2050 SUPPLEMENTAL ENVIRONMENTAL IMPACT REPORT, PURSUANT TO THE REQUIREMENTS OF THE CALIFORNIA ENVIRONMENTAL QUALITY ACT, AS AMENDED, FOR FILE NOS. PUD22-004, PDEV22-027, AND PHP22-015

WHEREAS, LEGACY/COLLIER RESIDENTIAL LLC (hereinafter referred to as "Applicant") has filed an Application for the approval of the Euclid Walnut Planned Unit Development, File No. PUD22-004, establishing the development standards and design guidelines for the overall 10.6-acre Project site, in conjunction with a Development Plan, File No. PDEV22-027, to construct 346 apartment units and 5,400 square feet of commercial space on 9.4 acres of the Project site and a Certificate of Appropriateness, File No. PHP22-015, to determine whether the Project site is a historic resource, on land located at the northwest corner of Euclid Avenue and Walnut Street, in the City of Ontario, California (hereinafter referred to as "Application" or "Project"); and

WHEREAS, The Ontario Plan 2050 Supplemental Environmental Impact Report (State Clearinghouse No. 2021070364) was certified on August 16, 2022, (hereinafter referred to as "Certified SEIR"), in which development and use of the Project site was discussed; and

WHEREAS, the Planning Director of the City of Ontario has prepared and approved for attachment to the certified Environmental Impact Report, an Addendum to the Certified SEIR (hereinafter referred to as "SEIR Addendum") in accordance with the requirements of the California Environmental Quality Act of 1970, together with State and local guidelines implementing said Act, all as amended to date (collectively referred to as "CEQA"); and

WHEREAS, the SEIR Addendum concluded that implementation of the Project could result in a number of significant effects on the environment that were previously analyzed in the Certified SEIR, and that the Certified SEIR identified mitigation measures that would reduce each of those significant effects to a less-than-significant level; and

WHEREAS, pursuant to State CEQA Guidelines Section 15164(a), a lead agency shall prepare an addendum to a previously certified EIR if some changes or additions are necessary to a project, but the preparation of a subsequent or supplemental EIR is not required; and

WHEREAS, the City determined that none of the conditions requiring preparation of a subsequent or supplemental EIR would occur from the Project, and that preparation of an Addendum to the Certified SEIR was appropriate; and

WHEREAS, the City of Ontario is the lead agency on the Project, and the Planning Commission is the recommending authority for the requested approval to construct and otherwise undertake the Project; and

WHEREAS, the Planning Commission has reviewed and considered the SEIR Addendum for the Project, has concluded that none of the conditions requiring preparation of a subsequent of supplemental EIR have occurred, and intends to take actions on the Project in compliance with CEQA and state and local guidelines implementing CEQA; and

WHEREAS, the SEIR Addendum for the Project is on file in the Planning Department, located at 303 East B Street, Ontario, CA 91764, and is available for inspection by any interested person at that location and is, by this reference, incorporated into this Resolution as if fully set forth herein; and

WHEREAS, all legal prerequisites to the adoption of this Resolution have occurred.

NOW, THEREFORE, IT IS HEREBY FOUND, DETERMINED, AND RESOLVED by the Planning Commission of the City of Ontario, as follows:

SECTION 1: ***Environmental Determination and Findings.*** As the recommending authority for the Project, the Planning Commission has reviewed and considered the information contained in the administrative record for the Project. Based upon the facts and information contained in the administrative record, including all written and oral evidence presented to the Planning Commission, the Planning Commission finds as follows:

(1) The environmental impacts of this Project were reviewed in conjunction with an Addendum to The Ontario Plan 2050 Supplemental Environmental Impact Report (State Clearinghouse No. 2021070364), certified by the Ontario City Council on August 16, 2022, in conjunction with File No. PGPA20-002; and

(2) The SEIR Addendum and administrative record have been completed in compliance with CEQA, the State CEQA Guidelines, and the City of Ontario Local CEQA Guidelines; and

(3) The City's "Guidelines for the Implementation of the California Environmental Quality Act (CEQA)" provide for the use of a single environmental

assessment in situations where the impacts of subsequent projects are adequately analyzed. This Application introduces no new significant environmental impacts; and

(4) All previously adopted mitigation measures shall be a condition of Project approval, as they are applicable to the Project, and are incorporated herein by this reference; and

(5) The SEIR Addendum contains a complete and accurate reporting of the environmental impacts associated with the Project, and reflects the independent judgment of the Planning Commission; and

(6) There is no substantial evidence in the administrative record supporting a fair argument that the Project may result in significant environmental impacts.

SECTION 2: ***Additional Environmental Review Not Required.*** Based on the Addendum, all related information presented to the Planning Commission, and the specific findings set forth in Section 1, above, the Planning Commission finds that the preparation of a subsequent or supplemental Environmental Impact Report is not required for the Project, as the Project:

(1) Does not constitute substantial changes to the Certified SEIR that will require major revisions to the Certified SEIR due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects; and

(2) Does not constitute substantial changes with respect to the circumstances under which the Certified SEIR was prepared, that will require major revisions to the Certified SEIR due to the involvement of new significant environmental effects or a substantial increase in the severity of the previously identified significant effects; and

(3) Does not contain new information of substantial importance that was not known and could not have been known with the exercise of reasonable diligence at the time the Certified SEIR was certified/adopted, that shows any of the following:

(a) The Project will have one or more significant effects not discussed in the Certified SEIR; or

(b) Significant effects previously examined will be substantially more severe than shown in the Certified SEIR; or

(c) Mitigation measures or alternatives previously found not to be feasible would in fact be feasible and would substantially reduce one or more significant effects of the Project, but the City declined to adopt such measures; or

(d) Mitigation measures or alternatives considerably different from those analyzed in the Certified SEIR would substantially reduce one or more significant effects on the environment, but which the City declined to adopt.

SECTION 3: ***Housing Element Compliance.*** Pursuant to the requirements of California Government Code Chapter 3, Article 10.6, commencing with Section 65580, as the recommending body for the Project, the Planning Commission finds that based upon the facts and information contained in the Application and supporting documentation, at the time of Project implementation, the project is consistent with the Housing Element of the Policy Plan (General Plan) component of The Ontario Plan, as the project site is not one of the properties in the Housing Element Sites Inventory contained in Tables B-1 and B-2 of the Housing Element Technical Report.

SECTION 4: ***Planning Commission Action.*** Based upon the findings and conclusions set forth in Sections 1 through 3, above, the Planning Commission hereby recommends the City Council finds that based upon the entire record of proceedings before it, and all information received, that there is no substantial evidence that the Project will constitute substantial changes to the Certified SEIR, and does hereby approve the SEIR Addendum, attached hereto as "Attachment A," and incorporated herein by this reference.

SECTION 5: ***Indemnification.*** The Applicant shall agree to defend, indemnify and hold harmless, the City of Ontario or its agents, officers, and employees from any claim, action or proceeding against the City of Ontario or its agents, officers or employees to attack, set aside, void, or annul this approval. The City of Ontario shall promptly notify the applicant of any such claim, action, or proceeding, and the City of Ontario shall cooperate fully in the defense.

SECTION 6: ***Custodian of Records.*** The documents and materials that constitute the record of proceedings on which these findings have been based are located at the City of Ontario City Hall, 303 East "B" Street, Ontario, California 91764. The custodian for these records is the City Clerk of the City of Ontario.

SECTION 7: ***Certification to Adoption.*** The Secretary shall certify to the adoption of the Resolution.

- - - - - - - - - - - - - -

The Secretary Pro Tempore for the Planning Commission of the City of Ontario shall certify as to the adoption of this Resolution.

I hereby certify that the foregoing Resolution was duly and regularly introduced, passed and adopted by the Planning Commission of the City of Ontario at a regular meeting thereof held on the 26th day of September 2023, and the foregoing is a full, true and correct copy of said Resolution, and has not been amended or repealed.

Nancy DeDiemar
Planning Commission Chairperson

ATTEST:

Rudy Zeledon
Community Development Assistant Director and Secretary to the Planning Commission

STATE OF CALIFORNIA)
COUNTY OF SAN BERNARDINO)
CITY OF ONTARIO)

I, Gwen Berendsen, Secretary Pro Tempore of the Planning Commission of the City of Ontario, DO HEREBY CERTIFY that foregoing Resolution No. PC23-074 was duly passed and adopted by the Planning Commission of the City of Ontario at their regular meeting held on September 26, 2023, by the following roll call vote, to wit:

AYES: Anderson, DeDiemar, Del Turco, Ricci

NOES: None

ABSENT: Dean, Gage, Lampkin

ABSTAIN: None

Gwen Berendsen
Secretary Pro Tempore

ATTACHMENT A:

Addendum to TOP 2050
Supplemental Environmental Impact Report

(Addendum to follow this page)

City of Ontario
Planning Department
303 East B Street
Ontario, California 91764
Phone: 909.395.2036
Fax: 909.395.2420

California Environmental Quality Act

Addendum to The Ontario Plan Environmental Impact Report

Project Title/File No.: Euclid/Walnut Planned Unit Development Mixed-Use Project (File Nos. PDEV22-027, PUD22-004, and PHP22-015)

Lead Agency: City of Ontario, 303 East "B" Street, Ontario, California 91764, (909) 395-2036

Contact Person: Alexis Vaughn, Associate Planner, 909.395.2416, Email: avaughn@ontarioca.gov

Project Sponsor: Legacy/Colliers Residential, LLC

Project Location: The 10.6-acre project site is located in southwestern San Bernardino County, within the City of Ontario (City) as shown in **Figure 1** below. The City of Ontario is located approximately 40 miles from downtown Los Angeles, 20 miles from downtown San Bernardino, and 30 miles from Orange County. As illustrated in **Figure 2** below, the project site is almost square shaped and located north of W. Walnut Street and west of Euclid Avenue in the southwest portion of the City (just south of SR-60). The project site includes Assessors' Parcel Numbers; 1051-271-67, 1051-271-06, 1051-271-66. All full rights-of-way for public streets that are required for this project have already been dedicated and granted to the City.

Figure 1: REGIONAL LOCATION MAP

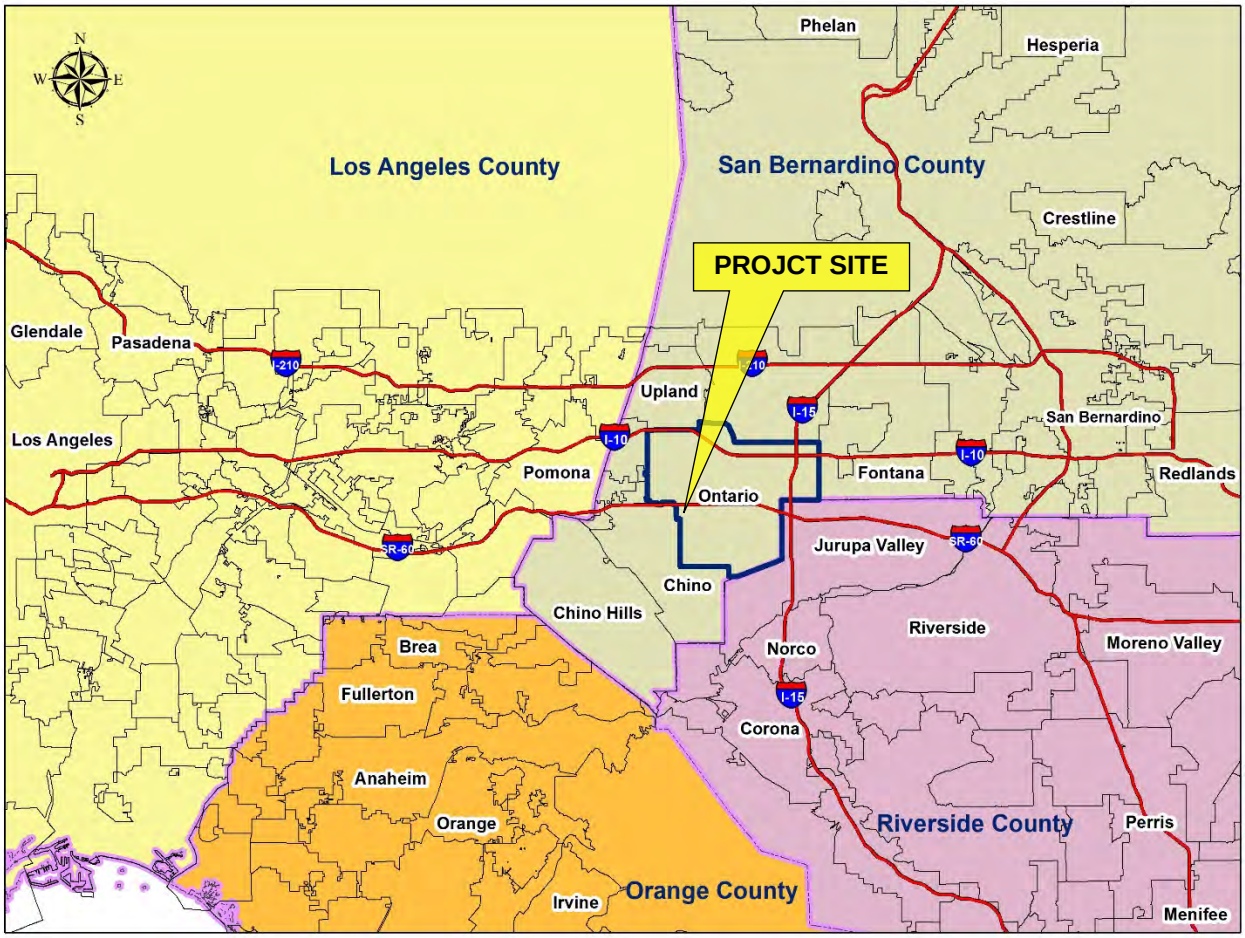


Figure 2: PUD VICINITY MAP



General Plan/Zoning. The Ontario Plan (TOP) is the City's comprehensive plan for the community over the next thirty years. TOP 2050 is the City's established framework for development and has three policy level components, the Vision, a Governance Manual and the Policy Plan. The most current version of TOP and its environmental impact report (EIR) are dated August 16, 2022 (State Clearinghouse No. 2021070364). Figure LU-01 of The Ontario Plan (TOP) 2050 is the City's current Land Use Plan which indicates the project site is designated as Mixed Use but is further classified as a Neighborhood Community Hub (NH). The site is currently zoned Mixed-Use (MU-8e) within the Euclid Avenue (EA) overlay corridor as shown below:

General Plan Designation:	Existing – Mixed Use Neighborhood Community Hub (MU-NH)
	Proposed – Mixed Use Neighborhood Community Hub (MU-NH)
Zoning:	Existing – Mixed-Use 8e (Euclid and Walnut)
	Proposed – Planned Unit Development (PUD) with Commercial/ Residential Mixed Use within Euclid Avenue Overlay Zoning District (EA)

The Mixed-Use Neighborhood Hub (MU-NH) designation allows low-rise buildings (3-5 stories) with a mixture of retail and residential uses that will create identity and place and serve the surrounding residents. This category allows for residential densities ranging from 20 - 75 dwelling units per acre and non-residential intensity of 1.00 Floor Area Ratio.

The TOP shows a total of five locations within the City with the MU-NH land use designation. The Future Buildout Projections Table of the Land Use Element provides further details for each of these five MU-NH sub-areas. The three parcels subject to this PUD make up 10.6 acres ("PUD site") of the overall 16 acres that comprise the "MU-NH" sub-area. The remaining 5.4 acres of the MU-NH area include approximately 28,000 square feet of existing businesses (gas station, pre-school, and 2 small businesses) and 15 single family homes between the PUD site and the SR-60 Freeway to the north. The PUD site currently contains a Carl's Jr. restaurant, former Kmart Shopping Center, and a strip retail building. The TOP indicates the projected buildout for the entire 16 acres of this sub-area will eventually have a total of 369 dwelling units and 142,840 square feet of non-residential development. Development of the proposed PUD would slightly exceed the total number of residential units for this area under the TOP (369 MF+15 SF=384 total units vs. 369 projected total units). However, development of the PUD would substantially reduce the amount of anticipated non-residential growth in this sub-area (12,000 SF in the PUD plus 28,000 existing = 40,000 SF vs. 142,840 SF). Therefore, development of the "PUD project" would result in a 4% increase in residential impacts but a 28% decrease in commercial impacts. While this Addendum only covers impacts of the new residential and commercial uses currently proposed under the PUD Project described below, the preceding analysis demonstrates the anticipated impacts of growth in this MU-NH sub-area with the PUD are considered to be equivalent or less than those identified in TOP EIR for this sub-area.

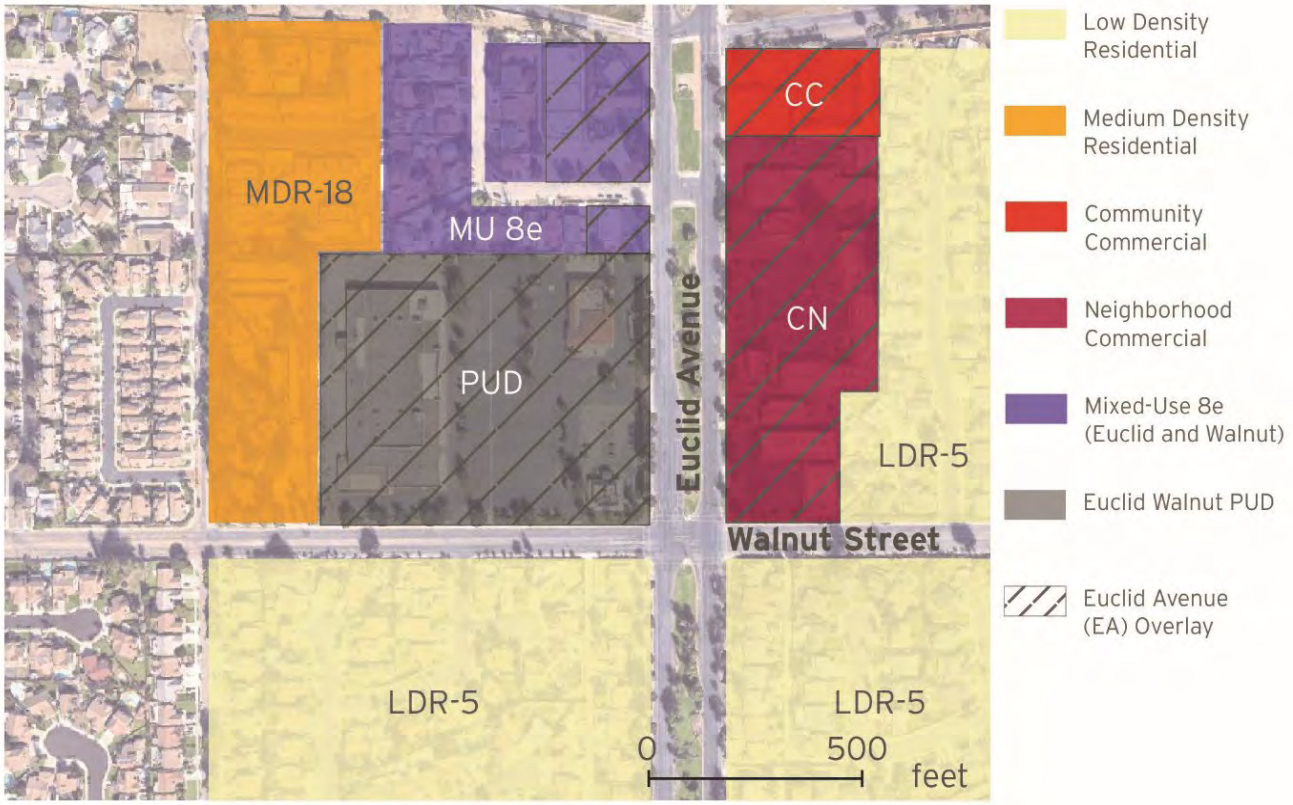
Description of PUD Project: The Euclid/Walnut Planned Unit Development (PUD) project proposes to demolish the existing commercial center and construct a total of 369 apartment units with 12,000 square feet (SF) of ground floor retail uses. The PUD project is expected to be completed in two phases. Phase 1 would leave the existing Carl's Jr. site in its current condition, demolish the other existing commercial structures, and develop 5,400 SF of ground floor retail space and 346 apartment units consisting of 18 studio units, 190 one-bedroom units, and 138 two-bedroom units. Phase 2 would consist of demolishing the existing Carl's Jr. and constructing an additional 23 apartment units and 6,600 SF of ground floor retail space. **Table 1** shows the building characteristics of the proposed project as part of the PUD while **Figure 3** shows the proposed zoning of the PUD project.

Table 1: Proposed PUD Project Land Uses

AREA/TIMING	ACRES	UNITS	SQUARE FEET
Existing Uses (to be demolished)	10.6	0	105,050
Euclid/Walnut PUD	10.6	369	12,000
Phase 1	9.4	346	5,400
Phase 2	1.2	23	6,600
Remainder of MU-NH Area	5.4	0	130,840
TOTAL	**16.0**	**369**	**142,840**

Source: PUD May 2023 NA = acres not applicable due to mixed use development

Figure 3: PROPOSED PUD ZONING



Source: PUD May 2023

Planned Unit Development (PUD). The PUD provides planning and design principles, development regulations, and performance standards to guide the redevelopment of an existing commercial shopping center. The PUD will facilitate mixed-use development of high-density apartments, restaurants, retail shops, and other commercial services. The PUD is intended to achieve the City's goals to economically revitalize and aesthetically enhance an underutilized parcel located along the Euclid Avenue corridor.

The PUD is organized to meet the requirements of the Ontario Development Code (ODC) and will replace the existing zoning district designation and ODC regulations applicable to the affected properties. The PUD site also falls within the "Euclid Avenue Overlay" Zoning District (EA) and any applicable requirements of the EA will remain in effect. City staff and private developers will rely on this PUD to determine whether future precise plans for development ("Development Plans") adequately meet the City's land use and design objectives as outlined in The Ontario Plan (TOP) 2050.

The PUD establishes a singular zoning district of Commercial/Residential Mixed Use consistent with TOP 2050 MU-NH land use designation. The PUD allows both horizontal and vertical mixed-use buildings with a combination of three- and four-story buildings. Buildings with direct Euclid Avenue frontage will contain ground-floor commercial uses and residential units directly above. All other buildings will contain residential units on all floor levels. A combination of garages, tandem spaces, carports, and surface level parking spaces will be provided onsite with gated access limited to residents and residents' guests. Unrestricted access to surface level parking will serve the commercial uses and provide additional resident guest parking spaces.

It should be noted the TOP EIR addendum is required in order for the PUD project's density to exceed the TOP 2050 land use assumptions for the site (i.e., Mixed-Use – Neighborhood Activity Hub 8e - Euclid & Walnut) which designates the site at 75% of the area at 30 du/ac and 25% of the area at 0.80 FAR retail. The proposed PUD would slightly exceed the total number of residential units for this area under the TOP (384 total units with PUD vs. 369 projected total units). However, development of the PUD would substantially reduce the amount of anticipated non-residential growth in this sub-area (40,000 SF with the PUD vs. 142,840 SF under TOP growth). Therefore, development of the "PUD project" would result in a 4% increase in residential impacts but a 28% decrease in commercial impacts compared to what was analyzed in TOP EIR.

Phasing. The PUD project will be completed in two phases. Phase 1 comprises the entire PUD site except for the existing drive-thru restaurant site (Carl's Jr.) which is occupied by an approximately 4,100 square foot building and its related site improvements. Phase 1 will require the demolition of a combined 100,950 square feet of commercial/retail buildings (not including the Carl's Jr.) and related site improvements. Phase I will be redeveloped with two four-story buildings and six three-story buildings, providing a combined total of 346 dwelling units; 5,400 square feet of ground floor commercial space, associated on-site parking areas for both residential and non-residential land uses, and landscaping and recreational amenities for residents. **Figure 4** shows the Phase 1 Conceptual Site Plan.

Phase 2 will finish implementation of the total build-out of the area within the PUD project by demolishing the Carl's Jr. restaurant building and related site improvements and replacing them with additional vertical mixed-use development, constructing an additional four-story building. Completion of the second phase would provide up to an additional 23 dwelling units and up to an additional 6,600 square feet of ground-floor commercial space, and the associated site improvements.

The PUD is applicable to both phases of the project, which will construct a horizontal and vertical mixed-use development, with a maximum of 369 dwelling units and up to 12,000 square feet of commercial land uses occupying the ground floor of buildings with Euclid Avenue frontage.

Construction. All construction activities, including site demolition, regrading, building construction, paving, and the application of architectural coatings, are expected to take approximately 28 months for Phase 1. The specific timing of development of Phase 2 has not yet been determined but will include similar activities as those listed for Phase 1. The overall construction of the PUD project is consistent with the level of development outlined in TOP and its EIR and would only differ by having +4% more units but 28% less non-residential square footage with the PUD. While no additional specific information on Phase 2 construction is presented at this time, overall development and construction of the 10.6-acre MU-NH sub-area would be similar with or without the PUD in terms of land area developed.

Figure 4: PHASE 1 CONCEPTUAL SITE PLAN



Development Regulations. Development within this PUD will comply with Ontario Development Code (ODC) standards and requirements applicable to Multiple-Family Dwellings and Commercial development, as determined appropriate by the City Director of Community Development. **Table 2** provides a summary of development standards for the PUD project. The PUD project will not exceed a maximum 40 dwelling units per acre and will not exceed 369 dwelling units upon build-out of Phase 2. The overall building height of four-story buildings will not exceed 60 feet and all other buildings will not exceed 50 feet (max. 3 stories), inclusive of architectural projections. Non-residential development is subject to a maximum 0.5 floor area ratio based upon the net site area.

Access and Improvements. Vehicular access from the public right of way will be limited to two locations along Euclid Avenue and a maximum of three locations along Walnut Street as approved by the City Engineer. As determined by the City Engineer, design and construction of street improvements, adjacent to the property frontage of Euclid Avenue and Walnut Street will be conditioned and may include, but are not limited to concrete curb and gutter, sidewalk, LED streetlights, signing and striping, and parkway landscaping.

Table 2: Summary of PUD Development Standards

DEVELOPMENT STANDARD	REQUIREMENT	NOTES
Maximum Intensity – Floor Area Ratio	0.50 FAR	Gross building square footage of commercial space
Density Range – Minimum and Maximum	20.1 – 40	Up to a maximum of 369 dwelling units
Maximum Building Height by Number of Stories Four Stories Three Stories	 60 feet 50 feet	Inclusive of architectural projections and equipment screening
Building Setbacks – From Right-of-Way	10 feet minimum	
Setbacks – Interior Property Line Buildings Adjacent to Residential Buildings Adjacent to Non-Residential Carport or Trash Enclosure	 50 feet minimum 5 feet minimum 5 feet minimum	
Building Separation Building to Building Building to Drive Aisle or Parking Areas Building to Carport Patio to Patio	 25 feet minimum 5 feet minimum 25 feet minimum 15 feet minimum	Individual driveway depth limited to 5 ft. or less, or 18 ft. or more
Minimum Number Parking Spaces Ratio for Residential Uses Ratio for Non-Residential Uses	 1.2 spaces/bedroom 1 space/250 square feet	 Inclusive of guest spaces
Residential Open Space and Common Amenities – Combined Minimum Ratio Minimum Private Open Space Ratio Minimum Common Amenity Ratio	250 square feet/dwelling unit 50 square feet/dwelling unit 175 square feet/dwelling unit	 5 feet min. width and length 15% maximum indoor
Residential Storage Units	150 cubic feet/dwelling unit minimum	Does not include closets or cabinets interior to the unit

Source: PUD Table 4-1, Summary of Development Standards

Grading and Drainage. The PUD site is already developed and essentially flat so its development is not expected to require substantial grading and earthwork is generally expected to be balanced onsite (i.e., no substantial import or export of soil). Under the PUD, onsite stormwater drainage facilities will be provided consistent with the San Bernardino County Stormwater Program's Water Quality Management Plan (WQMP) requirements for new development projects. Stormwater capture and infiltration facilities may include the utilization of vegetated swales, depressed landscaped basins, pervious concrete pavement or underground stormwater retention/infiltration vaults.

Landscaping. The PUD site will be fully landscaped according to a detailed Landscaping Plan that will be submitted with the Development Plan. The Landscaping Plan will specify all landscape and hardscape elements of the residential open space and common amenities, as well as the perimeter yards abutting the street rights-of-way and all street trees. The Plan will provide water conservation through low water using plant materials, hydro zones, water efficient irrigation and weather-based controllers. Landscaped areas will also be used for storm water infiltration through vegetated swales, retention basins, or dry wells as needed with appropriate planting materials. The Landscaping Plan will satisfy the requirements of the City's Landscape Development Standards outlined in the ODC. Street trees shall comply with the variety, size, and spacing as directed by the City of Ontario Master Street Tree Plan.

Open Space/Recreation. The PUD indicates each residential unit will have 50 square feet of private open space (i.e., balcony or patio) and will have 175 square feet per residential unit of common amenities. The PUD project proposes a total of 369 units so the overall development will have a minimum of 64,575 square feet of common open space amenities. This may include a combination of passive and active, indoor and

outdoor spaces, roof top or upper floor decks, as well as landscaped and hardscaped ground surfaces providing paseos between or adjacent to buildings. Up to 15 percent of the overall common amenity square footage may consist of indoor area and be grouped into a single building that is accessible to all residents; providing opportunities for fitness, various lounge/gathering space, business/mail center and similar amenities. The remaining common amenities provided shall be in the form of outdoor common areas consisting of both programmed and unprogrammed spaces. Programmed space may provide specific amenities such as a dog park, seating/conversational area, outdoor cooking facilities with table seating areas, etc. while unprogrammed space may provide passive use, such as landscaped paseos.

Fences and Walls. Exhibit 5-6 in the PUD provides a comprehensive plan for walls and fences that is compatible with the proposed building architecture and will not encroach into the public right-of-way.

Lighting. The PUD project includes security and decorative lighting for the new proposed commercial and residential buildings, parking areas, and access routes consistent with the PUD and the City's Development Code. The lighting plan shows that all lighting is shielded and directed toward the ground to the extent necessary to minimize potential impacts on neighboring residential uses.

Utilities. The PUD project site is already developed so its redevelopment will be served by existing water lines and wastewater flows and/or upgraded to satisfy the required capacities as determined by the City and its service purveyors/agencies.

Requested Approvals. The PUD project requires approval of the PUD and subsequent approval of site plans and improvement plans consistent with the PUD. The project application includes a Development Plan (File No. PDEV22-027, a Planned Unit Development (File No. PUD22-004), and an Addendum to the EIR prepared for TOP which was certified by the City Council on August 16, 2022. The EIR Addendum will allow the PUD project to comply with the requirements of the California Environmental Quality Act (CEQA).

PUD Objectives. The proposed PUD will facilitate the redevelopment of the project site with structures and related improvements that support both residential and non-residential land uses within the same project site. In addition to facilitating achievement of many City TOP goals and policies, this PUD establishes the following objectives:

- Develop and provide new, high-quality rental housing combined with a mixed-use component.
- Provide transition between new mixed-use development and surrounding residential neighborhoods and commercial properties.
- Provide areas of private and passive open space for each residential unit, as well as community gathering and active open spaces.
- Promote development that is consistent with the MU-NH – Mixed Use Neighborhood Activity Hub land use designation.
- Promote revitalization of commercial uses on the project site by establishing new ground-floor retail and similar uses that serve on-site residents and those in surrounding neighborhoods.
- Provide outdoor gathering places adjacent to commercial storefronts, such as outdoor patio or bench seating with inviting/attractive landscape elements.
- Orient non-residential, ground-floor uses towards Euclid Avenue.
- Incorporate site design solutions to allow for phased development.
- Satisfy the build-out projections for residential dwelling units within the MU-NH (Euclid- Walnut) sub-area, as defined in TOP 2050.

Project Setting: The PUD project site consists of approximately 10.6 acres of land within western Ontario. The site is almost square in shape and is located at the northwest corner of Euclid Avenue and W. Walnut Street just south of the SR-60 Freeway. The site is currently developed with a 4,100-square foot Carl's Jr. drive-through restaurant and 100,950 square feet of commercial buildings including a former Kmart building) plus a small retail building with several tenants. The site is relatively flat with elevations ranging

from 818 feet above mean sea level (amsl) in the northeast corner down to 810 feet amsl at the southeast corner with a gentle slope of less than one percent to the southwest. Runoff from the site generally flows toward the adjacent roadways (Euclid to the east and Walnut to the south).

The site is in a built-up urbanized area with existing residential uses to the west, south, and southeast, commercial uses to the east, and mixed residential and commercial uses to the north up to the freeway. The location and extent of existing land uses are shown in the previous Figure 2.

Project Background: The PUD project site was developed in the later part of the 20th Century with a variety of commercial uses, many of which are now vacant. No major planning, development, or environmental work has been done in the past 10+ years on this site. However, the City's TOP and its EIR was most recently adopted in 2022 and contain current and accurate environmental information about the project site and applicable mitigation as explained below and as summarized at the end of this document.

On August 16, 2022, the Ontario City Council adopted the latest version of TOP, which serves as the City's General Plan under state law and provides a foundation for the City to operate as a municipal corporation. The TOP consists of six (6) distinct components: 1) Vision; 2) Governance Manual; 3) Policy Plan; 4) Council Priorities; 5) Implementation; and 6) Tracking and Feedback. The Policy Plan component of TOP meets the functional and legal mandate of a municipal General Plan and contains nine elements; Land Use, Housing, Parks and Recreation, Environmental Resources, Community Economics, Safety, Mobility, Community Design and Social Resources.

The City Council certified TOP EIR (SCH # 2021070364) which analyzed the direct and physical changes in the environment that would be caused by implementation of TOP; focusing on changes to land use associated with the buildout of the proposed land use plan and impacts from population and employment growth in the City. The project proposes land uses consistent with TOP 2050. The significant unavoidable adverse impacts that were identified in TOP EIR included: agriculture resources, air quality, cultural resources, greenhouse gas (GHG) emissions, noise and transportation/traffic.

CEQA requires lead agencies to use the most current and accurate environmental information in analyzing project impacts. Therefore, consistent with the requirements of CEQA, the proposed project has been analyzed relative to current technical studies and TOP EIR. These uses will be consistent with the residential uses to the west, south, and southwest, the commercial uses to the east, and the mixed residential and commercial uses to the north.

CEQA Requirements for an Addendum: If changes to a project or its circumstances occur or new information becomes available after adoption of an EIR or negative declaration, the lead agency may: (1) prepare a subsequent EIR if the criteria of CEQA Guidelines Section 15162(a) are met, (2) prepare a subsequent negative declaration, (3) prepare an addendum, or (4) prepare no further documentation. (CEQA Guidelines Section 15162(b)). When only minor technical changes or additions to the EIR (or negative declaration) are necessary and none of the conditions described in Section 15162 calling for the preparation of a subsequent EIR or negative declaration have occurred, CEQA allows the lead agency to prepare and adopt an addendum. (CEQA Guidelines Section 15164(b).)

Under Section 15162, a subsequent EIR or negative declaration is required only when:

1) Substantial changes are proposed in the project which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects;

2) Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the EIR or negative declaration due to the involvement of any new significant environmental effects or a substantial increase in the severity of previously identified significant effects; or

3) New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the EIR or negative declaration was adopted, shows any of the following:

a) The project will have one or more significant effects not discussed in the previous EIR or negative declaration;

b) Significant effects previously examined will be substantially more severe than shown in the previous EIR;

c) Mitigation measures or alternatives previously found not to be feasible would in fact be feasible and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or

d) Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.

Thus, if the PUD project does not result in any of the circumstances listed in Section 15162 (i.e., no new or substantially greater significant impacts), the City may adopt an addendum to TOP EIR.

CEQA Analysis: According to CEQA Guidelines Section 15164, an Addendum to a previously certified EIR may be used if some changes or additions are necessary, but none of the conditions described in Section 15162 requiring the preparation of a subsequent negative declaration or EIR have occurred. The CEQA Guidelines require that a brief explanation be provided to support the findings that no subsequent EIR or negative declaration are needed for further discretionary approval. These findings are described below:

1) Required Finding: Substantial changes are not proposed for the project that will require major revisions of the previous EIR due to the involvement of new, significant environmental effects or a substantial increase in the severity of previously identified effects.

Substantial changes are not proposed by the project compared to what is allowed in TOP, and project implementation will not require revisions to TOP EIR. TOP EIR analyzed the direct and physical changes in the environment that would be caused by TOP; focusing on changes to land use associated with the buildout of the proposed land use plan. The site is located within the Mixed Use – Neighborhood Community Hub (MU-NH) designation of TOP. The PUD project will provide both mixed uses and be an activity hub for the surrounding neighborhoods.

Under TOP, projected buildout of the entire 16 acres of MU-NH overlay property would have a total of 369 dwelling units and 142,840 square feet of non-residential development. The PUD project proposes 369 units and approximately 12,000 square feet of the non-residential development on 10.6 acres, leaving 130,840 square feet of non-residential development to be built in the remainder of the MU-NH area adjacent to the SR-60 Freeway.

Since the anticipated buildout resulting from the PUD project will be equivalent to or less than that originally analyzed in TOP EIR, no revisions to TOP EIR are required.

In addition, all previously adopted mitigation measures of TOP EIR are conditions of project approval or mitigation measures and are incorporated herein by reference. This document provides an analysis of the project and verification that the project will not cause any new or more significant environmental impacts.

2) *Required Finding: Substantial changes have not occurred with respect to the circumstances under which the project is undertaken, that would require major revisions of the previous Environmental Impact Report due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.*

Substantial changes have not occurred with respect to the circumstances under which the project was undertaken, that would require major revisions to TOP EIR. TOP EIR evaluated the site as a mixture of land uses up to 369 residential units and 142,840 square feet of non-residential development. The PUD project proposes 369 units and approximately 12,000 square feet of the non-residential development, leaving 130,840 square feet of non-residential development to be built in the remainder of the MU-NH area adjacent to the SR-60 Freeway.

Therefore, no proposed changes or revisions to TOP EIR are required. In addition, all previously adopted TOP EIR mitigation measures are incorporated herein by reference. This document provides an analysis of the project and verification that the project will not cause any new or more significant environmental impacts.

3) *Required Finding. No new information has been provided that would indicate that the proposed project would result in one or more significant effects not discussed in the previous EIR.*

No new information has been provided that would indicate the proposed project would result in any new significant effects not previously discussed in TOP EIR. TOP EIR evaluated the site as a mixture of land uses up to 369 residential units and 142,840 square feet of non-residential development. The PUD project proposes 369 units and approximately 12,000 square feet of the non-residential development, leaving 130,840 square feet of non-residential development to be built in the remainder of the MU-NH area adjacent to the SR-60 Freeway.

TOP Figure LU-01, Land Use Plan, and TOP EIR Figure 1-3, Proposed Land Use Plan, indicate the proposed PUD project is consistent with the surrounding residential, commercial, and mixed uses. Since adoption of the 1992 General Plan, 2022 TOP, and certification of the 2010 TOP EIR, the subject site has been planned for a mixture of residential and commercial uses.

Conclusion: TOP EIR, certified by the City Council on August 16, 2022 was prepared as a Program EIR in accordance with CEQA, the CEQA Guidelines section 15121(a), and the City's Rules for the Implementation of CEQA. TOP EIR considered the direct physical changes and reasonably foreseeable indirect physical changes in the environment that would be caused by TOP. Consequently, TOP EIR focused on impacts from changes to land use associated with buildout of the City and impacts from the resulting population and employment growth in the City. The proposed project is consistent and compatible with existing and planned uses in the surrounding area and would only differ by having +4% more units but 28% less non-residential square footage with the PUD. While no additional specific information on Phase 2 construction is presented at this time, overall development and construction of the 10.6-acre MU-NH sub-area would be similar with or without the PUD in terms of land area developed. The overall construction of the PUD project is generally consistent with the level of development outlined in TOP and its EIR The amount of development anticipated at PUD project buildout as shown in the previous Table 1 and outlined in the Project Description will be equivalent to the development analyzed in TOP EIR.

The proposed PUD differs from the TOP's assumptions for this project site, so this addendum and supplemental studies are required to ensure the project introduces no new significant environmental impacts that were identified in TOP EIR. The City's "Guidelines for the Implementation of the California Environmental Quality Act (CEQA)" provide for the use of a single environmental assessment in situations where the impacts of subsequent projects are adequately analyzed. Should no new significant environmental impacts arise as a result of this project and related analyses, all previously adopted mitigation measures shall be a condition of project approval.

Accordingly, and based on the conclusions of the previously certified TOP EIR, the analysis in this document, CEQA and the CEQA Guidelines, including Sections 15164 and 15162, the PUD project will not result in any new, increased or substantially different impacts not previously considered and addressed in TOP EIR. No changes or additions to TOP EIR analyses are necessary, nor is there a need for additional mitigation with implementation of the number of conditions of approval required by the City based on the results of the site-specific technical studies for burrowing owl and airport safety.

Surrounding Land Uses: The project site is in a built-up urbanized area with existing residential uses to the west, south, and southeast, commercial uses to the east, and mixed residential and commercial uses to the north up to the freeway. See **Table 3** for onsite and surrounding land uses and zoning designations. Onsite and surrounding land uses are also shown in the previous Figure 2.

Table 3: Existing Land Uses and Zoning Designations

Location	Existing Land Uses	TOP Designation	Zoning Designation
PUD Site	Vacant older retail commercial and fast-food restaurant	Mixed Use-Neighborhood Community Hub (MU-NH)	Mixed-Use 8e (Euclid and Walnut) within Euclid Avenue Overlay (EA)
North	Mixture of residential and commercial uses	Mixed Use-Neighborhood Community Hub (MU-NH)	Mixed-Use 8e (Euclid and Walnut) within Euclid Avenue Overlay (EA)
South	Single Family Residential	Low Density Residential (2.1-5 du/ac)	Low Density Residential (LDR-5)
East	Commercial shopping center	Neighborhood Commercial (0.4 FAR)	Neighborhood Commercial (CN) within Euclid Avenue Overlay (EA)
West	Multi-Family Residential	Medium Density Residential (11.1-25 du/ac)	Medium Density Residential (MDR-18)

Source: City Website 2022 and Google Earth 2022 du/ac = dwelling units per acre

Other public agencies whose approval is required (e.g., permits, financing approval or participation agreement): None

Tribal Consultation: Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code section 21080.3.1? ☒ Yes ☐ No

If "yes", has consultation begun? ☐ Yes ☐ No ☒ Completed

NOTE: Consultation was already conducted as part of TOP EIR and no new consultation is required for this Addendum to TOP EIR

Additional Studies: The following additional studies have been or are being prepared in support of the analysis in this document regarding potential environmental impacts of the proposed project. These studies are in the Appendices to this document and include:

- Euclid/Walnut Planned Unit Development (PUD) (Appendix A)
- Health Risk Assessment (Appendix B)
- Hydrology and Water Quality (Appendix C)
- Trip Generation (Appendix D)

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

☐ Aesthetics	☐ Agriculture/Forestry Resources	☐ Air Quality
☐ Biological Resources	☐ Cultural Resources	☐ Geology / Soils
☐ Greenhouse Gas Emissions	☐ Hazards & Hazardous Materials	☐ Hydrology / Water Quality
☐ Land Use / Planning	☐ Mineral Resources	☐ Noise
☐ Population / Housing	☐ Public Services	☐ Recreation
☐ Transportation	☐ Utilities / Service Systems	☐ Mandatory Findings of Significance
☐ Tribal Cultural Resources	☐ Wildfire	☐ Energy

DETERMINATION *(To be completed by the Lead Agency)*

On the basis of this initial evaluation:

☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

☐ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

☐ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

☐ I find that the proposed project MAY have a "potentially significant" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

☒ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.



Signature

July 5, 2023
Date

Alexis Vaughn, Associate Planner
Printed Name and Title

City of Ontario
For

EVALUATION OF ENVIRONMENTAL IMPACTS

1) A brief explanation is required for all answers except “No Impact” answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A “No Impact” answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A “No Impact” answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).

2) All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.

3) Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. “Potentially Significant Impact” is appropriate if there is substantial evidence that an effect is significant. If there are one or more “Potentially Significant Impact” entries when the determination is made, an EIR is required.

4) “Negative Declaration: Less Than Significant with Mitigation Incorporated” applies where the incorporation of mitigation measures has reduced an effect from “Potentially Significant Impact” to a “Less than Significant Impact.” The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures from the “Earlier Analyses” Section may be cross-referenced).

5) Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or Negative Declaration. Section 15063I(3)(D). In this case, a brief discussion should identify the following:

   a) Earlier Analyses Used. Identify and state where they are available for review. For this project, reference will be made to TOP EIR as appropriate.

   b) Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.

   c) Mitigation Measures. For effects that are "Less than Significant with Mitigation Measures Incorporated," describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.

6) Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.

7) Supporting Information Sources. A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.

8) This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whatever format is selected.

9) The explanation of each issue should identify:

   a) The significance criteria or threshold, if any, used to evaluate each question; and

   b) The mitigation measure identified, if any, to reduce the impact to less than significance.

Issues	*Potentially Significant Impact*	*Less Than Significant with Mitigation*	*Less Than Significant Impact*	*Impacts Previously Analyzed in TOP FEIR*
1. AESTHETICS. Would the project:				
a. Have a substantial adverse effect on a scenic vista?	☐	☐	☐	☒
b. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☐	☒
c. In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	☐	☐	☐	☒
d. Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☐	☒
2. AGRICULTURE AND FOREST RESOURCES. In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest protocols adopted by the California Air Resources Board. Would the project:				
a. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☒
b. Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒
c. Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	☐	☐	☐	☒
d. Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒

Issues	*Potentially Significant Impact*	*Less Than Significant with Mitigation*	*Less Than Significant Impact*	*Impacts Previously Analyzed in TOP FEIR*
e. Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☐	☒
3. AIR QUALITY. Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:				
a. Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☐	☒
b. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?	☐	☐	☐	☒
c. Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☐	☒
d. Result in other emissions (such as those leading to odors adversely affecting a substantial number of people?	☐	☐	☐	☒
4. BIOLOGICAL RESOURCES. Would the project:				
a. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☐	☐	☒
b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☐	☐	☒
c. Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☐	☒
d. Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☐	☐	☒
e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☐	☒
f. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☒

Issues	*Potentially Significant Impact*	*Less Than Significant with Mitigation*	*Less Than Significant Impact*	*Impacts Previously Analyzed in TOP FEIR*
5. CULTURAL RESOURCES. Would the project:				
a. Cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5?	☐	☐	☐	☒
b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?	☐	☐	☐	☒
c. Disturb any human remains, including those interred outside of dedicated cemeteries?	☐	☐	☐	☒
6. ENERGY. Would the project:				
a. Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	☐	☐	☐	☒
b. Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	☐	☐	☐	☒
7. GEOLOGY AND SOILS. Would the project:				
a. Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury or death involving:	☐	☐	☐	☒
i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☐	☒
ii. Strong seismic ground shaking?	☐	☐	☐	☒
iii. Seismic-related ground failure, including liquefaction?	☐	☐	☐	☒
iv. Landslides?	☐	☐	☐	☒
b. Result in substantial soil erosion or the loss of topsoil?	☐	☐	☐	☒
c. Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☐	☐	☒
d. Be located on expansive soil, as defined in Table 18 1 B of the Uniform Building Code, creating substantial direct or indirect risks to life or property?	☐	☐	☐	☒
e. Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	☐	☐	☐	☒
f. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	☐	☒

Issues	*Potentially Significant Impact*	*Less Than Significant with Mitigation*	*Less Than Significant Impact*	*Impacts Previously Analyzed in TOP FEIR*
8. GREENHOUSE GAS EMISSIONS. Would the project:				
a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☐	☒
b. Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emission of greenhouse gases?	☐	☐	☐	☒
9. HAZARDS AND HAZARDOUS MATERIALS. Would the project:				
a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☐	☒
b. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	☐	☒
c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	☒
d. Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☐	☒
e. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	☐	☐	☐	☒
f. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒
g. Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	☐	☐	☐	☒
10. HYDROLOGY AND WATER QUALITY. Would the project:				
a. Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	☐	☐	☐	☒
b. Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	☐	☐	☐	☒

Issues	*Potentially Significant Impact*	*Less Than Significant with Mitigation*	*Less Than Significant Impact*	*Impacts Previously Analyzed in TOP FEIR*
c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:	☐	☐	☐	☒
i. result in substantial erosion or siltation on- or off-site;	☐	☐	☐	☒
ii. substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;	☐	☐	☐	☒
iii. create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	☐	☐	☐	☒
iv. impede or redirect flood flows?	☐	☐	☐	☒
d. In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	☐	☐	☐	☒
e. Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☐	☐	☒
11. LAND USE AND PLANNING. Would the project:				
a. Physically divide an established community?	☐	☐	☐	☒
b. Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☐	☒
12. MINERAL RESOURCES. Would the project:				
a. Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☒
b. Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	☐	☐	☐	☒
13. NOISE. Would the project result in:				
a. Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☐	☐	☒
b. Generation of excessive ground-borne vibration or ground-borne noise levels?	☐	☐	☐	☒
c. For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒

Issues	*Potentially Significant Impact*	*Less Than Significant with Mitigation*	*Less Than Significant Impact*	*Impacts Previously Analyzed in TOP FEIR*
14. POPULATION AND HOUSING. Would the project:				
a. Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of road or other infrastructure)?	☐	☐	☐	☒
b. Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒
15. PUBLIC SERVICES. Would the project:				
a. Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
i. Fire protection?	☐	☐	☐	☒
ii. Police protection?	☐	☐	☐	☒
iii. Schools?	☐	☐	☐	☒
iv. Parks?	☐	☐	☐	☒
v. Other public facilities?	☐	☐	☐	☒
16. RECREATION. Would the project:				
a. Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☐	☒
b. Does the project include recreational facilities or require the construction or expansion of recreational facilities which have an adverse physical effect on the environment?	☐	☐	☐	☒
17. TRANSPORTATION. Would the project:				
a. Conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	☐	☐	☐	☒
b. Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?	☐	☐	☐	☒
c. Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☐	☒
d. Result in inadequate emergency access?	☐	☐	☐	☒

Issues	*Potentially Significant Impact*	*Less Than Significant with Mitigation*	*Less Than Significant Impact*	*Impacts Previously Analyzed in TOP FEIR*
18. TRIBAL CULTURAL RESOURCES. Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is				
a. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k)?	☐	☐	☐	☒
b. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subsection(c) of Public Resources Code section 5024.1. In applying the criteria set forth in subsection (c) of Public Resources Code section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	☐	☐	☐	☒
19. UTILITIES AND SERVICE SYSTEMS. Would the project:				
a. Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	☐	☐	☐	☒
b. Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	☐	☐	☐	☒
c. Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☐	☒
d. Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	☐	☐	☐	☒
e. Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	☐	☐	☐	☒
20. WILDFIRES. If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:				
a. Substantially impair an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒

Issues	*Potentially Significant Impact*	*Less Than Significant with Mitigation*	*Less Than Significant Impact*	*Impacts Previously Analyzed in TOP FEIR*
b. Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	☐	☐	☐	☒
c. Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	☐	☐	☐	☒
d. Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	☐	☐	☐	☒
21. MANDATORY FINDINGS OF SIGNIFICANCE.				
a. Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☐	☐	☒
b. Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current project, and the effects of probable future projects.)	☐	☐	☐	☒
c. Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☐	☒

Note: Authority cited: Public Resources Code sections 21083, 21083.05, 21083.09.

Reference: Gov. Code section 65088.4; Public Resources Code sections 21073, 21074, 21080(c), 21080.1, 21080.3, 21080.3.1, 21080.3.2, 21082.3, 21083, 21083.3, 21083.5, 21084.2, 21084.3, 21093, 21094, 21095 and 21151; *Sundstrom v. County of Mendocino* (1988) 202 Cal.App.3d 296; *Leonoff v. Monterey Board of Supervisors* (1990) 222 Cal.App.3d 1337; *Eureka Citizens for Responsible Govt. v. City of Eureka* (2007) 147 Cal.App.4th 357; *Protect the Historic Amador Waterways v. Amador Water Agency* (2004) 116 Cal.App.4th 1099, 1109; *San Franciscans Upholding the Downtown Plan v. City and County of San Francisco* (2002) 102 Cal.App.4th 656.

EXPLANATION OF ISSUES

1. AESTHETICS. Would the project:

a. Have a substantial adverse effect on a scenic vista?

Discussion of Effects: TOP EIR concludes… "the scale and design of the City under TOP 2050 would not deter views of the San Gabriel Mountains which are the dominant scenic resource in the City of Ontario. Regulations such as the City's Municipal Code and policies *[of TOP]* would ensure that increased development would not impact scenic vistas" (SEIR p. 5.1-5). TOP Policy CD1-5 requires all major north-south streets be designed and redeveloped to feature views of the San Gabriel Mountains.

The project site is located at the northwest corner of Euclid Avenue and Walnut Street just south of the SR-60 Freeway. Surrounding roadways and public areas have views of the mountains to the north. The PUD project proposes 3 and 4-story buildings with the taller buildings along the west side of Euclid to accommodate commercial uses on the ground floors. The residential uses to the south are across Walnut Street from the site so the new buildings would not block public views from this area as well. The future buildings would be consistent in terms of mass and height with what is allowed in TOP and current zoning although they would be controlled by the PUD. The new uses are already allowed under TOP and do not obstruct views of the San Gabriel Mountains from onsite or surrounding north-south streets. No adverse impacts are anticipated in relation to the project.

Therefore, the project will not result in any new, increased or substantially different impacts not previously considered and addressed in TOP EIR. No changes or additions to TOP EIR analyses are necessary.

Mitigation: No project specific mitigation is required.

b. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings and historic buildings within a state scenic highway?

Discussion of Effects: TOP EIR states "…The Euclid Corridor and the Mission Boulevard Corridor are the primary scenic corridors in Ontario. These are not State-designated scenic highways, and Ontario does not have any State scenic highways through or in the vicinity of the City" (SEIR 5.1-6). The City is served by three freeways: I-10, I-15, and SR-60. I-10 and SR-60 traverse the northern and central portion of the City, respectively, in an east–west direction. I-15 traverses the northeastern portion of the City in a north–south direction. The project site is just south of SR-60 and west of the I-15 freeway. These segments of I-10, I-15, and SR-60 have not been officially designated as scenic highways by the California Department of Transportation (Caltrans) or the City.

The project site currently supports commercial buildings of various types and sizes but the largest buildings on the west side of the property (former Kmart) are vacant. The site does not contain any visual or scenic resources or historic buildings. Therefore, it will not damage any scenic resources and not result in any adverse environmental impacts.

The project will not result in any new, increased or substantially different impacts not previously considered and addressed in TOP EIR. No changes or additions to the EIR analyses are necessary.

Mitigation: No project specific mitigation is required.

c. In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?

Discussion of Effects: TOP EIR characterized this area as having existing commercial development and the area contained urban land uses including both residential and commercial development planned on and around the project site. TOP EIR concluded that future development in the City, which includes the mixed uses planned on the PUD project site, would not degrade the existing visual character or quality of the site or its surroundings and no mitigation was required (SEIR p. 5.1-7).

TOP EIR also states:

> …future development under the *[TOP 2050]* would still be required to adhere to the City's Development Code, which includes general development requirements for development density, screening and setback, signing, landscaping, lighting, height limitations, and other aspects related to the aesthetic of the City. Finally…the Development Code is enacted to assist implementation of planning, zoning, development, subdivision, and environmental laws and the TOP and to achieve the proper arrangement of land uses envisioned in TOP. Because it is the overriding planning document for the City, and because it is intended to improve consistency with existing regulations and conditions, the…TOP 2050…would not have a significant impact with respect to being inconsistent with policies or regulations governing scenic quality. (SEIR p. 5-1-7)

The project site is located in a completely urbanized area with developed uses surrounding the site. The PUD project would introduce new buildings onto the site which would have a suburban/urban appearance consistent with newer uses and buildings along the Euclid Avenue corridor to the north. Therefore, the project is consistent with TOP land uses and zoning so it would not degrade the existing visual character or quality of the site or its surroundings.

The proposed project will be required to comply with the policies of the Community Design Element of TOP Policy Plan and zoning designations on the property, as well as the design requirements of the Euclid/Walnut PUD. Therefore, no adverse visual impacts are anticipated, and the project will not result in any new, increased or substantially different impacts not previously considered and addressed in TOP EIR. No changes or additions to TOP EIR analyses are necessary.

Mitigation: No project specific mitigation is required.

d. Create a new source of substantial light or glare that would adversely affect day or nighttime views in the area?

Discussion of Effects: TOP EIR concluded that new development throughout the City would increase ambient light levels over time as development occurred, but that compliance with Development Code lighting requirements would reduce potential impacts to less than significant levels, and no mitigation was required (SEIR p. 6.1-7).

The project proposes the development of several residential and mixed-use buildings on the site, with the mixed uses (retail commercial on the ground floor and residential above) along Euclid Avenue and the residential buildings in the central and western portions of the site.

New development will have architectural and security lighting on buildings and in parking lots, and streets will have new lighting installed or existing street lighting continue in place. Pursuant to the requirements of the Euclid/Walnut PUD and the City's Development Code, onsite lighting will be shielded, diffused or indirect, to avoid glare to onsite users, pedestrians, and motorists. In addition, lighting fixtures will be selected and located to confine the area of illumination to within each building site and minimize light spillage. Site lighting plans will be subject to review by the Planning Department and Police Department prior to issuance of building permits (pursuant to the City's Building Security Ordinance). Therefore, no adverse impacts are anticipated.

The project will not result in any new, increased or substantially different impacts not previously considered and addressed in TOP EIR. No changes or additions to TOP EIR analyses are necessary.

Mitigation: No project specific mitigation is required.

2. AGRICULTURE AND FOREST RESOURCES. In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment (LESA) Model prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:

a. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program (FMMP) of the California Resources Agency, to non-agricultural use?

Discussion of Effects: TOP EIR states that the City is underlain by prime agricultural soils in a number of areas but that the City envisions a natural transition of these lands to suburban and urban uses over time based on market forces and the desires of property owners. The EIR concluded TOP "… would have no direct, indirect, and cumulative impacts relating to conversion of Farmland to non-agricultural use" (SEIR p. 5.2-12). The EIR concluded this because those changes had already been evaluated in the 2010 TOP which represents the baseline condition for the 2050 TOP. TOP EIR did not anticipate these changes to be a significant adverse impact and as a result did not recommend mitigation.

The project site is presently fully developed and does not contain any agricultural uses. Although the general area supported agriculture long ago, the site is identified as Urban and Built-up Land on the map prepared by the California Resources Agency as part of the Farmland Mapping and Monitoring Program (FMMP). Based on the information above, no adverse environmental impacts from the project related to prime farmland are anticipated.

Therefore, the project will have no significant impacts on agricultural resources and no mitigation is required. The project will not result in any new, increased or substantially different impacts other than those previously considered and addressed in TOP EIR. No changes or additions to TOP EIR analyses are necessary.

Mitigation: No project specific mitigation is required.

b. Conflict with existing zoning for agricultural use, or a Williamson Act contract?

Discussion of Effects: TOP EIR indicates that some areas of the City were used for agriculture in the past, including the general project area. However, the City currently has no agricultural land use or zoning designations. Figure 5.2-2 of TOP EIR indicates there are a number of Williamson Act contracts in the City but they are in the southern portion of the City which also is transitioning to suburban land uses. The project area long ago transitioned from agriculture to suburban and urban land uses, and no Williamson Act contracts are active in this area at present. In this regard, no significant impacts were anticipated in TOP EIR and no mitigation was recommended.

The PUD project site is not zoned for agricultural use and the site is designated for mixed residential and commercial uses which are permitted under TOP. Future development will be consistent with the development standards and land uses allowed under TOP and the proposed Euclid/Walnut PUD.

Therefore, no impacts to agricultural uses are anticipated, nor will there be any conflict with Williamson Act contracts. The project will not result in any new, increased or substantially different impacts not previously considered and addressed in TOP EIR. No changes or additions to TOP EIR analyses are necessary.

Mitigation: No project specific mitigation is required.

c. Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g)?

Discussion of Effects: TOP EIR indicated there were no forest resources in the City, so development of planned land uses in the City, including the mixed uses of the PUD project site, would not result in any impacts related to rezoning of forest or timberland to non-forest use.

The PUD project proposes residential and commercial buildings consistent with the mixed-use land use designation in TOP and the Euclid/Walnut PUD. The PUD project would not result in the rezoning of forest land, timberland, or land zoned Timberland Production because such land use designations do not exist within the City.

Therefore, no impacts to forest or timberland are anticipated and the PUD project will not result in any new, increased or substantially different impacts not previously considered and addressed in TOP EIR. No changes or additions to TOP EIR analyses are necessary.

Mitigation: No project specific mitigation is required.

d. Result in the loss of forest land or conversion of forest land to non-forest use?

Discussion of Effects: TOP EIR indicated there were no forest resources in the City, so development of planned land uses, including the mixed uses of the PUD project site, would not result in any impacts related to the conversion of forest land to non-forest use (SEIR p. 5.2-13).

There is currently no land in the City that qualifies as forest land as defined in Public Resources Code section 12220(g), including the project site. Neither TOP nor the City's Zoning Code provide designations for forest land anywhere in the City.

Therefore, the proposed project would not result in the loss or conversion of forest land. The project will not result in any new, increased or substantially different impacts not previously considered and addressed in TOP EIR. No changes or additions to TOP EIR analyses are necessary.

Mitigation: No project specific mitigation is required.

e. Involve other changes in the existing environment, which, due to their location or nature, could individually or cumulatively result in loss of farmland to non-agricultural use or conversion of forest land to non-forest use?

Discussion of Effects: TOP EIR indicated future development would not conflict with agricultural uses and would not result in conversion of farmland to non-agricultural use. It also concluded there is no forest land in Ontario, and therefore the project would not result in conversion of forest land to non-forest use (SEIR p. 5.2-14). TOP envisions a natural transition of these lands to suburban and urban uses over time based on market forces and the desires of property owners. TOP EIR indicated there were no forest resources in the City, so development of planned land uses, including the mixed uses of the PUD project site, would not result in any cumulative impacts related to loss of forest land.

Implementation of the PUD project would not result in changes to the existing environment other than those previously addressed in TOP EIR. While conversion of farmland increases the potential for adjacent areas to also be converted from farmland to urban uses, there are no agricultural uses occurring onsite or in the vicinity and the project will not directly or indirectly result in conversion of farmland. No new cumulative impacts beyond those identified in TOP EIR would result from project implementation. As a result, the project will not result in loss of farmland to non-agricultural use.

Additionally, there is currently no land in the City that qualifies as forest land as defined in Public Resources Code Section 12220(g). Neither TOP nor the City's Zoning Code provide designations for forest land.

Based on available data, the proposed PUD project would not result in changes to the existing environment that would affect forest land. There will be no impacts and no mitigation is required. The project will not result in any new, increased or substantially different impacts not previously considered and addressed in TOP EIR. No changes or additions to TOP EIR analyses are necessary.

Mitigation: No project specific mitigation is required.

3. AIR QUALITY. Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:

a. Conflict with or obstruct implementation of the applicable air quality plan?

Discussion of Effects: The project site was analyzed in the current (2022) and previous (2010) TOP EIR as a mixture of residential and commercial uses, consistent with the surrounding mixture of similar land uses. TOP EIR concluded future land uses, including the proposed project, may conflict with or obstruct implementation of the 2016 Air Quality Management Plan (AQMP) of the South Coast Air Quality Management District (SCAQMD). TOP EIR concluded that future development and the cumulative air pollutant emissions would exceed the SCAQMD daily thresholds. As noted in the previous TOP EIR (Section 5.3) from 2010, pollutant levels in the City already exceeded Federal and State standards at that time. To reduce pollutant levels, the City is actively participating in efforts to enhance air quality by implementing control measures in the AQMP for local jurisdictions within the South Coast Air Basin (SCAB).

TOP EIR in 2022 evaluated the development of a maximum of 369 residential units and approximately 142,840 square feet of non-residential development on the Overlay Planning Area. The PUD project proposes 369 units and approximately 12,000 square feet of non-residential development in Phases 1 and 2, leaving 130,840 square feet of non-residential development to be built in the remainder of the MU-NH area adjacent to the SR-60 Freeway.

The TOP indicates the projected buildout for the entire 16 acres of this sub-area will eventually have a total of 369 dwelling units and 142,840 square feet of non-residential development. Development of the proposed PUD would slightly exceed the total number of residential units for this area under the TOP (369 MF+15 SF=384 total units vs. 369 projected total units). However, development of the PUD would substantially reduce the amount of anticipated non-residential growth in this sub-area (12,000 SF in the PUD plus 28,000 existing = 40,000 SF vs. 142,840 SF). Therefore, development of the "PUD project" would result in a 4% increase in residential impacts but a 28% decrease in commercial impacts. While this Addendum only covers impacts of the new residential and commercial uses currently proposed under the PUD Project, the anticipated impacts of growth in this MU-NH sub-area with the PUD are considered to be equivalent or less than those identified in TOP EIR for this sub-area. The proposed project is therefore generally consistent with TOP land use designations upon which the AQMP is based. Furthermore, the project is consistent with the City's participation in the AQMP and will not conflict with or obstruct implementation of the plan. The project will be required to implement TOP EIR Mitigation Measures AQ 3-1, 3-2, and 3-3 which include fugitive dust control measures pursuant to SCAQMD's Rule 403, use of Tier 3 construction equipment, proper service and maintenance of construction equipment, limiting nonessential idling of construction equipment, use of Super-Compliant volatile organic compounds (VOC) paints for coating and architectural surfaces, providing non-vehicular access options, and calculate and reduce any significant health risks from future development on nearby sensitive receptors (MM 3-1 through 3-3, respectively).

At the request of City staff, a health risk assessment (HRA) was prepared for the project to determine if air pollutant emissions from the nearby freeway would result in any significant impacts to human health including cancer and non-cancer related deaths of project residents. The HRA concluded that freeway emissions would not result in any significant human health risks for project residents. Minimum Efficiency Rating Value (MERV) 13 filters, which are required for the residential buildings by the CalGreen Code, are sufficient to reduce risks below SCAQMD thresholds. (see **Appendix B**).

Therefore, the project will not result in any new, increased or substantially different impacts not previously considered and addressed in TOP EIR. No changes or additions to TOP EIR analyses are necessary.

Mitigation: No project specific mitigation is required but the following measures from TOP EIR are applicable to the proposed project:

AQ 3-1: Prior to discretionary approval by the City of Ontario for development projects subject to CEQA (California Environmental Quality Act) review (i.e., nonexempt projects), project applicants shall prepare and submit a technical assessment evaluating potential project construction-related air quality impacts to the City of Ontario Planning Department for review and approval. The evaluation shall be prepared in conformance with South Coast Air Quality Management District (South Coast AQMD) methodology for assessing air quality impacts. If construction-related criteria air pollutants are determined to have the

potential to exceed the South Coast AQMD–adopted thresholds of significance, the City of Ontario Building Department shall require feasible mitigation measures to reduce air quality emissions. Potential measures shall be incorporated as conditions of approval for a project and may include:

- Require fugitive dust control measures that exceed South Coast Air Quality Management District's Rule 403, such as:
  - Requiring use of nontoxic soil stabilizers to reduce wind erosion.
  - Applying water every four hours to active soil disturbing activities.
  - Tarping and/or maintaining a minimum of 24 inches of freeboard on trucks hauling dirt, sand, soil, or other loose materials.
- Using construction equipment rated by the United States Environmental Protection Agency as having Tier 4 interim or higher exhaust emission limits.
- Ensuring construction equipment is properly serviced and maintained to the manufacturer's standards
- Limiting nonessential idling of construction equipment to no more than five consecutive minutes.
- Using Super-Compliant VOC paints for coating of architectural surfaces whenever possible. A list of Super-Compliant architectural coating manufactures can be found on the South Coast Air Quality Management District's website at: http://www.aqmd.gov/prdas/brochures/SuperCompliant_AIM.pdf. These identified measures shall be incorporated into all appropriate construction documents (e.g., construction management plans) submitted to the City and shall be verified by the City's Planning Department.

AQ 3-2: The City of Ontario shall evaluate new development proposals within the City and require all developments to include access or linkages to alternative modes of transportation, such as transit stops, bike paths, and/or pedestrian paths (e.g., sidewalks).

AQ 3-3: Prior to discretionary approval by the City of Ontario for development projects subject to CEQA (California Environmental Quality Act) review (i.e., nonexempt projects), project applicants shall prepare and submit a technical assessment evaluating potential project operation-phase-related air quality impacts to the City of Ontario Planning Department for review and approval. The evaluation shall be prepared in conformance with South Coast Air Quality Management District (South Coast AQMD) methodology in assessing air quality impacts. If operation-related air pollutants are determined to have the potential to exceed the South Coast AQMD–adopted thresholds of significance, the City of Ontario Planning Department shall require that applicants for new development projects incorporate mitigation measures to reduce air pollutant emissions during operational activities. The identified measures shall be included as part of the conditions of approval. Possible mitigation measures to reduce long-term emissions could include but are not limited to the following:

- For site-specific development that requires refrigerated vehicles, the construction documents shall demonstrate an adequate number of electrical service connections at loading docks for plug-in of the anticipated number of refrigerated trailers to reduce idling time and emissions.
- Applicants for manufacturing and light industrial uses shall consider energy storage and combined heat and power in appropriate applications to optimize renewable energy generation systems and avoid peak energy use.
- Site-specific developments with truck delivery and loading areas and truck parking spaces shall include signage as a reminder to limit idling of vehicles while parked for loading/unloading in accordance with California Air Resources Board Rule 2845 (13 CCR Chapter 10 sec. 2485).
- Provide changing/shower facilities as specified in Section A5.106.4.3 of CALGreen (Nonresidential Voluntary Measures).
- Provide bicycle parking facilities per Section A4.106.9 of CALGreen (Residential Voluntary Measures).
- Provide preferential parking spaces for low-emitting, fuel-efficient, and carpool/van vehicles per Section A5.106.5.1 of CALGreen (Nonresidential Voluntary Measures).
- Provide facilities to support electric charging stations per Section A5.106.5.3 and Section A5.106.8.2 of CALGreen (Nonresidential Voluntary Measures; Residential Voluntary Measures).

- Applicant-provided appliances shall be Energy Star–certified appliances or appliances of equivalent energy efficiency (e.g., dishwashers, refrigerators, clothes washers, and dryers). Installation of Energy Star–certified or equivalent appliances shall be verified by the City during plan check.

b. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?

Discussion of Effects: TOP EIR in 2022 evaluated the development of a maximum of 369 residential units and approximately 142,840 square feet of non-residential development on the Overlay Planning Area. The PUD project proposes 369 units and approximately 12,000 square feet of non-residential development in Phases 1 and 2, leaving 130,840 square feet of non-residential development to be built in the remainder of the MU-NH area adjacent to the SR-60 Freeway. The remainder of the MU-NH area is currently built out with 15 single-family dwellings and approximately 28,000 square feet of commercial uses.

TOP EIR concluded that air pollutant emissions from future development within the City consistent with TOP land uses, including the proposed project, would exceed established SCAQMD thresholds. The proposed PUD project is within the amount of growth planned for the project site under TOP and would make an incremental contribution to the significant air pollutant emissions and impacts identified for TOP.

As outlined in Section 3.a above, development of the "PUD project" would result in a 4% increase in residential impacts but a 28% decrease in commercial impacts from what was analyzed in TOP EIR. While this Addendum only covers impacts of the new residential and commercial uses currently proposed under the PUD Project, the anticipated impacts of growth in this MU-NH sub-area with the addition of the PUD are considered to be generally equivalent or less than those identified in TOP EIR for this sub-area.

Mitigation Measures AQ 3-1, 3-2, and 3-3 as outlined in Section 3.a have already been adopted by the City that would facilitate continued City cooperation with the SCAQMD and Southern California Association of Governments (SCAG) to reduce short-term construction emissions, help promote regional air quality improvement goals and energy conservation design and development techniques, encourage alternative modes of transportation, and implement transportation demand strategies. However, TOP EIR concluded that air pollutant impacts would be significant even with implementation of Mitigation Measures MM AQ 3-1 through 3-3.

The proposed PUD project would implement MM AQ 3-1 through AQ 3-3 and is generally within the limits established for the site in TOP and evaluated in TOP EIR. Therefore, the PUD project itself will not result in a cumulatively considerable net increase of any criteria pollutant for which the region is in non-attainment under an applicable federal or state ambient air quality because the project is consistent with the existing TOP land use designation for the site and the overall air quality impacts of TOP have already been evaluated in TOP EIR and a Statement of Overriding Considerations was prepared and certified along with TOP EIR.

Due to the size of the PUD project site and the amount of development proposed, construction under either Phase 1 or Phase 2 of the PUD, or the combination of both phases, will not exceed the applicable regional significance thresholds and less than significant impacts would occur. No mitigation beyond that identified in TOP EIR is required.

The PUD project will comply with Mitigation Measures AQ 3-1 through 3-3 outlined in TOP FEIR as recommended by the SCAQMD, resulting in project level impacts that are less than significant with mitigation. The project will not result in any new, increased or substantially different impacts not previously considered and addressed in TOP EIR. No changes or additions to TOP EIR analyses are necessary.

Mitigation: Implement Mitigation Measures AQ 3-1 through AQ 3-3 as described in Section 3.a above, otherwise, no project specific mitigation is required.

c. Expose sensitive receptors to substantial pollutant concentrations?

Discussion of Effects: TOP EIR concluded that development and operation of new land uses accommodated under TOP 2050 proposed land use plan could generate new sources of localized criteria air pollutant and Toxic Air Contaminants (TACs) in the City from area/stationary sources and mobile sources.

The Overlay Planning Area was previously analyzed by TOP EIR as a mixture of residential and commercial uses under the MU-MH land use designation. Certain land uses contain persons especially susceptible to air pollutants (children, the elderly, sick persons, etc.). These types of "sensitive" land uses include residences, day care centers, hospitals, etc. and are referred to as sensitive receptors. The SCAQMD recommends that the nearest sensitive receptor be considered when determining the project's potential to cause an individual or cumulatively significant impact. The PUD project does have sensitive receptors west and north of the site. However, the size of the site and anticipated amount of new development is not expected to result in significant short- or long-term air quality impacts to nearby sensitive receptors.

With implementation of TOP EIR Mitigation Measures AQ 3-1 through AQ 3-3, the proposed PUD project would not result in any new impacts beyond those identified in TOP EIR and no project specific mitigation is required for sensitive receptors. The project will not result in any new, increased or substantially different impacts not previously considered and addressed in TOP EIR. No changes or additions to TOP EIR analyses are necessary.

Mitigation: No project specific mitigation is required.

d. Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

Discussion of Effects: TOP EIR concluded TOP would have a less than significant direct, indirect, and cumulative impacts relating to other emissions, such as those leading to odors (SEIR p. 5.3-47). The subject site was previously analyzed by TOP EIR as a mixture of residential and commercial uses which is consistent with the existing land uses surrounding the site. The mixed uses proposed on the project site will not create objectionable odors. Further, the project shall comply with the policies of the Ontario Municipal Code and TOP regarding solid waste storage and disposal which will prevent potential odor impacts. Therefore, no adverse impacts are anticipated.

The project will not result in any new, increased or substantially different impacts not previously considered and addressed in TOP EIR. No changes or additions to TOP EIR analyses are necessary.

Mitigation: No project specific mitigation is required.

4. BIOLOGICAL RESOURCES. Would the project:

a. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?

Discussion of Effects: TOP EIR concluded that "no sensitive plant species have been observed in Ontario, and the only such species that are considered potentially present in the City have a low potential due to lack of suitable habitat. Therefore, implementation of TOP 2050 would not have substantial adverse impacts on sensitive plant species" (SEIR p. 5.4-30). The project site was previously analyzed by TOP EIR as a mixture of residential and commercial uses.

According to TOP EIR, the Overlay Planning Area (including the PUD project site) is located within an area that has been identified as having the potential to contain species identified as a candidate, sensitive, or special status species in local or regional plans, policies or regulations or by the California Department of Fish and Wildlife (CDFW) or U.S. Fish and Wildlife Service (USFWS). These species include: the Delhi Sands flower-loving fly (DSFLF), coast horned lizard, burrowing owl, and various species of nesting birds protected under the Migratory Bird Treaty Act. The proposed project is consistent with TOP land use designation and zoning classification for the site of mixed use (MU) as a Neighborhood Community Hub (NH). The project does have a potential to impact nesting birds by removal of landscaping during redevelopment. However, governmental database information and TOP EIR indicate there is little or no potential for any listed or otherwise sensitive species to be present on the project site. With regulatory compliance (e.g., Migratory Bird Treaty Act, Fish and Game codes), TOP EIR concluded that future development in the City would not have significant impacts on listed or sensitive species and no mitigation was recommended.

The PUD project site is currently developed with several commercial buildings. Due to its developed condition and surrounding urban land uses, the project site does not contain or support any listed or otherwise sensitive species of plants or animals. With regulatory compliance, the PUD project will not result in any new, increased or substantially different impacts not previously considered and addressed in TOP EIR. No changes or additions to TOP EIR analyses are necessary.

Mitigation: No project specific mitigation is required.

b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?

Discussion of Effects: TOP EIR indicated development "of new, previously undeveloped areas of the City even though it would result in an increase in land use intensity. Individual projects undergoing environmental review under CEQA would be required to determine whether there is potential habitat on-site for sensitive species. If sensitive species were found on-site, the project proponent would be required to consult with the CDFW regarding impacts to sensitive species and ensuing mitigation" (SEIR p. 5.4-31). The EIR concluded TOP would have a less than significant direct, indirect, and cumulative impacts relating to riparian habitat or sensitive natural community. In TOP EIR, the Overlay Planning Area, including the PUD project site, was previously analyzed as mixed use. TOP EIR does not identify any natural drainage features in this portion of the City due to its urbanized condition. With regulatory compliance, the EIR did not recommend any specific mitigation for future development relative to jurisdictional features.

Based on a review of aerial photographs, the site is totally developed and does not contain any riparian habitat or other sensitive natural community identified by CDFW or USFWS (GoogleEarth). Therefore, no adverse environmental impacts are anticipated. In addition, the project will not result in any new, increased or substantially different impacts not previously considered and addressed in TOP EIR. No changes or additions to TOP EIR analyses are necessary.

Mitigation: No project specific mitigation is required.

c. Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

Discussion of Effects: TOP EIR did not identify any wetland habitat or resources on the project site or in the immediate surrounding area due to its urban condition. The EIR stated TOP "would have a less than significant direct, indirect, and cumulative impacts relating to state or federally protected wetlands. Accordingly, no changes or alterations to the *TOP [2050]* were required to avoid or substantially lessen any significant environmental impacts under those thresholds" (SEIR p. 5.4-33).

According to aerial photographs, the site is developed and no drainage areas or wetland habitat are present on the project site (GoogleEarth). Therefore, project implementation would have no impact on these resources. In addition, the project will not result in any new, increased or substantially different impacts not previously considered and addressed in TOP EIR. No changes or additions to TOP EIR analyses are necessary.

Mitigation: No project specific mitigation is required.

d. Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

Discussion of Effects: TOP EIR did not identify any drainages or wetland habitat that could support fish on the project site, and the site is not located within an identified wildlife movement corridor due to its physical condition and development of the surrounding area.

TOP EIR found that no regional wildlife movement corridors have been identified in the City, so it did not result in substantial adverse effects to wildlife movement (SEIR p. 5.4-33).

According to aerial photographs, the site is developed with no drainages or native vegetation present (GoogleEarth). As a result, there are no wildlife corridors connecting this site to other areas. The project site and area may support nesting birds but regulatory compliance (e.g., Migratory Bird Treaty Act, Fish

and Game codes) will help assure there will be no impacts to migratory birds. With regulatory compliance, the project will not interfere with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife. The project will not result in any new, increased or substantially different impacts not previously considered and addressed in TOP EIR. No changes or additions to TOP EIR analyses are necessary.

Mitigation: No project specific mitigation is required.

e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

Discussion of Effects: TOP EIR indicates the City includes the Ontario Recovery Unit for the DSFLF with 21.7 square miles mainly in the eastern and southwestern portions of the City (i.e., not on or adjacent to the project site), The EIR concluded TOP would not conflict with the requirements of the DSFLF Ontario Recovery Unit (SEIR p. 5.4-34).

The City does not currently have any specific policies or ordinances protecting biological resources. The City's Development Code requires replacement of trees removed. With implementation of the ODC requirements for tree replacement, and its proposed Landscaping Plan, no adverse environmental impacts are anticipated.

The project will not result in any new, increased or substantially different impacts not previously considered and addressed in TOP EIR. No changes or additions to TOP EIR analyses are necessary.

Mitigation: No project specific mitigation is required.

f. Conflict with the provisions of an adopted Habitat Conservation Plan (HCP), Natural Community Conservation Plan (NCCP), or other approved local, regional, or state habitat conservation plan?

Discussion of Effects: TOP EIR only acknowledges a small portion of the City that contains an HCP for DSFLF but this plan does not apply to the proposed Project, and there are no HCPs or NCCPs to protect biological resources that affect the proposed Project site.

The site is not part of an adopted HCP, NCCP, or other approved habitat conservation plan. As a result, no adverse environmental impacts are anticipated. The project will not result in any new, increased or substantially different impacts not previously considered and addressed in TOP EIR. No changes or additions to TOP EIR analyses are necessary.

Mitigation: No project specific mitigation required.

5. CULTURAL RESOURCES. Would the project:

a. Cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5?

Discussion of Effects: TOP EIR concluded that buildout of TOP could result in significant impacts to historical resources or paleontological resources but Mitigation Measure 5-1 would reduce impacts to less than significant levels (SEIR p. 5.5-23). The project site was previously analyzed by TOP EIR as a mixture of residential and commercial uses.

The PUD project site is developed with a number of commercial buildings the largest of which is vacant. The site does not contain any buildings or structures constructed more than 50 years ago and cannot be considered for eligibility for listing in the California Register of Historic Resources.

The Euclid Avenue (EA) Overlay District was established to recognize, protect, and enhance the visual character and quality of Euclid Avenue as a major scenic and historic resource of the City as well as its position on the National Register of Historic Places. Properties located within the EA require approval of a Certificate of Appropriateness to ensure no adverse impacts to designated historic resources occur as a result of new development and buildings. This PUD includes design criteria within Chapter 5 for site and building design that is consistent with the overall character of Euclid Avenue.

The public right-of-way of Euclid Avenue from Philadelphia Street north to the I-10 Freeway was designated as Local Landmark No. 67 on January 16, 2001 by the Ontario City Council. On August 10, 2005, the public right-of-way of Euclid Avenue from Philadelphia Street in Ontario north to 24th Street in Upland was listed on the National Register of Historic Places as a significant cultural landscape. One contributing character-defining feature of the public right-of way is the 60-foot-wide median separating the north/south bound vehicular lanes of Euclid Avenue. The Euclid/Walnut PUD project does not alter or affect this feature.

Several buildings within the proposed PUD project have frontage on Euclid Avenue. However, the PUD site is 0.4 mile south of the southern boundary (Philadelphia Street) of this Local Landmark/National Register of Historic Places designation. The extended view of the Euclid Avenue corridor, whether viewed northward from the parcels or southward towards the parcels of the PUD, is also visually disrupted within the immediate foreground view as a result of the Pomona Freeway (SR-60), which is elevated above Euclid Avenue. Additionally, the proposed PUD is approximately three miles south of the City's Downtown Historic District. Based upon the City's Historic Preservation records, there are no potential or proposed historic resources within the immediate surrounding area of the parcels within the PUD project. Therefore, the PUD will not alter or affect any designated historical districts or resources in the City.

In addition, the project will not result in any new, increased or substantially different impacts not previously considered and addressed in TOP EIR. No changes or additions to TOP EIR analyses are necessary.

Mitigation: No project specific mitigation is required.

b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?

Discussion of Effects: TOP EIR (Section 5.5) indicates no archeological sites or resources have been recorded in the City with the Archeological Information Center at San Bernardino County Museum. The CRAs prepared for the project site included a pedestrian survey, a record search, a Sacred Lands File (SLF) search, and a review of existing documentation for the project site and surrounding area. The Native American Heritage Commission (NAHC) was contacted for a SLF search as part of TOP EIR preparation which indicated the project site contained no identified archaeological or tribal resources.

The NAHC SLF search also did not indicate any archaeological resources or artifacts associated with Tribal Cultural Resources (TCRs) were located within the project site. The project site has been highly disturbed by modern human activities including agricultural use in the distant past and development for commercial uses more recently. It is likely these activities could have displaced potential surface and subsurface archaeological resources if any were present. Therefore, it is not anticipated the proposed project will impact archaeological or identified TCRs.

While no adverse impacts to archeological resources are anticipated at this site due to its disturbed nature, the project will implement TOP MM CUL 5-2 to ensure that, in the event of unanticipated archeological discoveries, construction activities will not continue or will be moved to other parts of the project site and a qualified archaeologist shall be contacted to determine significance of these resources. If the find is discovered to be historical or unique archaeological resources, as defined in Section 15064.5 of the CEQA Guidelines, avoidance or other appropriate measures shall be implemented. The project will not result in any new, increased or substantially different impacts not previously considered and addressed in TOP EIR. No changes or additions to TOP EIR analyses are necessary.

Mitigation: No project specific mitigation is required. However, the following mitigation measure from TOP EIR is applicable to the project:

CUL 5-2: In areas of documented or inferred archaeological and/or paleontological resource presence, City staff shall require applicants for development permits to provide studies to document the presence/absence of such resources. On properties where resources are identified, such studies shall provide a detailed mitigation plan, including a monitoring program and recovery and/or in situ preservation plan, based on the recommendations of a qualified cultural preservation expert. The mitigation plan shall include the following requirements:

a) Archaeologists and/or paleontologist shall be retained for the project and will be on call during grading and other significant ground-disturbing activities.

b) Should any cultural resources be discovered, no further grading shall occur in the area of the discovery until the Planning Director or designee is satisfied that adequate provisions are in place to protect these resources.

c) Unanticipated discoveries shall be evaluated for significance by a San Bernardino County Certified Professional Archaeologist/Paleontologist. If significance criteria are met, then the project shall be required to perform data recovery, professional identification, radiocarbon dates, and other special studies; submit materials to a museum for permanent curation; and provide a comprehensive final report including catalog with museum numbers.

c. Disturb any human remains, including those interred outside of formal cemeteries?

Discussion of Effects: TOP EIR states there are known Native American gravesites and cemeteries in the City, but none on or adjacent to the project site. Future development and grading of sensitive areas may disturb human remains, including those outside of formal cemeteries (SEIR p. 5.5-20).

The proposed PUD project site is developed and the area has been previously and extensively disturbed by human activity. No known religious or sacred sites exist within the project area. Thus, human remains are not expected to be encountered during any construction activities. However, in the unlikely event that human remains are discovered, existing regulations, including Public Resources Code Section 5097.98, would afford protection for human remains discovered during development activities. Per state law, in the event unanticipated discoveries of human remains are identified during excavation, the area shall not be disturbed until any required investigation is completed by the County Coroner and/or Native American consultation has been completed, if deemed applicable.

The project will not result in any new, increased or substantially different impacts not previously considered and addressed in TOP EIR. No changes or additions to TOP EIR analyses are necessary.

Mitigation: No project specific mitigation is required. However, the PUD project shall implement TOP EIR Mitigation Measure 5-2 as outlined above.

6. ENERGY Would the project:

a. Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?

Discussion of Effects: Energy was analyzed at a programmatic level in TOP EIR based on the 2019 revisions to the CEQA Guidelines. TOP EIR concluded TOP would not result in wasteful, inefficient, or unnecessary consumption of fuel use during construction or result in new or a substantial increase in magnitude of impacts (SEIR p. 5.6-13).

Implementation of the project would increase the demand for electricity and natural gas at the project site and gasoline consumption in the region during construction and operation, as described below:

Electricity

Construction. Temporary electric power would be required for lighting and electronic equipment (e.g., computers) located in trailers used by the construction crew. However, the electricity used for such activities would be temporary and would have a negligible contribution to the project's overall energy consumption.

Operation/Occupancy. The proposed PUD project entails the construction of 369 new apartment units and 12,000 square feet of new commercial uses which are consistent with TOP land use and zoning designations for the property. These commercial and residential buildings will be similar in design and operation to existing and planned uses in the surrounding area and will have similar energy use during operation to existing commercial businesses and apartments in the City. Operation of the PUD project would require electricity for multiple purposes, such as: building heating and cooling, lighting, appliances, and electronics.

The PUD project will be required to comply with the CALGreen Building Code (CBC) commercial and residential requirements in effect at the time of development. Typical CBC requirements that would reduce electricity consumption include but are not limited to enhanced window insulation, cool-roofing, improved efficiency heating, ventilation, and air conditioning (HVAC) systems, enhanced duct insulation, Energy Star commercial appliances, water efficient landscaping and irrigation systems, and water-efficient toilets and

faucets. Although electricity consumption would increase at the site with implementation of the project, the building envelope, HVAC, lighting, and other systems, would be designed to maximize energy performance.

With implementation of these various measures, the electricity that would be consumed by the project is not considered to be inefficient or wasteful, and impacts would be less than significant.

Natural Gas

Construction. Natural gas consumption is not anticipated during construction of the PUD project. Fuels used for construction would generally consist of diesel and gasoline, which are discussed in the next subsection.

Operation/Occupancy. The proposed PUD project is consistent with TOP and zoning designations for the site. Planned commercial and residential uses will be similar in size and appearance to existing and planned uses in the surrounding area and will have similar natural gas use during operation or occupancy. During operation and occupancy, the PUD project would require natural gas consumption for various purposes, such as building heating and cooling.

All future structures developed on the site would be built to the Title 24 CALGreen efficiency requirements in effect at the time of development. These requirements include but are not limited to wall, attic, and window insulation; high efficiency water heaters, and optimized building orientation. Although natural gas consumption would increase at the site under implementation of the project, the building envelope, HVAC, lighting, and other systems, would be designed to maximize energy performance. The project would be subject to statewide mandatory energy requirements as outlined in the CALGreen Code. For these reasons, the natural gas that would be consumed by the project is not considered to be inefficient or wasteful, and impacts would be less than significant.

Diesel and Gasoline Fuel

Construction. Diesel and gasoline fuels, also referred to as petroleum in this subsection, would be consumed throughout construction of the PUD project. Fuel consumed by construction equipment would be the primary energy resource consumed over the course of construction, and vehicle miles traveled (VMT) associated with the transportation of construction materials (e.g., deliveries to the site) and worker trips to and from the site would also result in petroleum consumption. Whereas on-site, heavy-duty construction equipment and delivery trucks would predominantly use diesel fuel, construction workers would generally rely on gasoline-powered vehicles.

The project will be required to comply with the California Air Resources Board (CARB) Airborne Toxic Control Measures, which restrict heavy-duty diesel vehicle idling to five minutes. Since petroleum use during construction would be temporary and required to conduct development activities, it would not be wasteful or inefficient, and impacts would be less than significant.

Operation/Occupancy. Fuel consumption associated with operation of the PUD project's commercial uses and occupancy of the project's residential uses. As regulatory requirements increase (i.e., become more stringent), the amount of petroleum consumed as a result of vehicular trips to and from the project site during operation and occupancy is anticipated to decrease over time.

There are numerous regulations in place that require and encourage fuel efficiency. For example, CARB has adopted an approach to passenger vehicles by combining the control of smog-causing pollutants and GHG emissions into a single, coordinated package of standards. The approach also includes efforts to support and accelerate the number of plug-in hybrids and zero emission vehicles (ZEVs) in California. In addition, CARB adopted a regional goal for the SCAG region of reducing per-capita GHG emissions from 2005 levels by 8% in 2020 and 19% in 2035 for light-duty passenger vehicles. Accordingly, operation of the project is expected to decrease the amount of petroleum it consumes in the future due to improvements in state-wide fuel economy over time. Although the project would increase petroleum use in the region during construction and operation, the use would be a small incremental fraction of the statewide use and due to efficiency increases would diminish over time. As such, petroleum consumption associated with the project would not be considered to be inefficient or wasteful so its energy-related impacts would be less than significant. The project will comply with Title 24 and other applicable state energy conservation regulations as recommended in TOP EIR. In November 2014, the City adopted the most current version of the Community Climate Action Plan (CCAP) which includes energy conservation that results from implementation of the recommended GHG reduction measures. The PUD project will be required to comply with applicable portions of the City's CCAP. Compliance with the CCAP and Title 24 will result in the project not having any new, increased or substantially different impacts not considered and addressed in TOP EIR.

No changes or additions to TOP EIR analyses are necessary.

Mitigation: No project-specific mitigation is required.

b. Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

Discussion of Effects: Energy was analyzed at a programmatic level in TOP EIR based on the 2019 revisions to the CEQA Guidelines. The EIR determined TOP would have a less than significant direct, indirect, and cumulative impacts relating to conflict with or obstruction of a state or local plan for renewable energy or energy efficiency (SEIR p. 5.6-14).

The PUD project would not conflict with or obstruct a state or local plan adopted for the purposes of increasing the amount of renewable energy or energy efficiency. The California Title 24 energy efficiency standards for residential and non-residential buildings address electricity and natural gas efficiency in lighting, water, heating, and air conditioning, as well as the effects of the building envelope (e.g., windows, doors, walls and roofs, etc.) on energy consumption. As described above, the project would be required to comply with the appropriate Title 24 CALGreen standards current at that time. Since each new building will comply with applicable State standards and adhere to the City's CCAP, which includes energy reductions measures, the PUD project would not conflict with nor obstruct a state or local plan for renewable energy or energy efficiency.

This impact would be less than significant and the project will not result in any new, increased or substantially different impacts not previously considered and addressed in TOP EIR. No changes or additions to TOP EIR analyses are necessary.

Mitigation: No project specific mitigation is required.

7. GEOLOGY & SOILS. Would the project:

a. Expose people or structures to potential substantial adverse effects, including the risk of loss, injury or death involving:

i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.

Discussion of Effects: According to TOP EIR, there are no active faults known on the site and the project site is located outside the Fault Rapture Hazard Zone (formerly Alquist-Priolo Zone). TOP EIR (Section 5.7/Figure 5.7-2) identifies eight active or potentially active fault zones near the City. The EIR determined TOP would have a less than significant direct, indirect, and cumulative impacts relating to seismic-related hazards (SEIR p. 5.7-19).

Given that the closest active fault zone is located over ten miles from the PUD project site, fault rupture within the project area is not likely. All development will comply with the CBC seismic design standards to reduce geologic hazard susceptibility. Therefore, no adverse impacts are anticipated.

The PUD project will not result in any new, increased or substantially different impacts not previously considered and addressed in TOP EIR. No changes or additions to TOP EIR analyses are necessary.

Mitigation: No project specific mitigation is required.

ii. Strong seismic ground shaking?

Discussion of Effects: TOP EIR indicates there are no active faults known on the site and the project site is located outside the Fault Rapture Hazard Zone (formerly Alquist-Priolo Zone). TOP EIR (Section 5.7/Figure 5.7-2) identifies eight active or potentially active fault zones near the City. The closest fault zone is located more than eight miles from the Project site.

The proximity of the PUD project site to the active faults will result in ground shaking during moderate to severe seismic events. All construction will comply with the CBC, the Ontario Municipal Code (OMC), TOP and all other ordinances adopted by the City related to construction and safety. Therefore, no adverse impacts are anticipated.

The PUD project will not result in any new, increased or substantially different impacts not previously considered and addressed in TOP EIR. No changes or additions to TOP EIR analyses are necessary.

Mitigation: No project specific mitigation is required.

iii. Seismic-related ground failure, including liquefaction?

Discussion of Effects: As identified in TOP EIR (Section 5.7), groundwater saturation of sediments is required for earthquake induced liquefaction. In general, groundwater depths shallower than 10 feet to the surface can cause the highest liquefaction susceptibility. TOP EIR indicates that depths to groundwater in the project site vicinity during the winter months is estimated to be over 200 feet below ground surface. Therefore, the liquefaction potential within the project area is minimal. Implementation of TOP strategies in the Safety Element regarding seismic building design, the CBC, and the OMC would reduce impacts to a less than significant level.

The PUD project will not result in any new, increased or substantially different impacts not previously considered and addressed in TOP EIR. No changes or additions to TOP EIR analyses are necessary.

Mitigation: No project specific mitigation is required.

iv. Landslides?

Discussion of Effects: TOP EIR did not identify any significant slopes in the City or the project area, so there were no impacts related to landslides and no mitigation is needed.

The project would not expose people or structures to potential adverse effects, including the risk of loss, injury, or death involving landslides because the relatively flat topography of the project site (less than one percent slope) and the chance of a landslide onsite would be remote. The PUD project proposes 369 new apartments and 12,000 square feet of new commercial uses onsite which are consistent with TOP land use and zoning designations.

Therefore, the project will not result in any new, increased or substantially different impacts not previously considered and addressed in TOP EIR. No changes or additions to TOP EIR analyses are necessary.

Mitigation: No project specific mitigation is required.

b. Result in substantial soil erosion or the loss of topsoil?

Discussion of Effects: TOP EIR concluded that TOP policies and state regulations would ensure that potential impacts from erosion or the loss of topsoil would be less than significant (SEIR p. 5.7-20).

The project site will not result in significant soil erosion or loss of topsoil because of the previously disturbed nature of the project site, its current developed condition (i.e., site is covered by mainly impervious surfaces), and implementation of the project-specific Water Quality Management Plan (WQMP)(see Appendix C) for water quality control (including erosion). Grading increases the potential for erosion by removing protective vegetation, changing natural drainage patterns, and constructing slopes. However, compliance with the CBC and review of grading plans by the City Engineer will ensure no significant impacts will occur. In addition, the City requires an erosion/dust control plan for projects located within this area. Implementation of a WQMP and Best Management Practices (BMPs), consistent with the federal water quality permitting requirements of the National Pollution Discharge Elimination Program (NPDES) program, the Environmental Resource Element of TOP Policy Plan strategies, the CBC, and the OMC, would reduce potential impacts to a less than significant level.

The project will not result in any new, increased or substantially different impacts not previously considered and addressed in TOP EIR. No changes or additions to TOP EIR analyses are necessary.

Mitigation: No project specific mitigation is required.

c. Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?

Discussion of Effects: TOP EIR (Section 5.7) indicates that subsidence is generally associated with large decreases or withdrawals of water from an aquifer. The project would use domestic water supplies and would not withdraw water from the existing aquifer. The EIR states that future projects under TOP could

expose structures or persons to potentially significant hazards from lateral spreading, ground subsidence, liquefaction, and compressible soils, However, compliance with the CBC and review of grading plans for individual projects by the City Engineer would ensure no significant impacts would occur (SEIR p. 5.7-21). The City is relatively flat, including the project site, so the risk of landslides is negligible.

The new commercial and residential buildings would not result in the location of development on a geologic unit or soil that is unstable, or that would become unstable because as previously discussed, the potential for liquefaction and landslides associated with the project is less than significant. Further, implementation of TOP strategies, the CBC and the OMC would reduce impacts to a less than significant level. Therefore, the project would not create greater landslide potential impacts than were identified in TOP EIR.

The project will not result in any new, increased or substantially different impacts not previously considered and addressed in TOP EIR. No changes or additions to TOP EIR analyses are necessary.

Mitigation: No project specific mitigation is required.

d. Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?

Discussion of Effects: TOP EIR identified limited soil stability impacts of future development if expansive or other soil constraints were present beneath structures. TOP EIR recommended compliance with the CBC and OMC to assure impacts will be less than significant (SEIR p. 5.7-21).

The majority of Ontario, including the project site, is located on alluvial, and in some areas, aeolian (i.e., sandy) soil deposits. These types of soils are not generally considered to be expansive. In addition, specific soil conditions beneath each proposed building will be verified and addressed by specific foundation design to be confirmed by the City Engineering Department as part of the City's development permitting process. With this regulatory compliance, no adverse impacts will occur.

Through the City's development and design review process, the project will not result in any new, increased or substantially different impacts not previously considered and addressed in TOP EIR. No changes or additions to TOP EIR analyses are necessary.

Mitigation: No project specific mitigation is required.

e. Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?

Discussion of Effects: TOP EIR states that TOP policies and state regulations would ensure that the potential impacts from geology and soils hazards would be less than significant. Wastewater from Ontario is treated at wastewater treatment facilities owned and operated by the Inland Empire Utilities Agency (IEUA). Use of septic tanks would be limited to existing septic tanks, and new septic tanks would be constricted to areas not in practical proximity to existing sewer mains, dependent on approval by the Santa Ana Regional Water Quality Control Board (RWQCB) on a case-by-case basis (SEIR p. 5.7-22).

The PUD project area is served by the local sewer system and the use of alternative systems is not necessary. Future sewer service is based on planned land uses and sizing of pipes and treatment facilities to accommodate planned growth. Since the project is consistent with TOP land use and zoning designations on the site, there will be no significant impacts to the sewage system.

The project will not result in any new, increased or substantially different impacts not previously considered and addressed in TOP EIR. No changes or additions to TOP EIR analyses are necessary.

Mitigation: No project specific mitigation is required.

f. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Discussion of Effects: TOP EIR indicates the City is underlain by deposits of Quaternary and Upper-Pleistocene sediments deposited during the Pliocene and early Pleistocene time, Quaternary Older Alluvial sediments may contain significant, nonrenewable, paleontological resources and are, therefore, considered to have high sensitivity at depths of 10 feet or more below ground surface. In addition, TOP EIR (Section 5.5) indicates that only one paleontological resource has been discovered in the City. The project site has surficial sediments composed of younger Quaternary Alluvium, derived as alluvial fan deposits from the

San Gabriel Mountains to the north or as dune sands. These deposits typically do not contain significant vertebrate fossils, at least in the uppermost layers, but they may be underlain by older sedimentary materials at estimated depths greater than 10 feet which could contain paleontological resources.

Project grading may exceed 10 feet in depth in some areas so the project will implement TOP EIR Mitigation Measure 5-2, which is included in Section 5, Cultural Resources, as this measure addresses paleontological resources. The measure requires that, in the event unanticipated paleontological resources are identified during excavation, construction activities will not continue or will be moved to other parts of the project site and a qualified paleontologist shall be contacted to determine the significance of these resources. If the find is determined to be significant, avoidance or other appropriate resource protection actions will be taken.

The project will not result in any new, increased or substantially different impacts not previously considered and addressed in TOP EIR. No changes or additions to TOP EIR analyses are necessary.

Mitigation: The project will be required to implement TOP EIR Mitigation Measure 5-2. No additional project specific mitigation is required.

8. GREENHOUSE GAS EMISSIONS. Would the project:

a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

Discussion of Effects: TOP EIR determined TOP would have a significant direct, indirect, and cumulative impacts relating to the generation of GHG emissions (SEIR p. 5.7-26). The subject site was previously analyzed by TOP EIR as a mixture of residential and commercial uses (i.e., mixed use). The impact of buildout of the TOP on the environment due to the emission of GHGs was analyzed in the EIR for the Policy Plan of TOP. According to TOP EIR, this impact would be significant and unavoidable and a statement of overriding considerations was adopted for this impact. Developing the site with mixed residential and commercial uses will not create significantly greater impacts than were identified in TOP EIR.

The analysis, methodology, and significance determination (thresholds) are based upon the City's CCAP which includes GHG emission inventories (2008 and 2020 forecasts), a year 2020 emission reduction target, the goals and policies to reach the target, and TOP EIR Addendum prepared for the CCAP. The City will require the PUD project to be consistent and comply with the CCAP. Pursuant to Public Resources Code Section 21083.3, this impact need not be analyzed further because: (1) the proposed project would result in an impact that was previously analyzed in TOP EIR, which was certified by the City; (2) the proposed project would not result in any GHG impacts that were not addressed in TOP EIR; and (3) the proposed PUD project is consistent with TOP. The proposed impacts of the PUD project were already analyzed in TOP EIR and the project will be built to current energy efficient standards. Potential impacts of project implementation will be less than significant and will be supported by compliance with current Title 24 energy efficiency standards of the California Code of Regulations. No changes or additions to TOP EIR analyses are necessary.

The project will not result in any new, increased or substantially different impacts not previously considered and addressed in TOP EIR. No changes or additions to TOP EIR analyses are necessary. Regulatory compliance adequately addresses any GHG impacts and there is no need for any project specific mitigation measures.

Mitigation: No project specific mitigation is required.

b. Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

Discussion of Effects: The EIR determined TOP was consistent with statewide strategies adopted for the purpose of reducing GHG emissions including CARB's Scoping Plan and SCAG's Connect SoCal (SEIR p. 5.8-27). The subject site was previously analyzed by TOP EIR as mixed use (residential and commercial). By implementing TOP EIR Mitigation Measures AQ 3-1 through 3-3 regarding air pollutant emissions, the proposed project is consistent with TOP Goal ER 4 of improving air quality by, among other things, implementation of Policy ER 4-3, regarding the reduction of GHG emissions in accordance with regional, state and federal regulations. In addition, the proposed project is consistent with the policies outlined in Section 5.6.4 of the EIR for TOP, which aims to reduce the City's contribution of GHG emissions at build-out by implementing energy efficient design, energy efficient irrigation systems, electric vehicle charging

stations, and compliance with Title 24 of the California Code of Regulations. The PUD project will be required to comply with the City's CCAP. Therefore, the proposed PUD project does not conflict with an applicable plan, policy or regulation adopted for the purpose of reducing emissions of GHGs.

The PUD project will not result in any new, increased or substantially different impacts not previously considered and addressed in TOP EIR. No changes or additions to TOP EIR analyses are necessary.

Mitigation: Project will implement TOP EIR Mitigation Measures AQ 3-1 through 3-3 but no project specific mitigation is required.

9. HAZARDS & HAZARDOUS MATERIALS. Would the project:

a. Create a significant hazard to the public or the environment through the routine transport, use or disposal of hazardous materials?

Discussion of Effects: TOP EIR determined that implementation of the policies in the Safety Element, in addition to existing regulations, would ensure less than significant impacts from transport, use, and/or disposal of hazardous materials. It further concluded TOP would have less than significant direct, indirect, and cumulative impacts relating to transport, use, and disposal of hazardous materials, release of hazardous materials, and emission and handling of hazardous materials, substances, or waste (SEIR p. 5.9-37).

The subject site was previously analyzed by TOP EIR as a mixture of residential and commercial uses (i.e., mixed use). As a residential and commercial project, the PUD will not involve the transport, use or disposal of hazardous materials during either construction or project implementation based on the land use restrictions for mixed use in TOP. Therefore, no adverse impacts are anticipated. However, in the unlikely event of an accident, implementation of the strategies included in TOP regarding emergency services such as police and fire protection will decrease the potential for health and safety risks from hazardous materials to less than significant levels.

The PUD project will not result in any new, increased or substantially different impacts not previously considered and addressed in TOP EIR. No changes or additions to TOP EIR analyses are necessary.

Mitigation: No project specific mitigation is required.

b. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

Discussion of Effects: TOP EIR concluded that implementation of the policies in the Safety Element, in addition to existing regulations, would ensure that development under TOP would not exacerbate hazards associated with existing hazardous materials sites (SEIR p. 5.9-39).

The subject site was previously analyzed by TOP EIR as mixed use (e.g., residential and commercial uses). Since it is not an industrial use, the proposed PUD project would not involve the use of hazardous materials or volatile fuels. In addition, there are no known stationary commercial or industrial land uses within close proximity to the PUD project site which use or store hazardous materials to the extent that they would pose a significant hazard to visitors/occupants to the subject site. Therefore, upset conditions resulting in the release of hazardous materials are not anticipated.

The project will not result in any new, increased or substantially different impacts not previously considered and addressed in TOP EIR. No changes or additions to TOP FEIR analyses are necessary.

Mitigation: No project specific mitigation is required.

c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances or waste within one-quarter mile of an existing or proposed school?

Discussion of Effects: TOP EIR concluded that several hazardous material facilities were within a quarter mile of various schools in the City and impacts were potentially significant, such that mitigation was recommended. However, the project site is not within a quarter mile of any school sites so there will be no impacts and no mitigation is required relative to TOP EIR analysis.

The PUD involves residential and commercial uses, so it does not involve the use, emissions or handling of hazardous or acutely hazardous materials, substances or waste that would typically be associated with industrial uses. Therefore, no impacts are anticipated. The PUD project will not result in any new, increased or substantially different impacts not previously considered and addressed in TOP EIR. No changes or additions to TOP EIR analyses are necessary.

Mitigation: No project specific mitigation is required.

d. Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?

Discussion of Effects: TOP EIR identified that implementation of the policies in the Safety Element in addition to existing regulations ensured that development of TOP would not exacerbate existing hazards associated with existing hazardous materials sites. The EIR concluded TOP would have a less than significant direct, indirect, and cumulative impacts relating to location on a site which is included on a list of hazard materials. Accordingly, no changes or alterations to the Proposed Project were required to avoid or substantially lessen any significant environmental impacts under those thresholds. (Draft SEIR pg. 5.9-39)

The PUD project site is not listed on the hazardous materials site compiled pursuant to Government Code Section 65962.5. Therefore, the project would not create a hazard to the public or the environment and no impact is anticipated.

The PUD project will not result in any new, increased or substantially different impacts not previously considered and addressed in TOP EIR. No changes or additions to TOP EIR analyses are necessary.

Mitigation: No project specific mitigation is required.

e. For a project located within the safety zone of the airport land use compatibility plan for ONT or Chino Airports, would the project result in a safety hazard for people residing or working in the project area?

Discussion of Effects: Sections 5.9 (Hazards and Hazardous Materials) and 5.11 (Land Use and Planning) of TOP EIR indicated that with proper land-use planning, aircraft safety risks could be reduced, primarily by avoiding incompatible land uses. The FAA and Caltrans Division of Aeronautics provide guidance for land use safety near airports. However, the proposed PUD project is not within the hazard or influence zones of either the Ontario International Airport to the northeast or the Chino Airport to the south. The PUD project will therefore have no impacts relative to airport safety or land use compatibility.

The PUD project will not result in any new, increased or substantially different impacts that were not previously considered and addressed in TOP EIR. No changes or additions to TOP EIR analyses are necessary, and there is no need for any project specific mitigation measures.

Mitigation: No project specific mitigation is required.

f. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

Discussion of Effects: TOP EIR concluded TOP would not interfere with an emergency evacuation plan. According to the Vulnerability Analysis conducted as part of TOP, the threat of flood is the City's greatest hazard as large portions of the City are within the flood zone (i.e., the project site is within the 500-year flood zone). Figure S-10 of TOP indicates that Haven Avenue to the west, Airport Drive to the north, and Jurupa Street to the south are designated evacuation routes in the City. The City's Safety Element, as contained within TOP, includes policies and procedures to be administered in the event of a disaster. TOP seeks interdepartmental and inter-jurisdictional coordination and collaboration to be prepared for, respond to and recover from disasters or emergencies. The EIR concluded TOP would have a less than significant direct, indirect, and cumulative impacts relating to impairment of or interference with adopted emergency response plans or emergency evacuation plans (SEIR p. 5.9-41).

The project will comply with the requirements of the Ontario Fire Department and all City requirements for fire and other emergency access. Because the project is required to comply with all applicable City codes, any impacts would be reduced to less than significant levels.

The project will not result in any new, increased or substantially different impacts not previously considered and addressed in TOP EIR. No changes or additions to TOP EIR analyses are necessary.

Mitigation: No project specific mitigation is required.

g. Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?

Discussion of Effects: TOP EIR indicates the City would result in less than significant risks from wildfire hazards. The City is outside of the state responsibility area, and California Department of Forestry and Fire Protection (CAL FIRE) has determined that the City contains no areas subject to very high wildfire risk. The EIR concluded TOP would have a less than significant direct, indirect, and cumulative impacts relating to wildland fires (SEIR p. 5.9-42). Figure S-04 from TOP indicates the project site is not within any designated wildfire area. Therefore, no impacts are anticipated.

The PUD project is residential and commercial in nature and not industrial so it will not result in any new, increased or substantially different impacts not previously considered and addressed in TOP EIR. No changes or additions to TOP EIR analyses are necessary.

Mitigation: No project specific mitigation is required.

10. HYDROLOGY & WATER QUALITY. Would the project:

a. Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?

Discussion of Effects: TOP EIR concluded there would be less than significant impacts related to water quality from development activities associated with future development under TOP. Nearly the entire City is developed, and implementation of TOP would not substantially alter the amount of developed land in the City. TOP EIR would have a less than significant direct, indirect, and cumulative impacts relating to surface or groundwater quality (SEIR p. 5.10-21).

The PUD project site is already developed and served by City water and sewer service and will not affect water quality standards or waste discharge requirements. Discharge of storm water pollutants from areas of materials storage, vehicle or equipment fueling, vehicle or equipment maintenance could result in a temporary increase in the amount of suspended solids, trash and debris, oil and grease, organic compounds, pesticides, nutrients, heavy metals and bacteria pathogens in surface flows during a concurrent storm event, thus resulting in surface water quality impacts. The site is required to comply with the statewide National Pollutant Discharge Elimination System (NPDES) General Construction Activities Stormwater Permit, the San Bernardino County Area-Wide Urban Runoff Permit (MS4 permit) and the Ontario Municipal Code (OMC) Title 6, Chapter 6 (Stormwater Drainage System). This compliance would reduce any impacts to below a level of significance.

A Preliminary Water Quality Management Plan (PWQMP) is required to be prepared for the PUD project prior to issuance of grading or building permits. The PWQMP will identify how the site will comply with storm water discharge and water quality management requirements of the City and the Regional Water Quality Control Board. The PWQMP includes site design measures that capture runoff and pollutant transport by minimizing impervious surfaces and maximizes low impact development (LID) best management practices (BMPs), such as infiltration, biotreatment and evapotranspiration. The PWQMP would include the use of underground stormwater infiltration systems for both of the PUD project phases of development.

The PUD project will not result in any new, increased or substantially different impacts not previously considered and addressed in TOP EIR. No changes or additions to TOP EIR analyses are necessary.

Mitigation: No project specific mitigation is required.

b. Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?

Discussion of Effects: TOP EIR identified less than significant impacts related to groundwater recharge and supply for TOP. At buildout, TOP is forecast to increase residential units by 25,399 and increase nonresidential square footage by 1,092,508 square feet; future development would increase the amount of impermeable surfaces in the City and reduce the amount of permeable surfaces available for groundwater

recharge. TOP would have a less than significant direct, indirect, and cumulative impacts relating to impediment of sustainable groundwater management of the basin (SEIR p. 5.10-23).

The PUD Project site was previously analyzed by TOP EIR as mixed use (i.e., residential and commercial uses). No increases in the current amount of water flow to the project site are anticipated, and the proposed project will not deplete groundwater supplies, nor will it interfere with recharge. The water use associated with the proposed use of the property was included in TOP EIR analysis. For development of the site, grading and excavation is expected to be less than 25 feet and would not reach a depth that could affect the existing aquifer, estimated to be over 200 feet below the ground surface. No adverse impacts are anticipated.

The PUD project will not result in any new, increased or substantially different impacts not previously considered and addressed in TOP EIR. No changes or additions to TOP EIR analyses are necessary.

Mitigation: No project specific mitigation is required.

c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:

i. Result in substantial erosion or siltation on- or off-site;

Discussion of Effects: TOP EIR concluded that implementation of BMPs outlined in SWPPPs, erosion and sediment control plans, WQMPs, and TOP policies would address anticipated erosion and siltation impacts. Therefore, development would not result in substantial erosion or siltation on- or off-site (SEIR p. 5.10-24).

The site is already developed and the project hydrology report and PWQMP demonstrate that the project will not alter the drainage pattern of the site or area in a manner that would result in erosion, siltation or flooding on-or-off site, nor will the proposed PUD project increase the erosion of the PUD project site or surrounding areas. The existing drainage pattern of the site will not be altered, and it will have no significant impact on downstream hydrology. Stormwater generated by the project will be discharged in compliance with the statewide NPDES General Construction Activities Stormwater Permit and San Bernardino County MS4 permit requirements. With the full implementation of a Storm Water Pollution Prevention Plan (SWPPP) developed in compliance with the General Construction Activities Permit requirements, the BMPs included in the SWPPP, and a stormwater monitoring program, the project's potential impact would be reduced to below a level of significance. No streams or streambeds are present on the site. No changes in erosion off-site are anticipated.

The PUD project will not result in any new, increased or substantially different impacts not previously considered and addressed in TOP EIR. No changes or additions to TOP EIR analyses are necessary.

Mitigation: No project specific mitigation is required.

ii. Substantially increase the rate or amount of surface runoff water in a manner which would result in flooding on- or off-site;

Discussion of Effects: TOP EIR states that the current Flood Insurance Rate Map (FIRM) for the City only shows small portions of the City adjacent to flood control channels, detention basins, and creeks are within the 100-year floodplain. In addition to TOP policies, the OMC, Chapter 13, Flood Damage Prevention Program, requires that a development permit be obtained prior to development in a special flood hazard area to ensure that the site is reasonably safe from flooding and flood hazards. The City requires that all new structures in a special flood hazard area have elevations above the base flood elevation. Therefore, with implementation of existing policies, the potential to impede or redirect flood flows was considered less than significant (SEIR p. 5.10-25).

The project hydrology report concludes the proposed PUD project will not increase the flow velocity or volume of storm water runoff to cause environmental harm from the site and will not create a burden on existing infrastructure. Furthermore, with the implementation of an approved PWQMP developed for the site, in compliance with the San Bernardino County MS4 Permit requirements, stormwater runoff volume shall be reduced to below a level of significance.

The PUD project will not result in any new, increased or substantially different impacts not previously considered and addressed in TOP EIR. No changes or additions to TOP EIR analyses are necessary.

Mitigation: No project specific mitigation is required.

iii. Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff;

Discussion of Effects: TOP EIR indicates there are three major regional drainage channels that convey stormwater runoff from the City's storm drain system—San Antonio Channel, Cucamonga Channel, and Day Creek Channel. There are also several flood retention facilities and spreading basins in the City that are used to retain flood flows and recharge the Chino Groundwater Basin. Projects considered for approval under TOP would be required to prepare project-specific hydrology and hydraulic studies. The methodology for these studies is provided in the San Bernardino County Hydrology Manual, which describes the approach for estimating stormwater runoff and peak flow rates, for the 100-year storm event (SEIR 5.10-26). In addition, TOP EIR stated TOP would have a less than significant direct, indirect, and cumulative impacts relating to risk of release of pollutants due to project inundation (SEIR p. 5.10-27).

The site is already developed and the PUD project simply reconstructs the site with new residential and commercial land uses. The site is expected to have approximately 85% impervious surfaces (buildings, roofs, parking, sidewalks).

Pursuant to the requirements of TOP, the City's Development Code, and the San Bernardino County MS4 Permit, individual developments must provide site drainage and PWQMP plans according to guidelines established by the City's Engineering Department. The City's development review process requires a project-specific hydro report and a PWQMP to demonstrate that a new development will not have any significant drainage or water quality-related impacts. The PUD project will be required to have an approved hydro report and PWQMP prior to the issuance of a grading or building permit.

With this regulatory compliance, the PUD project will not increase offsite runoff or change the overall direction of runoff from the site.

The PUD project will not result in any new, increased or substantially different impacts not previously considered and addressed in TOP EIR. No changes or additions to TOP EIR analyses are necessary.

Mitigation: No project specific mitigation is required.

iv. Impede or redirect flood flows?

Discussion of Effects: TOP EIR states that the current FIRM for the City only shows small portions of the City adjacent to flood control channels, detention basins, and creeks that are within the 100-year floodplain. In addition to TOP policies, the OMC, Chapter 13, Flood Damage Prevention Program, requires that a development permit be obtained prior to development in a special flood hazard area to ensure that the site is reasonably safe from flooding and flood hazards. However, Figure S-03 of TOP indicates most of the project site is not within the 500-year or 100-year flood plains, so there will be no flooding impacts relative to the 100-year flood zone. Impacts will be less than significant.

Urbanization in the areas surrounding the project site have resulted in increased responsiveness of the basin to rainfall. The increase in impervious surfaces such as roofs, roads, and parking lots has resulted in a decrease in groundwater infiltration and larger storm surges. The project site currently slopes gently to the southwest and the existing drainage pattern is characterized by sheet flow in that direction.

The PUD project site is not impacted by offsite flows and is not located in a Federal Emergency Management Agency (FEMA) Federal Insurance Rate Map (FIRM) Panel designated Flood Zone Risk, and according to the USFWS National Wetlands Inventory (NWI) no wetlands or other ponding features exist on the property. The project will lead to the conversion of permeable surfaces to impermeable surfaces such as parking areas, building roofs, and building foundation areas. The project site would discharge onsite flows into a combination of onsite infiltrations basins and existing storm drain facilities. As such, the PUD proposed project would not impede or redirect flood flows. With adherence to existing federal, state, and local regulation, no changes to the existing flood flows would occur.

The PUD project will not result in any new, increased or substantially different impacts not previously considered and addressed in TOP EIR. No changes or additions to TOP EIR analyses are necessary.

Mitigation: No project specific mitigation is required.

d. In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?

Discussion of Effects: Figure S-04 of TOP indicates the project site is not within the inundation zones of either the San Antonio Dam to the northwest or overflow of debris basins to the north. Due to its location and surrounding conditions, TOP EIR identified less than significant impacts related to flood hazards, tsunamis, seiches, or dam inundation (SEIR p. 5.10-27).

Impacts associated with flooding are primarily related to the construction or placement of structures in areas prone to flooding including within an unprotected 100-year flood zone, and in areas susceptible to high tides, tsunamis, seiches, mudflows or sea level rise. Specifically, structures placed in flood prone areas, if flooded, would be damaged, and could subject people to injury or death. The National Flood Insurance Act of 1968 requires the identification of floodplain areas and establishment of flood-risk zones within those areas. FEMA administers the programs and coordinates with communities to establish effective floodplain management standards. According to FEMA, the project site is not located in a known floodplain as shown in Figure S-04 of TOP. The project site is located within a flood hazard area identified as “Zone X”, which is defined as an area of minimal flood hazard. The project site is not located within a 100-year or 500-year flood hazard zone. Furthermore, this area is not known to flood and is not typically subjected to flooding. The project site is developed and does not contain any vegetation associated with riparian features. No wetlands have been mapped on the project site according to the National Wetlands Inventory (NWI).

According to the FEMA, the project is not located in an area that is subject to flood hazard, tsunami, or seiche zones. The project site is located over 55 miles northeast of the Pacific Ocean and is not located in a mapped tsunami zone. Therefore, the PUD project would not have a significant risk of flood hazard, tsunami, seiche zones, release of pollutants due to project inundation.

The PUD project will not result in any new, increased or substantially different impacts not previously considered and addressed in TOP EIR. No changes or additions to TOP EIR analyses are necessary.

Mitigation: No project specific mitigation is required.

e. Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

Discussion of Effects: TOP EIR identified less than significant impacts related to water quality or groundwater issues. The City’s groundwater supplies are from the Chino Groundwater Basin, which is adjudicated and managed by the Chino Basin Watermaster. The Chino Basin is exempt from legislative requirements under the Sustainable Groundwater Management Act because it is an adjudicated basin and is not required to prepare a groundwater sustainability plan. TOP EIR concluded TOP would have less than significant direct, indirect, and cumulative impacts relating to a conflict with or obstruction of a water quality control plan or sustainable groundwater management plan (SEIR p. 5-10-27).

The Regional Water Quality Control Board's Basin Plan is designed to preserve and enhance water quality and protect the beneficial uses of all regional waters. Specifically, the Basin Plan (i) designates beneficial uses for surface and ground waters, (ii) sets narrative and numerical objectives that must be attained or maintained to protect the designated beneficial uses and conform to the state's anti-degradation policy, and (iii) describes implementation programs to protect all waters in the region. The project would be required to adhere to requirements of the water quality control plan, including all existing regulation and permitting requirements. This would include the incorporation of BMPs to protect water quality during construction and operational periods. The PUD project would be subject to all existing water quality regulations and programs, including all applicable construction permits. Existing TOP policies related to water quality would also be applicable to the project. Implementation of these policies, in conjunction with compliance with existing regulatory programs, would ensure that water quality impacts related to the project would be less than significant.

The PUD project will not result in any new, increased or substantially different impacts not previously considered and addressed in TOP EIR. No changes or additions to TOP EIR analyses are necessary.

Mitigation: No project specific mitigation is required.

11. LAND USE & PLANNING. Would the project:

a. Physically divide an established community?

Discussion of Effects: TOP EIR concluded TOP policies would prevent conflicting land uses and would not divide any established communities. TOP would have less than significant direct, indirect, and cumulative impacts relating to physical division of an established community (SEIR p. 5.11-2).

The project site is developed with commercial buildings but the largest one is currently vacant. Development of the PUD project will allow local residents to again circulate on and around the site in a safe and efficient manner. It will in fact reconnect the existing surrounding neighborhoods by improving the site and having regular ongoing commercial activities along with the residential uses. The project buildings will also be of compatible in size and design with surrounding development. No adverse impacts are anticipated.

The PUD project will not result in any new, increased or substantially different impacts not previously considered and addressed in TOP EIR. No changes or additions to TOP FEIR analyses are necessary.

Mitigation: No project specific mitigation is required.

b. Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?

Discussion of Effects: TOP EIR found that buildout of TOP would not conflict with applicable plans adopted for the purpose of avoiding or mitigating an environmental effect, including SCAG regional plans and policies and the land use compatibility plans for the Ontario International Airport (OIA) and the Chino Airport. The project site is just east of the OIA and within its safety and noise impact zones (SEIR p. 5.11-6).

TOP EIR in 2022 evaluated the development of a maximum of 369 residential units and approximately 142,840 square feet of non-residential development on the Overlay Planning Area (including the PUD project site). The PUD project proposes 369 units and approximately 12,000 square feet of non-residential development in Phases 1 and 2, leaving 130,840 square feet of non-residential development to be built in the remainder of the MU-NH area adjacent to the SR-60 Freeway. Development of the proposed PUD would slightly exceed the total number of residential units for this area under the TOP (369 proposed MF units+15 existing SF units = 384 total units vs. 369 TOP projected total units). However, development of the PUD would substantially reduce the amount of anticipated non-residential growth in this sub-area (12,000 SF in the PUD plus 28,000 existing = 40,000 SF vs. 142,840 SF). Therefore, development of the "PUD project" would result in a 4% increase in residential impacts but a 28% decrease in commercial impacts. While this Addendum only covers impacts of the new residential and commercial uses currently proposed under the PUD Project described below, the preceding analysis demonstrates the anticipated impacts of growth in this MU-NH sub-area with the PUD are considered to be equivalent or less than those identified in TOP EIR for this sub-area. Therefore, the proposed PUD project is generally consistent with the MU land use designation and level of growth estimated for the site under the 2022 TOP and the TOP EIR. TOP 2050 has three components: the Vision; a Governance Manual; and the Policy Plan (General Plan).

The Ontario Vision – the central theme adopted by the City Council that motivates the Vision is "A sustained, community-wide prosperity which continuously adds value and yields benefits." Value is comprehensive in this regard and is expressed in land, revenues, infrastructure, businesses, education, employment, health, community services, recreation, etc. In particular, Ontario is committed to being "A Premier Community by Design." One of the foundations to accomplish this is described in the Vision as ensuring that development is "distinctive." The Euclid/Walnut PUD helps the City in realizing specific "Points of Vision" as outlined for "Distinctive Development" as follows:

- A system of vibrant retail, town, and neighborhood centers responsive to market demands and woven into the fabric of the community.
- A demonstrated ability to attract housing in pursuit of our acknowledged responsibility to balance housing with the job growth that drives our quality of life.
- Superior quality and design of the built environment and open spaces through careful attention to

detail at every scale, including public and private spaces and structures.

The Governance Manual – the purpose of the Manual is to institutionalize Ontario's approach to governance and to provide a "business plan" for the City. Ontario believes that the job of the City is to create, maintain and grow economic value. The overall purpose of the Manual is to guide the City's leadership and to ensure that TOP 2050 is integrated into the City's daily operations and provide for effective administration. The Euclid/Walnut PUD is established in conformance with the City's requirements and includes an administrative section consistent with provisions contained in the Development Code for consideration of "Development Plans."

The Policy Plan (General Plan) – The Land Use Element designates the subject parcels within the Euclid/Walnut PUD as "MU - Mixed Use." Generally, these properties are developed with an intense mixture of uses that, when concentrated, create focal points for community activity and identify and facilitate walking, biking, and the use of transit. The MU – Mixed Use land use category accommodates a horizontal and/or vertical mixture of retail, service, office, restaurant, entertainment, cultural and residential uses. The densities and intensities of the MU – Mixed Use designation represent the intended level of anticipated development; however, individual projects may vary depending upon an approved master plan, such as a specific plan, or planned unit development.

Implementation of the PUD project will achieve many City goals and policies outlined in The Policy Plan (General Plan). Those specific goals and polices are evaluated in Table 4.

Table 4: TOP Consistency Analysis

TOP Element, Goals, and Policies	Consistency Analysis
Land Use Element	
Goal LU-1 Balance. A community that has a spectrum of housing types and price ranges that match the jobs in the City and that make it possible for people to live and work in Ontario and maintain a quality of life.	**Consistent.** The PUD project provides both apartment units and commercial employment to allow people to live and work in the City.
Policy LU-1.1 Strategic Growth. We concentrate growth in strategic locations that help create place and identity, maximize available and planned infrastructure, foster the development of transit, and support the expansion of the active and multimodal transportation networks throughout the City.	**Consistent.** The PUD project site has underutilized commercial uses and will be redeveloped with both housing and retail uses. It is adjacent to Euclid Ave. and SR-60 which facilitates transit.
Policy LU-1.6 Complete Community. We incorporate a variety of land uses and building types in our land use planning efforts that result in a complete community where residents at all stages of life, employers, workers, and visitors have a wide spectrum of choices of where they can live, work, shop and recreate within Ontario.	**Consistent.** The PUD project provides both apartment units and commercial employment to allow people to live and work in the City which is one aspect of a complete community.
Goal LU-2 Compatibility. Compatibility between a wide range of uses and resultant urban patterns and forms.	**Consistent.** The PUD provides compatibility for residential uses to the west and south, commercial uses to the east, and mixed uses to the north.
Policy LU-2.1 Land Use Decisions. We minimize adverse impacts on adjacent properties when considering land use and zoning requests.	
Policy LU-2.2 Buffers. We require new uses to provide mitigation or buffers between existing uses where potential adverse impacts could occur. Additional mitigation is required when new uses could negatively impact environmental justice areas.	**Consistent.** The PUD project has a comprehensive wall and fence plan plus a landscaping plan to provide adequate buffers from adjacent land uses.
Goal LU-4 Phased Growth. Development that provides short-term value only when the opportunity to achieve our Vision can be preserved.	**Consistent.** The PUD project divides the commercial development into two phases with most of the apartment units being built in Phase 1.

Table 4: TOP Consistency Analysis	
TOP Element, Goals, and Policies	**Consistency Analysis**
Policy LU-4.2 Interim Development. We allow development in urban, mixed use, and transit-oriented Place Types that is not immediately reflective of our ultimate Vision for the Place Type, provided it can be modified or replaced when circumstances are right to support development aligned with the Place Type Vision. We will not allow development that impedes, precludes, or compromises our ability to achieve our Vision.	**Consistent.** The PUD project divides the commercial development into two phases with most of the apartment units being built in Phase 1.
Policy LU-4.3 Infrastructure Timing. We require that the necessary infrastructure and services be in place prior to or concurrently with development.	**Consistent.** The PUD requires necessary utility and infrastructure to be installed prior to or during development of new land uses to minimize impacts on existing systems.
Policy LU-4.4 Shared Infrastructure. We encourage and facilitate the use of shared infrastructure (including shared or managed parking) in urban, mixed use, and transit-oriented Place Types.	**Consistent.** The PUD project shares parking between the residential and commercial uses to maximize convenience for residents and customers.
Housing Element	
Goal H-2 Housing Supply & Diversity. Diversity of types of quality housing that are affordable to a range of household income levels, accommodate changing demographics, and support and reinforce the economic sustainability of Ontario.	**Consistent.** The PUD project provides both apartment units and commercial employment to allow people to live and work in the City.
Policy H-2.1 Corridor Housing. We revitalize transportation corridors by encouraging the production of higher density residential and mixed-uses that are architecturally, functionally, and aesthetically suited to corridors.	**Consistent.** The PUD project is within the Euclid Avenue corridor and proposes higher density apartment units consistent with TOP guidelines.
Policy H-2.5 Housing Design. We require architectural excellence through adherence to City design guidelines, thoughtful site planning, environmentally sustainable practices, and other best practices.	**Consistent.** The PUD emphasizes high quality design and best practices consistent with Euclid Avenue corridor design standards.
Policy H-2.6 Infill Development. We support the revitalization of neighborhoods through the construction of higher-density residential developments on underutilized residential and commercial sites.	**Consistent.** The PUD project site has underutilized commercial uses and will be redeveloped with both housing and retail uses consistent with the Euclid Avenue Overlay requirements.
Goal H-3 Governmental Regulations. A City regulatory environment that balances the need for creativity and excellence in residential design, flexibility and predictability in the project approval process, and the provision of an adequate supply and prices of housing.	**Consistent.** The project includes a PUD to emphasize high quality design while providing 369 new apartment units adjacent to Euclid Avenue and SR-60 for transit options.
Policy H-3.2 Flexible Standards. We allow flexibility in the application of residential and mixed-use development standards in order to gain benefits such as exceptional design quality, economic advantages, sustainability, or other benefits that would otherwise be unrealized.	**Consistent.** The project includes a PUD to best plan for mixed uses on the site (i.e., residential and commercial) within the Euclid Avenue corridor.
Environmental Resources Element	
Goal ER-1 Water & Wastewater. A reliable and cost-effective system that permits the City to manage its diverse water resources and needs.	**Consistent.** The PUD project will redevelop an existing underutilized commercial site using existing utilities.
Policy ER-1.4 Supply-Demand Balance. We require that available water supply and demands be balanced.	**Consistent.** The PUD project will utilize water conservation design and demand will be similar to that accounted for in TOP

Table 4: TOP Consistency Analysis	
TOP Element, Goals, and Policies	**Consistency Analysis**
	EIR. PUD will reuse an existing underutilized infill site.
Policy ER-1.6 Urban Run-off Quantity. We encourage the use of low impact development strategies, including green infrastructure, to intercept run-off, slow the discharge rate, increase infiltration, and ultimately reduce discharge volumes to traditional storm drain systems.	**Consistent.** The PUD will encourage low impact development through best management practices (BMPs) for runoff and water conservation as part of its Water Quality Management Plan.
Policy ER-1.7 Urban Run-off Quality. We require the control and management of urban run-off, consistent with Regional Water Quality Control Board regulations.	
Policy ER-1.8 Wastewater Management. We require the management of wastewater discharge and collection consistent with waste discharge requirements adopted by the Regional Water Quality Control Board.	**Consistent.** The PUD will encourage low impact development through BMPs for water conservation which helps reduce wastewater generation.
Goal ER-3 Energy. Cost-effective and reliable energy system sustained through a combination of low impact buildings, site and neighborhood energy conservation, and diverse sources of energy generation that collectively helps to minimize the region's carbon footprint.	**Consistent.** The PUD will encourage low impact development through energy conservation strategies as outlined in the City's TOP and Community Climate Action Plan (CCAP).
Policy ER-3.3 Building and Site Design. We require new construction to incorporate energy efficient building and site design strategies, which could include appropriate solar orientation, maximum use of natural daylight, passive solar, and natural ventilation.	
Goal ER-4 Air Quality. Improved indoor and outdoor air quality and reduced locally generated pollutant emissions.	**Consistent.** The PUD project will implement the latest Green Building Code guidelines which reduces energy use and related air pollutants. It has both residential and commercial uses and it is next to Euclid Ave. and SR-60 which are transit corridors – both conditions will help reduce vehicular traffic and associated air pollutant and GHG emissions.
Policy ER-4.1 Land Use. We reduce GHG and other local pollutant emissions through compact, mixed use, and transit-oriented development and development that improves the regional jobs-housing balance.	
Community Economics Element	
Goal CE-1 Complete Community. A complete community that provides for all incomes and stages of life.	**Consistent.** The PUD project provides apartment units of various sizes and commercial uses/employment to allow people to live and work in the City at various stages of life.
Policy CE-1.6 Diversity of Housing. We collaborate with residents, housing providers, and the development community to provide housing opportunities for every stage of life; we plan for a variety of housing types and price points to encourage the development of housing supportive of our efforts to attract business in growing sectors of the community while being respectful of existing viable uses.	
Policy CE-1.7 Retail Goods and Services. We seek to ensure a mix of retail businesses that provide the full continuum of goods and services for the community.	**Consistent.** The PUD project provides space for various kinds of commercial uses and employment.
Goal CE-2 Placemaking. A City of distinctive neighborhoods, districts, corridors, and centers where people choose to be.	**Consistent.** The PUD project is intended to provide a high-quality community hub for the surrounding neighborhoods along the Euclid Avenue corridor.
Policy CE-2.1 Development Projects. We require new development and redevelopment to create unique, high-quality places that add value to the community.	

Table 4: TOP Consistency Analysis	
TOP Element, Goals, and Policies	**Consistency Analysis**
Policy CE-2.2 Development Review. We require those proposing new development and redevelopment to demonstrate how their projects will create appropriately unique, functional, and sustainable places that will compete well with their competition within the region.	**Consistent.** The PUD demonstrates how the project will provide a high-quality community hub for the surrounding neighborhoods along the Euclid Avenue corridor.
Safety Element	
Goal S-1 Seismic & Geologic Hazards. Minimized risk of injury, loss of life, property damage, and economic and social disruption caused by earthquake-induced and other geologic hazards.	**Consistent.** This TOP EIR Addendum demonstrates how the PUD project will not have significant seismic or geologic risks for future residents and workers.
Policy S-1.1 Implementation of Regulations and Standards. We require that all new habitable structures be designed in accordance with the most recent California Building Code adopted by the City, including provisions regarding lateral forces and grading.	**Consistent.** This TOP EIR Addendum demonstrates how the PUD requires CBC and OMC compliance which will minimize seismic and geologic risks for future residents and workers.
Policy S-1.2 Entitlement and Permitting Process. We follow state guidelines and the California Building Code to determine when development proposals must conduct geotechnical and geological investigations.	**Consistent.** TOP EIR already included these investigations and PUD project will provide a confirmatory project-specific analysis prior to the issuance of permits.
Goal S-2 Flood Hazards. Minimized risk of injury, loss of life, property damage and economic and social disruption caused by flooding and inundation hazards.	**Consistent.** This TOP EIR Addendum, and supporting technical reports, demonstrate how the PUD is not in a flood zone which will minimize flood risks for future residents and workers.
Policy S-2.5 Stormwater Management. We maintain the storm drain system to convey a 100-year storm, when feasible, and encourage environmental site design practices to minimize flooding and increase groundwater recharge, including natural drainage, green infrastructure, and permeable ground surfaces.	**Consistent.** TOP EIR already included these investigations and the PUD project will have a hydrology report and WQMP to confirm it will not increase offsite runoff and be a low impact development. Consistent with TOP.
Goal S-3 Fire & Rescue Hazards. Reduced risk of death, injury, property damage and economic loss due to fires, accidents and normal everyday occurrences through prompt and capable emergency response.	**Consistent.** The PUD project reutilizes an existing commercial property in a fully developed portion of the City which already has adequate services available.
Policy S-3.1 Prevention Services. We proactively mitigate or reduce the negative effects of fire, hazardous materials release, and structural collapse by implementing the regularly adopted California Fire Code and California Building Code.	**Consistent.** The City's development review process requires compliance with the CFC and CBC prior to the issuance of building permits.
Policy S-3.8 Fire Prevention through Environmental Design. We require new development to incorporate fire prevention consideration in the design of streetscapes, sites, open spaces, and buildings.	**Consistent.** The PUD demonstrates the project has a number of buildings with landscaping and open space that will provide adequate fire safety.
Goal S-4 Noise Hazards. An environment where noise does not adversely affect the public's health, safety, and welfare.	**Consistent.** TOP EIR already included these investigations and required subsequent site-specific interior noise studies to confirm TOP EIR conclusion. PUD will provide the required study prior to issuance of building permits to demonstrate noise along Euclid Avenue will not impact residents.
Policy S-4.1 Noise Mitigation. We utilize the City's Noise Ordinance, building codes, and subdivision and	**Consistent.** The City's development review process requires compliance with

Table 4: TOP Consistency Analysis	
TOP Element, Goals, and Policies	**Consistency Analysis**
development codes to mitigate noise impacts.	the CBC and City Noise Ordinance to minimize noise impacts along the Euclid Avenue corridor.
Goal S-5 Wind-Related Hazards. Minimize the risk of injury, property damage, and economic loss resulting from windstorms and wind-related hazards.	**Consistent.** The PUD project will implement CBC requirements regarding wind design for new buildings.
Policy S-5.1 Dust Control Measures. We require the implementation of Best Management Practices for dust control at all excavation and grading projects.	**Consistent.** The PUD project will implement TOP EIR Mitigation Measures AQ 3-1 through 3-3 which includes dust control measures.
Goal S-7 Law Enforcement. Residential neighborhoods, commercial areas, and industrial districts that are kept safe through a multi-faceted approach of prevention, suppression, and community involvement in public safety.	**Consistent.** The City's development review process includes an evaluation by the Police Department regarding defensible space, crime prevention, and police patrol services (i.e., CPTED).
Policy S-7.4 Crime Prevention through Environmental Design (CPTED). We require new development to incorporate CPTED in the design of streetscapes, sites, open spaces, and buildings.	
Community Design Element	
Goal CD-1 Image & Identity. A dynamic, progressive city containing distinct and complete places that foster a positive sense of identity and belonging among residents, visitors, and businesses.	**Consistent.** The PUD project provides both apartment units and commercial employment to allow people to live and work in the City which enhances the feeling of community.
Policy CD-1.2 Place Types. We establish Place Types in urban, mixed use, and transit-oriented areas to foster the City's identity as a premier community and require new development within each Place Type to incorporate prescribed urban patterns, forms, and placemaking priorities.	**Consistent.** This mixed-use project is intended to provide an attractive, high quality community hub for the surrounding neighborhoods along the Euclid Avenue corridor which is demonstrated by the PUD document.
Goal CD-2 Design Quality. A high level of design quality resulting in neighborhoods, commercial areas, public spaces, parks, and streetscapes that are attractive, safe, functional, human- scale, and distinct.	
Policy CD-2.1 Quality Building Design and Architecture. We encourage all development projects to convey visual interest and character through: 1. Building volume, massing, and height to provide context-appropriate scale and proportion; 2. A true architectural style which is carried out in plan, section, and elevation through all aspects of the building and site design and appropriate for its setting; and 3. Exterior building materials that are articulated, high quality, durable, and appropriate for the architectural style.	
Policy CD-2.4 Urban, Mixed Use, and Transit-oriented Areas. We establish Place Types to require mixed use, urban, and transit-oriented areas to be designed and developed as pedestrian oriented areas that are integrated with adjacent neighborhoods and promote a vibrant, comfortable, and functional environment, as	

Table 4: TOP Consistency Analysis	
TOP Element, Goals, and Policies	**Consistency Analysis**
defined for each Place Type.	
Policy CD-2.7 Sustainability. We collaborate with the development community to design and build neighborhoods, streetscapes, sites, outdoor spaces, landscaping, and buildings to reduce energy demand through solar orientation, maximum use of natural daylight, passive solar and natural ventilation, building form, mechanical and structural systems, building materials, and construction techniques.	**Consistent.** The PUD will encourage low impact development through energy conservation strategies as outlined in the City's TOP and Community Climate Action Plan (CCAP).
Policy CD-2.8 Safe Design. We incorporate defensible space design into new and existing developments to ensure the maximum safe travel and visibility on pathways, corridors, and open space and at building entrances and parking areas by avoiding physically and visually isolated spaces, maintaining visibility and accessibility, and using lighting.	**Consistent.** The City's development review process includes an evaluation by the Police Department regarding defensible space, crime prevention, and police patrol services (i.e., CPTED). The PUD outlines how the project will provide or foster these conditions.
Policy CD-2.9 Landscape Design. We encourage durable, sustainable, and drought-tolerant landscaping materials and designs that enhance the aesthetics of structures, create and define public and private spaces, and provide shade and environmental benefits.	**Consistent.** The PUD project has a comprehensive Landscaping Plan which will utilize native plants, minimize water use, and be attractive for project residents, workers, and customers.
Policy CD-2.13 Entitlement Process. We work collaboratively with all stakeholders to ensure a high degree of certainty in the efficient review and timely processing of all development plans and permits.	**Consistent.** The PUD will help expedite the development processing for the project by providing comprehensive development-related information about the mixed-use project to be completed in two phases.
Goal CD-3 Urban, Mixed Use, and Transit-Oriented Place Types. Vibrant urban environments that are organized around intense buildings, pedestrian and transit areas, public plazas, and linkages between and within developments that are conveniently located, visually appealing and safe during all hours.	**Consistent.** This mixed use project is intended to provide an attractive, high quality community hub with public spaces for the project residents, workers, as well as surrounding neighborhoods along the Euclid Avenue corridor, all of which is demonstrated by the PUD document including architecture, urban design and layout, landscaping and hardscape areas with public spaces, and articulation with surrounding uses and the Euclid Avenue corridor.
Policy CD-3.1 Unique Identity. We promote development that heightens the unique character and identity of each Place Type by requiring compatible land uses and land planning, site design, and building design that promotes an active public realm.	
Policy CD-3.4 Context-Aware and Appropriate Design. We require appropriate building and site design that complements existing development, respects the intent and identity of the Place Type, and provides appropriate transitions and connections between adjacent uses to ensure compatibility of scale, maintain an appropriate level of privacy for each use, and minimize potential conflicts.	
Policy CD-3.5 Active Frontages. We create lively pedestrian streetscapes by requiring primary building, business, and residential entrances, outdoor dining, and storefronts be located on ground floors adjacent to sidewalks or public spaces and designed to maximize safety, comfort, aesthetics, and the intended functionality (as defined by the Place Type).	

Table 4: TOP Consistency Analysis	
TOP Element, Goals, and Policies	**Consistency Analysis**
Policy CD-3.6 Managed Infrastructure. We collaborate with developers and property owners to facilitate development that realizes the envisioned character and functionality of the Place Type through the use of green and shared infrastructure within each Place Type.	**Consistent.** The PUD project has integrated mixed uses with open space and landscaping that provides low impact development through energy and water conservation strategies, as outlined in the City's TOP and Community Climate Action Plan (CCAP).

Source: PUD, September 2022 PUD = Planned Unit Development

Table 4 demonstrates the proposed PUD project is consistent with the various applicable TOP goals and policies. Therefore, the PUD project will not conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect. There will be no impacts and no project specific mitigation is required.

The PUD project will not result in any new, increased or substantially different impacts not previously considered and addressed in TOP EIR. No changes or additions to TOP EIR analyses are necessary.

Mitigation: No project specific mitigation is required.

12. MINERAL RESOURCES. Would the project:

a. Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?

Discussion of Effects: TOP EIR indicates there are two areas in Ontario that are designated Mineral Resource Zone 2 (MRZ-2) where significant mineral resources are known or are likely. The remainder of the City is designated Mineral Resource Zone 3 (MRZ-3), where the significance of mineral deposits is unknown. Development in an MRZ-3 area would not result in significant impacts because mineral resources of statewide or local importance are not identified on the California Geological Survey's Production-Consumption maps (SEIR p. 5.12-6). The project site is not within the portions of the City designated as MRZ-2.

The PUD project site is developed and surrounded by urban land uses in all directions. There are no known mineral resources so no impacts are anticipated and no mitigation required.

The PUD project will not result in any new, increased or substantially different impacts not previously considered and addressed in TOP EIR. No changes or additions to TOP FEIR analyses are necessary.

Mitigation: No project specific mitigation is required.

b. Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?

Discussion of Effects: TOP EIR indicates there are two areas in Ontario that are designated Mineral Resource Zone 2 (MRZ-2) where significant mineral resources are known or are likely. The remainder of the City is designated Mineral Resource Zone 3 (MRZ-3), where the significance of mineral deposits is unknown. Development in an MRZ-3 area would not result in significant impacts because mineral resources of statewide or local importance are not identified on the California Geological Survey's Production-Consumption maps (SEIR p. 5.12-6).

The PUD project site is not within the portions of the City designated as MRZ-2. There are no known mineral resources in the area so no impacts are anticipated.

The PUD project will not result in any new, increased or substantially different impacts not previously considered and addressed in TOP EIR. No changes or additions to TOP EIR analyses are necessary.

Mitigation: No project specific mitigation is required.

13. NOISE. Would the project result in:

a. Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

Discussion of Effects: TOP EIR found stationary and transportation noise impacts of future development under TOP to be less than significant with implementation of Safety Element Policy S-4.1, Noise Mitigation, which utilizes the City's Noise Ordinance, building codes, and subdivision and development code regulations to reduce noise from future development projects (SEIR p. 5.13-32).

The project site was previously analyzed by TOP EIR as mixed use (with residential and commercial uses). Due to the nature of the project, it is not expected to expose people to or generate noise levels in excess of the standards established in TOP EIR (Section 5.12). The project site is surrounded on all sides by urban development with multi-family residential uses to the west, single family residential uses to the south, and mixed uses to the north. The SR-60 Freeway is north of the existing mixed-use area.

The PUD project proposes residential and commercial development which is consistent with existing surrounding land uses. The PUD specifies that a parking management plan will organize loading and unloading in proximity to both the residential and non-residential uses to help minimize noise impacts on adjacent uses. In addition, noise shall be addressed as part of the parking management plan submitted to the Planning Director and trash receptacles/recyclable container storage areas will be provided for all residential and commercial uses. Such receptacle/storage area may receive trash from commercial and residential sources. The PUD project must also demonstrate compliance with the City's Noise Ordinance through the development review process.

TOP EIR evaluated potential noise impacts in the City as the result of future development and recommended implementation of Mitigation Measure MM NOI 12-1 to address potential site-specific noise impacts along major roadways in the City. With implementation of TOP EIR MM NOI 12-1, potential noise impacts of the proposed PUD land uses will be less than significant and no project-specific mitigation is required.

The PUD project will not result in any new, increased or substantially different impacts not previously considered and addressed in TOP EIR. No changes or additions to TOP EIR analyses are necessary.

Mitigation: The PUD project site is adjacent to Euclid Avenue, a major roadway, and a portion of the site falls within the roadway's 65 dBA CNEL contour. TOP EIR contains Mitigation Measure MM NOI 12-1 to address site specific noise impacts along major roadways:

NOI 12-1: Prior to the issuance of building permits for any project that involves a noise-sensitive use within the 65 dBA CNEL contour along major roadways, freeways, railroads, or the Ontario International Airport, the project property owner/developers shall retain an acoustical engineer to conduct an acoustic analysis and identify, where appropriate, site design features (e.g., setbacks, berms, or sound walls) and/or required building acoustical improvements (e.g., sound transmission class rated windows, doors, and attic baffling), to ensure compliance with the City's Noise Compatibility Criteria and the California State Building Code and California Noise Insulation Standards (Title 24 and 21 of the California Code of Regulations).

b. Generation of excessive ground-borne vibration or ground-borne noise levels?

Discussion of Effects: The project proposes commercial and residential uses consistent with TOP Policy Plan. The site was previously analyzed by the TOP EIR as supporting both residential and commercial uses (i.e., mixed use). TOP EIR indicates these types of uses do not normally induce significant ground-borne vibrations because they do not typically involve equipment or activities which result in large vibrations (e.g., blasting, impact compaction, handling of large boulders, etc.). Therefore, less than significant impacts are anticipated.

The PUD project will not result in any new, increased or substantially different impacts not previously considered and addressed in TOP EIR. No changes or additions to TOP EIR analyses are necessary.

Mitigation: No project specific mitigation is required.

c. For a project located within the vicinity of a private airstrip or the noise impact zones of the airport land use compatibility plan for ONT and Chino Airports, would the project expose people residing or working in the project area to excessive noise levels?

Discussion of Effects: The Land Use Element of TOP states that all new developments surrounding airports should be consistent with the adopted ALUCP and should meet standards and recommendations of Part 77 of the FAA, adopted through Ordinance 2758 in the Ontario Municipal Code. Section 9.3.e. *Hazards and Hazardous Materials*, indicates the site is not within the hazard or influence area of either the Ontario International Airport or the Chino Airport. Therefore, there are no impacts and no mitigation required.

The PUD project will not result in any new, increased or substantially different impacts not previously considered and addressed in TOP EIR. No changes or additions to TOP FEIR analyses are necessary.

Mitigation: No project specific mitigation is required.

14. POPULATION & HOUSING. Would the project:

a. Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of road or other infrastructure)?

Discussion of Effects: TOP EIR identified less than significant impacts associated with population and housing increases. TOP allows the City to accommodate population growth through land use designations, goals, and policies that provide a vision and guide growth in the City (SEIR p. 5.14-11).

The proposed PUD project is consistent with the Mixed-Use TOP land use designation. The project site was previously analyzed by TOP EIR with both residential and commercial uses so it would generate additional housing and population which was already calculated in TOP EIR.

The PUD project will not result in any new, increased or substantially different impacts not previously considered and addressed in TOP EIR. No changes or additions to TOP EIR analyses are necessary.

Mitigation: No project specific mitigation is required.

b. Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

Discussion of Effects: The purpose of TOP is to adequately plan and accommodate future growth through the distribution, location, balance, and extent of land uses. Implementation of TOP 2050 would accommodate population growth through land use designations, goals, and policies that provide a vision and guide growth in the City. The EIR concluded TOP would have less than significant direct, indirect, and cumulative impacts relating to displacement of people and housing (SEIR p. 5.14-12). The PUD project site is all commercial does not contain any existing housing, nor is it designated or zoned for residential uses. The PUD will result in the 10.6-acre MU-NH sub-area to exceed its residential growth projection in TOP by 4% while reducing the planned non-residential growth in the sub-area by 28%, On balance these changes are minimal and will not result in any significant housing or growth impacts.

The PUD project will therefore not result in any new, increased or substantially different impacts not previously considered and addressed in TOP EIR. No changes or additions to TOP EIR analyses are necessary.

Mitigation: No project specific mitigation is required.

15. PUBLIC SERVICES. Would the project:

a. Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:

i. Fire protection?

Discussion of Effects: TOP EIR determined TOP would result in an increase in development and population, which would result in increased demand on fire protection services. The EIR indicated that existing facilities and services would not be adequate to meet increased demand from growth under TOP. Therefore, the Fire Department was planning on adding facilities and/or services as demand increases. With implementation of TOP policies and Fire Department review of new development, impacts will be less than significant (SEIR p. 5.15-3).

The PUD project site is in a developed area currently served by the Ontario Fire Department. The Project is consistent with TOP land use designations, and TOP EIR states the City will not require the construction of any new fire protection facilities or alteration of any existing facilities or cause a decline in the levels of service, which could cause the need to construct new facilities in this portion of the City. Therefore, no impacts are anticipated.

The PUD project will not result in any new, increased or substantially different impacts not previously considered and addressed in TOP EIR. No changes or additions to TOP EIR analyses are necessary.

Mitigation: No project specific mitigation is required.

ii. Police protection?

Discussion of Effects: TOP EIR determined TOP would result in an increase in development and population, which would result in increased demand on police protection services. The EIR indicated that existing staffing would not be adequate to meet increased demand from growth under TOP. Therefore, the Police Department is planning on adding facilities and/or services as demand increases. With implementation of TOP policies and Police Department review of new development, impacts will be less than significant (SEIR p. 5.15-7).

The site was previously developed and is in a developed area currently served by the Ontario Police Department. It is not anticipated the project will contribute to the need for construction of any new police facilities or alteration of any existing facilities or cause a decline in the levels of service, which could cause the need to construct new facilities. No impacts are anticipated.

The PUD project will not result in any new, increased or substantially different impacts not previously considered and addressed in TOP EIR. No changes or additions to TOP EIR analyses are necessary.

Mitigation: No site-specific mitigation is required.

iii. Schools?

Discussion of Effects: TOP EIR identified impacts to school facilities and services as less than significant upon payment of SB 50 school impact fees (SEIR p. 5.15-14).

The PUD project proposes mixed uses (i.e., residential apartments and retail commercial uses) which are expected to generate school-aged students that require educational facilities or services. The project will be required to pay school fees as prescribed by state law prior to the issuance of building permits, which is considered adequate mitigation under CEQA. No impacts are anticipated.

The PUD project will not result in any new, increased or substantially different impacts not previously considered and addressed in TOP EIR. No changes or additions to TOP EIR analyses are necessary.

Mitigation: No project specific mitigation is required.

iv. Parks?

Discussion of Effects: TOP would generate additional residents, increasing the use of existing park and recreational facilities. However, TOP EIR concluded this would not result in a significant impact as long as development of park facilities keeps pace with the anticipated increase in population from buildout (SEIR p. 5-15-14).

The site is in a developed area currently served by the City in terms of parks and recreational services. The project has both a residential and commercial component and will provide onsite recreational amenities. Due to the size of the residential portion of the project (369 apartments), the PUD project will not require the construction of any new park facilities or alteration of any existing facilities or cause a decline in the

levels of service, which could cause the need to construct new facilities. Like all new development under TOP, the PUD project will be required to pay a park-related Development Impact Fee (DIF). Therefore, no impacts are anticipated.

The PUD project will not result in any new, increased or substantially different impacts not previously considered and addressed in TOP EIR. No changes or additions to TOP EIR analyses are necessary.

Mitigation: No project specific mitigation is required.

v. Other public facilities?

Discussion of Effects: TOP would generate additional residents, increasing the use of existing public facilities (e.g., libraries). TOP EIR identified less than significant impacts to library services and facilities (SEIR p. 5-15-18).

The site is in a developed area currently served by the City. Typically, new public facilities are needed to serve additional population generated by new housing. The project will generate 369 new apartment units which will incrementally increase the need for other public facilities in the future. Due to its size, it is unlikely this PUD project will require the construction of any new public facilities or alteration of any existing facilities or cause a decline in the levels of service, which could cause the need to construct new facilities. Like all new development under TOP, the PUD project will be required to pay established Development Impact Fees (DIFs) to the City which factor in the future need for public facilities based on the City's overall population. Therefore, no impacts are anticipated.

The PUD project will not result in any new, increased or substantially different impacts not previously considered and addressed in TOP EIR. No changes or additions to TOP EIR analyses are necessary.

Mitigation: No project specific mitigation is required.

16. RECREATION. Would the project:

a. Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?

Discussion of Effects: TOP would generate additional residents, increasing the use of existing park and recreational facilities. However, TOP EIR concluded this would not result in a significant impact as long as development of park facilities keeps pace with the anticipated increase in population from buildout (SEIR p. 5-16-14).

The project has both a residential and commercial component and will provide onsite recreational amenities. Due to the size of the residential portion of the project (369 apartments), the PUD project will not require the construction of any new park facilities or alteration of any existing facilities or cause a decline in the levels of service, which could cause the need to construct new facilities. Like all new development under TOP, the PUD project will be required to pay an appropriate park-related Development Impact Fee (DIF). Therefore, no impacts are anticipated.

The PUD project will not result in any new, increased or substantially different impacts not previously considered and addressed in TOP EIR. No changes or additions to TOP EIR analyses are necessary.

Mitigation: No project specific mitigation is required.

b. Does the project include recreational facilities or require the construction or expansion of recreational facilities that have an adverse physical effect on the environment?

Discussion of Effects: TOP would generate additional residents, increasing the use of existing park and recreational facilities. However, TOP EIR concluded this would not result in a significant impact as long as development of park facilities keeps pace with the anticipated increase in population from buildout (SEIR p. 5-16-14).

The project is mixed use with both residential and commercial components. The PUD indicates the project will also provide onsite recreational amenities (275 square feet of common amenities per unit). Due to the size of the residential portion of the project (369 apartments), the PUD project will not require the construction of any new park facilities or alteration of any existing facilities. Like all new development under

TOP, the PUD project will be required to pay an appropriate park-related Development Impact Fee (DIF). Therefore, no impacts are anticipated.

The PUD project will not result in any new, increased or substantially different impacts not previously considered and addressed in TOP EIR. No changes or additions to TOP EIR analyses are necessary.

Mitigation: No project specific mitigation is required.

17. TRANSPORTATION. Would the project:

a. Conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?

Discussion of Effects: TOP EIR found that the recommended TOP circulation plan would comply with adopted policies, plans, and programs for alternative transportation, including SCAG's Connect SoCal (SEIR p. 5.17-23) so impacts would be less than significant.

The subject site was previously analyzed by TOP EIR as supporting mixed use (i.e., 369 higher density residential units and 142,840 square feet of commercial uses). The site is bounded by residential uses to the west and south, commercial uses to the east, and mixed uses to the north adjacent to SR-60.

A trip generation study of the existing land uses on the site compared to the proposed PUD project was prepared in June 2022 by Linscott Law & Greenspan (LLG) (Appendix D). The study first identified vehicular trips that could result from full operation of the existing onsite uses which include a Kmart, Sears Appliance Repair Center (although both are currently closed), a Carl's Junior drive-through restaurant, and a small tenant retail commercial building. Next, the study estimated future vehicular trips for the land uses proposed in Phases 1 and 2 of the PUD project. Finally, the study compared the two trip generation totals (existing vs. proposed uses) to determine if the proposed PUD project will significantly increase traffic generation compared to the existing land uses at full utilization. **Table 5** provides a summary of the LLG trip generation study results.

Table 5: Trip Generation Comparison

Traffic Condition	AM Peak Hour	PM Peak Hour	Average Daily Traffic (ADT)
Existing Land Uses (current conditions)	91	61	1,438
Existing Land Uses (fully utilized)	162	211	4,043
Euclid/Walnut PUD Project			
Phase 1	138	153	1,791
Phase 2	24	37	449
TOTAL	**162**	**190**	**2,240**
Difference (Total PUD v. Fully Utilized)	*0*	*-21*	*-1,803*
Difference (Total PUD v. Current Conditions)	*71*	*131*	*802*

Source: Table 1, Project Traffic Generation Rates and Forecast, LLG 2022

The LLG trip generation study indicates the proposed PUD project would generate more traffic than the underutilized shopping center currently generates (802 daily trips) but would actually generate approximately 1,803 less total daily vehicular trips than the shopping center generated at full operation of its existing uses (i.e., Kmart, Sears Center, Carl's Jr, and small retail building fully occupied). The traffic analysis prepared for TOP and TOP EIR assumed full buildout of existing and proposed land uses so the PUD project would generate less traffic than was assumed and analyzed under TOP EIR. Based on this analysis, the PUD project would not result in any greater traffic-related impacts on streets and intersections than were already analyzed in TOP EIR.

Transit. The project area and the City are served by Omnitrans, a public transit agency serving various jurisdictions in San Bernardino County. Omnitrans currently operates Route 83 adjacent to the site on Euclid Avenue (closest stop is Walnut Street). Omnitrans also regularly reviews and periodically changes routes, stops, etc. to address ridership and community demand needs as well as budget limitations. As part

of the City's development review process, the project developer will coordinate with Omnitrans to determine if any expanded or additional bus service in the project area as needed.

In addition, TOP Figure M-03, Public Transit, shows Euclid Avenue currently serves as a Bus Rapid Transit (BRT) corridor. Metrolink also operates commuter service on the rail lines 2.3 mile north of the PUD project site on the rail line that crosses Euclid Avenue south of Holt Boulevard with an Amtrak station located on the east side of Euclid Avenue.

Bicycles. The project site and surrounding area support mainly residential and commercial uses but none of the streets in the area currently contain bicycle lanes. The City's TOP 2050 Trails and Bikeway Systems Map (Figure M-02) shows a Class II on-street bicycle lane planned for Walnut Street both east and west of Euclid Avenue, and Euclid Avenue (north of Riverside Drive) is indicated as needing study for a possible future Class III bike route. In addition, Euclid Avenue south of Riverside Drive (south of the PUD site) is proposed for a future Class I Multipurpose Trail. The PUD project will provide improvements or accommodations along its frontage of Walnut Street and Euclid Avenue if needed for these future improvements. However, no additional bicycle lanes are currently in place or under construction in the surrounding area at present due to its fully developed condition.

Sidewalks/Trails. The project site is developed but underutilized and sidewalks are in place on adjacent and area streets including Euclid Avenue. The PUD project will connect to these existing sidewalks and thus provide a complete pedestrian network in this area. The City's TOP 2050 Trails and Bikeway Systems Map shows Euclid Avenue south of Walnut Street proposed for a future Class I Multipurpose Trail. However, at present no trails or other pedestrian-oriented improvements are under construction in the immediate surrounding area.

The PUD project will be developed consistent with the City's adopted plans for non-vehicular improvements as indicated in TOP. The project will install sidewalks on perimeter streets as indicated in the standard City street cross sections and will install bus stop infrastructure if directed by Omnitrans during the development review process. Therefore, the PUD project will not conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities. Impacts will be less than significant.

The PUD project will not result in any new, increased or substantially different impacts not previously considered and addressed in TOP EIR. No changes or additions to TOP EIR analyses are necessary.

Mitigation: No project specific mitigation is required.

b. Conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?

Discussion of Effects: TOP EIR concludes TOP would result in a significant transportation impact related to VMT mainly due to the increase in population accommodated by TOP. TOP includes goals and policies to offset VMT impacts by creating greater access to transit and enhanced alternative transportation modes. In addition, projects that are calculated to exceed City-wide VMT levels must develop mitigation plans.

The City has developed its own "VMT Guidelines for CEQA Assessment of VMT Impacts" dated 2021. In addition, the City uses the San Bernardino County Transportation Authority (SBCTA) VMT Screening Tool, which allows users to select an assessor's parcel number (APN) to determine if a project's location meets one or more of the screening thresholds for land use projects identified in the City Guidelines.

The City Guidelines state that certain projects that meet the following VMT screening criteria may be presumed to result in a less than significant transportation impact:

- Transit Priority Area (TPA) Screening
- Low VMT Area Screening
- Project Type Screening

A land use project needs to meet only one of these screening criteria to have a less than significant impact.

TPA Screening. Projects located within a TPA (i.e., within a half-mile of an existing "major transit stop"[1] or an existing stop along a "high-quality transit corridor"[2] may be presumed to have a less than significant VMT impact. The Screening Tool indicates the project site is located within a half-mile of an existing major transit stop or along a high-quality transit corridor (Euclid Avenue Bus Rapid Transit corridor). Therefore, the TPA screening criterion is met.

Low VMT Area Screening. The City Guidelines cite the OPR Technical Advisory in that "Residential and office projects that locate in areas with low VMT and that incorporate similar features (density, mix of uses, and transit accessibility) will tend to exhibit similarly low VMT." The City Guidelines state that projects may be presumed to have a less than significant VMT impact if located in an already low VMT generating traffic analysis zones (TAZs) that generates a VMT per service population (SP) that is 15% below County of San Bernardino Baseline VMT per SP. The Screening Tool uses the sub-regional San Bernardino Transportation Analysis Model (SBTAM) to measure VMT performance within individual TAZ's within the region. The Project's physical location based on parcel number is selected in the Screening Tool to determine the TAZ in which the Project will reside (TAZ 53643101). The Project's TAZ VMT per service population was compared to 15% below County of San Bernardino Baseline VMT per SP. The Screening Tool was run for production-attraction (PA) VMT per service population and indicates the VMT per SP for the PUD site is just under the City's average for 2022 through 2040, but it does not exceed 15% less than that figure in the future. The Screening Tool determined the PUD project is not located within a low VMT generating zone for any baseline year from 2022 to 2040. Therefore, the low VMT area screening criterion is not met.

Project Type Screening. The City Guidelines indicate that local-serving retail less than 50,000 square feet or other local serving essential services (e.g., day care centers, public schools, medical/dental office buildings, etc.) are presumed to have a less than significant impact absent substantial evidence to the contrary. The PUD project proposes only 12,000 square feet of local serving uses. Therefore, the Project meets that portion of this criterion. The City Guidelines also state that small projects generating fewer than 110 daily vehicle trips or less may be presumed to have a less than significant VMT impact, subject to discretionary approval by the City. A trip generation study was prepared for the PUD project that estimated vehicle trips generated by the project's proposed land uses based on trip generation rates collected by the Institute of Transportation Engineers (ITE) Trip Generation Manual, 11th Edition, 2021 (see Threshold 17.a above)(LLG 2022). According to the study, the PUD project will generate 2,240 daily vehicle trip-ends per day at buildout (see Table 5). Even accounting for the difference of PUD buildout vs. current conditions (i.e., operation of 28,000 square feet of existing commercial uses) would still generate 131 PM peak hour trips. Therefore, the PUD project generates daily vehicle trips exceeding the 110 daily vehicle trip threshold, so the project does not meet this portion of the project type screening criterion.

Based on this analysis, the PUD project is eligible for screening under the TPA Screening Criteria and the first portion of the Project Type Screening Criteria so a detailed VMT analysis is not required (i.e., it has a less than significant local VMT impact). Moreover, the PUD project is mixed use and generally consistent with TOP's underlying land use assumptions and buildout projection for this sub-area, so the PUD project is also considered to have a less than significant cumulative VMT impact as well.

The VMT project will not result in any new, increased or substantially different impacts not previously considered and addressed in TOP EIR. No changes or additions to TOP EIR analyses are necessary.

Mitigation: No project specific mitigation is required.

c. Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

Discussion of Effects: TOP EIR found that circulation improvements under the recommended TOP circulation plan would be designed to adequately address potentially hazardous conditions and potential conflicting uses (SEIR p. 5.17-26) so impacts would be less than significant.

[1] Pub. Resources Code, § 21064.3 ("'Major transit stop' means a site containing an existing rail transit station, a ferry terminal served by either a bus or rail transit service, or the intersection of two or more major bus routes with a frequency of service interval of 15 minutes or less during the morning and afternoon peak commute periods.").

[2] Pub. Resources Code, § 21155 ("For purposes of this section, a high-quality transit corridor means a corridor with fixed route bus service with service intervals no longer than 15 minutes during peak commute hours.").

The PUD project is largely surrounded by existing residential and commercial development and the area is fully improved with suburban density uses. All internal streets will be improved with project construction. The roads on or adjacent to the site are linear according to the City's Circulation Element master plan of streets in terms of alignment and cross section. The site is also adjacent to Euclid Avenue, a major arterial, and the SR-60 Freeway is just north of the site with on- and off-ramps at Euclid Avenue. Therefore, the PUD project will not create a substantial increase in hazards due to a design feature. No impacts are anticipated.

The PUD project will not result in any new, increased or substantially different impacts not previously considered and addressed in TOP EIR. No changes or additions to TOP EIR analyses are necessary.

Mitigation: No project specific mitigation is required.

d. Result in inadequate emergency access?

Discussion of Effects: TOP EIR found that circulation improvements under the recommended TOP circulation plan would be designed to adequately address emergency access (SEIR p. 5.17-26) so impacts would be less than significant.

As shown in Exhibit 2-4, the PUD project site and surrounding area will have standard linear street alignments and cross sections which can provide access for all emergency vehicles and will therefore not result in inadequate emergency access. No impacts are anticipated.

The PUD project will not result in any new, increased or substantially different impacts not previously considered and addressed in TOP EIR. No changes or additions to TOP EIR analyses are necessary.

Mitigation: No project specific mitigation is required.

18. TRIBAL CULTURAL RESOURCES. Would the project cause a substantial adverse change in the significance of a TCR, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

a. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k)?

Discussion of Effects: The subject site was previously analyzed by TOP EIR as supporting mixed use (i.e., residential and commercial uses) and is not listed in the California Register of Historic Resources or local register of historical resources. TOP EIR concluded that with recommended mitigation potential impacts to TCRs were reduced to less than significant levels. TOP EIR also included the required consultation with Native American tribal groups and representatives.

Developing a mixture of residential and commercial uses consistent with TOP and current zoning will not create greater impacts on the PUD project site than were identified in TOP EIR. In addition, the Sacred Lands File (SLF) Search commissioned through the NAHC failed to indicate known TCRs within the project boundaries or within a one-mile radius of the project area.

The PUD project site has been previously disturbed by human activities including agricultural use from the 1920's through the 1950's. The surrounding area is largely developed and supports infrastructure that would have displaced surface and subsurface archaeological resources. Therefore, it is not anticipated the proposed PUD project will impact TCRs or Native American artifacts relating to TCRs. However, to err on the side of caution, the City will apply TOP EIR Mitigation Measure CUL 5-2 and its standard conditions of approval for inadvertent discovery of archaeological resources. In addition, the City will require the developer enter into monitoring agreements with interested tribal groups. With this regulatory compliance, no significant impacts will occur.

The PUD project will not result in any new, increased or substantially different impacts not previously considered and addressed in TOP EIR. No changes or additions to TOP EIR analyses are necessary.

Mitigation: No additional project specific mitigation is required. Mitigation Measure CUL 5-2 from TOP EIR shall be implemented.

b. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

Discussion of Effects: TOP EIR (Section 5.5) indicates no archeological sites or resources have been recorded in the City with the Archeological Information Center at San Bernardino County Museum so there were no significant impacts. The CRAs prepared for the project site included a pedestrian survey, a record search, a SLF search, and a review of existing documentation for the project site and surrounding area. The NAHC was contacted for a SLF search on April 1, 2019, and a response was received on April 15, 2019, indicating the project site contained no identified archaeological or tribal resources.

While no adverse impacts to archeological resources are anticipated at this site due to its disturbed nature, the PUD project will implement TOP MM CUL 5-2 to help assure there will be no impacts to any unknown TCRs, which may be present onsite.

The PUD project will not result in any new, increased or substantially different impacts not previously considered and addressed in TOP EIR. No changes or additions to TOP EIR analyses are necessary.

Mitigation: No project specific mitigation is required. The project will implement TOP Mitigation Measure CUL 5-2.

19. UTILITIES AND SERVICE SYSTEMS. Would the project:

a. Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?

Discussion of Effects: TOP EIR stated TOP would result in an overall increase in the number of residential dwelling units and non-residential square footage. To accommodate needed infrastructure expansion and improvements, the City has prepared a Water Master Plan (WMP) and Capital Improvement Program (CIP). The City also requires development impact fees and has construction requirements based on a completed evaluation of existing and projected water demands. The City and the Inland Empire Utility Authority (IEUA) have made plans for infrastructure expansion and improvement. TOP EIR concluded TOP would have less than significant direct, indirect, and cumulative impacts relating to water supply and delivery systems (SEIR p. 5.19-31). TOP EIR indicated the City concluded it could meet projected water demand through implementation of the WMP and CIP consistent with the Urban Water Management Plan requirements of the State.

There are existing water and sewer lines in Euclid Avenue and Walnut Street, as well as other utility lines or pipelines depending on the service and provider.

The PUD project is consistent with the land use designation and zoning for the site, and the project is thus consistent with the WMP. Therefore, the City has sufficient water supplies to serve the project over the 20-year life of the WMP, including during multiple dry-year scenarios.

The proposed PUD project is served by the City water system and has existing water lines available for connection in Euclid Avenue and Walnut Street and adequate water supply for the project. The proposed project is served by the City sewer system, which has existing sewer lines available for connection from Euclid Avenue and Walnut Street. The project's waste will be treated by the IEUA at the RP-1 treatment plant. RP-1 is not at capacity and future development of this project site will not cause RP-1 to exceed capacity. TOP EIR indicates increases in RP capacity in the future will be based on designated TOP land uses, and the Project is consistent with those designations. The project will therefore not require the construction of new unanticipated water or wastewater treatment facilities, or the expansion of existing facilities other than that already identified in TOP and TOP EIR. It should be noted the City does not provide will serve letters as it is both the land use authority and the water purveyor. Water and sewer service for development projects typically require the owner to complete requirements it specifies to provide adequate utility services. As the project goes through the City's development review process, the City will issue conditions of approval that will specify the developer's obligations in order to receive water and sewer service from the City. Less than significant impacts are anticipated.

TOP EIR stated TOP has the potential to increase sewer flows by 2.55 million gallons per day (mgd) within the City and by 166 mgd in the City's growth areas. TOP EIR concluded TOP would generate additional wastewater which would be adequately treated in accordance with the Santa Ana RWQCB and California Department of Public Health requirements (SEIR p. 5.19-11).

The proposed PUD project is served by the City with existing storm drains located in Euclid Avenue and Walnut Street. The project is required to meet the requirements of the Ontario Engineering Department regarding the size, location, and connectivity of storm drain facilities. Less than significant impacts are anticipated.

As discussed in Section 6 above, the PUD project will have less than significant impacts with regard to electric power and natural gas. In addition, telecommunication providers increase service and facilities as necessary as area population and land uses expand. Therefore, the PUD project will not have a significant impact on telecommunications facilities.

The PUD project will not result in any new, increased or substantially different impacts not previously considered and addressed in TOP EIR. No changes or additions to TOP EIR analyses are necessary.

Mitigation: No project specific mitigation is required.

b. Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years? In making this determination, the City shall consider whether the project is subject to the water supply assessment requirements of Water Code Section 10910, et seq. (SB 610), and the requirements of Government Code Section 664737 (SB 221).

Discussion of Effects: TOP EIR stated TOP would result in an overall increase in the number of residential dwelling units and non-residential square footage. To accommodate needed infrastructure expansion and improvements, the City has prepared a WMP and CIP. The City also requires development impact fees and has construction requirements based on a completed evaluation of existing and projected water demands. The City and the IEUA have made plans for infrastructure expansion and improvement. TOP EIR concluded TOP would have less than significant direct, indirect, and cumulative impacts relating to water supply and delivery systems (SEIR p. 5.19-31).

The PUD project is consistent with the mixed-use land use designation and zoning for the site - it will increase the residential growth of the MU-NH area by 4% but decrease non-residential growth by 28%. No significant change in water use of this area is expected so the PUD project is thus consistent with the WMP. Therefore, the City has sufficient water supplies to serve the PUD project over the 20-year life of the WMP, including during multiple dry-year scenarios.

The project site is served by the City water system. It is estimated the project will generate approximately 926 residents and 50 employees[3] who would consume 97,600 gallons of water[4] per day (maximum 109 acre-feet per year) based on 100 gallons per person per day. Since the project site land uses are consistent with the TOP, there is currently a sufficient water supply available to the City to serve this project as per the findings of the TOP EIR. Less than significant impacts are anticipated.

The PUD project will not result in any new, increased or substantially different impacts not previously considered and addressed in TOP EIR. No changes or additions to TOP EIR analyses are necessary.

Mitigation: No project specific mitigation is required.

c. Result in a determination by the wastewater treatment provider that serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

Discussion of Effects: TOP EIR stated TOP has the potential to increase sewer flows by 2.55 million gallons per day (mgd) within the City and by 1.66 mgd in the City's unincorporated Planning Area. TOP EIR concluded TOP would generate additional wastewater which would be adequately treated in accordance with the Santa Ana RWQCB and California Department of Public Health requirements (SEIR p. 5.19-11).

[3] US Census and SCAG data indicates the Project could generate 926 residents (369 units X 2.51 persons/unit) and 50 employees
[4] 976 total persons (residents and employees) per day X 100 gallons/day = 97,600 gallons per day

It is estimated the PUD project will generate approximately 926 residents and 50 employees[3] who would generate 48,800 gallons of wastewater[5] per day (maximum 0.05 mgd based on 50 gallons per person of wastewater generated per day). The project site is served by the City sewer system, which has waste treated by the Inland Empire Utility Agency (IEUA) at the RP-1 treatment plant. RP-1 is not at capacity and future development of this project site will not cause RP-1 to exceed capacity. In addition, the project site land uses are consistent with TOP and its EIR. Therefore, less than significant impacts are anticipated.

The PUD project will not result in any new, increased or substantially different impacts not previously considered and addressed in TOP EIR. No changes or additions to TOP EIR analyses are necessary.

Mitigation: No project specific mitigation is required.

d. Generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?

Discussion of Effects: TOP EIR indicated the City disposes of its solid waste in the Badlands Sanitary Landfill or the El Sobrante Landfill. These landfills currently have a combined excess daily capacity of 7,046 tons/day and have a remaining landfill capacity of 15,750,000 cubic yards for Badlands Sanitary Landfill and 144,000,000 cubic yards for El Sobrante Landfill. Both landfills have closure dates beyond 2050. In addition, state and local regulations and ordinances regarding the recycling of construction debris and organic wastes will further reduce the amount of solid waste transported to these landfills in the future. Therefore, TOP EIR concluded that potential impacts were less than significant with continued compliance with applicable regulations (SEIR p. 5.19-14).

It is estimated the PUD project will generate approximately 926 residents and 50 employees who would generate 3,318 pounds of waste[6] per day (1.7 tons per day) based on 3.4 pounds per person per day. This amount of waste represents 0.02 percent of the combined landfills' excess capacity (7,046 tons). In addition, the City currently contracts with a waste disposal company that transports trash to a landfill with sufficient capacity to handle the City's solid waste disposal. Potential impacts of the PUD project relative to waste disposal would be less than significant and consistent with the analysis presented in TOP EIR.

It should also be noted the parcel within the boundary of the PUD will be defined as a Priority Land Use (PLU) which includes residential land uses with at least ten (10) dwelling units per acre, industrial, commercial, mixed urban, and public transportation station. All PLU shall comply with the statewide Trash Provisions adopted by the State Water Resources Control Board (SWRCB) and trash requirements in the most current San Bernardino County Area-Wide MS4 Permit. Drainage from the PLU shall be designed with conveyance tributary to a Full Trash Capture System which has been approved by the SWRCB.

Therefore, the PUD project will not result in any new, increased or substantially different impacts not previously considered and addressed in TOP EIR. No changes or additions to TOP EIR analyses are necessary.

Mitigation: No project specific mitigation required.

e. Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?

Discussion of Effects: TOP EIR indicated that potential impacts related to solid waste reduction would be less than significant based on compliance with state and local regulations and ordinances regarding the recycling of construction debris and organic wastes will reduce the amount of solid waste transported to the two landfills serving the City in the future. Therefore, continued compliance with the applicable regulations, would ensure future development under TOP would have less than significant impacts (SEIR p. 5.19-16).

City development review regulations will require this project comply with federal, state, and local statues and regulations regarding solid waste. Therefore, no impacts are anticipated.

The PUD project will not result in any new, increased or substantially different impacts not previously considered and addressed in TOP EIR. No changes or additions to TOP EIR analyses are necessary.

[5] 976 total persons X 50 gallons/day = 48,800 gallons per day

[6] 976 residents and employees X 3.4 pounds/day = 3,318 pounds/day or 1.7 tons/day

Mitigation: No project specific mitigation is required.

20. WILDFIRE. If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:

a. Substantially impair an adopted emergency response plan or emergency evacuation plan?

Discussion of Effects: TOP EIR found that improvements under the recommended TOP circulation plan would be designed to adequately address emergency access. In addition, emergency access is included as part of the City's Design Review process for new development. According to the City's 2018 Local Hazard Mitigation Plan (LHMP), interstate highways would serve as major emergency response and evacuation routes. Additionally, the Fire Department reviews development applications to ensure that adequate emergency accessibility is provided based on local and state guidance. Figure S-10 of the TOP indicates that Haven Avenue to the west, Airport Drive to the north, and Jurupa Street to the south are designated evacuation routes in the City. The EIR concluded TOP would have a less than significant direct, indirect, and cumulative impacts relating to impairment of an adopted emergency response plan or emergency evacuation plan (SEIR p. 5.20-15 and p. 5.17-26).

The PUD project site is not located in or near a state responsibility area, nor is it located in or near lands classified as very high fire hazard severity zones. Therefore, no impacts are anticipated.

The PUD project will not result in any new, increased or substantially different impacts not previously considered and addressed in the Certified TOP FEIR. No changes or additions to TOP FEIR analyses are necessary.

Mitigation: No project specific mitigation is required.

b. Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?

Discussion of Effects: TOP EIR indicated the City is outside of the State Responsibility Area and contains no areas subject to very high wildfire risk. Therefore, the EIR concluded TOP would result in less-than-significant risks from wildfire hazards (SEIR p. 5.20-16).

The PUD project site is not located in or near a State Responsibility Area, nor is it located in or near lands classified as very high fire hazard severity zones. Therefore, no impacts are anticipated.

The PUD project will not result in any new, increased or substantially different impacts not previously considered and addressed in TOP EIR. No changes or additions to TOP EIR analyses are necessary.

Mitigation: No project specific mitigation is required.

c. Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?

Discussion of Effects: TOP EIR indicated the City is outside of the State Responsibility Area, and CAL FIRE and contains no areas subject to very high wildfire risk. Therefore, the EIR concluded TOP would result in less-than-significant risks from wildfire hazards (SEIR p. 5.20-16). In addition, the PUD project site is in an urbanized area surrounded by developed residential and commercial buildings so no improvements for preventing wildfires are needed either on or adjacent to the site.

The PUD project site is not located in or near a State Responsibility Area nor is it located in or near lands classified as very high fire hazard severity zones. Therefore, no impacts are anticipated.

The PUD project will not result in any new, increased or substantially different impacts not previously considered and addressed in TOP EIR. No changes or additions to TOP EIR analyses are necessary.

Mitigation: No project specific mitigation is required.

d. Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?

Discussion of Effects: TOP EIR indicated the City is outside of the State Responsibility Area, and CAL FIRE and contains no areas subject to very high wildfire risk. Therefore, the EIR concluded TOP would result in less-than-significant risks from wildfire hazards (SEIR p. 5.20-16). In addition, the project site and surrounding area are flat so there is little risk from flooding or landslides.

The PUD project site is not located in or near a State Responsibility Area, nor is it located in or near lands classified as very high fire hazard severity zones. Therefore, no impacts are anticipated.

The PUD project will not result in any new, increased or substantially different impacts not previously considered and addressed in TOP EIR. No changes or additions to TOP EIR analyses are necessary.

Mitigation: No project specific mitigation is required.

21. MANDATORY FINDINGS OF SIGNIFICANCE.

a. Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat or a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?

Discussion of Effects: TOP EIR evaluated the potential impacts of future development under TOP and determined impacts related to biological or cultural resources could be reduced to less than significant levels by implementing a number of mitigation measures on sites that contain such resources.

The proposed PUD project does not have the potential to reduce wildlife habitat and threaten a wildlife species with implementation of regulatory compliance relative to nesting birds if they are present onsite during grading. It will also not threaten any important examples of the major periods of California history or prehistory. Therefore, no impacts are anticipated.

The PUD project will not result in any new, increased or substantially different impacts not previously considered and addressed in TOP EIR. No changes or additions to TOP EIR analyses are necessary.

Mitigation: No project-specific mitigation is required. The project will implement TOP EIR Mitigation Measure CUL 5-2 to reduce impacts on potential archaeological resources.

b. Does the project have the potential to achieve short-term environmental goals to the disadvantage of long-term environmental goals?

Discussion of Effects: The analysis in TOP EIR, as outlined in Sections 1 through 20 of this document, indicate TOP is intended to achieve both the short- and long-term goals of the City in terms of the environment.

The PUD project does not have the potential to achieve short-term environmental goals to the disadvantage of long-term environmental goals as it is consistent with TOP land use and zoning designations for the site which were analyzed in TOP EIR. The project will implement several short- and long-term goals in TOP by development of this mixed-use neighborhood community hub.

The PUD project will not result in any new, increased or substantially different impacts other than those previously considered and addressed in TOP EIR. No changes or additions to TOP EIR analyses are necessary.

Mitigation: No project specific mitigation is required. The project will implement TOP EIR Mitigation Measures AQ 3-1 through 3-3 to reduce potential cumulative air quality impacts.

c. Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current project, and the effects of probable future projects.)

Discussion of Effects: TOP EIR concluded that all impacts of TOP could be reduced to less than significant levels with implementation of the recommended mitigation measures except for air quality, historical resources, noise, and transportation. The EIR further concluded TOP would not make a significant

contribution to any cumulatively considerable impacts with the recommended mitigation except for air quality.

The PUD project will make an incremental contribution to cumulatively considerable air pollutant emissions both of criteria pollutants and greenhouse gases (GHGs). This mixed-use PUD project will also make incremental impacts related to Vehicle Miles Traveled (VMT) but it meets the screening criteria of the City's VMT Guidelines for CEQA Documents so no additional analysis of VMT impacts is required. TOP EIR already examined these impacts and adopted a Statement of Overriding Considerations for the cumulative air quality impacts of future development under TOP as well as GHG and VMT impacts. Since the proposed PUD project is consistent with TOP land use designations for the site, the potential air quality impacts of the project have been previously evaluated in TOP EIR and appropriate mitigation applied (i.e., TOP EIR MM AQ 3-1 through 3-3).

The PUD project will not result in any new, increased or substantially different impacts not previously considered and addressed in TOP EIR. No changes or additions to TOP EIR analyses are necessary.

Mitigation: No project specific mitigation is required. The project will implement TOP EIR Mitigation Measures AQ 3-1 through 3-3.

d. Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?

Discussion of Effects: TOP EIR concluded that all impacts of TOP could be reduced to less than significant levels with implementation of the recommended mitigation measures except for air quality, historical resources, noise, and transportation. The air quality and noise impacts may have direct and/or indirect adverse effects on humans as development occurs in the City under TOP.

With implementation of the recommended TOP EIR Mitigation Measures, the PUD project does not have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly.

The PUD project will not result in any new, increased or substantially different impacts not previously considered and addressed in TOP EIR. No changes or additions to TOP EIR analyses are necessary.

Mitigation: No project specific mitigation is required. The project will implement TOP EIR Mitigation Measure NOI 12-1 to reduce noise impacts on project residents from Euclid Ave. traffic.

EARLIER ANALYSES

*(Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, one or more effects have been adequately analyzed in an earlier EIR or Negative Declaration. Section 15063 (c)(3)(D))***:**

a) The Ontario Plan Final EIR 2022

b) The Ontario Plan 2022

c) City of Ontario Zoning 2021 as amended

All documents listed above are on file with the City of Ontario Planning Department, 303 East "B" Street, Ontario, California 91764, (909) 395-2036.

SUMMARY OF MITIGATION MEASURES

The following measures are from TOP EIR for the indicated environmental issue and will be implemented by the Euclid/Walnut PUD Project:

AIR QUALITY

AQ 3-1: Prior to discretionary approval by the City of Ontario for development projects subject to CEQA (California Environmental Quality Act) review (i.e., nonexempt projects), project applicants shall prepare and submit a technical assessment evaluating potential project construction-related air quality impacts to the City of Ontario Planning Department for review and approval. The evaluation shall be prepared in conformance with South Coast Air Quality Management District (South Coast AQMD) methodology for assessing air quality impacts. If construction-related criteria air pollutants are determined to have the potential to exceed the South Coast AQMD–adopted thresholds of significance, the City of Ontario Building Department shall require feasible mitigation measures to reduce air quality emissions. Potential measures shall be incorporated as conditions of approval for a project and may include:

- Require fugitive dust control measures that exceed South Coast Air Quality Management District's Rule 403, such as:
  - Requiring use of nontoxic soil stabilizers to reduce wind erosion.
  - Applying water every four hours to active soil disturbing activities.
  - Tarping and/or maintaining a minimum of 24 inches of freeboard on trucks hauling dirt, sand, soil, or other loose materials.
- Using construction equipment rated by the United States Environmental Protection Agency as having Tier 4 interim or higher exhaust emission limits.
- Ensuring construction equipment is properly serviced and maintained to the manufacturer's standards
- Limiting nonessential idling of construction equipment to no more than five consecutive minutes.
- Using Super-Compliant VOC paints for coating of architectural surfaces whenever possible. A list of Super-Compliant architectural coating manufactures can be found on the South Coast Air Quality Management District's website at: http://www.aqmd.gov/prdas/brochures/SuperCompliant_AIM.pdf. These identified measures shall be incorporated into all appropriate construction documents (e.g., construction management plans) submitted to the City and shall be verified by the City's Planning Department.

AQ 3-2: The City of Ontario shall evaluate new development proposals within the City and require all developments to include access or linkages to alternative modes of transportation, such as transit stops, bike paths, and/or pedestrian paths (e.g., sidewalks).

AQ 3-3: Prior to discretionary approval by the City of Ontario for development projects subject to CEQA (California Environmental Quality Act) review (i.e., nonexempt projects), project applicants shall prepare and submit a technical assessment evaluating potential project operation-phase-related air quality impacts to the City of Ontario Planning Department for review and approval. The evaluation shall be prepared in conformance with South Coast Air Quality Management District (South Coast AQMD) methodology in assessing air quality impacts. If operation-related air pollutants are determined to have the potential to exceed the South Coast AQMD–adopted thresholds of significance, the City of Ontario Planning Department shall require that applicants for new development projects incorporate mitigation measures to reduce air pollutant emissions during operational activities. The identified measures shall be included as part of the conditions of approval. Possible mitigation measures to reduce long-term emissions could include but are not limited to the following:

- For site-specific development that requires refrigerated vehicles, the construction documents shall demonstrate an adequate number of electrical service connections at loading docks for plug-in of the anticipated number of refrigerated trailers to reduce idling time and emissions.

- Applicants for manufacturing and light industrial uses shall consider energy storage and combined heat and power in appropriate applications to optimize renewable energy generation systems and avoid peak energy use.
- Site-specific developments with truck delivery and loading areas and truck parking spaces shall include signage as a reminder to limit idling of vehicles while parked for loading/unloading in accordance with California Air Resources Board Rule 2845 (13 CCR Chapter 10 sec. 2485).
- Provide changing/shower facilities as specified in Section A5.106.4.3 of CALGreen (Nonresidential Voluntary Measures).
- Provide bicycle parking facilities per Section A4.106.9 of CALGreen (Residential Voluntary Measures).
- Provide preferential parking spaces for low-emitting, fuel-efficient, and carpool/van vehicles per Section A5.106.5.1 of CALGreen (Nonresidential Voluntary Measures).
- Provide facilities to support electric charging stations per Section A5.106.5.3 and Section A5.106.8.2 of CALGreen (Nonresidential Voluntary Measures; Residential Voluntary Measures).
- Applicant-provided appliances shall be Energy Star–certified appliances or appliances of equivalent energy efficiency (e.g., dishwashers, refrigerators, clothes washers, and dryers). Installation of Energy Star–certified or equivalent appliances shall be verified by the City during plan check.

CULTURAL RESOURCES

CUL 5-2: In areas of documented or inferred archaeological and/or paleontological resource presence, City staff shall require applicants for development permits to provide studies to document the presence/absence of such resources. On properties where resources are identified, such studies shall provide a detailed mitigation plan, including a monitoring program and recovery and/or in situ preservation plan, based on the recommendations of a qualified cultural preservation expert. The mitigation plan shall include the following requirements:

a) Archaeologists and/or paleontologist shall be retained for the project and will be on call during grading and other significant ground-disturbing activities.

b) Should any cultural resources be discovered, no further grading shall occur in the area of the discovery until the Planning Director or designee is satisfied that adequate provisions are in place to protect these resources.

c) Unanticipated discoveries shall be evaluated for significance by a San Bernardino County Certified Professional Archaeologist/Paleontologist. If significance criteria are met, then the project shall be required to perform data recovery, professional identification, radiocarbon dates, and other special studies; submit materials to a museum for permanent curation; and provide a comprehensive final report including catalog with museum numbers.

NOISE

NOI 12-1: Prior to the issuance of building permits for any project that involves a noise-sensitive use within the 65 dBA CNEL contour along major roadways, freeways, railroads, or the Ontario International Airport, the project property owner/developers shall retain an acoustical engineer to conduct an acoustic analysis and identify, where appropriate, site design features (e.g., setbacks, berms, or sound walls) and/or required building acoustical improvements (e.g., sound transmission class rated windows, doors, and attic baffling), to ensure compliance with the City's Noise Compatibility Criteria and the California State Building Code and California Noise Insulation Standards (Title 24 and 21 of the California Code of Regulations).

REFERENCES

2016 Air Quality Management Plan (AQMP). South Coast Air Quality Management District (SCAQMD). August 2016.

The Ontario Plan 2050, Final Supplemental Environmental Impact Report (SCH# 2021070364), Placeworks/City of Ontario. August 2022.

The Ontario Plan 2050, Placeworks/City of Ontario. August 2022.

City of Ontario Municipal Code, Title 9, Chapter 1, Development Code, Zoning. City of Ontario, 2022.

City of Ontario Guidelines for the Implementation of the California Environmental Quality Act (CEQA). City of Ontario. 2019.

Euclid and Walnut Planned Unit Development (PUD), City of Ontario, MIG Inc., June 2023 (**Appendix A**)

Euclid and Walnut, Ontario, CA, Legacy Partners, AO Architects.

Euclid/Walnut Mixed Use Planned Unit Development Project, Health Risk Assessment Report Per Ontario Development Code Table 6.10-3. MIG Inc. June 2023 (**Appendix B**)

Hydrology Data (April 2023) and Water Quality Management Plan (June 2023) (**Appendix C**)

Trip Generation Assessment for the Euclid Avenue Mixed Use Apartment Project, Ontario, California. Linscott Law & Greenspan (LLG). June 23, 2022 (**Appendix D**)



City of Ontario
PUD 22-004

Euclid Walnut

Planned Unit Development

A Project by Legacy Partners

CITY OF ONTARIO SOUTHERN CALIFORNIA

Euclid/Walnut

Planned Unit Development

City of Ontario
PUD 22-004
City Council Approval Date - TBD
City Council Ordinance No. TBD

303 E. B Street
Ontario, CA 91764
(909) 395-2000
ontarioca.gov

Applicant:

Legacy Partners
5141 California Avenue
Suite 100
Irvine, CA 92617

Table of Contents

Chapter 1: Introduction 7

Chapter 2: Objectives 11
- 2.1 Consistency with The Ontario Plan 11
- 2.2 Euclid Avenue (EA) Overlay District and Historic Resources 18
- 2.3 Euclid/Walnut PUD Objectives 19

Chapter 3: Land Use Plan 21
- 3.1 Land Use and Zoning 21
- 3.2 Phasing and Build-Out 22
- 3.3 Permitted Uses 24

Chapter 4: Development Regulations 27
- 4.1 Intensity 28
- 4.2 Density 28
- 4.3 Building Envelope 28
- 4.4 Vehicle Access 28
- 4.5 Parking Facilities, Supply and Design 29
- 4.6 Residential Open Space and Common Amenities 29
- 4.7 Service Facilities 30
- 4.8 Signs 30
- 4.9 Landscape/Hardscape 30
- 4.10 Fences and Walls 31
- 4.11 Public Right-of-Way Improvements 31
- 4.12 Infrastructure 31
- 4.13 Summary of Development Standards 32

Chapter 5: Design Criteria 35
- 5.1 Building Orientation 36
- 5.2 Access and Parking Facilities 36
- 5.3 Service Facilities 36
- 5.4 Pedestrian Linkages 37
- 5.5 Architectural Character 37
- 5.6 Massing & Scale 37
- 5.7 Articulation & Fenestration 37
- 5.8 Architectural Details 37
- 5.9 Storefronts 41
- 5.10 Material & Colors 41
- 5.11 Roofs/Rooftop Equipment 41
- 5.12 Non-Residential Outdoor Dining Areas 41
- 5.13 Residential Outdoor Space, Common Recreational Amenities 41
- 5.14 Landscape/Hardscape Elements 42

Chapter 6: Administration 47
- 6.1 Items Not Addressed in PUD 47
- 6.2 Development Plan and Other Applications 48
- 6.3 Administrative Exceptions 48

Exhibits

Exhibit 1-1: PUD Location Map 8

Exhibit 3-1: Land Use/Zoning Map 22

Exhibit 3-2: Phase 1 Conceptual Site Plan 23

Exhibit 5-1: Architectural Character — Vertical Mixed-Use 38

Exhibit 5-2: Architectural Character — Three-Story Residential 39

Exhibit 5-3: Architectural Character — Four-Story Residential 40

Exhibit 5-4: Typical Common Recreational Amenity 41

Exhibit 5-5: Typical Courtyard 41

Exhibit 5-6: Fence/Wall Concepts 44

Tables

Table 3-1: Permitted Uses 24

Table 4-1: Summary of Development Standards 32

Table 5-1: Master Plant Palette 42

1 Introduction

The Euclid/Walnut Planned Unit Development (PUD) functions as a set of planning and design principles, development regulations, and performance standards to guide and govern the redevelopment of a commercial shopping center into a mixed-use development. The project site comprises three parcels located on the northwest corner of Euclid Avenue and Walnut Street, as shown on Exhibit 1-1: PUD Location Map. This PUD will facilitate development of high-density apartments, restaurants, retail shops, and other commercial services that will achieve the City's goals to economically revitalize and aesthetically enhance an underutilized parcel on the Euclid Avenue corridor.

Exhibit 1-1: PUD Location Map



This document is organized to fulfill the requirements for a PUD, as set forth in the Ontario Development Code (ODC). The Euclid/Walnut PUD replaces the existing zoning district designation and ODC regulations applicable to the affected properties. The properties also lie within the "EA – Euclid Avenue Overlay" district. Any applicable requirements of the overlay district shall remain in full force and effect. Unless otherwise defined or stated herein, definitions and interpretations contained in the ODC shall apply. City staff and private developers will rely on this PUD to determine whether precise plans for development ("Development Plans") adequately meet the City's land use and design objectives of The Ontario Plan (TOP) 2050.

This page was intentionally left blank.

2 Objectives

2.1 Consistency with The Ontario Plan

The Ontario Plan (TOP), the City's comprehensive plan, has undergone a significant update to shape the Ontario community through 2050. TOP 2050 has three policy level components: the Vision, a Governance Manual, and the Policy Plan (General Plan).

The Ontario Vision – adopted by the City Council envisioning "A sustained, community-wide prosperity which continuously adds value and yields benefits." Value is comprehensive in this regard and is expressed in land, revenues, infrastructure, businesses, education, employment, health, community services, recreation, etc. In particular, Ontario is committed to being "A Premier Community by Design." One of the foundations to accomplish this is described in the Vision as ensuring that development is "distinctive." The Euclid/Walnut PUD helps the City realize specific "Points of Vision" as outlined for "Distinctive Development" as follows:

- A system of vibrant retail, town, and neighborhood centers responsive to market demands and woven into the fabric of the community.
- A demonstrated ability to attract housing in pursuit of our acknowledged responsibility to balance housing with the job growth that drives our quality of life.
- Superior quality and design of the built environment and open spaces through careful attention to detail at every scale, including public and private spaces and structures.

The Governance Manual – institutionalizes Ontario's approach to governance and provides a business plan for the City. Ontario believes the City has the obligation to create, maintain, and grow economic value. The Manual guides the City's leadership and ensures that TOP 2050 is integrated into daily operations and provides for effective administration. The Euclid/Walnut PUD is established in conformance with the City's requirements and includes an administrative section consistent with provisions contained in the ODC for consideration of "Development Plans."

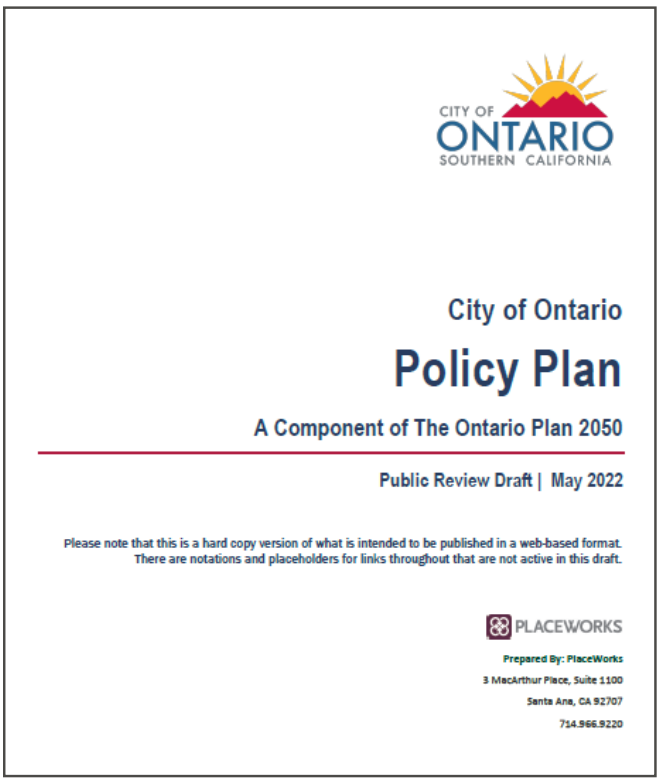
The Policy Plan (General Plan) – includes the Land Use Element, which designates the subject parcels within the Euclid/Walnut PUD as "MU - Mixed Use." Generally, these properties are developed with a mix of uses that, when concentrated, create focal points for community activity and facilitate walking, biking, and transit use The MU – Mixed Use land use category accommodates a horizontal and/or vertical mix of retail, service, office, restaurant, entertainment, cultural, and residential uses. The densities and intensities of the MU – Mixed Use designation represent the intended level of anticipated development; however, individual projects may vary depending upon an approved master plan, such as a specific plan or planned unit development.

Within the Land Use Element, the MU – Mixed Use designation is broken down into unique sub-categories to further refine the type of mixed-use development desired by the City. The parcels comprising the Euclid/Walnut PUD are part of a sub-area categorized as MU-NH – Mixed Use Neighborhood Activity Hub. This specific designation envisions low-rise (three to five stories) buildings, with a mix of retail and residential uses that will create identity and place, and serve surrounding residents. This category allows for residential densities ranging from 20 to 75 dwelling units per acre and non-residential intensity of 1.00 floor area ratio (FAR). Five locations within the City have the MU-NH land use designation. The Future Build-out Projections Table of the Land Use Element provides details for each of these five MU-NH sub-areas. The build-out of the 16-acre "MU-NH (Euclid & Walnut)" sub-area is projected to be 369 dwelling units and 142,840 square feet of non-residential development.

This PUD regulates the redevelopment of 10.6 acres of this sub-area to create a mixed-use project providing a total of 369 dwelling units and 12,000 non-residential square feet. The other 5.4 acres of the sub-area is located north of the PUD boundary and currently developed with 15 single family dwelling units, and approximately 28,000 square feet of non-residential development. There is a nominal increase to the total build-out projection for the number of residential dwelling units within this sub-area resulting from the combination of existing to remain and construction of new within the boundaries of this PUD. However,

it is offset by a significant reduction in the build-out of non-residential square footage should the existing uses/buildings remain unchanged on the 5.4-acre portion. Implementation of this PUD would still allow for redevelopment of the 5.4 acre portion of the sub-area of up to 130,000 of non-residential square footage, consistent with the TOP 2050 build-out projections for this sub-area.

In addition to the requirements of the Land Use Element, all mixed-use development is subject to specific "Place Types" as defined in the Community Design Element, which represent the intended outcome and character for each area. The Euclid/Walnut PUD falls within Place Type 8 (a-e). Properties with this Place Type are considered "Neighborhood Center – Infill" development where commercial and residential parcels were largely developed in an incremental manner prior to 2020. The Community Design Element acknowledges that many properties in this Place Type range in size, complexity, and relationships with surrounding streets and neighborhoods, and that redevelopment could result in horizontal or vertical mixed use. However, all of these centers are envisioned to incorporate site design that prioritizes safe, attractive, and well-shaded pedestrian access on site, from the public rights-of-way, and from the adjacent neighborhoods.


CITY OF ONTARIO SOUTHERN CALIFORNIA

City of Ontario

Policy Plan

A Component of The Ontario Plan 2050

Public Review Draft | May 2022

Please note that this is a hard copy version of what is intended to be published in a web-based format. There are notations and placeholders for links throughout that are not active in this draft.

PLACEWORKS

Prepared By: PlaceWorks
3 MacArthur Place, Suite 1100
Santa Ana, CA 92707
714.966.9220

Implementation of the Euclid/Walnut PUD will achieve many City goals and policies outlined in The Policy Plan (General Plan). Those specific goals and polices are as follows.

Land Use Element

Goal LU-1 Balance

A community that has a spectrum of housing types and price ranges that match the jobs in the City and that make it possible for people to live and work in Ontario and maintain a quality of life.

- LU-1.1 Strategic Growth. We concentrate growth in strategic locations that help create place and identity, maximize available and planned infrastructure, foster the development of transit, and support the expansion of the active and multimodal transportation networks throughout the City.
- LU-1.5 Jobs-Housing Balance. We coordinate land use, infrastructure, and transportation planning and analysis with regional, county, and other local agencies to further regional and subregional goals for jobs-housing balance.
- LU-1.6 Complete Community. We incorporate a variety of land uses and building types in our land use planning efforts that result in a complete community where residents at all stages of life, employers, workers, and visitors have a wide spectrum of choices of where they can live, work, shop and recreate within Ontario.

Goal LU-2 Compatibility

Compatibility between a wide range of uses and resultant urban patterns and forms.

- LU-2.1 Land Use Decisions. We minimize adverse impacts on adjacent properties when considering land use and zoning requests.
- LU-2.2 Buffers. We require new uses to provide mitigation or buffers between existing uses where potential adverse impacts could occur. Additional mitigation is required when new uses could negatively impact environmental justice areas.

Goal LU-4 Phased Growth

Development that provides short-term value only when the opportunity to achieve our Vision can be preserved.

- LU-4.2 Interim Development. We allow development in urban, mixed use, and transit-oriented Place Types that is not immediately reflective of our ultimate Vision for the Place Type, provided it can be modified or replaced when circumstances are right to support development aligned with the Place Type Vision. We will not allow development that impedes, precludes, or compromises our ability to achieve our Vision.
- LU-4.3 Infrastructure Timing. We require that the necessary infrastructure and services be in place prior to or concurrently with development.
- LU-4.4 Shared Infrastructure. We encourage and facilitate the use of shared infrastructure (including shared or managed parking) in urban, mixed use, and transit-oriented Place Types.

Housing Element

Goal H-2 Housing Supply & Diversity

Diversity of types of quality housing that are affordable to a range of household income levels, accommodate changing demographics, and support and reinforce the economic sustainability of Ontario.

- H-2.1 Corridor Housing. We revitalize transportation corridors by encouraging the production of higher density residential and mixed-uses that are architecturally, functionally, and aesthetically suited to corridors.
- H-2.5 Housing Design. We require architectural excellence through adherence to City design guidelines, thoughtful site planning, environmentally sustainable practices, and other best practices.
- H-2.6 Infill Development. We support the revitalization of neighborhoods through the construction of higher-density residential developments on underutilized residential and commercial sites.

Goal H-3 Governmental Regulations

A City regulatory environment that balances the need for creativity and excellence in residential design, flexibility and predictability in the project approval process, and the provision of an adequate supply and prices of housing.

- H-3.2 Flexible Standards. We allow flexibility in the application of residential and mixed-use development standards in order to gain benefits such as exceptional design quality, economic advantages, sustainability, or other benefits that would otherwise be unrealized.

Environmental Resources Element

Goal ER-1 Water & Wastewater

A reliable and cost-effective system that permits the City to manage its diverse water resources and needs.

- ER-1.4 Supply-Demand Balance. We require that available water supply and demands be balanced.
- ER-1.6 Urban Run-off Quantity. We encourage the use of low impact development strategies, including green infrastructure, to intercept run-off, slow the discharge rate, increase infiltration, and ultimately reduce discharge volumes to traditional storm drain systems.
- ER-1.7 Urban Run-off Quality. We require the control and management of urban run-off, consistent with Regional Water Quality Control Board regulations.
- ER-1.8 Wastewater Management. We require the management of wastewater discharge and collection consistent with waste discharge requirements adopted by the Regional Water

Quality Control Board.

Goal ER-3 Energy

Cost-effective and reliable energy system sustained through a combination of low impact buildings, site and neighborhood energy conservation, and diverse sources of energy generation that collectively helps to minimize the region's carbon footprint.

- ER-3.3 Building and Site Design. We require new construction to incorporate energy efficient building and site design strategies, which could include appropriate solar orientation, maximum use of natural daylight, passive solar, and natural ventilation.

Goal ER-4 Air Quality

Improved indoor and outdoor air quality and reduced locally generated pollutant emissions.

- ER-4.1 Land Use. We reduce GHG and other local pollutant emissions through compact, mixed use, and transit-oriented development and development that improves the regional jobs-housing balance.

Community Economics Element

Goal CE-1 Complete Community

A complete community that provides for all incomes and stages of life.

- CE-1.6 Diversity of Housing. We collaborate with residents, housing providers, and the development community to provide housing opportunities for every stage of life; we plan for a variety of housing types and price points to encourage the development of housing supportive of our efforts to attract business in growing sectors of the community while being respectful of existing viable uses.
- CE-1.7 Retail Goods and Services. We seek to ensure a mix of retail businesses that provide the full continuum of goods and services for the community.

Goal CE-2 Placemaking

A City of distinctive neighborhoods, districts, corridors, and centers where people choose to be.

- CE-2.1 Development Projects. We require new development and redevelopment to create unique, high-quality places that add value to the community.
- CE-2.2 Development Review. We require those proposing new development and redevelopment to demonstrate how their projects will create appropriately unique, functional, and sustainable places that will compete well with their competition within the region.

Safety Element

Goal S-1 Seismic & Geologic Hazards

Minimized risk of injury, loss of life, property damage, and economic and social disruption caused by earthquake-induced and other geologic hazards.

- S-1.1 Implementation of Regulations and Standards. We require that all new habitable structures be designed in accordance with the most recent California Building Code adopted by the City, including provisions regarding lateral forces and grading.
- S-1.2 Entitlement and Permitting Process. We follow state guidelines and the California Building Code to determine when development proposals must conduct geotechnical and geological investigations.

Goal S-2 Flood Hazards

Minimized risk of injury, loss of life, property damage and economic and social disruption caused by flooding and inundation hazards.

- S-2.5 Stormwater Management. We maintain the storm drain system to convey a 100-year storm, when feasible, and encourage environmental site design practices to minimize flooding and increase groundwater recharge, including natural drainage, green infrastructure, and permeable ground surfaces.

Goal S-3 Fire & Rescue Hazards

Reduced risk of death, injury, property damage and economic loss due to fires, accidents and normal everyday occurrences through prompt

and capable emergency response.

- S-3.1 Prevention Services. We proactively mitigate or reduce the negative effects of fire, hazardous materials release, and structural collapse by implementing the regularly adopted California Fire Code and California Building Code.
- S-3.8 Fire Prevention through Environmental Design. We require new development to incorporate fire prevention consideration in the design of streetscapes, sites, open spaces, and buildings.

Goal S-4 Noise Hazards

An environment where noise does not adversely affect the public's health, safety, and welfare.

- S-4.1 Noise Mitigation. We utilize the City's Noise Ordinance, building codes, and subdivision and development codes to mitigate noise impacts.

Goal S-5 Wind-Related Hazards

Minimize the risk of injury, property damage, and economic loss resulting from windstorms and wind-related hazards.

- S-5.1 Dust Control Measures. We require the implementation of Best Management Practices for dust control at all excavation and grading projects.

Goal S-7 Law Enforcement

Residential neighborhoods, commercial areas, and industrial districts that are kept safe through a multi-faceted approach of prevention, suppression, and community involvement in public safety.

- S-7.4 Crime Prevention through Environmental Design (CPTED). We require new development to incorporate CPTED in the design of streetscapes, sites, open spaces, and buildings.

Community Design Element

Goal CD-1 Image & Identity

A dynamic, progressive city containing distinct and complete places that foster a positive sense of identity and belonging among residents, visitors, and businesses.

- CD-1.2 Place Types. We establish Place Types in urban, mixed use, and transit-oriented areas to foster the City's identity as a premier community and require new development within each Place Type to incorporate prescribed urban patterns, forms, and placemaking priorities.

Goal CD-2 Design Quality

A high level of design quality resulting in neighborhoods, commercial areas, public spaces, parks, and streetscapes that are attractive, safe, functional, human- scale, and distinct.

- CD-2.1 Quality Building Design and Architecture. We encourage all development projects to convey visual interest and character through:
  1. Building volume, massing, and height to provide context-appropriate scale and proportion;
  2. A true architectural style which is carried out in plan, section, and elevation through all aspects of the building and site design and appropriate for its setting; and
  3. Exterior building materials that are articulated, high quality, durable, and appropriate for the architectural style.
- CD-2.4 Urban, Mixed Use, and Transit-oriented Areas. We establish Place Types to require mixed use, urban, and transit-oriented areas to be designed and developed as pedestrian oriented areas that are integrated with adjacent neighborhoods and promote a vibrant, comfortable, and functional environment, as defined for each Place Type.
- CD-2.7 Sustainability. We collaborate with the development community to design and build neighborhoods, streetscapes, sites, outdoor spaces, landscaping, and buildings to reduce energy demand through solar orientation, maximum use of natural daylight, passive solar and natural ventilation, building form, mechanical and structural systems, building materials, and construction techniques.

- CD-2.8 Safe Design. We incorporate defensible space design into new and existing developments to ensure the maximum safe travel and visibility on pathways, corridors, and open space and at building entrances and parking areas by avoiding physically and visually isolated spaces, maintaining visibility and accessibility, and using lighting.
- CD-2.9 Landscape Design. We encourage durable, sustainable, and drought-tolerant landscaping materials and designs that enhance the aesthetics of structures, create and define public and private spaces, and provide shade and environmental benefits.
- CD-2.13 Entitlement Process. We work collaboratively with all stakeholders to ensure a high degree of certainty in the efficient review and timely processing of all development plans and permits.

Goal CD-3 Urban, Mixed Use, and Transit-Oriented Place Types

Vibrant urban environments that are organized around intense buildings, pedestrian and transit areas, public plazas, and linkages between and within developments that are conveniently located, visually appealing and safe during all hours.

- CD-3.1 Unique Identity. We promote development that heightens the unique character and identity of each Place Type by requiring compatible land uses and land planning, site design, and building design that promotes an active public realm.
- CD-3.4 Context-Aware and Appropriate Design. We require appropriate building and site design that complements existing development, respects the intent and identity of the Place Type, and provides appropriate transitions and connections between adjacent uses to ensure compatibility of scale, maintain an appropriate level of privacy for each use, and minimize potential conflicts.
- CD-3.5 Active Frontages. We create lively pedestrian streetscapes by requiring primary building, business, and residential entrances, outdoor dining, and storefronts be located on ground floors adjacent to sidewalks or public spaces and designed to maximize

CD-3.1 Unique Identity



CD-3.4 Context Aware and Appropriate Building Design



CD-3.5 Active Frontages



CD-3.6 Managed Infrastructure



2.2 Euclid Avenue (EA) Overlay District and Historic Resources

The EA Overlay zoning district was established to recognize, protect, and enhance the visual character and quality of Euclid Avenue as a major scenic and historic resource in Ontario as well as its position on the National Register of Historic Places. Properties located within the EA require approval of a Certificate of Appropriateness to ensure no adverse impacts to designated historic resources occur as a result of new development and buildings. This PUD includes design criteria within Chapter 5 for site and building design that strengthen the overall character of Euclid Avenue.

The public right-of-way of Euclid Avenue from Philadelphia Street northward to the Interstate 10 was designated as Local Landmark No. 67 on January 16, 2001 by the Ontario City Council. On August 10, 2005, the public right-of-way of Euclid Avenue from Philadelphia Street in Ontario northward to 24th Street in Upland was listed on the National Register of Historic Places as a significant cultural landscape. One contributing character defining-feature of the right-of way is the 60-foot-wide median separating the north/southbound vehicular lanes of Euclid Avenue. This PUD does not propose to alter or affect this character-defining feature.

Although the parcels within this PUD have Euclid Avenue frontage, the location of this PUD is separated from the southern boundary (Philadelphia Street) of this Local Landmark/National Register of Historic Places designation by a distance of approximately 0.4 miles. The extended view of the Euclid Avenue corridor, when viewed northward from the parcels or southward towards the parcels of this PUD, is also visually disrupted within the immediate foreground view as a result of the Pomona Freeway (SR-60), which is elevated above Euclid Avenue. Additionally, this PUD is separated from the closest boundary of an historic district, the Downtown Historic District, by a distance of approximately three miles. Based upon the City's Historic Preservation records, there are no potential or proposed historic resources within the immediate surrounding area of the parcels within this PUD.



Historic Euclid Avenue

2.3 Euclid / Walnut PUD Objectives

The Euclid/Walnut PUD establishes a set of planning and design principles, development regulations, and performance standards to guide and govern the development of a defined project site. This PUD will facilitate redevelopment of the project site with structures and related improvements that support residential and non-residential land uses within the same project site. In addition to facilitating achievement of many City goals and policies as outlined herein, this PUD has the following objectives:

- Develop and provide new, high-quality rental housing combined with a mixed-use component.
- Provide transition between new mixed-use development and surrounding residential neighborhoods and commercial properties.
- Provide areas of private and passive open space for each residential unit, as well as community gathering and active open spaces.
- Promote development that is consistent with the MU-NH – Mixed Use Neighborhood Activity Hub land use designation.
- Promote revitalization of commercial uses on the project site by establishing new ground-floor retail and similar uses that serve on-site residents and those in surrounding neighborhoods.
- Provide outdoor gathering places adjacent to commercial storefronts, such as outdoor patio or bench seating with inviting/attractive landscape elements.
- Orient non-residential, ground-floor uses towards Euclid Avenue.
- Incorporate site design solutions to allow for phased development.
- Satisfy the build-out projections for residential dwelling units within the MU-NH (Euclid-Walnut) sub-area, as defined in TOP 2050.

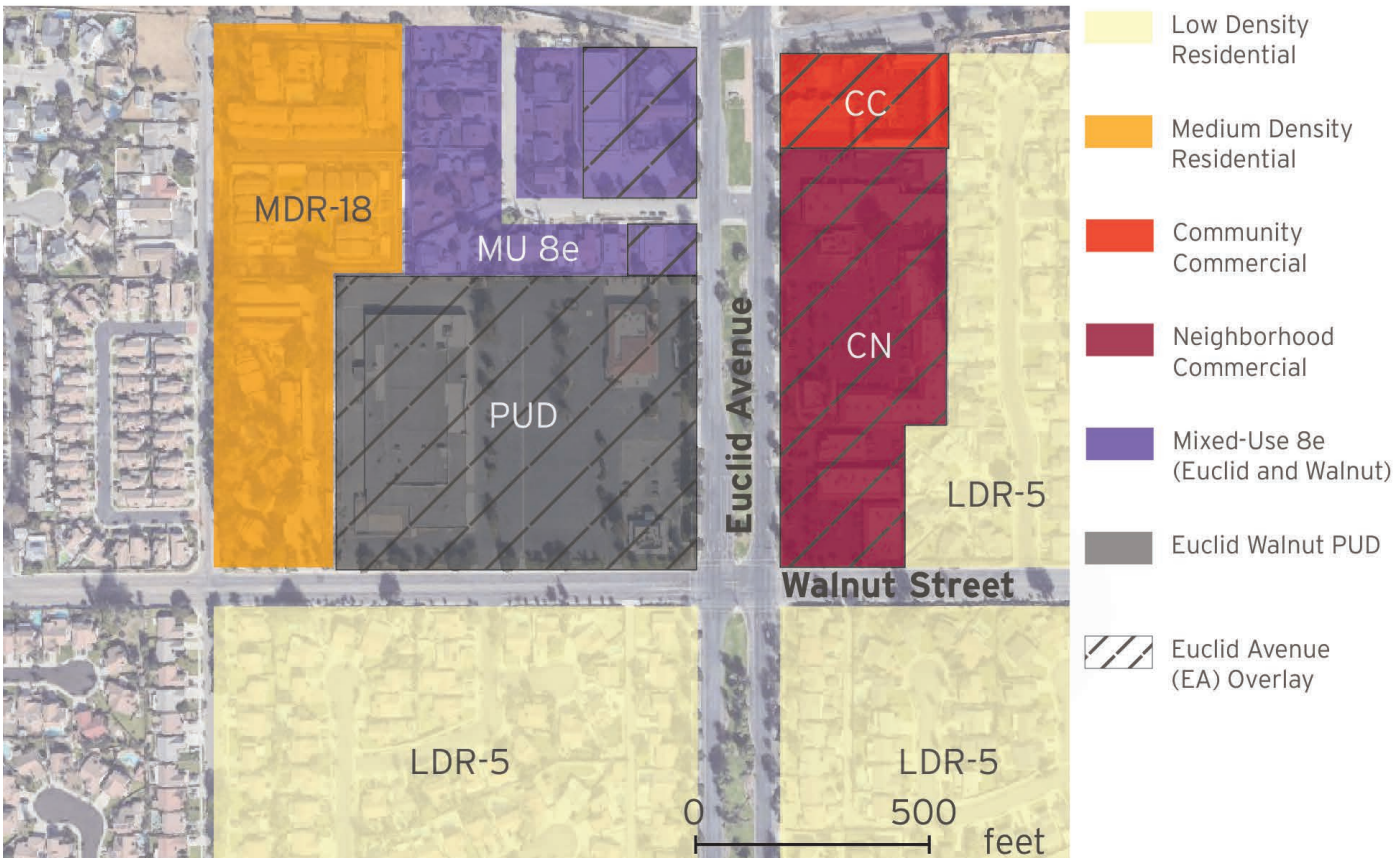


3 Land Use Plan

3.1 Land Use and Zoning

The Euclid/Walnut PUD applies to the parcels shown on Exhibit 3-1: Land Use/Zoning Map. The map establishes a single zoning district of PUD - Planned Unit Development providing for a mix of commercial and residential uses consistent with TOP 2050 MU-NH land use designation. This PUD allows both horizontal and vertical mixed-use development in buildings of three and four stories. Buildings with direct Euclid Avenue frontage will contain ground-floor commercial uses and residential units directly above. All other buildings will contain residential units on all floor levels. A combination of garages, tandem spaces, carports, and surface parking spaces will be provided, with gated access limited to residents and residents' guests. Unrestricted access to surface-level parking will serve the commercial uses and provide additional resident guest parking spaces. Residents will enjoy a low-maintenance, urban lifestyle with conveniently located shopping, dining, and personal service businesses in combination with convenient access to established transportation routes and employment hubs.

Exhibit 3-1: Land Use/Zoning Map



3.2 Phasing and Building Out

Implementation of the land use plan and the build-out allowable under this PUD will be achieved through two redevelopment phases. Exhibit 3-2: Phase 1 Conceptual Site Plan illustrates the development plan for the initial phase.

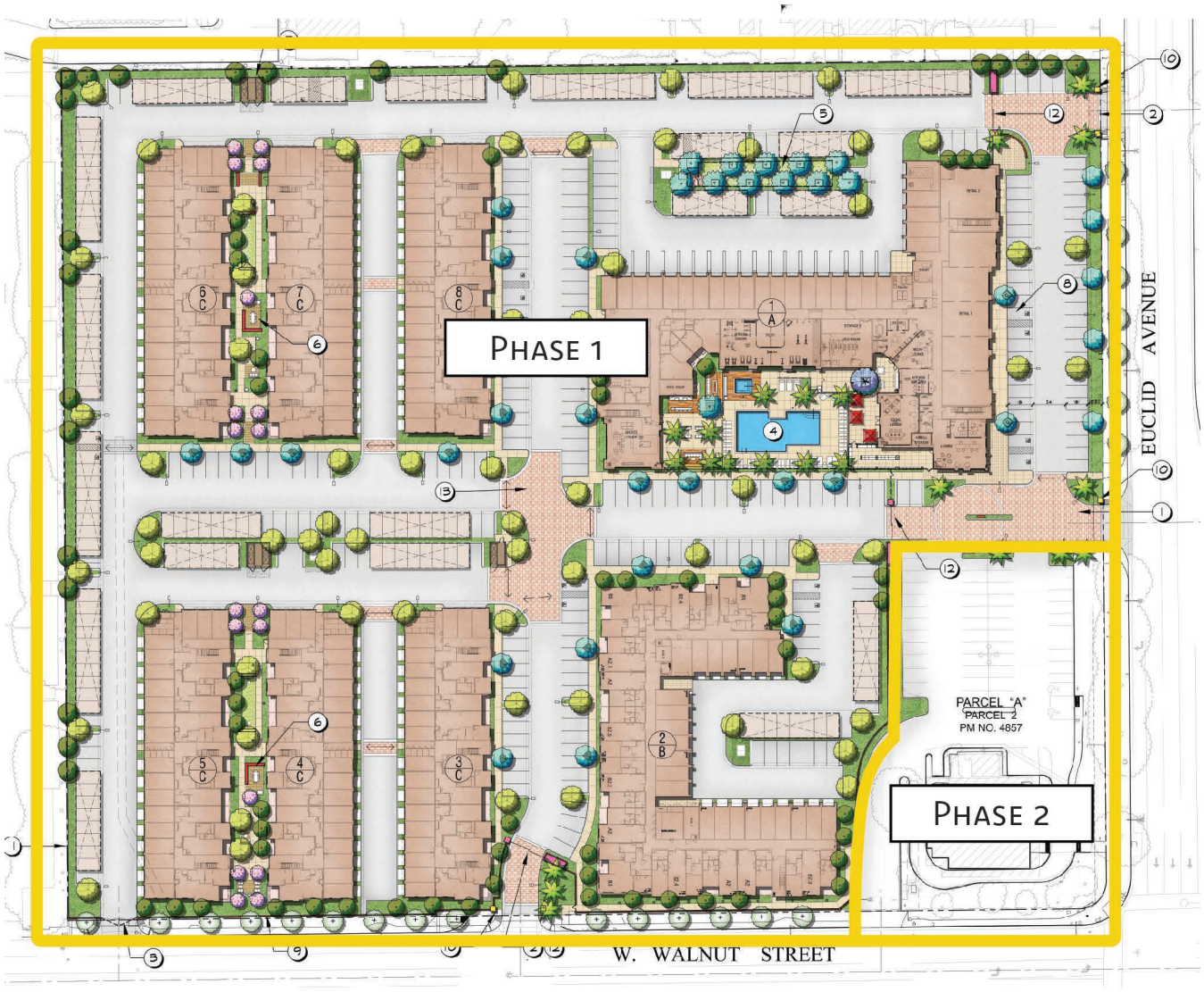
The first phase will retain the fast-food, drive-through restaurant use, occupying an approximately 4,100-square-foot building and its related site improvements. The remaining area within the boundaries of this PUD will be developed with two four-story buildings and six three-story buildings, providing a combined total of 346 dwelling units, 5,400 square feet of ground-floor commercial space, associated on-site parking areas for both residential and non-residential land uses, and landscaping and recreational amenities for residents[1].

The second phase will implement the full build-out of the PUD area with demolition of the restaurant and related site improvements; replacing them with an additional mixed-use, four-story building. Completion of the second phase will provide up to an additional 23 dwelling units and up to an additional 6,600 square feet of ground-floor commercial space, plus associated site improvements.

This PUD, inclusive of all development standards and requirements, applies to both phases. Ultimate build-out will result in a maximum of 369 dwelling units and approximately 12,000 square feet of commercial land uses.

1. Demolition of approximately 100,950 square feet of older commercial buildings will occur before project construction proceeds.

Exhibit 3-2: Phase 1 Conceptual Site Plan



3.3 Permitted Uses

Table 3-1: Permitted Uses lists the allowable land use, activity, or facility permitted within this PUD. A land use that is not listed shall be considered a prohibited land use unless otherwise allowed by the Zoning Administrator in accordance with the requirements and procedures outlined in the ODC. The land uses established in this table are consistent with those listed uses and land use definitions of the ODC. The ODC relies upon the North American Industry Classification System (NAICS) for non-residential land uses, utilizing the NAICS website definitions for each business establishment classification. The "Notes or ODC Regulations" column provides reference to the location of any specific regulations, operating conditions, and/or development standards applicable to the corresponding land use, activity, or facility; as well as exception to any standards or requirement as modified within this PUD. The "Permit Type" column symbols shall have the same meaning and utilize the same permit type, process, and approvals as contained in the ODC.

Table 3-1: Permitted Uses		
Land Uses, Activities, and Facilities	Permit Type "P" – Permitted by Right "C" – Conditional Use Permit "A" – Administrative Use Permit	Notes or ODC Regulations
Residential		
Accessory Dwelling Units	P	ODC Section 5.03.010
Animal Keeping (accessory) Household Pets - 4 or fewer pets	P	
Community Gardens (accessory)	A	ODC Section 5.03.410
Home Occupation (accessory)	A	ODC Section 5.03.240
Multiple-Family Dwellings	P	
Mixed Uses		
Residential Mixed-Use Developments	P	ODC Section 5.03.285
Non-Residential Uses – Limited to Ground Floor and Euclid Avenue Frontage		
Alcoholic Beverage Sales (off-premise)	C	ODC Section 5.03.025
Art Dealer	P	
Clothing, Shoes and Jewelry Store	P	
Consignment Shop	P	
Convenience Store	P	
Document Preparation Services	P	
Drycleaning and Laundry Services - Limited to Drop-off and Pick-up	P	Drive-thru prohibited
Electronics and Appliance Store	P	ODC Section 5.03.175
Finance and Insurance Services	P	Check Cashing, Advanced Payday, and Pawnshops prohibited

Table 3-1: Permitted Uses		
Land Uses, Activities, and Facilities	Permit Type "P" – Permitted by Right "C" – Conditional Use Permit "A" – Administrative Use Permit	Notes or ODC Regulations
Florist	P	
Furniture and Home Furnishings Store	P	ODC Section 5.03.210
General Merchandise Store	P	
Health and Personal Care Store	P	
Investigative and Security Services	P	
Office Administrative Support Services	P	
Office Supplies, Stationary and Gift Store	P	
Personal and Household Goods Repair	P	
Personal Care Services With Massage Services	P A	 ODC Section 5.03.270
Personal Fitness Training Studio	P	Limited to 10,000 sq. ft.
Pet Supply Store	P	Animal Sales prohibited
Pharmacies and Drug Store	P	Drive-thru prohibited
Police Storefront/Community Services	P	
Private Mail Centers and Postal Supply	P	
Professional and Technical Services	P	Limited to non-medical
Real Estate, Rental, and Leasing Services	P	
Restaurants, Fast Food With Drive-Thru	P P	 ODC Section 5.03.150
Restaurants, Limited Service With Alcoholic Beverage Sales With Live Entertainment	P C C	 ODC Section 5.03.025 ODC Section 5.03.257
Restaurants, Snack and Nonalcoholic Beverage Bar	P	
Specialty Food and/or Beverage Store With Alcoholic Beverage Sales	P C	 ODC Section 5.03.025
Sporting Goods, Hobby, Book, and Music Store	P	
Supermarket and Grocery Store	P	
Travel Arrangement Services	P	

4 Development Regulations

This section sets forth standards that govern the placement, height, and bulk of permitted buildings and other structures; establishes locational criteria for vehicular access to development sites; establishes parking and loading requirements; and specifies minimum requirements for recreational amenities for residential uses. Unless otherwise modified herein, development within this PUD shall comply with the ODC standards and requirements as may apply generally to Multiple-Family Dwellings and Commercial development, as determined appropriate by the Director. Table 4-1: Summary of Development Standards provides an at-a-glance reference to the regulations for the various standards, and is to be used in combination with the descriptions and specific criteria listed for each of the standards.

4.1 Intensity

The intensity of non-residential development shall not exceed a maximum 0.5 floor area ratio (FAR) based upon the net site area. The calculation shall be derived by dividing the gross square footage of the commercial space of the vertical mixed use buildings by the net site area. In determining FAR, this square footage should not include indoor common amenity space or other interior square footage serving the residential land uses.

4.2 Density

The density of residential development shall not exceed a maximum 40 dwelling units per acre based upon the net site area. In no case shall the total number of residential units exceed 369 units upon build-out of Phase 2.

4.3 Building Envelope

a. Non-residential land uses shall be on the ground-floor level of vertical mixed-use buildings.

b. Residential dwelling units may be located on any floor level.

c. The height of four-story buildings shall not exceed 60 feet. The height of three-story buildings shall not exceed 50 feet. Height shall be measured as specified in the ODC and is inclusive of architectural projections.

d. Any rooftop mechanical venting or communications equipment shall be built within or otherwise screened by the roof structure so that they do not project above parapets and are not visible from any public right of way, or neighboring building.

e. The location of vertical mixed-use buildings shall be limited to buildings with frontage along Euclid Avenue.

f. The building edge along Euclid Avenue may vary. It may occur a minimum of 10 feet behind the public right-of-way line or at a point that allows for up to two parking bays served by a drive aisle, up to a maximum building setback of 80 feet.

g. The building edge along Walnut Street shall provide a minimum setback of 10 feet.

h. Building setbacks shall be measured from the ultimate property lines or ultimate right-of-way width, whichever is greater.

i. Placement of buildings and structures shall conform with other specifications of Table 4-1: Summary of Development Standards.

j. Any yard areas provided between the buildings and the right-of-way may be finished with hardscape, including walls/ fences, or landscape.

4.4 Vehicle Access

Vehicular access from any public right-of-way shall be limited to two locations along Euclid Avenue and a maximum of three locations along Walnut Street, as approved by the City Engineer.



4.5 Parking Facilities, Supply, and Design

On-street parking on Euclid Avenue and Walnut Street adjacent to this PUD shall not be allowed.

a. Non-residential uses shall be provided with parking at a minimum ratio of one parking space per 250 gross square feet of building area. Such parking shall be located on site, and shall be accessible during operating hours of the businesses being served.

b. Residential uses shall be provided with parking at a minimum ratio of 1.2 parking spaces per bedroom in each dwelling unit, inclusive of providing guest or unassigned parking spaces. Resident parking shall be located on site, and may have access restricted by gated entrance. Resident parking for each dwelling unit or guests of that dwelling unit may be provided within a garage space, as a tandem space, within a carport, as surface level parking, or in combination. Tandem spaces are restricted to those directly in front of a garage door and shall be assigned to the same dwelling unit as the garage space.

c. A parking management plan shall be submitted for the Planning Director approval prior to the issuance of building permits. The plan shall address the assignment, distribution, and functionality of all parking spaces among the various uses, including the use of non-residential spaces providing overflow resident guest spaces when businesses are closed.

d. Parking spaces shall not obstruct access to building entrances, pedestrian paths, trash storage areas, or loading areas.

e. Parking space dimensions, drive aisles, etc. shall generally conform to the standards set forth in the ODC unless modified herein.

4.6 Residential Open Space and Common Amenities

Open space for the residential component shall be provided at a minimum ratio of 250 square feet per dwelling unit. Such space can be a combination of residential private open space and common amenities, subject to the following:

a. A minimum of 50 square feet of individual private open space, in the form of balcony or patio area directly accessible from the interior of each dwelling unit, shall be provided. Individual balcony or patio areas shall have a minimum dimension for length and width of five feet.

b. Common amenities shall be provided at the minimum ratio of 175 square feet per dwelling unit. This may include a combination of passive and active, indoor and outdoor spaces, roof-top or upper floor decks, as well as landscaped and hardscaped ground surfaces providing paseos between or adjacent to buildings. Up to 15 percent of the overall common amenity square footage may consist of indoor area and be grouped into a single building that is accessible to all residents. Such indoor area shall provide opportunities for fitness, lounge/gathering space, business/mail center, and similar amenities. The remaining common amenities provided shall be in the form of outdoor common areas consisting of both programmed and unprogrammed spaces. Programmed space may provide specific amenities: such as a dog park, seating/ conversational areas, outdoor cooking facilities with table seating areas, etc. Unprogrammed space may provide passive use such as landscaped paseos.

4.7 Service Facilities

Service areas and facilities shall comply with the following:

a. Loading and unloading in proximity to both the residential and non-residential uses shall be addressed as part of the parking management plan submitted to the Planning Director to ensure coordination of operational hours and occupancy/vacancy of parking areas.

b. Trash receptacles/recyclable container storage areas shall be provided for all residential and non-residential uses. Such receptacle/storage area may receive trash from commercial and residential sources. Locations, sizes, and design of such areas shall be readily accessible by trash disposal company equipment and work crews, as approved by the Planning and Public Works Directors, in consultation with the trash disposal vendor.

c. Individual storage units shall be provided for the occupants of each dwelling unit, exclusive of any closets in the units. The total amount of cubic feet provided shall average 150 cubic feet per dwelling unit.

4.8 Signs

A Master Sign Program shall be submitted for approval by the Planning Director prior to issuance of a building permit to provide design and standards applicable to both residential and non-residential land uses within this PUD. The program will include specific sign criteria for gated access points. All signs shall comply with standards in the ODC. Any signage within the Euclid Avenue Caltrans right-of-way will require Caltrans review and approval.

4.9 Landscape/Hardscape

a. A detailed plan shall be submitted with the Development Plan specifying all landscape and hardscape elements of the residential open space and common amenities, as well as the perimeter yards abutting the street rights-of-way and all street trees.

b. Water conservation shall be provided through low water using plant materials, hydro zones, water efficient irrigation and weather-based controllers as required by City codes. Landscaped areas may be used for storm water infiltration through vegetated swales, retention basins, or dry wells as needed with the use of appropriate planting materials.

c. The landscape design shall generally satisfy the requirements of the Landscape Development Standards outlined in the ODC and shall create well-functioning spaces within a sustainable design utilizing materials as provided in Table 5-1: Master Plant Palette.

d. Within parking areas, the following landscape areas and standards apply:

1. For each row of parking spaces located within the restricted access (gated) parking areas, planter islands of at least six feet in width that extend the full length of the abutting parking space shall be located at a minimum rate of every 15 spaces. This rate shall be increased to every 10 spaces for parking areas with unrestricted access and/or adjacent to Euclid Avenue.

2. Tree wells, tree diamonds, or center planter strips shall be provided to allow for the planting of shade trees at a minimum ratio of one tree for each five parking spaces. Tree wells shall not have a minimum dimension less than five feet.

3. All landscape planters within parking areas shall be delineated with a six-inch-wide curb regardless of parking space configuration. The use of a 12-inch-wide curb may be provided to allow for a "step area" in circumstances where there is increased frequency of passengers exiting or entering a vehicle.



4. Bordering the Euclid Avenue frontage, a minimum 10 foot in depth planter area shall be provided between the public right-of-way and a parking space oriented perpendicular to the right-of-way.
5. A minimum 20-foot deep planter area shall be provided at a driveway between any public right-of-way to the first parking space to allow for a minimum 20-foot drive aisle throat.

f. Street trees shall comply with the variety, size, and spacing as directed by the City of Ontario Master Street Tree Plan.

4.10 Fences and Walls

a. Fences and walls shall be an integral design or compatible with the building architecture and shall comply with the height and materials shown in Exhibit 5-6: Fence/Wall Concepts.

b. Fences and walls may be setback zero feet from property lines except where such fence or wall is required to comply with Engineering Corner Sight Distance Standards and other applicable standards.

c. Decorative walls, monuments, and/or other similar features shall not encroach into the public right-of-way.

4.11 Public Right-of-Way Improvements

As determined by the City Engineer, design and construction of any street improvements adjacent to the property frontage of Euclid Avenue and Walnut Street shall be conditioned and may include, but not be limited to, concrete curb and gutter, sidewalk, LED street lights, signing and striping, and parkway landscaping. Any improvements within the Euclid Avenue Caltrans right-of-way will require Caltrans review and approval.

4.12 Infrastructure

The parcels within the boundary of this PUD shall be served by existing water lines and wastewater flows and/or upgraded to satisfy the required capacities as determined by the City and its service purveyors/agencies, including the Fire Department.

On-site stormwater drainage facilities shall be provided consistent with the San Bernardino County Stormwater Program's Water Quality Management Plan (WQMP) requirements for new development projects. Stormwater capture and infiltration facilities may include the utilization of vegetated swales, depressed landscaped basins, pervious concrete pavement, and/or underground stormwater retention/infiltration vaults.

The parcels within the boundary of this PUD are considered a Priority Land Use (PLU). A PLU shall comply with the statewide Trash Provisions adopted by the State Water Resources Control Board (SWRCB) and trash requirements in the most current San Bernardino County Area-Wide MS4 Permit. Drainage from the PLU shall be designed with conveyance tributary to a Full Trash Capture System which has been approved by the SWRCB.

4.13 Summary of Development Standards

Table 4-1: Summary of Development Standards provides the quantitative development standards set forth in previous Sections 4.1 through 4.12 and any additional requirements for development within this PUD.

Table 4-1: Summary of Development Standards		
Development Standard	**Requirement**	**Notes**
Maximum Intensity - Floor Area Ratio	0.50 FAR	Gross building square footage of commercial space
Density Range - Minimum and Maximum	20.1 - 40	Up to a maximum of 369 dwelling units
Maximum Building Height by Number of Stories Four Stories Three Stories	 60 ft. 50 ft.	Inclusive of architectural projections and equipment screening
Building Setbacks - From Right-of-Way	10 ft. minimum	
Setbacks - Interior Property Line Buildings Adjacent to Residential Buildings Adjacent to Non-Residential Carport or Trash Enclosure	 50 ft. minimum 5 ft. minimum 5 ft. minimum	
Building Separation Building to Building Building to Drive Aisle or Parking Areas Building to Carport Patio to Patio	 25 ft. minimum 5 ft. minimum 25 ft. minimum 15 ft. minimum	 Individual driveway depth limited to 5 ft. or less, or 18 ft. or more
Minimum Number of Parking Spaces Ratio for Residential Uses Ratio for Non-Residential Uses	 1.2 spaces/bedroom 1 space/250 sq. ft.	 Inclusive of guest spaces
Residential Open Space and Common Amenities - Combined Minimum Ratio Minimum Private Open Space Ratio Minimum Common Amenity Ratio	 250 sq. ft./du 50 sq. ft./du 175 sq. ft./du	 5 ft. minimum width and length 15% maximum indoor
Residential Storage Units	150 cubic feet/du minimum	Does not include closets or cabinets interior to the unit

This page was intentionally left blank.

5 Design Criteria

New development implemented under this PUD will generate new uses and design aesthetics in a way that fulfills many of the design goals and policies discussed previously in Chapter 2. The Community Design Element in TOP 2050 outlines specific "Place Types"; this PUD is categorized under Place Type 8e, which is considered "Neighborhood Center – Infill" type development, where the commercial and residential parcels were largely developed in an incremental manner prior to 2020. Redevelopment could result in either horizontal or vertical mixed use and are envisioned to incorporate site design that prioritizes safe, attractive, and well-shaded pedestrian access from the public rights-of-way and adjacent neighborhoods.

The parcels within this PUD site do not contain significant buildings, structures, or locations subject to historic preservation. While the first phase of development retains an existing fast-food restaurant structure, this building is not considered historic. The new infill development will include architecture that creates a dynamic visual environment and increases the pedestrian experience. The design criteria for the buildings provide articulation, dynamic materials and colors, and avoid bulky and monotonous elevations. Street trees and landscaped street-facing setback areas will provide opportunities to frame the street, create a pleasant pedestrian pathway, and minimize the building bulk from the public right-of-way.

The following sections provide guidance to City staff and private developers in the design of buildings, yards, and streets. Variations from strict interpretation of the standards are permitted, provided that the integrity of the urban design is not compromised. The following criteria shall be incorporated into the Development Plan for each phase of this PUD, subject to final interpretation by the Planning Commission.

5.1 Building Orientation

a. Buildings along Euclid Avenue shall provide storefronts that invite pedestrian activity.

b. Architectural focal treatments such as taller elements, textured surfaces, and unique fenestration shall be provided on frontage facing public streets.

c. Buildings located at the street corner shall be designed to incorporate architectural features that respond to the corner location by having directed entries and/or tower elements.

d. Multiple shop entrances and display windows with clear glazing, shall be provided along Euclid Avenue facades.

5.2 Access and Parking Facilities

a. Vehicular access and on-site parking shall be designed to reduce visual impact along Euclid Avenue and Walnut Street.

b. On-site parking facilities serving non-residential uses shall be readily accessible, screened, and separated from the public right-of-way views with landscaping, including shade trees.

c. On-site parking facilities serving residential uses may be located behind gated ingress/egress points. Gate access points from Euclid Avenue shall be set back to allow stacking of at least two vehicles, with sufficient space configured to allow a vehicle to turn around without backing into the street. The primary entry gate serving residential uses shall be designed to be easily recognizable to visitors.

d. Carports and individual garage entries shall be designed to be compatible with the building architecture and use similar colors, materials, and details.

5.3 Service Facilities

a. Service, loading and, storage facilities shall be located away from public streets, outdoor spaces, and adjacent residential uses.

b. Electrical equipment shall be located on the interior of a building. When interior locations are not practical, electrical equipment shall be enclosed and screened from public streets with walls, fencing, and/or landscaping that allows for sufficient ventilation, or buried in vaults.

c. Service areas shall be screened and gated.

d. All types of loading doors within view of public streets shall be screened with walls, berms, or plant materials.

5.4 Pedestrian Linkages

a. Pedestrian pathways shall be designed and located for clear and comfortable on-site pedestrian circulation. Sidewalks and pedestrian paths shall provide convenient connections between storefronts, outdoor spaces, and parking, as well as portals to adjacent residential uses.

b. Landscape paseos shall be used to reinforce pedestrian connections. For instance, attractive paving and planting design may identify and highlight these connections by establishing a visual separation between vehicular and pedestrian routes and provide passive open space opportunities for residents.

5.5 Architectural Character

a. The architectural character shall reflect the various styles within the City and along Euclid Avenue and shall fit in contextually without matching. The use of complementing proportions, building details, and building materials shall be employed.

b. Compatibility between the vertical and horizontal mixed-use architecture shall be achieved through the use of unifying elements such as similar materials and colors.

c. A schematic illustration of acceptable architectural character is shown in Exhibit 5.1: Architectural Character – Vertical Mixed-Use, Exhibit 5-2: Architectural Character – Three Story Residential, and Exhibit 5-3: – Four Story Residential.

5.6 Massing & Scale

a. Simple, yet varied massing shall be used, with wall openings that create shadow line and provide visual relief.

b. Massing and height of corner elements shall be emphasized by using strong and identifiable building forms such as taller building mass, tower element, or cupola.

c. Building increments shall employ various architectural devices such as changes in colors/finish material, horizontal breaks and offsets, upper building portion reflecting the same increment of articulation as the ground level, and use of trim and moldings at the top of facades that reflect the vertical massing of the building.

d. Where buildings will be of varying heights, they shall be designed to promote transition in massing and avoid abrupt changes in scale within the development.

5.7 Articulation & Fenestration

a. Buildings shall have three-dimensional qualities.

b. The base and upper levels of a vertical mixed use building shall be differentiated with features for storefronts such as a bulkhead, display windows, and/or transom and detailed trim.

c. Buildings shall be articulated on all sides. Fenestration, changes in wall plane, material, texture, color, etc. shall be used to create shadow lines and articulate building walls.

d. Highly visible public entrances shall be provided where buildings are oriented towards Euclid Avenue to provide individual shop entrances featuring recesses, overhangs, special materials, and/or detailing.

Exhibit 5-1: Architectural Character — Vertical Mixed-Use





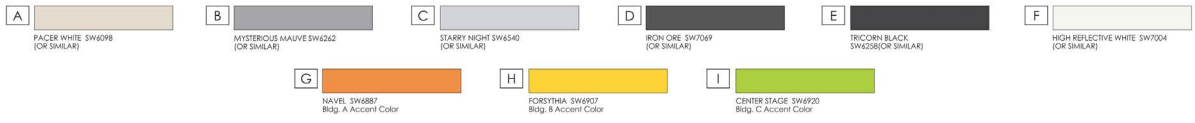




Exhibit 5-2: Architectural Character — Three-Story Residential



Exhibit 5-3: Architectural Character — Four-Story Residential



5.8 Architectural Details

a. Architectural details shall be used to enhance a building's appearance at the base, eaves, parapets, and around entries and windows.

b. Human-scaled details such as canopies and awnings, transparent windows and window displays shall be provided facing Euclid Avenue.

c. Architectural features and details shall be an integral part of the building without an appearance of being "tacked on."

5.9 Storefronts

a. Storefronts for each commercial establishment shall have a unifying architectural aesthetic, but may include alteration of exterior treatments on the individual frontage of the space where such modifications compliment the overall design quality of the development.

b. Storefronts shall incorporate desirable building materials such as brick, stone, tile, exterior cement plaster, or fiber cement siding.

c. Storefront glazing shall be clear glass to permit clear views into the interior space. The amount of such glass shall provide a balance between high visibility into the store interior and architectural quality.

d. Entrance doors shall be of a traditional style and as transparent as possible.

5.10 Material & Colors

a. Materials shall be those of permanence and quality and that unify a building's appearance on all sides.

b. Materials and colors shall accentuate the architectural details of the building and promote visual harmony.

c. To create visual interest, at least three different building materials shall be used.

5.11 Roof/Rooftop Equipment

a. At least one break in roof plane shall be provided on each building

b. Rooftop equipment, including ladders and antenna devices, shall be screened so as not to be visible from streets and adjacent buildings. Methods of rooftop screening should be integral to the building's form.

5.12 Non-Residential Outdoor Dining Areas

Outdoor dining areas adjacent to a ground-level eating or drinking establishment shall be oriented toward Euclid Avenue.

5.13 Residential Outdoor Space, Common Recreational Amenities

a. Private balcony and/or patio enclosures shall consist of materials that are complementary to materials and colors used on the building elevations. Each balcony shall be oriented or enclosed sufficiently to increase privacy between balconies of adjacent units.

b. Common outdoor spaces providing passive recreation shall include either shade elements and/or trees providing shade canopy.

c. Indoor recreation/fitness/community facilities shall be of the same architectural style and materials that match or complement the primary building architecture with a layout as shown in Exhibit 5-4: Typical Common Recreational Amenity.

d. Outdoor seating, tables and umbrellas, gazebos, barbecues, natural or artificial lawn area, and/or other place-making features that are provided shall be compatible with the architectural style of the buildings with a layout as shown in Exhibit 5-5: Typical Courtyard.

Exhibit 5-4: Typical Common Recreational Amenity

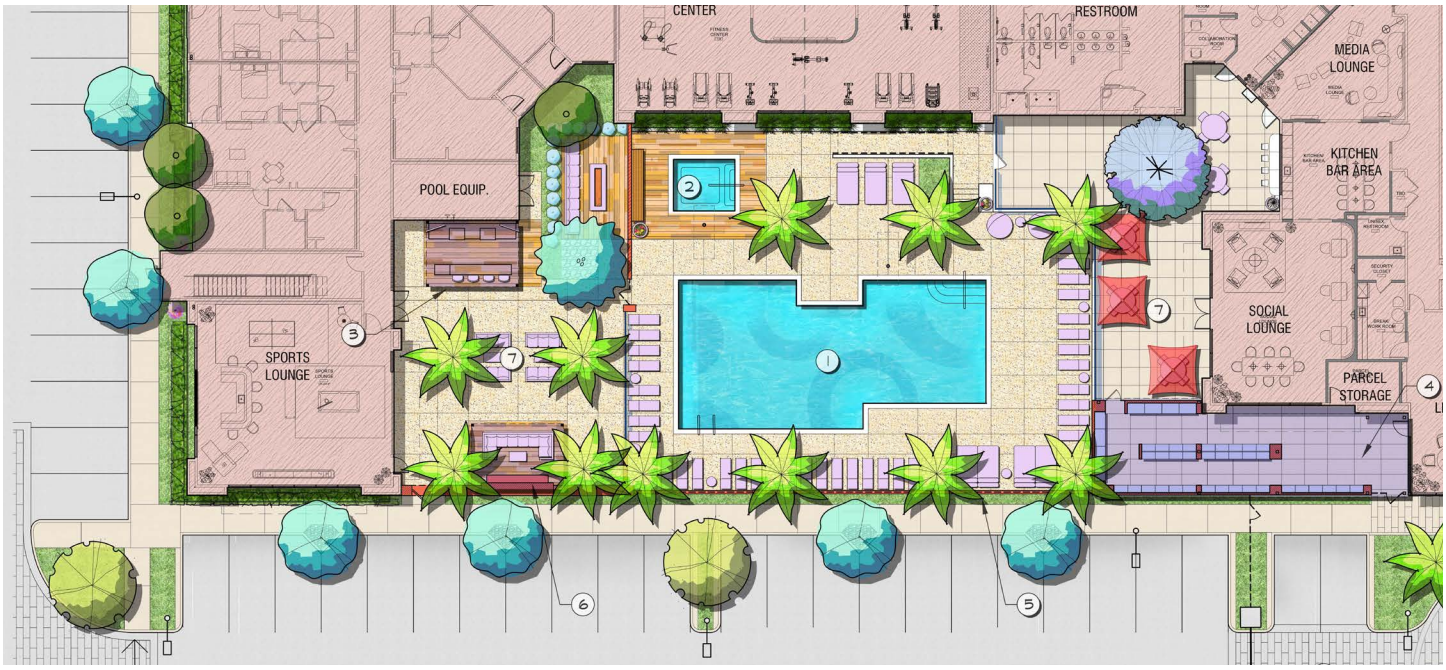
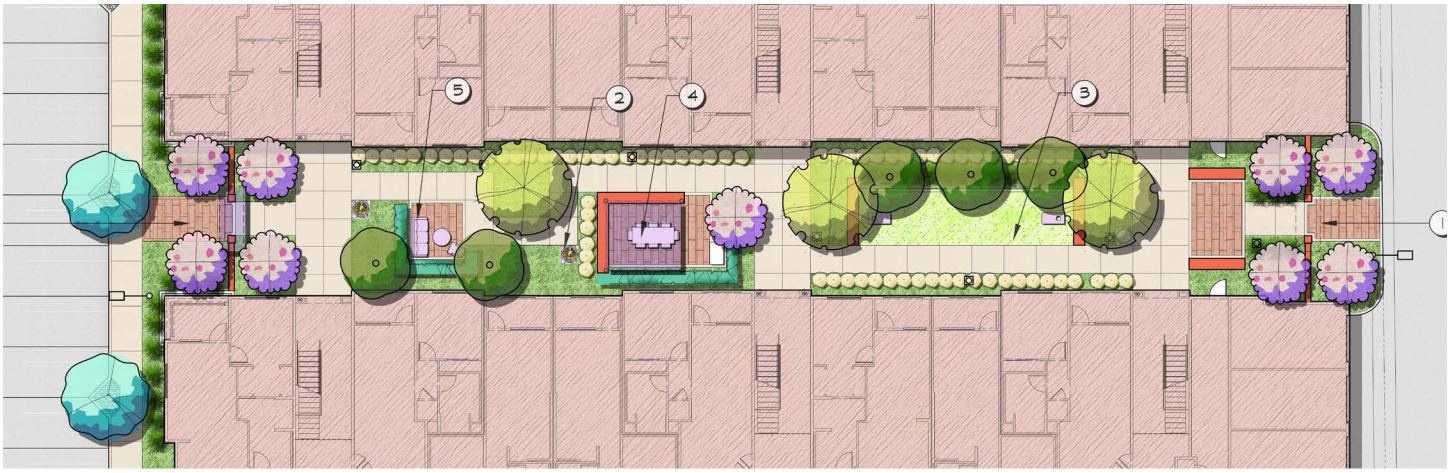


Exhibit 5-5: Typical Courtyard



5.14 Landscape / Hardscape Elements

a. Landscaping elements shall contribute and complement the aesthetic quality and character of the public and private spaces.

b. Table 5-1: Master Plant Palette shall guide the selection of materials for street trees, perimeter trees and shrubs, courtyard and common area trees, vines, screening and hedge plants, and groundcover.

c. Landscaping shall be provided to define and enrich courtyards and walkways and shall include specimen trees of minimum size 24 inch box.

d. Hardscaping shall be composed of decorative paving materials and patterns, rather than a single, continuous surface.

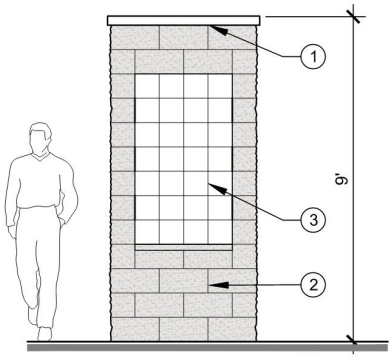
e. Fences/walls shall complement the building materials similar to those depicted in Exhibit 5-6: Fence/Wall Concepts.

Table 5-1: Master Plant Palette

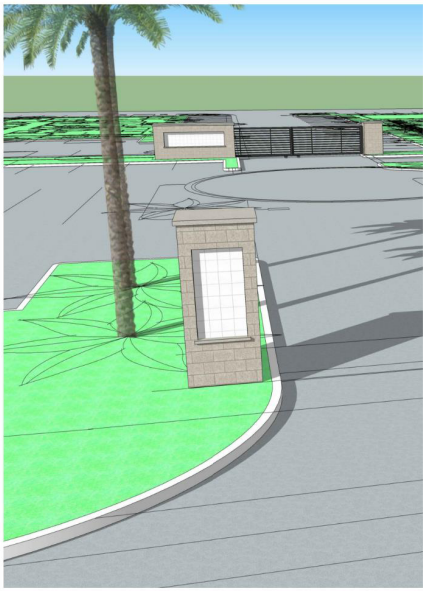
Botanical Name	Common Name	Minimum Size
Street Trees		
Grevillea robusta	Silk Oak (Euclid)	24" Box
Platanus wrightii	Arizona Sycamore	
Site Trees and Palms		
Quercus agrifolia	Coast Live Oak	48" Box
Platanus racemosa	California Sycamore	
Ulmus parvifolia 'True Green'	Evergreen Elm	
Koelreuteria paniculata	Golden Rain Tree	36" Box
Lagerstroemia hybrids 'Muskogee'	Crape Myrtle (Lavender)	
Chilopsis linearis	Desert Willow	
Aloe bainesii	Tree Aloe	24" Box
Arbutus 'Marina'	Strawberry Tree	
Cercis occidentalis	Western Redbud	
Platanus acerifolia 'Bloodgood'	London Plane Tree (anthracnose res.)	
Podocarpus gracilior	Fern Pine	
Quercus wislizeni	Interior Live Oak	
Tristania conferta	Brisbane Box	
Phoenix dactylifera	Date Palm	16' Brown Trunk Height

Table 5-1: Master Plant Palette		
Botanical Name	Common Name	Minimum Size
Shrubs		
Agave 'Blue Flame'	Blue Flame Agave	5 Gallon
Agave desmettiana ' Variegata'	Variegated Dwarf Century Plant	
Alyogne huegelii 'MONleon'	Leon's Purple Delight Lilac Hibiscus	
Arbutus unedo 'Elfin King'	Elfin King Strawberry King	
Buxus microphylla japonica	Japanese Boxwood	1 Gallon
Calandrinia spectabilis	Rock Purslane	
Carex tumulicola	Foothill Sedge	
Carissa grandiflora 'Green Carpet'	Natal Plum	
Dianella revoluta 'DR5000'	Little Rev Flax Lily	
Dianella tasmanica 'Silver Streak'	Silver Streak Flax Lily	
Ilex crenata 'Sky Pencil'	Sky Pencil Ilex	5 Gallon
Juniperus scopulorum 'Skyrocket'	Skyrocket Juniper	
Lantana montevedensis 'Monma'	White Lightin' Lantana	1 Gallon
Ligustrum japonicum 'Texanum'	Wax Leaf Privet	5 Gallon
Lomandra longifolia 'LM300'	Breeze Dwarf Mat Rush	
Muhlenbergia capillaris 'Regal Mist'	Regal Mist Muhly	
Myoporum parvifolium	No Common Name	1 Gallon
Philodendron x 'Xanadu'	Dwarf Philodendron	5 Gallon
Pittosporum tobira	Tobira	
Podocarpus elongatus 'Monmal'	Icee Blue Yellow-Wood	
Prunus caroliniana 'Bright n' Tight'	Carolina Cherry	
Rhaphiolepis indica 'Clara'	Dwarf Indian Hawthorne	
Rhaphiolepis x. 'Montic'	Majestic Beauty Indian Hawthorne	
Rosa 'Flower Carpet var. Noatraum'	Pink Carpet Rose	2 Gallon
Rosa f. 'Ice Berg'	White Shrub Rose	5 Gallon
Trachelospermum asiaticum	Asian Jasmine	1 Gallon
Vines and Espaliers		
Clytostoma callistegioides	Violet Trumpet Vine	5 Gallon
Distictus buccinatoria	Blood Red Trumpet Vine	
Ficus pumila (repens)	Creeping Fig	1 Gallon
Parthenocissus tricuspidata	Boston Ivy	

Exhibit 5-6: Fence/Wall Concepts

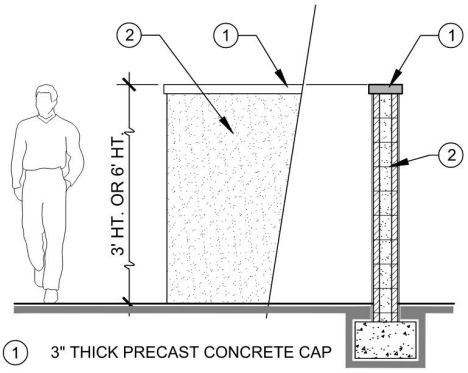


1. 3" THICK PRECAST CONCRETE CAP
2. 8x8x16 BURNISHED CMU WALL
   COLOR: TAN
3. PROJECT SIGN TILE INSET



4' SQ. PILASTER

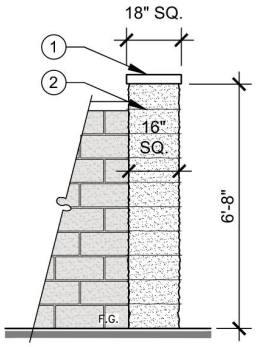
SCALE: N.T.S.



1. 3" THICK PRECAST CONCRETE CAP
2. 8" CMU BLOCK WALL W/ STUCCO FINISH
   COLOR: WHITE

3' HT. OR 6' HT. STUCCO WALL

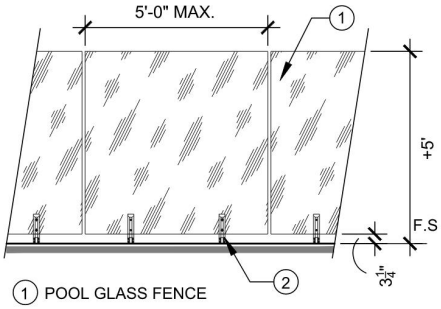
SCALE: N.T.S.



1. 3" THICK PRECAST
   CONCRETE CAP
2. 6x16x16 SPLIT FACE COLUMN BLOCK
   COLOR: TAN

16" SQ. PILASTER

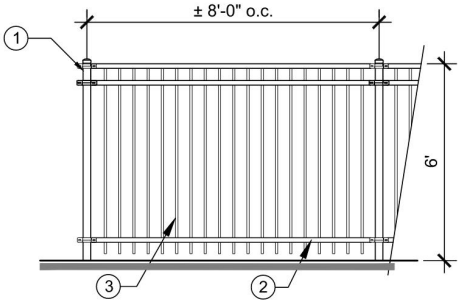
SCALE: N.T.S.



1. POOL GLASS FENCE
2. DAYTON RICHMOND DOWEL SPLICER SYSTEM

GLASS FENCE

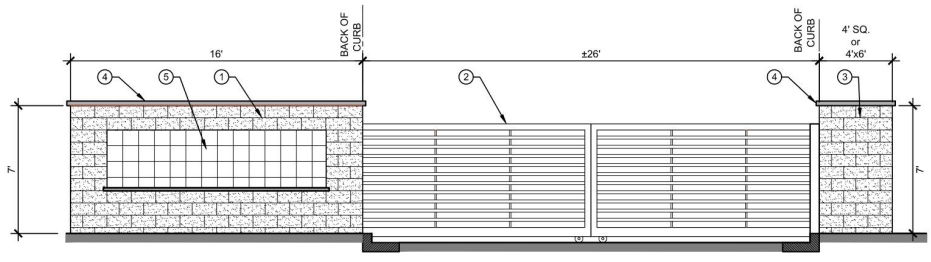
SCALE: N.T.S.



1. 2" SQ. FENCE POST
2. 2" SQ. TOP AND BOTTOM RAIL
3. 5/8" SQ. PICKETS @ 4" O.C. MAX.
   FENCE COLOR: BLACK

TUBULAR STEEL FENCE

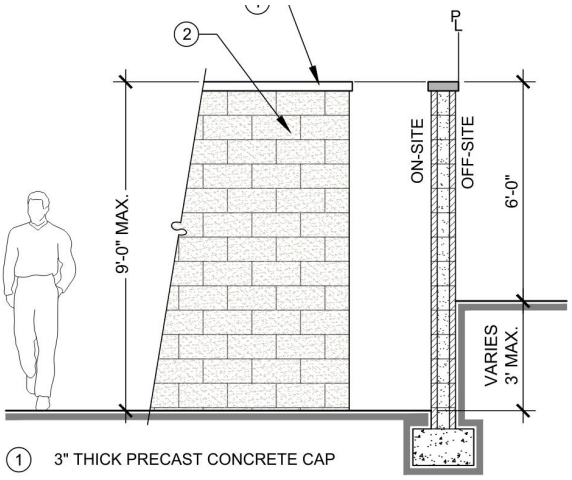
SCALE: N.T.S.



1. BURNISHED BLOCK SIGN WALL, COLOR: TAN
2. SLIDING T.S. VEHICULAR GATE, COLOR: BLACK
3. BURNISHED BLOCK PILASTER, COLOR: TAN
4. 3" THICK PRECAST CAP, COLOR: NATURAL
5. PROJECT SIGN AREA W/ TILE BACKDROP



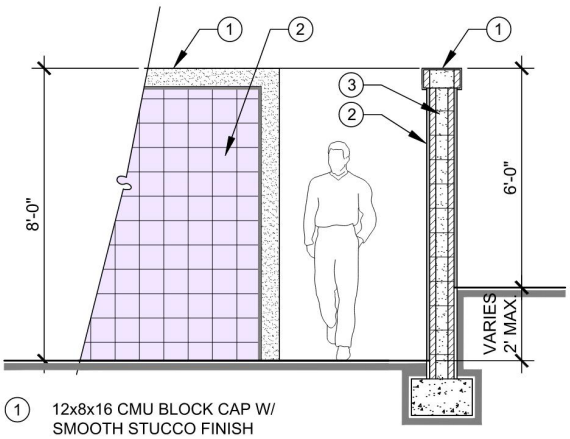
ENTRY GATE



1. 3" THICK PRECAST CONCRETE CAP
2. 8x8x16 SPLIT FACE (2-SIDES) CMU WALL
   COLOR: TAN

PERIMTER WALL

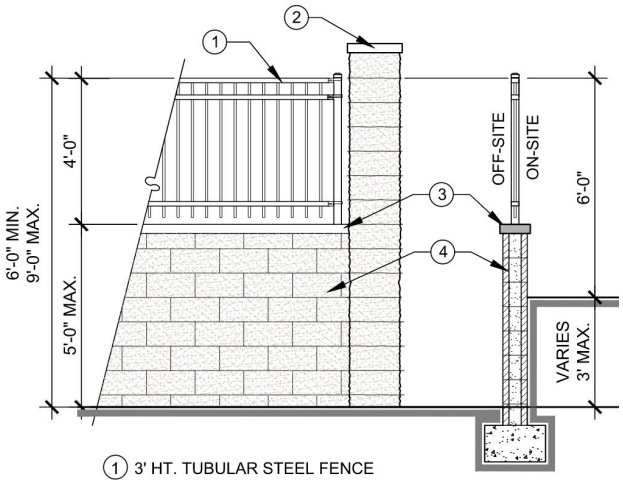
SCALE: N.T.S.



1. 12x8x16 CMU BLOCK CAP W/
   SMOOTH STUCCO FINISH
2. DECORATIVE TILE VENEER
   8" SQ. CEMENTINE TILE
3. 8x8x16 CMU BLOCK WALL W/
   SMOOTH STUCCO FINISH
   COLOR: WHITE

DECORATIVE STUCCO WALL

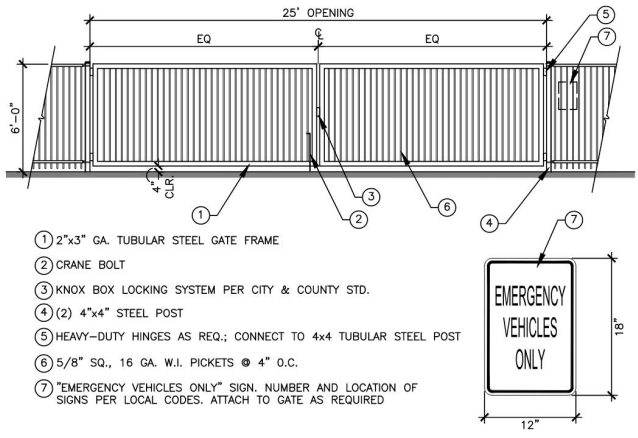
SCALE: N.T.S.



1. 3' HT. TUBULAR STEEL FENCE
2. 8X8X16 SPLIT FACE PILASTER
   COLOR: TAN
3. 3" THICK PRECAST CONCRETE CAP
4. 6X8X16 SPLIT FACE CMU WALL
   COLOR: TAN

SPLIT FACE COMBO WALL

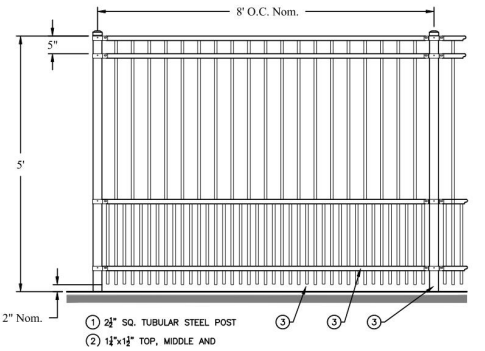
SCALE: N.T.S.



1. 2"x3" GA. TUBULAR STEEL GATE FRAME
2. CRANE BOLT
3. KNOX BOX LOCKING SYSTEM PER CITY & COUNTY STD.
4. (2) 4"x4" STEEL POST
5. HEAVY-DUTY HINGES AS REQ.; CONNECT TO 4x4 TUBULAR STEEL POST
6. 5/8" SQ., 16 GA. W.I. PICKETS @ 4" O.C.
7. "EMERGENCY VEHICLES ONLY" SIGN. NUMBER AND LOCATION OF SIGNS PER LOCAL CODES. ATTACH TO GATE AS REQUIRED

EVA GATE

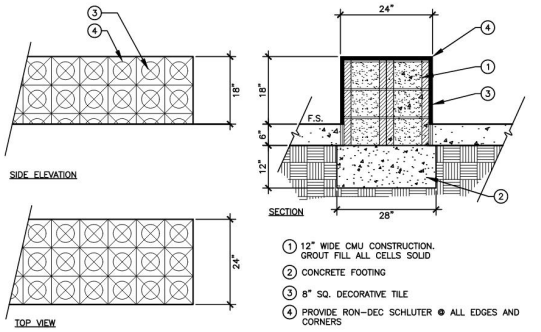
SCALE: N.T.S.



1. 2½" SQ. TUBULAR STEEL POST
2. 1½"x1½" TOP, MIDDLE AND

DOG PARK FENCE

SCALE: N.T.S.



1. 12" WIDE CMU CONSTRUCTION.
   GROUT FILL ALL CELLS SOLID
2. CONCRETE FOOTING
3. 8" SQ. DECORATIVE TILE
4. PROVIDE RON-DEC SCHLUTER @ ALL EDGES AND CORNERS

18" HT. DECORATIVE SEAT WALL

SCALE: N.T.S.

6 Administration

6.1 Items Not Addressed in PUD

Any terms not defined herein and any issues affecting the design and development of the subject project area not specifically addressed in this PUD shall be governed by the provisions of the ODC.

6.2 Development Plan and Other Applications

A Development Plan shall be submitted for each phase of this PUD for approval by the Development Advisory Board and the Ontario Planning Commission, pursuant to the requirements and procedures outlined in the ODC.

To ensure proper implementation of the EA Overlay district, an application for a Certificate of Appropriateness shall be submitted in conjunction with the Development Plan required for each phase of this PUD, pursuant to all requirements and procedures outlined in the ODC.

Lot line adjustments or the combining of parcels within this PUD shall comply with all requirements and procedures outlined in the ODC. Such actions may be conditioned for compliance as part of the Development Plan approval process.

6.3 Administrative Exceptions

Deviation from the development standards set forth in this PUD may be granted up to a maximum of 10 percent by the Zoning Administrator. Any deviation that is greater than 10 percent shall require Variance approval pursuant to the requirements and procedures outlined in the ODC.

This page was intentionally left blank.

Addendum Appendix B

Euclid / Walnut Mixed Use Planned Unit Development Project

Health Risk Assessment Report

(Per Ontario Development Code Table 6.10-3)

June 26, 2023

Prepared for:

Legacy Partners
5141 California Avenue, Ste. 100
Irvine, CA 92617

Prepared by:

MIG, Inc.
1650 Spruce Street, Ste. 106
Riverside, CA 92507

This document is formatted for double-sided printing to conserve natural resources.

Table of Contents

EXECUTIVE SUMMARY ..... **I**
1 INTRODUCTION **1**
1.1 Report Organization 1
2 REGULATORY FRAMEWORK **2-1**
2.1 United States Environmental Protection Agency 2-1
2.1.1 Federal Clean Air Act 2-1
2.2 California Air Resources Board 2-1
2.2.1 California Clean Air Act 2-1
2.3 South Coast Air Quality Management District 2-1
3 PROJECT DESCRIPTION AND ENVIRONMENTAL SETTING **3-1**
3.1 Project Location and Surrounding Land Uses 3-1
3.2 Proposed Development and Phasing 3-1
3.2.1 Phase 1 PUD Development: Legacy Partners 3-1
3.2.2 Phase 2 PUD Development 3-2
3.3 Sources of Air Toxics in Proximity of the Project Site 3-2
3.3.1 Mobile Source Air Toxics 3-2
3.4 Meteorology and Wind Conditions at the Project Site 3-2
4 ANALYSIS METHODOLOGY **4-1**
4.1 Mobile Source Emissions 4-1
4.1.1 Traffic Volumes, Time of Day Splits, and Traffic Speeds 4-1
4.1.2 Mobile Source Emissions and Emissions Rates 4-3
4.2 AERMOD Dispersion Modeling 4-4
4.2.1 Modeled Sources and Emissions Rates 4-4
4.2.2 Meteorological Data Inputs 4-5
4.2.3 Terrain Inputs 4-7
4.2.4 Modeled Receptors 4-7
4.3 Health Risk Assessment Methodology 4-7
4.3.1 Mobile Source Health Risk Assessment Methodology 4-8
5 HEALTH RISK ASSESSMENT RESULTS **5-1**
5.1 Thresholds of Significance 5-1
5.2 Estimated Health Risks 5-1
6 REPORT PREPARERS AND REFERENCES **6-1**
6.1 References 6-1

List of Tables

Table 4-1. AERMOD Source Parameters 4-5
Table 4-2. Project Receptor Grid Details 4-7
Table 4-3. MSAT Cancer Potency Factors and Reference Exposure Levels 4-9
Table 4-4. Weighted CPFs and RELs for TOG Running (Exhaust) Emissions 4-11
Table 4-5. Weighted CPFs and RELs for TOG Running Loss (Evaporative) Emissions 4-11
Table 5-1: SCAQMD Health Risk Thresholds 5-1
Table 5-2: Risks at MEI from Single and Cumulative Sources 5-2

List of Figures

Figure 3-1 Site Aerial 3-4
Figure 3-2 Site Plan 3-5
Figure 3-3 Wind Rose for Ontario International Airport (2012 to 2016) (Blowing From) 3-6
Figure 4-1 Modeled Emission Sources 4-6
Figure 5-1 Total Annual Average TOG Exhaust Concentrations (µg/m^3) 5-3
Figure 5-2 Total Annual Average TOG Evaporative Concentrations (µg/m^3) 5-4
Figure 5-3 Total Annual Average DPM Exhaust Concentrations (µg/m^3) 5-5

Appendices

Appendix A: Traffic Volumes and Mobile Source Emissions Quantification for AERMOD
Appendix B: AERMOD Output
Appendix C: Cancer and Non-Cancer Risk Values and Health Risk Calculations

List of Acronyms, Abbreviations, and Symbols	
Acronym / Abbreviation	**Full Phrase or Description**
AADT	Annual Average Daily Traffic
AERMOD	American Meteorological Society/Environmental Protection Agency Regulatory Model
ASF	Age Sensitivity Factor
Benzo[a]pyrene	B[a]P
BR	Breathing Rate
BW	Body Weight
CAA	Federal Clean Air Act
C_{AIR}	Concentration of TAC in air (µg/m3)
Cal-EPA	California Environmental Protection Agency
CARB	California Air Resources Board
CPF	Cancer Potency Factor
CPF_{MSAT}	Cancer Potency Factor for MSAT Inhalant
CPF_{W}	Weighted Cancer Potency Factor
CT-EMFAC2017	Caltrans Version of EMFAC
$DOSE_{AIR}$	Daily Inhalation Dose
DPM	Diesel Particulate Matter
D	Distance of roadway segment (mi)
ED	Exposure Duration
EF_{R}	Running emissions factor, based on speed bin (g/veh-mile)
EF_{RL}	Running loss emissions factor (g/veh-hour)
$E_{R.HR}$	Running emissions (g-hr)
$E_{RL.HR}$	Running loss emissions (g-hr)
EMFAC	CARB's Emissions Factor Database
FAH	Fraction at Home
g/s	Grams per second
HVAC	Heating ventilation and air conditioning
kg	Kilogram
L	Liters
MEI	Maximally Exposed Individual
MERV	Minimum Efficiency Rating Value
MPH	Miles per Hour
MSAT	Mobile Source Air Toxic

List of Acronyms, Abbreviations, and Symbols	
Acronym / Abbreviation	**Full Phrase or Description**
$MSAT_R$	Ratio of MSAT to TOG
NED	National Elevation Dataset
OEHHA	California Office of Environmental Health Hazard Assessment
PeMS	Caltrans Performance Measurement System
POM	Polycyclic Organic Material
REL	Reference Exposure Level
REL_{MSAT}	REL for MSAT Inhalant
Report	Health Risk Assessment Report
SCAQMD	South Coast Air Quality Management District
SR	State Route
TAC	Toxic Air Contaminants
TOG	Total Organic Gas
U.S. EPA	United State Environmental Protection Agency
UTM	Universal Transverse Mercator,
VMT	Vehicle Miles Traveled
VOL_{HR}	Vehicle Volume per hour (veh-hr)
µm	Micron

EXECUTIVE SUMMARY

This Health Risk Assessment Report (Report) evaluates and documents the potential health risk impacts that could be posed to the receptors of the proposed Euclid / Walnut Mixed Use Planned Unit Development Project (Project) from existing sources of mobile source toxic air pollution along State Route 60 (SR 60), located approximately 665 feet north of the Planned Unit Development's (PUD) northernmost boundary. The Project is located at the northwest corner of Euclid Avenue / Walnut Street intersection in the City of Ontario, California 91761 and would accommodate up to 369 dwelling units and 12,000 square feet of retail space upon buildout on 10.6 acres.

The Project includes multifamily residential development, and the City of Ontario (City) has determined the Project is subject to the requirements identified in Ontario Development Code Table 6.01-3: Multiple-Family Residential Development Standards, which requires multiple-family development projects located within proximity of a freeway (as determined by the City's Zoning Administrator) to prepare a health risk assessment. This Report evaluates the potential risks posed by toxic air pollution, consistent with guidance and methodology documents maintained by United States Environmental Protection Agency (U.S. EPA), Office of Environmental Health and Hazard Assessment (OEHHA), and South Coast Air Quality Management District (SCAQMD), and outlines measures, if necessary, that would reduce risks below SCAQMD thresholds.

S.1 PROPOSED PROJECT DESCRIPTION

The Project is a PUD that would accommodate up to 369 multi-family dwelling units and 12,000 square feet of retail space upon buildout. The 10.6-acre site is located at the northwest corner of Euclid Avenue / Walnut Street intersection, and the Project's northern boundary is approximately 665 feet south of SR 60. The Project would be constructed in at least two phases. Phase 1, the details for which are currently known, would provide 346 multi-family dwelling units in three- and four-story buildings, with 5,400 square feet of ground floor retail space within the four-story building fronting Euclid Avenue. Phase 1 construction activities would develop 9.4 acres of the Project site, excluding the southeast corner of the Project site. The southeast corner of the Project site is currently developed with a Carl's Jr. and may be developed in the future as Phase 2 of the Project. Phase 2 would accommodate the remaining 23 multi-family residential units and up to an additional 6,600 square feet of ground-floor retail space. The first phase of the Project is slated to become operational in 2025.

S.2 HEALTH RISK ASSESSMENT RESULTS

A health risk assessment (HRA) was prepared to evaluate potential cancerogenic and non-cancerogenic health effects that could result from receptor exposure to toxic air contaminant (TAC) concentrations at the Project site. The HRA was prepared in accordance with applicable guidelines from the U.S. EPA, the SCAQMD, and OEHHA. Roadway traffic volumes in proximity of the Project site were obtained from Caltrans. Mobile Source Air Toxic (MSAT) emissions were estimated using these traffic volumes and emission factors derived from the Caltrans version of the California Air Resources Board (CARB) Emissions Factor Database (CT-EMFAC2017).[1] The U.S. EPA- and SCAQMD-approved **A**merican

[1] The nine priority MSATs included in the HRA are: 1,3-Butadiene, Acetaldehyde, Acrolein, Benzene, Diesel Particulate Matter (DPM), Ethylbenzene, Formaldehyde, Naphthalene, Polycyclic Organic Matter (POM).

Meteorological Society/**E**nvironmental Protection Agency **R**egulatory **Mod**el (AERMOD, V. 21112) was used to predict pollutant concentrations at the Project site. The AERMOD dispersion model simulates the dispersion of pollutant emissions and estimates concentrations of pollutants at specified receptor locations.

The results of the modeling indicate that the Maximally Exposed Individual (MEI) for cancer risk would be located in the northeastern corner of the northeaster building of Phase 1 (i.e., the building with retail space on the ground floor) and have a cancer risk of 7.0 excess cancers per million, which would be below the SCAQMD's cancer risk threshold of 10.0 excess cancers per million. This cancer risk estimate accounts for Project compliance with Section 120.1(b)(1)(C) of the 2019 Title 24 Building Code, which requires that high-density residential buildings be constructed with HVAC system air filters that meet a designated efficiency equal to Minimum Efficiency Rating Value (MERV) 13 standards. The MERV 13 filters would be capable of removing approximately 90 percent of diesel particulate emissions from SR 60. Chronic and acute non-cancer risks for receptors at the site would also be below the SCAQMD non-cancer risk thresholds of 1.0. Cancer and non-cancer risks for Phase 2 receptors would be lower, because these receptors are further from SR 60 and would be exposed to lower pollutant concentrations.

As described above, cancer and non-cancer risks would not exceed thresholds and no mitigation or further abatement of air toxic concentrations is required. Compliance with standard building code requirements would be sufficient to reduce potential risks below SCAQMD thresholds.

1 INTRODUCTION

This Health Risk Assessment Report (Report) has been developed for the proposed Euclid / Walnut Mixed Use Planned Unit Development Project (Project) located at the northwest corner of Euclid Avenue / Walnut Street intersection in the City of Ontario, California 91761. The Project would accommodate up to 369 multi-family dwellings and approximately 12,000 square feet of retail space upon buildout on 10.6 acres.

The Project would consist of a two-phased Planned Unit Development (PUD). Phase 1 would involve constructing 346 multi-family dwelling units and approximately 5,400 square feet of ground-floor retail space. Development details associated with Phase 1 are currently known and Legacy Partners is proposing to develop this portion of the Project. It is anticipated that this portion of the PUD, which comprises 9.4 acres, would become operational in 2025. Phase 2 would consist of an additional 23 multi-family residential units and up to an additional 6,600 square feet of retail space. This area would be located in the southwestern portion of the site. Further planning details for Phase 2 are not currently known at this time, but it is anticipated that this portion of the PUD would not be developed for another 15 years.

The 10.6-acre Project site is located approximately 665 feet south of State Route (SR 60). The operation of mobile sources (i.e., cars and trucks) along this roadway produce emissions from fuel combustion (i.e., exhaust) and evaporation, and some of these emissions are known Toxic Air Contaminants (TACs), as defined by the California Air Resources Board (CARB), that could affect the health and safety of Project occupants and visitors to the site. The City of Ontario Development Code Table 6.01-3: Multiple-Family Residential Development Standards requires multiple-family development projects located in proximity of a freeway (as determined by the City's Zoning Administrator) to prepare a health risk assessment. This Report evaluates potential risks from mobile sources on SR 60, consistent with risk assessment procedures maintained by the United States Environmental Protection Agency (U.S. EPA), Office of Environmental Health and Hazard Assessment (OEHHA), and South Coast Air Quality Management District (SCAQMD).

1.1 REPORT ORGANIZATION

This Report is organized as follows:

- **Chapter 1, Introduction,** explains the contents of this Report and its intended use.
- **Chapter 2, Regulatory Framework,** provides pertinent background information on the federal, state, and local entities that regulate air quality conditions at and near the Project site.
- **Chapter 3, Project Description and Environmental Setting**, provides pertinent information on the design and operating characteristics of the Project, as well as meteorological conditions and sources of toxic air pollution in proximity of the Project site.
- **Chapter 4, Health Risk Assessment Methodology,** discloses the methodology used to estimate the emissions of mobile sources in proximity of the Project site and the potential risks they could pose to future Project receptors.
- **Chapter 5, Health Risk Assessment Results,** describes the criteria used to evaluate potential health risks, the results of the health risk assessment prepared for the Project, and any potential measures necessary reduce risks below the applied thresholds.
- **Chapter 6, Report Preparers and References,** lists the individuals involved, and the references used, in the preparation of this Report.

This page intentionally left blank.

2 REGULATORY FRAMEWORK

This Report has been prepared to satisfy Ontario Development Code Table 6.01-3: Multiple-Family Residential Development Standards, which requires multiple-family development projects located in proximity of a freeway (as determined by the City's Zoning Administrator) to prepare a health risk assessment.

The following provides an overview of the federal, state, and local regulatory entities that oversee and regulate air quality emissions in proximity of the Project site.

2.1 UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

2.1.1 Federal Clean Air Act

The Federal Clean Air Act (CAA) defines the United States Environmental Protection Agency's (U.S. EPA) responsibilities for protecting and improving the United States air quality and ozone layer. Key components of the CAA include reducing ambient concentrations of air pollutants that cause health and aesthetic problems, reducing emission of toxic air pollutants, and stopping production and use of chemicals that destroy the ozone.

2.2 CALIFORNIA AIR RESOURCES BOARD

2.2.1 California Clean Air Act

In addition to being subject to Federal requirements, air quality in the State is also governed by more stringent regulations under the California Clean Air Act, which was enacted in 1988 to develop plans and strategies for attaining the California Ambient Air Quality Standards. The California Air Resources Board (CARB), which is part of the California Environmental Protection Agency (Cal-EPA), develops Statewide air quality regulations, including industry-specific limits on criteria, toxic, and nuisance pollutants.

In California, both the Federal and State Clean Air Acts are administered by CARB. It sets all air quality standards including emission standards for vehicles, fuels, and consumer goods as well as monitors air quality and sets control measures for toxic air contaminants. CARB oversees the functions of local air pollution control districts and air quality management districts, which in turn administer air quality activities at the regional level.

2.3 SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

The SCAQMD is the agency primarily responsible for maintaining air quality and regulating emissions of criteria and toxic air pollutants within the South Coast Air Basin (Basin).[2] The SCAQMD carries out this responsibility by preparing, adopting, and implementing plans, regulations, and rules that are designed to achieve attainment of state and national air quality standards.

[2] the South Coast Air Basin (Basin) which includes Orange County and the non-desert portions of Los Angeles, San Bernardino, and Riverside counties. The Basin encompasses approximately 6,745 square miles of coastal plains and is bounded by the San Gabriel, San Bernardino, and San Jacinto Mountains to the north and east.

3 PROJECT DESCRIPTION AND ENVIRONMENTAL SETTING

The proposed Project consists of a Planned Unit Development (PUD) that would accommodate up to 369 multi-family dwelling units and 12,000 square feet of retail space in the City of Ontario, California 91761. The Project is located at the northwest corner of Euclid Avenue / Walnut Street intersection and would be constructed in two phases, with most development occurring in Phase 1.

3.1 PROJECT LOCATION AND SURROUNDING LAND USES

The 10.6-acre rectangular Project site is located at the northwest corner of Euclid Avenue / Walnut Street intersection in the City of Ontario, California 91761 (see Figure 3-1 for Project location). The site consists of three parcels (Assessor Parcel Numbers 041018133, 041018134, and 041018135), and is primarily developed as a surface parking lot that once served a commercial shopping center anchored by K-Mart (located on the western portion of the Project site), a nail salon and toy store (located in the northeastern portion of the Project site), and Carl's Jr. (located in the southeastern corners of the Project site).

The Project site is surrounded by a preschool, residential land uses, and retail and commercial office land uses. These include:

- North of the Project Site: The "Monty's Montessori Academy of Ontario" preschool and single-family and multi-family residential land uses
- Northwest of the Project Site: Multi-family residential land uses at the "Belcourt Apartments" apartment complex
- West of the Project Site: Various commercial and retail office land uses
- South of the Project Site: Across Walnut Street, single family residential land uses
- East of the Project Site: Across Euclid Avenue, various commercial amenities such as "7-Eleven", "Victor's Cleaners and Laundry", "N8's Billiards" and then single-family residential land uses further to the east beyond the aforementioned non-residential land uses

3.2 PROPOSED DEVELOPMENT AND PHASING

As mentioned above the Project would be comprised of two phases totaling 369 multi-family dwelling units and up to 12,000 square feet of retail space. Legacy Partners (Legacy) is proposing to construct Phase 1 of the Project, which would consist of 346 multi-family dwelling units and 5,400 square feet of ground floor retail space on approximately 9.4 acres of land in the northeast, northwest, and southwest portions of the Project site (see Figure 3-2). Phase 2 would consist of an additional 23 multi-family dwelling units and up to an additional 6,600 square feet of retail space constructed on the remaining approximately 1.2 acres of land located in the southeastern portion of the site. Specific details regarding Phase 2 development are currently unknown at this time.

3.2.1 Phase 1 PUD Development: Legacy Partners

Phase 1 would consist of two, four-story apartment buildings with tuck under garages, one of which would have approximately 5,400 square feet of ground-floor retail space, and six, three-story apartment buildings with tuck under garages, carports, and surface parking. The four-story building with ground floor retail space would be located in the northeastern portion of the site. In addition to the 5,400 square feet of retail space, the ground floor of this building would include a mail/parcel facility area, leasing office space,

pool court and fitness area, club open space, and sports lounge, while the upper floors would be comprised of residential units. A dog park would be located to north of this building. Three (3), three-story multi-family buildings would be located west of the ground-floor retail space building (i.e., in the northwestern corner of the Project site) and be oriented in a north-south direction. Three (3) additional three-story multi-family buildings, also oriented in a north-south direction, would be constructed in the southwest corner of the Project site. Finally, a four-story "C" shaped multi-family residential building would be constructed in the southeastern portion of the Phase 1 area and adjacent to the Phase 2 area. Each residential dwelling unit would have window(s) and/or a balcony that would provide their unit with access to outdoor air.

3.2.2 Phase 2 PUD Development

Phase 2 would involve the construction and operation of up to an additional 23 multi-family dwelling units and up to an additional 6,600 square feet of retail space. It is anticipated that Phase 2 of the PUD would not occur for approximately 15 more years. No additional project-specific details associated with Phase 2 are known at this time.

3.3 Sources of Air Toxics in Proximity of the Project Site

The Project site is located within 700 feet of SR 60. Vehicles traveling along this freeway produce pollutants designated by CARB as TACs. TACs are pollutants that are known, or suspected, to cause cancer or other serious health effects.

3.3.1 Mobile Source Air Toxics

Operation of fossil-fueled motor vehicles, such as those operating in proximity of the Project site, produce emissions through fuel combustion. Mobile Source Air Toxics (MSATs) are a subset of TACs that are emitted by mobile sources (i.e., cars and trucks). There are nine priority MSATs, which include: 1,3-Butadiene, Acetaldehyde, Acrolein, Benzene, Diesel Particulate Matter (DPM), Ethylbenzene, Formaldehyde, Naphthalene, Polycyclic Organic Matter (POM). These MSATs (excluding DPM) are a fraction of the Total Organic Gas (TOG) emissions from the motor vehicles.

3.4 Meteorology and Wind Conditions at the Project Site

Southwestern San Bernardino County and the broader South Coast Air Basin (Basin) are defined by a semi-arid, Mediterranean climate with mild winters and warm summers. The San Gabriel, San Bernardino, and San Jacinto Mountains bound the Basin to the north and east trap ambient air and pollutants within the Los Angeles and Inland Empire valleys below. The climate of the greater Los Angeles region is classified as Mediterranean, but weather conditions within the Basin are dependent on local topography and proximity to the Pacific Ocean. The climate is dominated by the Pacific high-pressure system that results in generally mild, dry summers and mild, wet winters. This temperate climate is occasionally interrupted by extremely hot temperatures during the summer, Santa Ana winds during the fall, and storms from the Pacific northwest during the winter. In addition to the basin's topography and geographic location, El Niño and La Niña patterns also have large effects on weather and rainfall received between November and March.

The Pacific high-pressure system drives the prevailing winds in the Basin. The winds tend to blow onshore in the daytime and offshore at night. In the summer, an inversion layer is created over the coastal areas and increases ozone levels. A temperature inversion is created when a layer of cool air is overlain by a layer of warmer air; this can occur over coastal areas when cool, dense air that originates over the ocean is blown onto land and flows underneath the warmer, drier air that is present over land. In the winter, areas

throughout the Basin often experience a shallow inversion layer that prevents the dispersion of surface level air pollutants, resulting in higher concentrations of criteria air pollutants such as CO and NO_X.

Temperatures near the Project site range from a high of 92 degrees Fahrenheit (F) in July and August to a low of 40 degrees Fahrenheit in January. Annual precipitation is approximately 20 inches, falling mostly from November through March (WRCC, 1980).

The SCAQMD maintains publicly meteorological data for use in air quality analyses. The Project site is approximately 2.5 miles southwest of Ontario International Airport. As shown in Figure 3-3, the prevailing wind at Ontario International Airport is generally from the west-southwest, indicating the prevailing wind at the Project site is also likely from the west-southwest.

Figure 3-1 Site Aerial

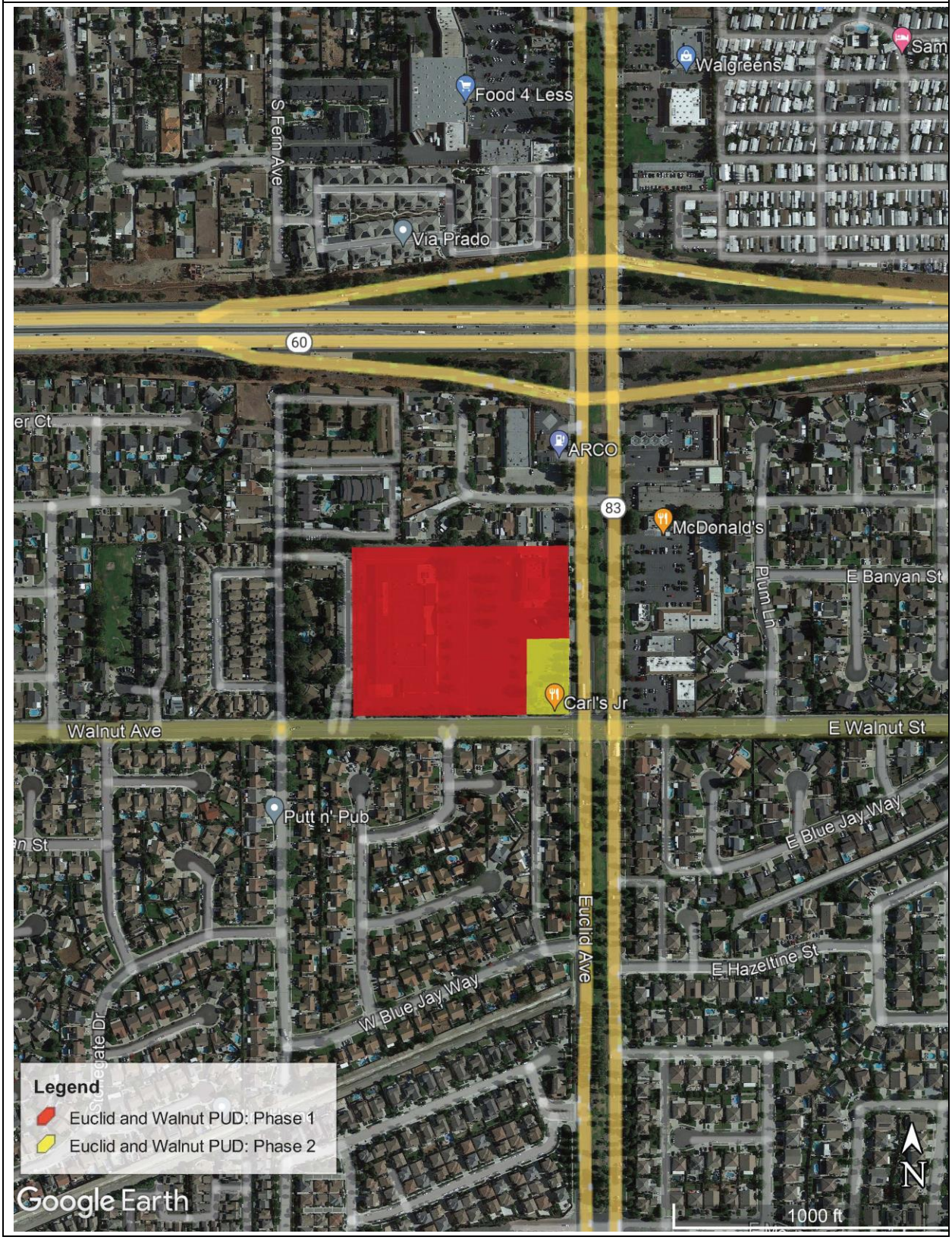
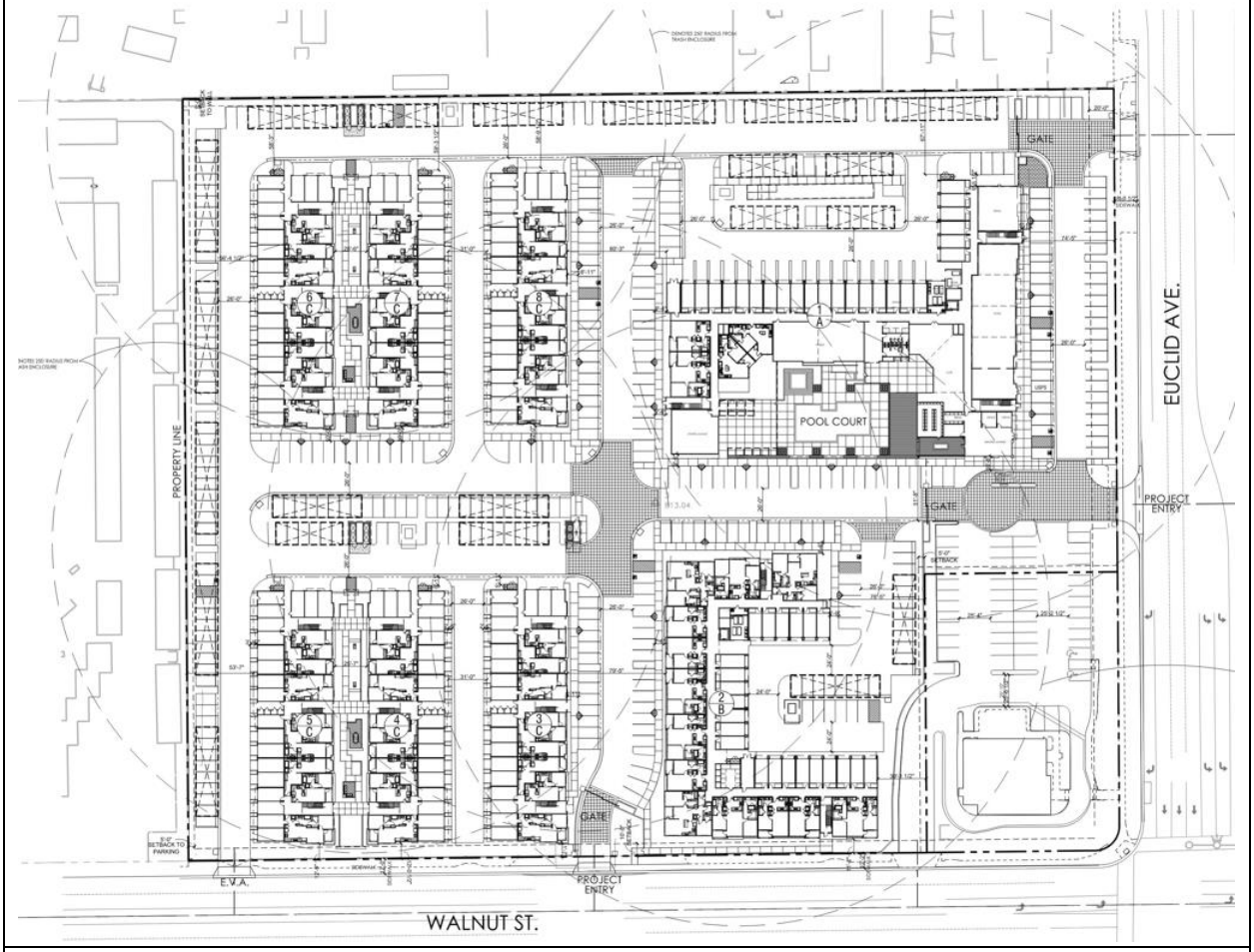
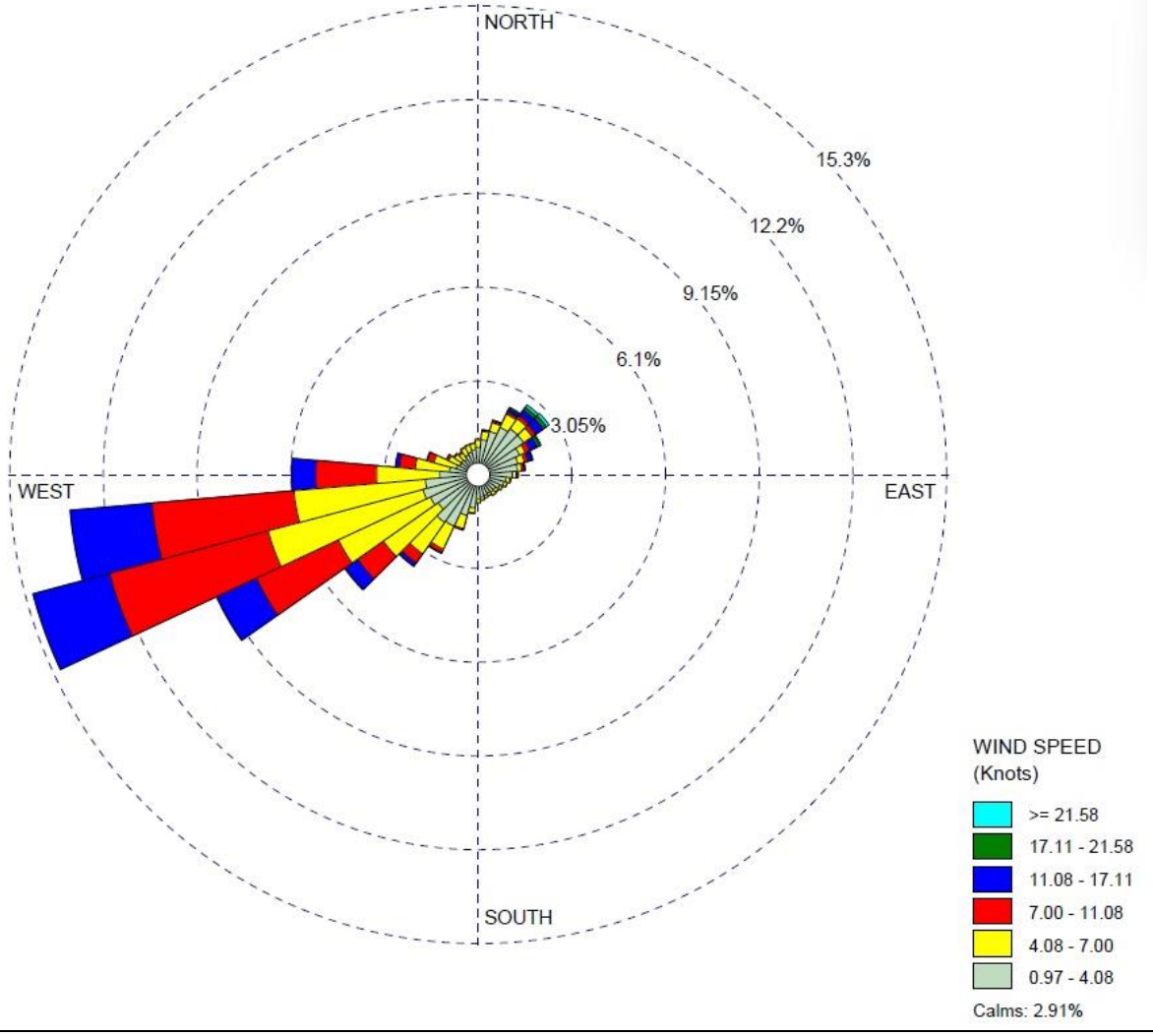


Figure 3-2 Site Plan



Source: Legacy Partners, 2022

Figure 3-3 Wind Rose for Ontario International Airport (2012 to 2016) (Blowing From)



Source: SCAQMD 2017

4 ANALYSIS METHODOLOGY

This Chapter describes the methodology utilized to estimate emissions, conduct dispersion modeling, and assess potential cancer and non-cancer risks at the Project site.

4.1 MOBILE SOURCE EMISSIONS

Mobile source emissions were estimated for freeways (including freeway on- and off-ramps) based hourly vehicle flow by type of pollutant.

4.1.1 Traffic Volumes, Time of Day Splits, and Traffic Speeds

Mobile source emissions were estimated for freeways and (including freeway on- and off-ramps) based on hourly vehicle flows. These pieces of information were obtained from several Caltrans sources. Specifically, the roadway segments evaluated include:

- State Route 60 (Eastbound and Westbound)
- State Route 60 Westbound On-Ramp from Euclid Avenue
- State Route 60 Eastbound Off-Ramp from Euclid Avenue
- State Route 60 Eastbound On-Ramp from Euclid Avenue
- State Route 60 Westbound On-Ramp from Euclid Avenue

See Appendix A for all details related to traffic volumes, time of day splits, and traffic speeds for the various roadway segments.

Traffic Volumes

Traffic volumes for the roadway segments evaluated were obtained from the following sources. The Project is anticipated to become operational in 2025. Traffic volumes were scaled up by one percent each year to derive 2025 volumes from prior years.[3]

- State Route 60 traffic volumes (for all vehicles and trucks) were obtained from the Caltrans Traffic Census Program, which provided Annual Average Daily Traffic (AADT) on the California Highway System in 2019.[4] All traffic vehicle volumes were split evenly between Eastbound and Westbound SR 60 (Caltrans, 2022a).
    - **All Vehicles.** The AADT values for three Caltrans "breakpoints" were evaluated to determine the traffic volume on SR 60 north of the Project site; these three breakpoints were: Mountain Avenue; Ontario, Jct. Rte. 83; and Grove Avenue. The AADT values between Mountain Avenue and the SR 60 / SR 83 junction were marginally higher than the AADT values between SR 83 and Grove Avenue (i.e., approximately 0.2%) and therefore were applied to the entirety of the portion of SR 60 modeled.

[3] For example, if the data sourced is from 2020, the traffic volume for that year would be scaled up by one percent for five years (i.e., approximately a five percent increase).

[4] The 2019 calendar year was selected as the base year for scaling, because it predates the COVID-19 pandemic and is considered to be a better reference for what traffic levels may look like in the future, compared to those of recent years that have been affected by the COVI-19 pandemic.

  - **Trucks.** The AADT values on SR 60 east of and west of the SR 60 / SR 83 junction were averaged to derive the proportion truck traffic volume on SR 60 adjacent to the Project site.[5]
- State Route 60 on- and off-ramp volumes for Euclid Avenue (all vehicles) were calculated using the same process as that described for the SR 60 volumes. The ramp segments utilized from the Caltrans data were "WB on from Euclid/83," "EB off to Euclid/83," "EB on from Euclid/83," and "WB Off to Euclid Ave" (Caltrans 2022a).

Time of Day Split

Time of day traffic volume splits were developed for each of the roadway segments utilizing the Caltrans Performance Measurement System (PeMS), which collects data from approximately 40,000 individual detectors spanning the freeway system across all major metropolitan areas of California. Data was obtained for the entire 2019 calendar year[6] for all vehicles and trucks and then summed for each hour to develop the time-of-day splits for the two vehicle categories (Caltrans 2022b).[7] The SR 60 Eastbound data were obtained from the "Mainline VDS 801356 - EUCLID" segment and the SR 60 Westbound data were obtained from the "Mainline VDS 801355 - EUCLID" segment.

The average daily traffic volumes were multiplied through by the time-of-day splits to derive vehicle and truck volumes for each hour of the day.

Vehicle Speeds

The rate at which vehicles generate exhaust emissions is in part dependent on the speed at which it travels. The following describes the way vehicle speeds were assigned to the various roadway segments.

- State Route 60 vehicle speeds were derived using the Caltrans PeMS data source. Speed averages were taken for each hour across the entire year and then down up to the nearest factor of five (e.g., if the average speed was 67 miles per hour, it was rounded down to 65 miles per hour). The PeMS data source does not distinguish speed by all vehicles and trucks. Therefore, truck speeds were limited to a maximum of 55 miles per hour, which is the speed limit for vehicles towing a trailer. See Appendix A for a breakdown of hourly speeds for vehicles traveling on SR 60.
- State Route 60 on- and off-ramp vehicle speeds were assumed to be 45 and 5 miles per hour, respectively, on a consistent basis.

[5] The AADT for trucks was estimated to provide the Caltrans version of the CARB Emissions Factor Database (CT-EMFAC) with an input. The CT-EMFAC model is described further on in this section. The truck AADT was not used for any other purpose.

[6] The 2019 calendar year was selected for vehicle/truck AADT values, because it precedes the COVID-19 pandemic and provides a better representation of how travel behaviors between all vehicles and trucks are anticipated to be in the future.

[7] These two sets of splits were developed because vehicles that emit DPM typically have different travel patterns than passenger vehicles and therefore the emissions from these vehicles disperse differently (i.e., peak hour volumes for passenger vehicles differ from those of trucks and therefore the peak hour emissions for the two types of vehicles would be subject to differing meteorological conditions).

4.1.2 Mobile Source Emissions and Emissions Rates

The traffic roadways volumes, time of day splits, and vehicle speed derived using the methodology described in Section 4.1.1 were utilized in conjunction with emissions factors derived from Caltrans version of EMFAC2017, also known as CT-EMFAC2017, to estimate emissions generated by mobile sources in proximity of the Project site. CT-EMFAC2017 provides running (exhaust) and running loss (evaporative) emission factors for mobile source criteria air pollutants, including TOG, and all nine priority MSATs based on the geographic area in which they are occurring, the year they are occurring in, and the makeup of cars and trucks on the roadway.

The CT-EMFAC2017 model was run derive emission factors for the average vehicle mix on freeways. The model run specified San Bernardino County as the region and 2025 as the year. For SR 60, the traffic mix was developed using the truck AADT described under the "Traffic Volumes" subheading of Section 4.1.1.[8]

The CT-EMFAC2017 outputs were used to develop three sets of hourly emissions estimates for each roadway – one for TOG running (exhaust) emissions, another for TOG running loss (evaporative) emissions, and one for DPM running (exhaust) emissions.[9] Whereas the running emissions factors (grams/vehicle-mile) are based on speed bins in 5 mile per hour increments, the running loss emissions factors (grams/vehicle-hour) are independent of the speed of the car. Therefore, running emissions are based on the speed of the car across a specified distance, while running loss emissions are based on the amount of time the car is on the roadway. In other words, a car will generally produce more emissions when moving slowly across a given distance than it would if it were traveling faster.[10] The equations for calculating hourly running and running loss emissions are presented in Equation 1 and Equation 2 below.

Equation 1: Running (Exhaust) Emissions

$$E_{R.HR} = EF_R \times D \times VOL_{HR}$$

Where:

$E_{R.HR}$ = Running emissions (g-hr)
EF_R = Running emissions factor, based on speed bin (g/veh-mile)
D = Distance of roadway segment (mi)

[8] CT-EMFAC includes two truck categories, Truck 1 and Truck 2, which correspond to medium duty trucks and heavy duty trucks, respectively. The truck AADT data provided from the Caltrans Traffic Census Program breaks down trucks by axle. Trucks with two axels were assign to the Truck 1 category. Trucks with three or more axels were assigned to the Truck 2 category. The freeway run of CT-EMFAC has a truck makeup of 12.3%, with 3.1% consisting of Truck 1 and 9.2% consisting of Truck 2.

[9] Consistent with the guidance contained in the SCAQMD *Health Risk Assessment Guidance for Analyzing Cancer Risks from Mobile Source Diesel Emissions* white paper, DPM emissions were treated as PM_{10}, even though CT-EMFAC provides emission rates for DPM, specifically (SCAQMD 2003).

[10] In addition to having running and running loss emissions scale at different rates, there are two other reasons for developing three sets of emission factors for each roadway. The first is that the ratio of MSATs to TOG differs between running and running loss emissions factors (see Section 4.3.1 for more information). The second being that the source / release characteristics of TOG and DPM differ. For example, the time of day splits between the two pollutants differ (see Section 4.1.1), as do the typical heights at which they are released (i.e., TOG is generated by passenger vehicles, which have a relatively low release point, while DPM is generated by trucks that have a higher release point; see Section 4.2.1 for more information).

VOL_{HR} = Vehicle volume per hour (veh-hr)

Equation 2: Running Loss (Evaporative) Emissions

$$E_{RL.HR} = EF_{RL} \times \frac{D}{MPH} \times VOL_{HR}$$

Where:

$E_{RL.HR}$ = Running loss emissions (g-hr)
EF_{RL} = Running loss emissions factor (g/veh-hour)
D = Distance of roadway segment (mi)
MPH = Speed of vehicle (mi-hr)
VOL_{HR} = Vehicle volume per hour (veh-hr)

The roadway distances utilized for the emission estimation are based on the length of roadway source modeled in AERMOD (see Table 4-1). The hourly running and running loss emissions were converted to a rate of grams per second (g/s) by diving the hourly rate by 3,600 (i.e., the number of seconds in an hour). See Appendix A for details regarding the emissions rates for each roadway segment.

4.2 AERMOD DISPERSION MODELING

The U.S. EPA's AERMOD dispersion model (version 21112) was used to predict pollutant concentrations at the Project site. The AERMOD dispersion model is a U.S. EPA-approved and SCAQMD-recommended model for simulating the dispersion of pollutant emissions and estimating concentrations of pollutants at specified receptor locations. AERMOD requires the user to input information on the source(s) of pollutants being modeled, the receptors where pollutant concentrations are modeled, and the meteorology, terrain, and other factors that affect the potential dispersion of pollutants. Two AERMOD runs were completed for the Project. The first modeled TOG emissions as $PM_{2.5}$, because AERMOD does not have a pollutant dispersion option for TOG, and the second modeled DPM as PM_{10}.

4.2.1 Modeled Sources and Emissions Rates

Mobile source emissions occurring on roadways in proximity of the Project site were modeled as a series of line area sources, as shown in Table 4-1 and depicted in Figure 4-1. An emissions rate for each source listed in Table 4-1 was derived using the methodology described in Section 4.1.

Table 4-1. AERMOD Source Parameters

ID	Description	UTM Coordinates(A)		Length (m)	Width (m)
		X	Y		
ARLN01	SR 60 Westbound Freeway Exhaust(B)	440650.04	3765727.33	1779.1	18.29
ARLN02	SR 60 Eastbound Freeway Exhaust(B)	438872.22	3765713.80	1778.6	18.29
ARLN03	SR 60 Westbound On-ramp Exhaust(B)	439895.14	3765792.04	475.1	3.96
ARLN04	SR 60 Eastbound Off-ramp Exhaust(B)	439895.39	3765645.74	436.3	7.62
ARLN05	SR 60 Eastbound On-ramp Exhaust(B)	439941.30	3765645.29	508.2	3.96
ARLN06	SR 60 Westbound Off-ramp Exhaust(B)	440392.61	3765738.84	455	11.58
ARLN07	SR 60 Westbound Freeway Evaporative	440650.04	3765727.33	1779.1	18.29
ARLN08	SR 60 Eastbound Freeway Evaporative	438872.22	3765713.80	1778.6	18.29
ARLN09	SR 60 Westbound On-ramp Evaporative	439895.14	3765792.04	475.1	3.96
ARLN10	SR 60 Eastbound Off-ramp Evaporative	439895.39	3765645.74	436.3	7.62
ARLN11	SR 60 Eastbound On-ramp Evaporative	439941.30	3765645.29	508.2	3.96
ARLN12	SR 60 Westbound Off-ramp Evaporative	440392.61	3765738.84	455	11.58

See Appendix B

(A) UTM coordinates represent the initial coordinate of the source.

(B) These source parameters were the same for the TOG emissions modeling as the DPM emission modeling.

The TOG emissions sources were assigned a release height of 1.3 meters and an initial vertical dimension of 1.2 meters (U.S. EPA 2010). These parameters for the TOG emissions sources are representative of the exhaust and evaporative plume height from light-duty vehicles. The DPM emissions source were assigned a release height of 3.4 meters and an initial vertical dimension of 3.2 meters. These parameters for the DPM emissions sources are representative of the exhaust plume height for heavy-duty vehicles (U.S. EPA 2010).

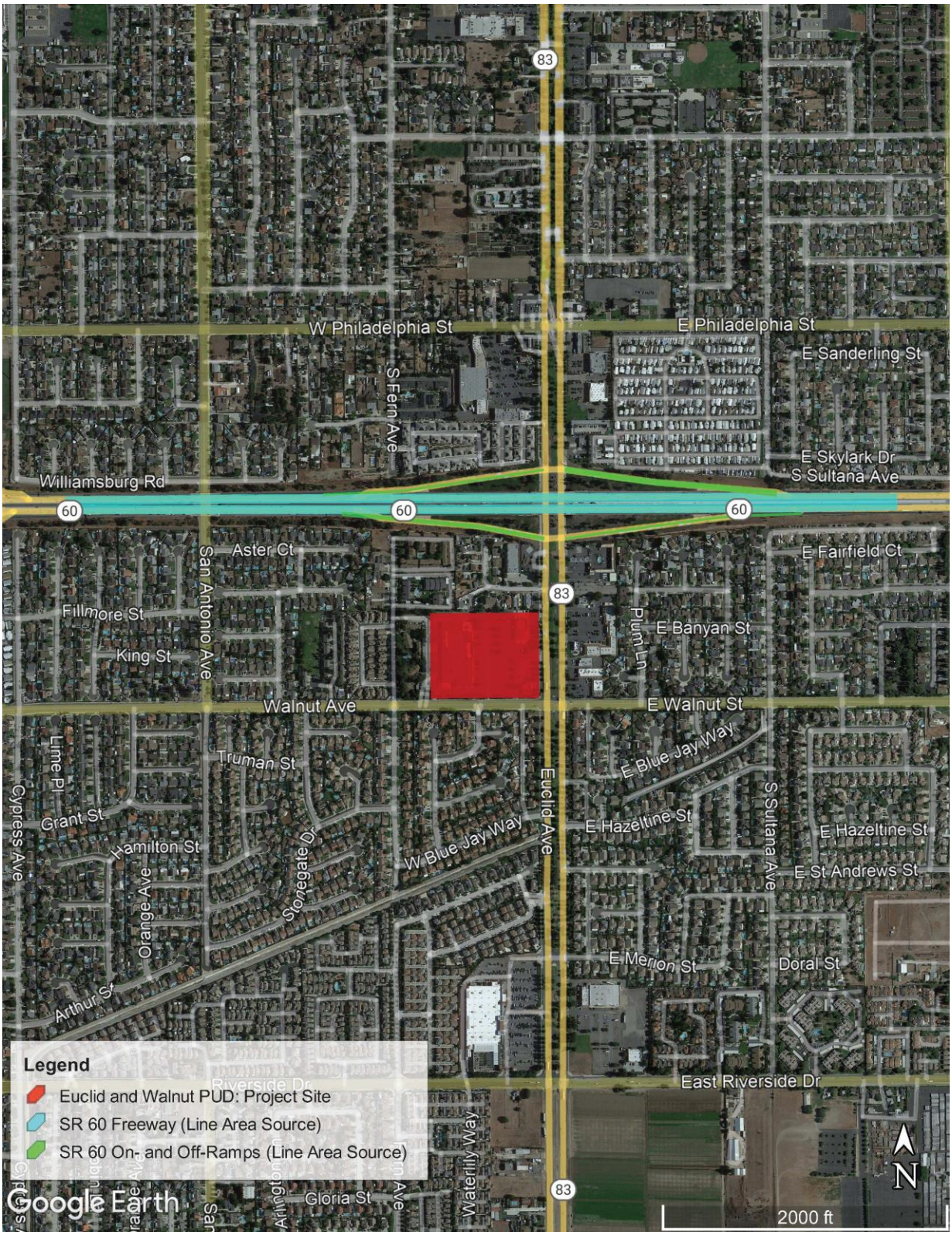
Each roadway source was modeled to have an emissions rate of 1 gram per second (g/s). AERMOD allows users to specify variable emissions factors for sources depending on the temporal interval over which emissions are released. These variable emissions factors function as multipliers for the source's base emissions rate (as noted previously, this base emissions rate is 1 g/s). Variable emissions factors were assigned to each source for each hour of the day (i.e., 12 AM, 1 AM, 2 AM, etc.) in order to reflect the source's emissions characteristics (i.e., the emissions that would be generated by hourly traffic volumes that were derived using the methodology described in Section 4.1.1).

4.2.2 Meteorological Data Inputs

AERMOD requires meteorological data as an input for the model. The meteorological data is processed using AERMET, a pre-processor to AERMOD. AERMET requires surface meteorological data, upper air meteorological data, and surface parameter data such as albedo (reflectivity) and surface roughness.

For the proposed Project, pre-processed surface data was obtained from the SCAQMD for Ontario International Airport (KONT) (see Figure 3-3). Upper air data was obtained from Marine Corps Air Station Miramar (KNKX), since this is the upper air profile provided by the SCAQMD with the KONT surface data. These data sets contained five complete years of meteorological data from January 2012 to December 2016. The meteorological data was processed using AERMET version 16216 with the adjusted U* option.

Figure 4-1 Modeled Emission Sources



4.2.3 Terrain Inputs

The SR 60 overpass with Euclid Avenue is one of the closest portions of SR 60 to Project site. As identified in the U.S. EPA's *AERMOD Implementation Guide*:

> "For cases in which receptor elevations are lower than the base elevation of the source (i.e., receptors that are down-slope of the source), AERMOD will predict concentrations that are less than what would be estimated from an otherwise identical flat terrain situation… To avoid underestimating concentrations in such situations, it may be reasonable in cases of terrain-following plumes in sloping terrain to apply the non-DFAULT (sic) option to assume flat, level terrain" (U.S. EPA 2022a; pg. 12).

Consistent with this guidance from the U.S. EPA, the non-regulatory "Flat" terrain option was selected, meaning that AERMOD does not account for terrain in the dispersion modeling.

4.2.4 Modeled Receptors

Several cartesian receptor grids were generated in proximity of the Project site to evaluate the dispersion characteristics of the modeled emissions sources and estimate pollutant concentrations for the future receptors that would be located at the Project site. The receptor grids were then converted to discrete cartesian receptors. Receptors were modeled at ground level. In general, the receptor grids moved from fine resolution to coarse resolution data (i.e., UCART1 had the finest resolution, while UCART3 had the coarsest resolution). The details of the receptor grids generated for the Project are presented in Table 4-2.

Table 4-2. Project Receptor Grid Details

Grid ID	Description	UTM Coordinates(A)		Grid Dimensions	Spacing (m)	Receptor Height (m)
		X	Y			
UCART1	Project Site (Fine)	439769.00	3765400.00	47 x 37	5	0
UCART2	Project Site (Coarse)	439769.00	3765400.00	9 x 7	30	0
UCART3	Project Vicinity	439769.00	3765400.00	11 x 11	100	0

Source: SCAQMD 2020.
(A) UTM coordinates represent the center coordinate of the grid.

Receptors associated with UCART1 in the roadways and non-occupiable portions of the project site were removed, so the fine resolution receptor spacing was tailored to where receptors could be located at the Project site (i.e., in landscaped areas, residential units, recreational areas, and at the dog park). In total, 1,115 discrete cartesian receptors were modeled.

4.3 HEALTH RISK ASSESSMENT METHODOLOGY

Cancer and non-cancer health risks to sensitive receptors at the Project site were estimated using the U.S. EPA's AERMOD dispersion model and recommendations contained in the SCAQMD's *Health Risk Assessment Guidance for Analyzing Cancer Risks from Mobile Source Diesel Emissions* white paper and *Supplemental Guidelines for Preparing Risk Assessments for the Air Toxics Hot Spots Information and Assessment Act*, as well as the California Office of Environmental Health Hazard Assessment (OEHHA) *Air Toxics Hot Spots Program Guidance Manual* (SCAQMD 2003 and 2020; OEHHA 2015) for mobile sources (i.e., MSAT emissions).

4.3.1 Mobile Source Health Risk Assessment Methodology

Cancer Risk

Cancer risk is the calculated, pollutant-specific estimated probability of developing cancer based upon the dose and exposure to a TAC. Cancer risk is determined by calculating the combinatory effects of the cancer potency factor (CPF) when inhaling the toxic, the daily inhalation dose, the age group the receptor is cohort to, the duration of exposure over a lifetime (70 years), and other factors such as age sensitivity and the amount of time spent at the location of exposure. Risks were assessed for the inhalation pathway (i.e., breathing) for residential receptors at the Project site. Cancer risk calculations for residential receptors are summarized in Equation 3 and Equation 4 below.

Equation 3: Residential Cancer Risk

$$RISK_{INH.RES} = DOSE_{AIR.RES} \times CPF \times ASF \times \frac{ED}{AT} \times FAH$$

Where:

$DOSE_{AIR}$ = Daily Inhalation Dose (mg/kg-day). See Equation 4.

CPF = Cancer Potency Factor for Inhalants (mg/kg-day). CPF is expressed as the 95th percent upper confidence limit of the slope of the dose response curve under continuous lifetime exposure conditions. See Table 4-3 for MSAT CPFs.

ASF = Age Sensitivity Factor. ASF is a protective coefficient intended to take into account increased susceptibility to long-term health effects from early-life exposure to TACs. The recommended ASFs are 10 for the third-trimester to birth and two-year age bins, 3 for the two-year to nine-year and 16-year age bins, and 1 for receptors over 16 years of age.

ED = Exposure Duration (years). Exposure duration characterizes the length of residency (30 Years)

FAH = Fraction at Home. FAH is the percentage of time the receptor is physically at the receptor location. The recommended percentages are 85 percent for the third-trimester to birth and two-year age bins, 72 percent for the two-year to nine-year and 16-year age bins, and 73 for receptors over 16 years of age.

Equation 4: Residential Dose

$$DOSE_{AIR.RES} = C_{AIr} \times \frac{BR}{BW} \times A \times EF \times 10^{-6}$$

Where:

C_{AIR} = Concentration of TAC in air (µg/m^3). Concentration of toxic in micrograms per one cubic meter of air. The AERMOD program is used in the study to determine concentrations of MSATs at surrounding discrete and grid receptor points.

BR/BW = Breathing Rate ÷ Body Weight (L/kg/day). Daily breathing rate normalized to body weight. The 95th percentile breathing rate to body weight ratios are used in this study with a recommended 361 L/kg/day for the third-trimester to birth age bin and 1,090 L/kg/day for the birth to two-years age bin. The 80th percentile breathing rate to body weight ratios are used in this study with a recommended 572 for the two-years to 16-

years age bin, 261 L/kg/day for the 16-years to 30-years age bin, and 233 L/kg/day for the 16-years to 70-years age bin.

A = Inhalation Absorption Factor. Is a coefficient that reflects the fraction of chemical absorbed in studies used in the development of CPF and Reference Exposure Levels (RELs). An absorption factor of one is recommended for all chemicals.

EF = Exposure Frequency. EF is the ratio of days in a year that a receptor is receiving the dose. The recommended EF is 0.96 characterizing an assumed 350 days a year that a residential receptor is home for some portion of the day.

Non-Cancer Risk

The chronic non-cancer hazard quotient is the calculated pollutant-specific indicator for risk of developing an adverse health effect on specific organ system(s) targeted by the identified TAC. The potential for exposure to result in chronic non-cancer effects is evaluated by comparing the estimated annual average air concentration to the chemical-specific, non-cancer chronic RELs. The same is true for evaluating acute non-cancer effects. The REL is a concentration below which there is assumed to be no observable adverse health impact to a target organ system. When calculated for a single chemical, the comparison yields a ratio termed a hazard quotient. To evaluate the potential for adverse non-cancer health effects from simultaneous exposure to multiple chemicals, the hazard quotients for all chemicals are summed, yielding a hazard index. For a chronic non-cancer hazard index, the annual average pollutant concentration is divided by chronic hazard quotient. For an acute hazard index, the one-hour maximum concentration is divided by the acute hazard quotient. Table 4-3 presents the chronic and acute non-cancer RELs applicable to MSAT emissions in the vicinity of the Project site.

Table 4-3. MSAT Cancer Potency Factors and Reference Exposure Levels

Pollutant	CPF	Chronic REL	Acute REL
1,3-Butadiene	6.00E-01	2.00E+00	6.60E+02
Acetaldehyde	1.00E-02	1.40E+02	4.70E+02
Acrolein	--	3.50E-01	2.50E+00
Benzene	1.00E-01	3.00E+00	2.70E+01
Diesel PM	1.10E+00	5.00E+00	--
Ethylbenzene	8.70E-03	2.00E+03	0.00E+00
Formaldehyde	2.10E-02	9.00E+00	5.50E+01
Naphthalene	1.20E-01	9.00E+00	0.00E+00
POM	7.95E-01(A)	--	--

Source: BAAQMD 2021

(A) The CPF for POM was estimated based on the assumption that POM has a carcinogenic potency equal to 5% of that for pure benzo[a]pyrene (B[a]P), which has an inhalation cancer slope factor of 3.9 and an oral cancer slope factor of 12. Combined these factors yield a CPF of 15.9 before being multiplied through by the 5%.

Weighted Cancer and Non-cancer Risk Factors

As described in Section 4.2, pollutant concentrations were evaluated for three sets of emissions: running (exhaust) TOG, running loss (evaporative) TOG, and DPM. With the exception of DPM, emissions of MSATs were not directly modeled; rather, TOG was used as a proxy for assessing how MSAT pollutants

would disperse. The CT-EMFAC2017 provides a breakdown of emissions factors for each MSAT, along with TOG. These breakdowns were used to develop ratios between MSAT concentrations and those modeled through the TOG emission factor inputs for AERMOD. The emissions factors from the 5 mile per hour bin was utilized for the running exhaust emissions factors, because it provided the greatest ratio of MSATs to TOG. Equation 5 and Equation 6 present the manner in which MSAT CPFs and RELs were weighted per emission TOG.

Equation 5: Weighted Cancer Risk Potency Factor

$$CPF_W = \sum MSAT_R \times CPF_{MSAT}$$

Where:

CPF_W = Weighted Cancer Potency Factor (mg/kg-day)
$MSAT_R$ = Ratio of MSAT to TOG (unitless).
CPF_{MSAT} = Cancer Potency Factor for MSAT Inhalant (mg/kg-day). See Table 4-3.

Equation 6: Weighted Reference Exposure Level

$$REL_W = \frac{1}{\sum MSAT_R \times REL_{MSAT}}$$

Where:

REL_W = Weighted Reference Exposure Level (unitless)
$MSAT_R$ = Ratio of MSAT to TOG (unitless).
REL_{MSAT} = REL for MSAT Inhalant. See Table 4-3.

Table 4-4 and Table 4-5 present the ratio of MSAT to TOG for running (exhaust) and running loss (evaporative) emissions, respectively, as well as the weighted CPF and REL values used for the health risk assessment.

Table 4-4. Weighted CPFs and RELs for TOG Running (Exhaust) Emissions

Pollutant	Emissions Factor(A)	Ratio to TOG	CPF	Chronic REL	Acute REL	Weighted Toxicity Factor		
						CPF	Chronic REL	Acute REL
TOG	0.187712	--	--	--	--	--	--	--
1,3-Butadiene	0.000764	0.004070	6.00E-01	2.00E+00	6.60E+02	2.44E-03	2.04E-03	6.17E-06
Acetaldehyde	0.002473	0.013174	1.00E-02	1.40E+02	4.70E+02	1.32E-04	9.41E-05	2.80E-05
Acrolein	0.000165	0.000879	0.00E+00	3.50E-01	2.50E+00	0.00E+00	2.51E-03	3.52E-04
Benzene	0.003663	0.019514	1.00E-01	3.00E+00	2.70E+01	1.95E-03	6.50E-03	7.23E-04
Ethylbenzene	0.001444	0.007693	8.70E-03	2.00E+03	0.00E+00	6.69E-05	3.85E-06	0.00E+00
Formaldehyde	0.006140	0.032710	2.10E-02	9.00E+00	5.50E+01	6.87E-04	3.63E-03	5.95E-04
Naphthalene	0.000127	0.000677	1.20E-01	9.00E+00	0.00E+00	8.12E-05	7.52E-05	0.00E+00
POM	0.000159	0.000847	7.95E-01	--	--	6.73E-04	--	--
					Total	**6.03E-03**	**6.73E+01(B)**	**5.87E+02(B)**

Source: CT-EMFAC2017; see Appendix C.

(A) Emissions in grams / veh-mi for 5 mile per hour speed bin.

(B) Value reflects the inverse of the above REL's summed.

Table 4-5. Weighted CPFs and RELs for TOG Running Loss (Evaporative) Emissions

Pollutant	Emissions Factor(A)	Ratio to TOG	CPF	Chronic REL	Acute REL	Weighted Toxicity Factor		
						CPF	Chronic REL	Acute REL
TOG	1.275299	--	--	--	--	--	--	--
1,3-Butadiene	0	0.0%	6.00E-01	2.00E+00	6.60E+02	0.00E+00	0.00E+00	0.00E+00
Benzene	0.012753	1.0%	1.00E-01	3.00E+00	2.70E+01	1.00E-03	3.33E-03	3.70E-04
Ethylbenzene	0.020915	1.6%	8.70E-03	2.00E+03	0.00E+00	1.43E-04	8.20E-06	0.00E+00
Naphthalene	0.001785	0.1%	1.20E-01	9.00E+00	0.00E+00	1.68E-04	1.56E-04	0.00E+00
					Total	**1.31E-03**	**2.86E+02(B)**	**2.70E+03(B)**

Source: CT-EMFAC2017; see Appendix C.

(A) Emissions in grams / veh-hour.

(B) Value reflects the inverse of the above REL's summed.

This page intentionally left blank.

5 HEALTH RISK ASSESSMENT RESULTS

This chapter presents the results of the health risk assessment and compares risks against thresholds to determine their significance.

5.1 THRESHOLDS OF SIGNIFICANCE

The SCAQMD maintains significance thresholds for cancer and non-cancer health risks. These thresholds are presented below in Table 5-1.

Table 5-1. SCAQMD Health Risk Thresholds

Risk Category	Threshold
Cancer Risk	Increased cancer risk of >10.0 in a million
Non-Cancer Risk	Increased non-cancer risk of > 1.0 Hazard Index (Chronic or Acute)

Source: SCAQMD 2021

5.2 ESTIMATED HEALTH RISKS

Using the average DPM and TOG concentrations derived from AERMOD, the individual residential cancer and non-cancer risks were computed using the methodology described in Section 4.3.1. Table 5-2 presents the cancer and non-cancer risk estimates from each source, as well as the cumulative risk from the sources combined at the Maximally Exposed Individuals (MEIs). MEIs have been evaluated Phase 1 only.[11] Whereas only the residential complexes are considered for cancer risk and chronic non-cancer risk, because receptors could be there for the 30-year duration assessed in the risk assessment, acute non-cancer risks are also considered for receptors at the dog park, because receptors at that location could be there for 1-hour or more (i.e., the temporal interval over which acute risks are assessed).

Figure 5-1 and Figure 5-2 present contours of total TOG exhaust and total TOG evaporative concentrations, respectively, while Figure 5-3 identifies DPM concentrations. The location of the Phase 1 MEI for cancer risk and chronic hazard risk would be located at the northeastern corner of the building with retail space on the bottom floor, in the northeastern portion of the PUD. The MEI for acute risk would the located in the northwestern portion of the Phase 1 dog park.

The proposed Project would be subject to the California Title 24 Building Code, including Section 120.1(b)(1)(C), which per the 2019 Title 24 Building Code, requires high-density residential buildings to be constructed with HVAC system air filters that meet a designated efficiency equal to Minimum Efficiency Rating Value (MERV) 13 standards. As reported by the U.S. EPA, MERV 13 filters are capable of removing

[11] As shown further on in the analysis, pollutant concentrations and corresponding risks would be greatest in the northern portion of the PUD. If risks for Phase 1 are acceptable, so too would risks for Phase 2. This is because emissions from SR 60 (and the on- and off-ramps) are anticipated to decrease in the future as more cars and trucks transition cleaner fuel sources (e.g., electric vehicles).

90 percent of particles between 3 and 10 µm (U.S. EPA 2022b).[12] As shown in Table 5-2, the cancer risk from SR 60 would be approximately 5.6 excess cancers per million after accounting for the MERV-13 filtration system. Cumulative cancer risks from SR 60 and vehicles on the on- and off-ramps would be 7.0 excess cancers per million, which is below the SCAQMD threshold of 10.0 excess cancers per million. Cumulative non-cancer risks (chronic and acute) would also be below the SCAQMD thresholds.

Table 5-2. Risks at MEI from Single and Cumulative Sources

Source	Maximum Cancer Risk (per million)	Maximum Chronic Hazard Index	Maximum Acute Hazard Index
State Route 60 Freeway	5.6	0.01	0.01
State Route 60 On- and Off-ramps	1.4	<0.01	<0.01
Combined Risks	*7.0(A)*	*0.02*	*0.02*
SCAQMD Threshold	10.0	1.0	1.0
Threshold Exceeded?	No	No	No

Source: SCAQMD 2021
(A) Approximately 71% of the 7.0 excess cancer risk would be from DPM.

[12] High-efficiency particulate filters (MERV-13 to HEPA) cannot completely remove TOG from the air, because the particles that contribute to TOG emissions are smaller than the particulate matter sizes that the MERV filters are designed to capture.

Figure 5-1 Total Annual Average TOG Exhaust Concentrations (µg/m³)

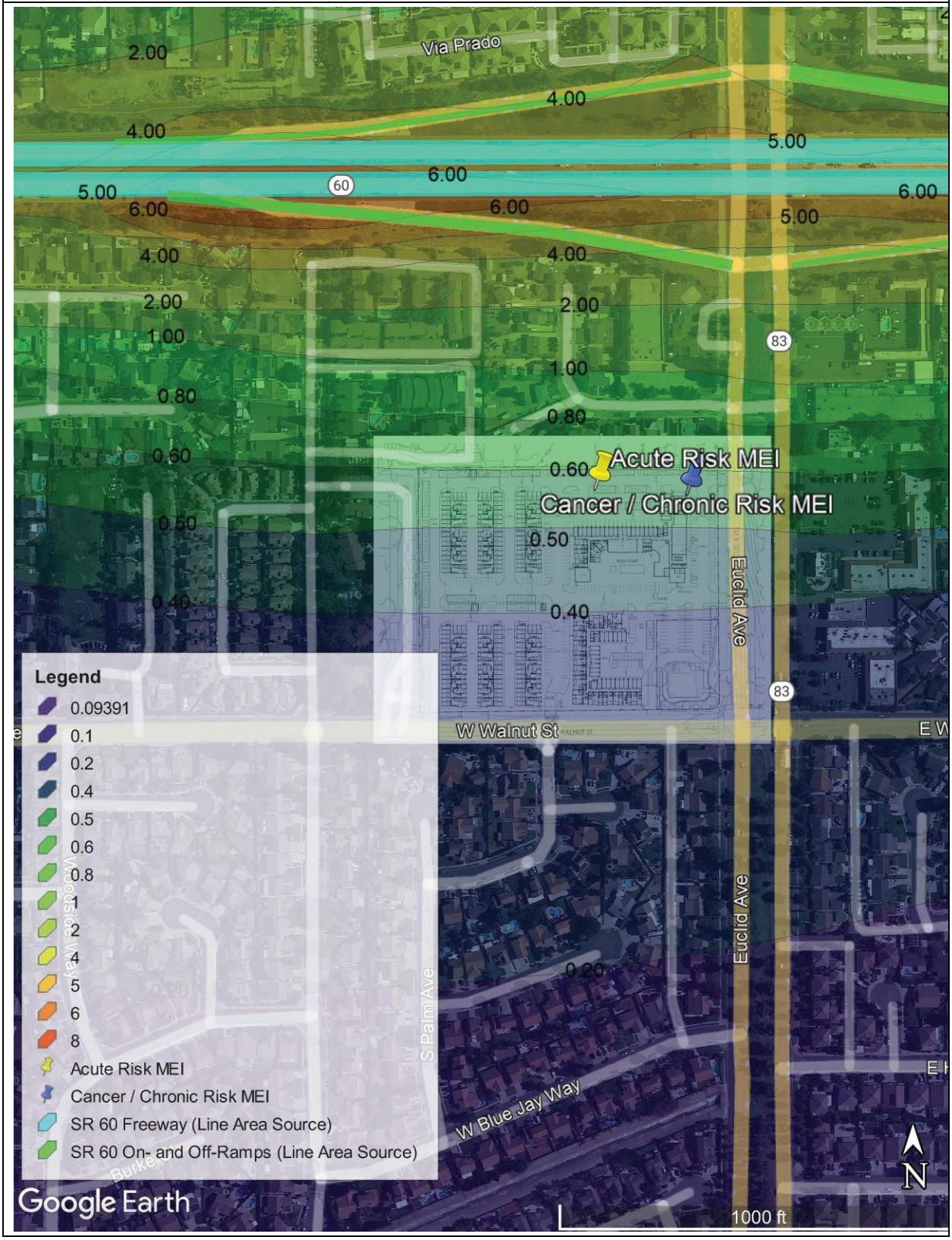


Figure 5-2 Total Annual Average TOG Evaporative Concentrations (µg/m³)

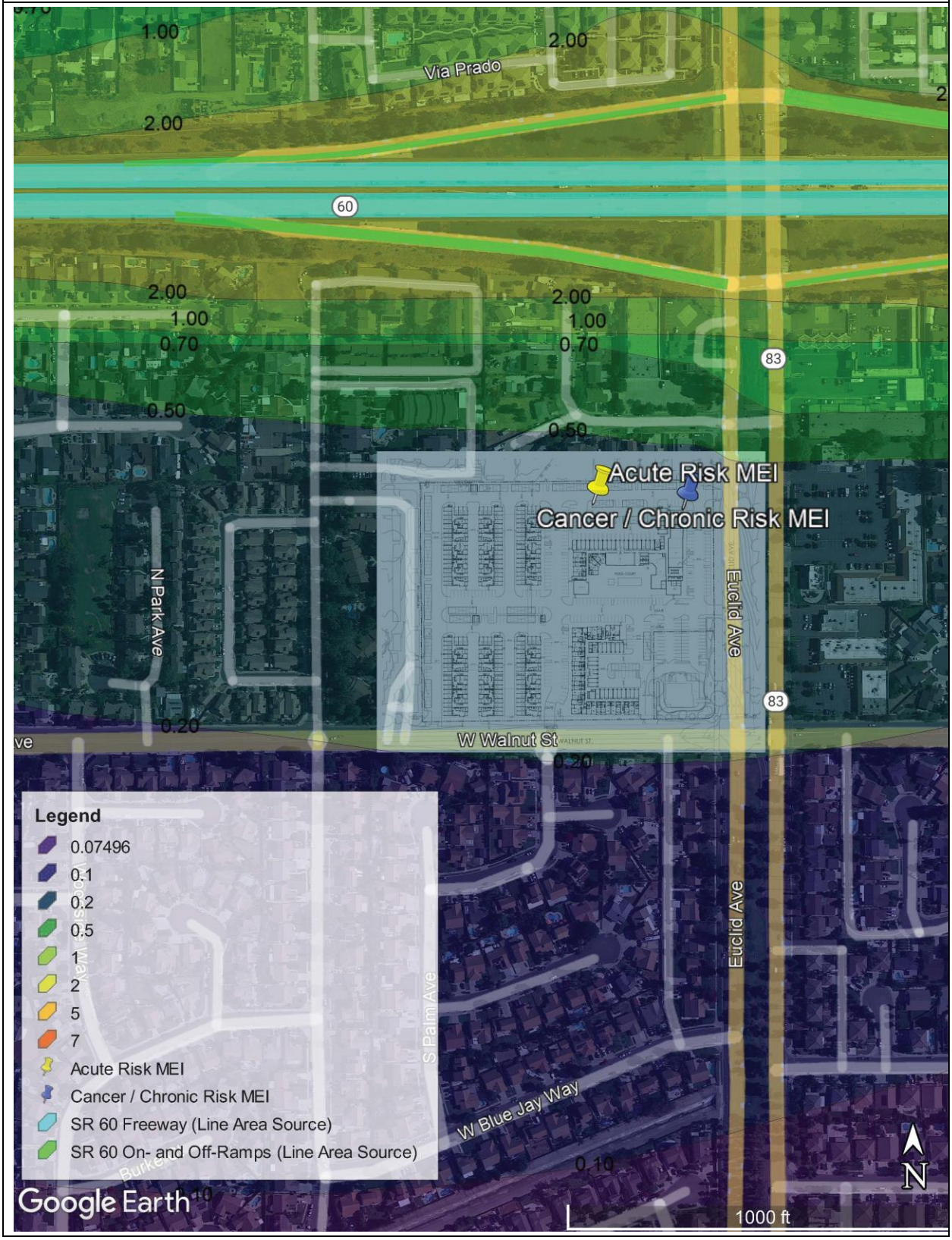
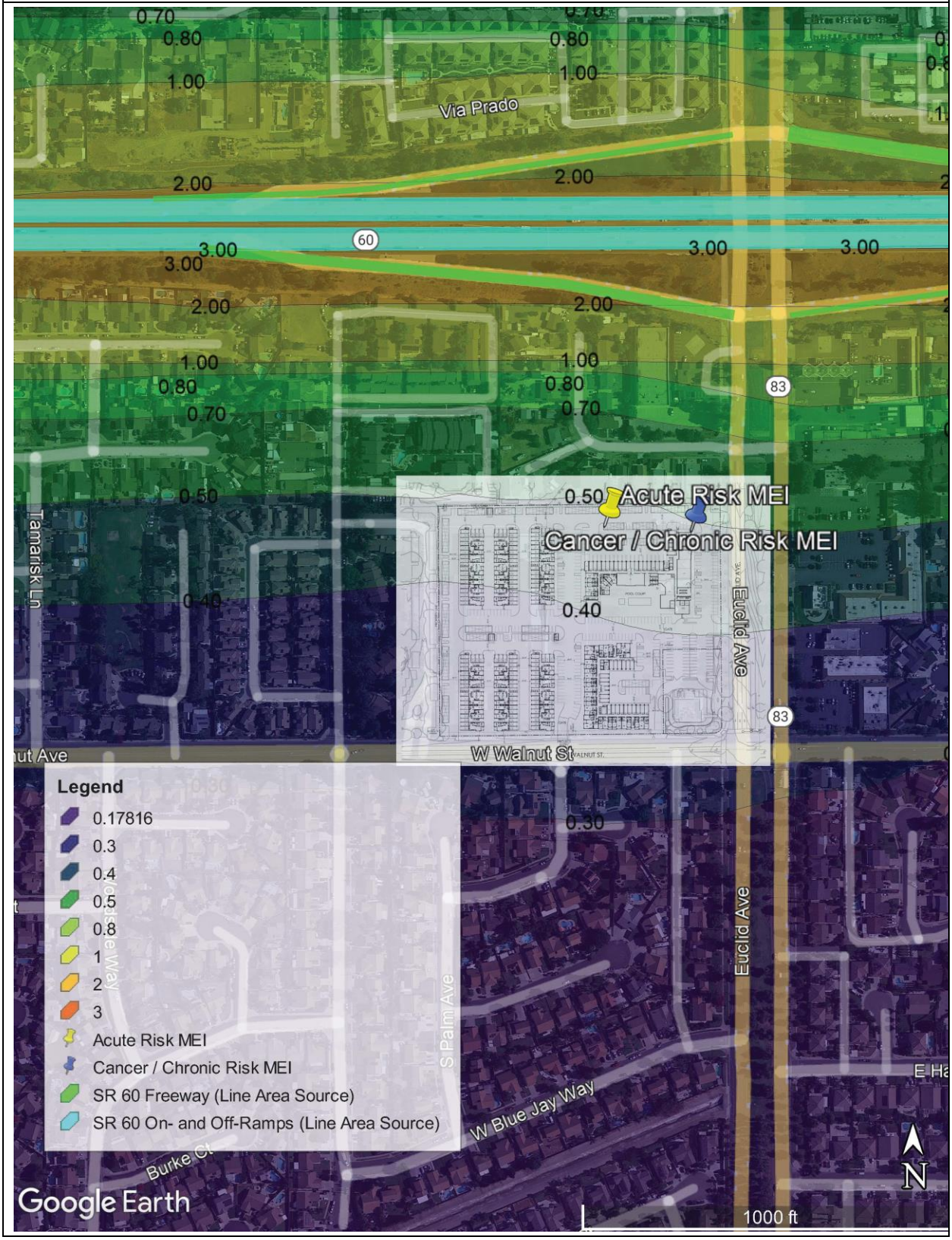


Figure 5-3 Total Annual Average DPM Exhaust Concentrations (µg/m³)



This page intentionally left blank.

6 REPORT PREPARERS AND REFERENCES

This Health Risk Assessment Report was prepared by MIG under contract to Legacy Partners. This Report reflects the independent, objective, professional opinion of MIG.

MIG
1650 Spruce Street
Suite 106
Riverside, CA 92507

Chris Dugan, Director of Air Quality and Greenhouse Gas Services
Phil Gleason, Senior Analyst II

Legacy Partners
5141 California Avenue
Suite 100
Irvine, CA 92617

David Pinto, Vice President of Development

City of Ontario, Planning Dept
303 East B Street
Ontario, CA 91764

Rudy Zeledon, Planning Director
Alexis Vaughn, Associate Planner

6.1 REFERENCES

Bay Area Air Quality Management District (BAAQMD). 2021. Regulation 2, Rule 5: New Source Review of Toxic Air Contaminants. Updated December 15, 2021. Accessed October 6, 2022. https://www.baaqmd.gov/~/media/dotgov/files/rules/reg-2-permits/2021-amendments/documents/20211215_rg0205-pdf.pdf?la=en

California Department of Transportation (Caltrans). 2022a. Traffic Census Program. Accessed June 30, 2022. Available online: https://dot.ca.gov/programs/traffic-operations/census

_____2020b. Performance Measurement System (PeMS) Data Source. Accessed July 11, 2022. Available online: https://dot.ca.gov/programs/traffic-operations/mpr/pems-source

Legacy Partners. 2022. Euclid and Walnut Site Plan. October 2022.

Office of Environmental Health Hazard Assessment (OEHHA) 2015. *Air Toxics Hot Spots Program Guidance Manual*. Sacramento, CA. February 2015.

South Coast Air Quality Management District (SCAQMD). 2003. *Health Risk Assessment Guidance for Analyzing Cancer Risks from Mobile Source Diesel Emissions* white paper. August 2003.

_____2017. Meteorological Data for Dispersion Modeling. AERMOD Table 1. Accessed October 4, 2022. https://www.aqmd.gov/home/air-quality/meteorological-data/aermod-table-1

_____2020. AB 2588 and Rule 1402 *Supplemental Guidelines (Supplemental Guidelines for Preparing Risk Assessments for the Air Toxics "Hot Spots" Information and Assessment Act).* October 2020.

_____2021. South Coast AQMD Air Quality Significance Thresholds. April 2019. http://www.aqmd.gov/docs/default-source/ceqa/handbook/scaqmd-air-quality-significance-thresholds.pdf

United States Environmental Protection Agency (U.S. EPA). 2010. *Transportation Conformity Guidance for Quantitative Hot-spot analyses in PM2.5 and PM10 nonattainment and maintenance areas.* EPA-420-B-10-040. December 2010.

_____2022a. AERMOD Implementation Guide. June 2022. https://gaftp.epa.gov/Air/aqmg/SCRAM/models/preferred/aermod/aermod_implementation_guide.pdf

_____2022b. *Indoor Air Quality (IAQ)*. "What is a MERV rating?" Web. Updated July 1, 2022. Accessed August 8, 2022. Available online: https://www.epa.gov/indoor-air-quality-iaq/what-merv-rating

Western Regional Climate Center (WRCC). 1980 "Period of Record Monthly Climate Summary". *Upland 3 N, California, California (049158).* Accessed September 28, 2022. https://wrcc.dri.edu/cgi-bin/cliMAIN.pl?ca9158

Appendix A
Traffic Volumes and Mobile Source Emissions Quantification for AERMOD

This page intentionally left blank.

Euclid/Walnut Mixed Use Planned Unit Development Project (City of Ontario, CA)

Health Risk Assessment Report

Appendix A: Traffic Volumes and Mobile Source Emissions Quantification for AERMOD
Prepared by: MIG, Inc.
October 2022

Contents:

Sheet 1: AERMOD Source Lengths and Release Height Parameters
Sheet 2: AERMOD Source Emissions Rates
Sheet 3: SR 60 TOG Emissions
Sheet 4: SR 60 On- and Off-ramp TOG Emissions
Sheet 5: SR 60 DPM Emissions
Sheet 6: SR 60 On- and Off-ramp DPM Emissions
Sheet 7: CT-EMFAC2017 Emission Factors
Sheet 8: Caltrans All Vehicle AADT Data
Sheet 9: Caltrans Truck AADT Data
Sheet 10: Caltrans All Vehicle on- and Off-ramp AADT Data

This page intentionally left blank.

Sheet 1: AERMOD Source Lengths and Release Height Parameters

Table 1-1: AERMOD Source Parameters

Source	Description	Length (m)	Width (m)	TOG Height	TOG Int Vert Dim	DPM Height	DPM Int Vert Dim
ARLN01	SR 60 WB TOG Exh	1779.1	18.29	1.3	1.2	--	--
ARLN02	SR 60 EB TOG Exh	1778.6	18.29	1.3	1.2	--	--
ARLN03	SR 60 WB On-ramp TOG Exh	475.1	3.96	1.3	1.2	--	--
ARLN04	SR 60 EB Off-Ramp TOG Exh	436.3	7.62	1.3	1.2	--	--
ARLN05	SR 60 EB On-ramp TOG Exh	508.2	3.96	1.3	1.2	--	--
ARLN06	SR 60 WB Off-Ramp TOG Exh	455	11.58	1.3	1.2	--	--
ARLN07	SR 60 WB TOG Exh	1779.1	18.29	1.3	1.2	--	--
ARLN08	SR 60 EB TOG Evap	1778.6	18.29	1.3	1.2	--	--
ARLN09	SR 60 WB On-ramp TOG Evap	475.1	3.96	1.3	1.2	--	--
ARLN10	SR 60 EB Off-Ramp TOG Evap	436.3	7.62	1.3	1.2	--	--
ARLN11	SR 60 EB On-ramp TOG Evap	508.2	3.96	1.3	1.2	--	--
ARLN12	SR 60 WB Off-Ramp TOG Evap	455	11.58	1.3	1.2	--	--
ARLN13	SR 60 WB DPM Exh	--	--	--	--	3.4	3.2
ARLN14	SR 60 EB DPM Exh	--	--	--	--	3.4	3.2
ARLN15	SR 60 WB On-ramp DPM Exh	--	--	--	--	3.4	3.2
ARLN16	SR 60 EB Off-Ramp DPM Exh	--	--	--	--	3.4	3.2
ARLN17	SR 60 EB On-ramp DPM Exh	--	--	--	--	3.4	3.2
ARLN18	SR 60 WB Off-Ramp DPM Exh	--	--	--	--	3.4	3.2

Sheet 2: AERMOD Source Emissions Rates

Table 2-1: TOG Exhaust Emission Rates for AERMOD

	TOG Running (Exhaust) Emissions (g/s)																						
Segment	**12:00 AM**	**1:00 AM**	**2:00 AM**	**3:00 AM**	**4:00 AM**	**5:00 AM**	**6:00 AM**	**7:00 AM**	**8:00 AM**	**9:00 AM**	**10:00 AM**	**11:00 AM**	**12:00 PM**	**1:00 PM**	**2:00 PM**	**3:00 PM**	**4:00 PM**	**5:00 PM**	**6:00 PM**	**7:00 PM**	**8:00 PM**	**9:00 PM**	**10:00 PM**	**11:00 PM**
SR 60 WB	1.44E-02	1.99E-02	2.03E-02	3.12E-02	6.47E-02	7.49E-02	8.43E-02	9.15E-02	9.01E-02	8.89E-02	9.00E-02	9.23E-02	9.43E-02	9.64E-02	9.98E-02	1.02E-01	1.03E-01	1.00E-01	8.86E-02	7.29E-02	6.26E-02	5.93E-02	4.91E-02	3.61E-02
SR 60 EB	1.72E-02	1.24E-02	1.08E-02	1.26E-02	2.03E-02	3.40E-02	4.31E-02	4.57E-02	4.39E-02	4.14E-02	4.20E-02	4.39E-02	4.63E-02	4.83E-02	5.01E-02	4.91E-02	5.08E-02	5.06E-02	4.72E-02	4.59E-02	4.17E-02	4.08E-02	3.34E-02	2.48E-02
SR 60 WB On-ramp	2.51E-03	1.97E-03	2.01E-03	3.09E-03	6.42E-03	7.58E-03	8.54E-03	9.11E-03	8.96E-03	8.84E-03	8.96E-03	9.18E-03	9.38E-03	9.59E-03	9.93E-03	1.01E-02	1.02E-02	1.01E-02	8.97E-03	7.24E-03	6.34E-03	5.89E-03	4.87E-03	3.58E-03
SR 60 EB Off-Ramp	2.61E-03	1.88E-03	1.65E-03	1.92E-03	3.09E-03	5.18E-03	7.27E-03	8.11E-03	7.80E-03	7.34E-03	7.45E-03	7.79E-03	8.22E-03	8.57E-03	8.85E-03	8.68E-03	8.52E-03	8.49E-03	8.37E-03	7.75E-03	7.03E-03	6.21E-03	5.08E-03	3.78E-03
SR 60 EB On-ramp	4.01E-03	2.88E-03	2.53E-03	2.94E-03	4.74E-03	7.94E-03	1.11E-02	1.24E-02	1.20E-02	1.13E-02	1.14E-02	1.19E-02	1.26E-02	1.31E-02	1.36E-02	1.33E-02	1.31E-02	1.30E-02	1.28E-02	1.19E-02	1.08E-02	9.51E-03	7.79E-03	5.80E-03
SR 60 WB Off-Ramp	4.02E-04	3.16E-04	3.22E-04	4.95E-04	1.03E-03	1.21E-03	1.37E-03	1.46E-03	1.44E-03	1.42E-03	1.43E-03	1.47E-03	1.50E-03	1.54E-03	1.59E-03	1.62E-03	1.64E-03	1.62E-03	1.44E-03	1.16E-03	1.02E-03	9.42E-04	7.81E-04	5.74E-04

Table 2-2: TOG Evaporative Emission Rates for AERMOD

	Running Loss (Evap) Emissions (g/s)																						
Segment	**12:00 AM**	**1:00 AM**	**2:00 AM**	**3:00 AM**	**4:00 AM**	**5:00 AM**	**6:00 AM**	**7:00 AM**	**8:00 AM**	**9:00 AM**	**10:00 AM**	**11:00 AM**	**12:00 PM**	**1:00 PM**	**2:00 PM**	**3:00 PM**	**4:00 PM**	**5:00 PM**	**6:00 PM**	**7:00 PM**	**8:00 PM**	**9:00 PM**	**10:00 PM**	**11:00 PM**
SR 60 WB	1.09E-02	8.55E-03	8.71E-03	1.34E-02	2.78E-02	3.56E-02	4.01E-02	4.67E-02	4.59E-02	4.53E-02	4.59E-02	4.70E-02	4.81E-02	4.91E-02	5.09E-02	5.19E-02	5.24E-02	4.76E-02	4.21E-02	3.14E-02	2.98E-02	2.55E-02	2.11E-02	1.55E-02
SR 60 EB	1.30E-02	9.32E-03	8.17E-03	9.51E-03	1.53E-02	2.57E-02	3.90E-02	4.75E-02	4.56E-02	4.30E-02	4.36E-02	4.56E-02	4.81E-02	5.02E-02	5.70E-02	5.59E-02	6.10E-02	6.08E-02	4.90E-02	4.16E-02	3.77E-02	3.07E-02	2.52E-02	1.87E-02
SR 60 WB On-ramp	3.41E-03	2.68E-03	2.73E-03	4.20E-03	8.72E-03	1.03E-02	1.16E-02	1.24E-02	1.22E-02	1.20E-02	1.22E-02	1.25E-02	1.27E-02	1.30E-02	1.35E-02	1.38E-02	1.39E-02	1.38E-02	1.22E-02	9.83E-03	8.61E-03	8.00E-03	6.62E-03	4.87E-03
SR 60 EB Off-Ramp	3.95E-04	2.84E-04	2.49E-04	2.90E-04	4.66E-04	7.82E-04	1.10E-03	1.22E-03	1.18E-03	1.11E-03	1.12E-03	1.18E-03	1.24E-03	1.29E-03	1.34E-03	1.31E-03	1.29E-03	1.28E-03	1.26E-03	1.17E-03	1.06E-03	9.37E-04	7.67E-04	5.71E-04
SR 60 EB On-ramp	5.45E-03	3.92E-03	3.43E-03	4.00E-03	6.44E-03	1.08E-02	1.51E-02	1.69E-02	1.62E-02	1.53E-02	1.55E-02	1.62E-02	1.71E-02	1.78E-02	1.84E-02	1.81E-02	1.77E-02	1.77E-02	1.74E-02	1.61E-02	1.46E-02	1.29E-02	1.06E-02	7.88E-03
SR 60 WB Off-Ramp	4.82E-04	3.79E-04	3.86E-04	5.94E-04	1.23E-03	1.46E-03	1.64E-03	1.75E-03	1.72E-03	1.70E-03	1.72E-03	1.76E-03	1.80E-03	1.84E-03	1.91E-03	1.94E-03	1.96E-03	1.95E-03	1.72E-03	1.39E-03	1.22E-03	1.13E-03	9.37E-04	6.89E-04

Table 2-3: DPM Emission Rates for AERMOD

	DPM Running (Exhaust) Emissions (g/s)																						
Segment	**12:00 AM**	**1:00 AM**	**2:00 AM**	**3:00 AM**	**4:00 AM**	**5:00 AM**	**6:00 AM**	**7:00 AM**	**8:00 AM**	**9:00 AM**	**10:00 AM**	**11:00 AM**	**12:00 PM**	**1:00 PM**	**2:00 PM**	**3:00 PM**	**4:00 PM**	**5:00 PM**	**6:00 PM**	**7:00 PM**	**8:00 PM**	**9:00 PM**	**10:00 PM**	**11:00 PM**
SR 60 WB	9.57E-04	6.59E-04	5.79E-04	1.03E-03	2.94E-03	4.68E-03	5.27E-03	6.01E-03	6.49E-03	6.66E-03	6.88E-03	7.25E-03	7.07E-03	6.83E-03	6.62E-03	6.43E-03	6.19E-03	6.05E-03	4.94E-03	3.85E-03	3.48E-03	3.02E-03	2.24E-03	1.43E-03
SR 60 EB	2.74E-03	2.71E-03	2.64E-03	2.72E-03	3.39E-03	4.30E-03	5.41E-03	5.02E-03	5.91E-03	7.06E-03	7.47E-03	7.31E-03	6.90E-03	6.30E-03	4.30E-03	3.33E-03	2.60E-03	2.35E-03	3.29E-03	4.02E-03	4.26E-03	3.98E-03	3.80E-03	3.14E-03
SR 60 WB On-ramp	8.17E-05	5.63E-05	4.94E-05	8.80E-05	2.51E-04	8.80E-05	4.50E-04	5.13E-04	5.54E-04	5.68E-04	5.87E-04	6.18E-04	6.03E-04	5.82E-04	5.65E-04	5.48E-04	5.28E-04	5.16E-04	4.21E-04	3.29E-04	2.97E-04	2.58E-04	1.91E-04	1.22E-04
SR 60 EB Off-Ramp	4.51E-05	4.46E-05	4.33E-05	4.47E-05	5.58E-05	7.08E-05	8.90E-05	8.25E-05	9.71E-05	1.16E-04	1.23E-04	1.20E-04	1.13E-04	1.04E-04	8.15E-05	6.30E-05	5.48E-05	4.97E-05	5.41E-05	6.62E-05	7.01E-05	6.55E-05	6.25E-05	5.16E-05
SR 60 EB On-ramp	3.14E-04	3.10E-04	3.01E-04	3.11E-04	3.88E-04	1.08E-04	6.19E-04	5.74E-04	6.76E-04	8.08E-04	8.55E-04	8.36E-04	7.89E-04	7.20E-04	5.67E-04	4.38E-04	3.81E-04	3.45E-04	3.76E-04	4.60E-04	4.88E-04	4.56E-04	4.35E-04	3.59E-04
SR 60 WB Off-Ramp	2.29E-05	1.58E-05	1.39E-05	2.47E-05	7.04E-05	1.12E-04	1.26E-04	1.44E-04	1.55E-04	1.59E-04	1.65E-04	1.73E-04	1.69E-04	1.63E-04	1.58E-04	1.54E-04	1.48E-04	1.45E-04	1.18E-04	9.23E-05	8.34E-05	7.23E-05	5.35E-05	3.42E-05

Sheet 3: SR 60 TOG Emissions

Table 3-1: SR 60 AADT Information

All Veh AADT	2019	2025
SR 60	235,000	249,457

Assumes 1% Traffic Growth per year

Table 3-2: SR 60 Hourly Vehicle Volumes and Speed (TOG)

	Vehicle Volumes and Speed by Hour																						
Roadway Segment	12:00 AM	1:00 AM	2:00 AM	3:00 AM	4:00 AM	5:00 AM	6:00 AM	7:00 AM	8:00 AM	9:00 AM	10:00 AM	11:00 AM	12:00 PM	1:00 PM	2:00 PM	3:00 PM	4:00 PM	5:00 PM	6:00 PM	7:00 PM	8:00 PM	9:00 PM	10:00 PM	11:00 PM
SR 60 (WB)	1.45%	1.14%	1.16%	1.78%	3.70%	4.37%	4.92%	5.25%	5.17%	5.10%	5.17%	5.29%	5.41%	5.53%	5.73%	5.84%	5.89%	5.84%	5.17%	4.17%	3.66%	3.39%	2.81%	2.07%
SR 60 (EB)	1.72%	1.24%	1.09%	1.27%	2.04%	3.42%	4.79%	5.35%	5.14%	4.84%	4.91%	5.14%	5.42%	5.65%	5.84%	5.73%	5.62%	5.60%	5.52%	5.11%	4.63%	4.09%	3.35%	2.49%
Veh-Hr (WB)	1,805	1,418	1,445	2,224	4,614	5,454	6,139	6,551	6,445	6,360	6,442	6,603	6,746	6,895	7,145	7,278	7,352	7,284	6,449	5,205	4,559	4,233	3,506	2,577
Veh-Hr (EB)	2,151	1,547	1,356	1,579	2,541	4,262	5,980	6,670	6,413	6,037	6,125	6,406	6,764	7,048	7,283	7,141	7,006	6,983	6,887	6,372	5,780	5,105	4,182	3,111
WB Speed	65	65	65	65	65	60	60	55	55	55	55	55	55	55	55	55	55	60	60	65	60	65	65	65
EB Speed	65	65	65	65	65	65	60	55	55	55	55	55	55	55	50	50	45	45	55	60	60	65	65	65

Table 3-3: SR 60 Segment Distances

Distance (Mi)	WB SR 60	EB SR 60
Segment distance	1.11	1.11

Table 3-4: SR 60 TOG Running (Exhaust) Emissions per Hour

	TOG Running (Exhaust) Emissions (g) by Hour of Day																						
Roadway Segement	12:00 AM	1:00 AM	2:00 AM	3:00 AM	4:00 AM	5:00 AM	6:00 AM	7:00 AM	8:00 AM	9:00 AM	10:00 AM	11:00 AM	12:00 PM	1:00 PM	2:00 PM	3:00 PM	4:00 PM	5:00 PM	6:00 PM	7:00 PM	8:00 PM	9:00 PM	10:00 PM	11:00 PM
SR 60 WB	5.19E+01	4.08E+01	4.16E+01	6.39E+01	1.33E+02	1.42E+02	1.59E+02	1.62E+02	1.59E+02	1.57E+02	1.59E+02	1.63E+02	1.66E+02	1.70E+02	1.76E+02	1.80E+02	1.81E+02	1.89E+02	1.67E+02	1.50E+02	1.18E+02	1.22E+02	1.01E+02	7.41E+01
SR 60 EB	6.18E+01	4.45E+01	3.90E+01	4.54E+01	7.31E+01	1.23E+02	1.55E+02	1.65E+02	1.58E+02	1.49E+02	1.51E+02	1.58E+02	1.67E+02	1.74E+02	1.80E+02	1.77E+02	1.83E+02	1.82E+02	1.70E+02	1.65E+02	1.50E+02	1.47E+02	1.20E+02	8.94E+01

Table 3-5: SR 60 TOG Running Loss (Evap) Emissions per Hour

	TOG Running Loss (Evap) Emissions (g) by Hour of Day																						
Roadway Segement	12:00 AM	1:00 AM	2:00 AM	3:00 AM	4:00 AM	5:00 AM	6:00 AM	7:00 AM	8:00 AM	9:00 AM	10:00 AM	11:00 AM	12:00 PM	1:00 PM	2:00 PM	3:00 PM	4:00 PM	5:00 PM	6:00 PM	7:00 PM	8:00 PM	9:00 PM	10:00 PM	11:00 PM
SR 60 WB	3.91E+01	3.07E+01	3.13E+01	4.82E+01	1.00E+02	1.28E+02	1.44E+02	1.68E+02	1.65E+02	1.63E+02	1.65E+02	1.69E+02	1.73E+02	1.77E+02	1.83E+02	1.87E+02	1.88E+02	1.71E+02	1.52E+02	1.13E+02	1.07E+02	9.18E+01	7.60E+01	5.59E+01
SR 60 EB	4.66E+01	3.36E+01	2.94E+01	3.42E+01	5.51E+01	9.24E+01	1.40E+02	1.71E+02	1.64E+02	1.55E+02	1.57E+02	1.64E+02	1.73E+02	1.81E+02	2.05E+02	2.01E+02	2.19E+02	2.19E+02	1.76E+02	1.50E+02	1.36E+02	1.11E+02	9.07E+01	6.75E+01

Table 3-6: SR 60 TOG Running (Exhaust) Emissions per Second

	Running (Exhaust) Emissions (g/s)																						
Roadway Segement	12:00 AM	1:00 AM	2:00 AM	3:00 AM	4:00 AM	5:00 AM	6:00 AM	7:00 AM	8:00 AM	9:00 AM	10:00 AM	11:00 AM	12:00 PM	1:00 PM	2:00 PM	3:00 PM	4:00 PM	5:00 PM	6:00 PM	7:00 PM	8:00 PM	9:00 PM	10:00 PM	11:00 PM
SR 60 WB	1.44E-02	1.99E-02	2.03E-02	3.12E-02	6.47E-02	7.49E-02	8.43E-02	9.15E-02	9.01E-02	8.89E-02	9.00E-02	9.23E-02	9.43E-02	9.64E-02	9.98E-02	1.02E-01	1.03E-01	1.00E-01	8.86E-02	7.29E-02	6.26E-02	5.93E-02	4.91E-02	3.61E-02
SR 60 EB	1.72E-02	1.24E-02	1.08E-02	1.26E-02	2.03E-02	3.40E-02	4.31E-02	4.57E-02	4.39E-02	4.14E-02	4.20E-02	4.39E-02	4.63E-02	4.83E-02	5.01E-02	4.91E-02	5.08E-02	5.06E-02	4.72E-02	4.59E-02	4.17E-02	4.08E-02	3.34E-02	2.48E-02

Table 3-6: SR 60 TOG Running Loss (Evap) Emissions per Second

	Running Loss (Evap) Emissions (g/s)																						
Roadway Segement	12:00 AM	1:00 AM	2:00 AM	3:00 AM	4:00 AM	5:00 AM	6:00 AM	7:00 AM	8:00 AM	9:00 AM	10:00 AM	11:00 AM	12:00 PM	1:00 PM	2:00 PM	3:00 PM	4:00 PM	5:00 PM	6:00 PM	7:00 PM	8:00 PM	9:00 PM	10:00 PM	11:00 PM
SR 60 WB	1.09E-02	8.55E-03	8.71E-03	1.34E-02	2.78E-02	3.56E-02	4.01E-02	4.67E-02	4.59E-02	4.53E-02	4.59E-02	4.70E-02	4.81E-02	4.91E-02	5.09E-02	5.19E-02	5.24E-02	4.76E-02	4.21E-02	3.14E-02	2.98E-02	2.55E-02	2.11E-02	1.55E-02
SR 60 EB	1.30E-02	9.32E-03	8.17E-03	9.51E-03	1.53E-02	2.57E-02	3.90E-02	4.75E-02	4.56E-02	4.30E-02	4.36E-02	4.56E-02	4.81E-02	5.02E-02	5.70E-02	5.59E-02	6.10E-02	6.08E-02	4.90E-02	4.16E-02	3.77E-02	3.07E-02	2.52E-02	1.87E-02

Sheet 4: SR 60 On- and Off-ramp TOG Emissions

Table 4-1: SR 60 On- and Off-Ramp AADT Information for Euclid Avenue

Segment	Year	All (Trucks+Cars) ADT Volume	
		Caltrans Data	2025
SR 60 WB On-ramp (Euclid)	2015	10,200	11,267
SR 60 EB Off-Ramp (Euclid)	2018	10,004	10,726
SR 60 EB On-ramp (Euclid)	2018	13,168	14,118
SR 60 WB Off-Ramp (Euclid)	2018	13,967	14,975

Assumes 1% Traffic Growth per year

Table 4-2: SR 60 East- and Westbound On- and Off-Ramps at Eucalid - Hourly Vehicle Volumes and Speed (Cars)

Roadway Segment	SR 60 Off- and On-ramp Vehicle Volumes and Speed by Hour																						
	12:00 AM	1:00 AM	2:00 AM	3:00 AM	4:00 AM	5:00 AM	6:00 AM	7:00 AM	8:00 AM	9:00 AM	10:00 AM	11:00 AM	12:00 PM	1:00 PM	2:00 PM	3:00 PM	4:00 PM	5:00 PM	6:00 PM	7:00 PM	8:00 PM	9:00 PM	10:00 PM	11:00 PM
Car Breakdown (WB)	1.45%	1.14%	1.16%	1.78%	3.70%	4.37%	4.92%	5.25%	5.17%	5.10%	5.17%	5.29%	5.41%	5.53%	5.73%	5.84%	5.89%	5.84%	5.17%	4.17%	3.66%	3.39%	2.81%	2.07%
Car Breakdown (EB)	1.72%	1.24%	1.09%	1.27%	2.04%	3.42%	4.79%	5.35%	5.14%	4.84%	4.91%	5.14%	5.42%	5.65%	5.84%	5.73%	5.62%	5.60%	5.52%	5.11%	4.63%	4.09%	3.35%	2.49%
SR 60 WB On-ramp Vol (TOG)	163	128	131	201	417	493	555	592	582	574	582	597	609	623	645	657	664	658	583	470	412	382	317	233
SR 60 EB Off-Ramp Vol (TOG)	185	133	117	136	219	366	514	574	551	519	527	551	582	606	626	614	602	600	592	548	497	439	360	267
SR 60 EB On-ramp Vol (TOG)	243	175	153	179	288	482	677	755	726	683	693	725	766	798	824	808	793	790	779	721	654	578	473	352
SR 60 WB Off-Ramp Vol (TOG)	217	170	173	267	554	655	737	786	774	764	773	793	810	828	858	874	883	874	774	625	547	508	421	309
On-ramp Speed	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
Off-ramp Speed	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45

Table 4-3: SR 60 East- and Westbound On- and Off-Ramps at Eucalid - Segment Distances

Distance (Mi)	SR 60 WB On	SR 60 EB Off	SR 60 EB On	SR 60 WB Off
Segment	0.30	0.27	0.32	0.28

Table 4-4: SR 60 East- and Westbound On- and Off-Ramps at Eucalid - TOG Running (Exhaust) Emissions per Hour

Roadway Segment	Running (Exhaust) Emissions (g) by Hour of Day																						
	12:00 AM	1:00 AM	2:00 AM	3:00 AM	4:00 AM	5:00 AM	6:00 AM	7:00 AM	8:00 AM	9:00 AM	10:00 AM	11:00 AM	12:00 PM	1:00 PM	2:00 PM	3:00 PM	4:00 PM	5:00 PM	6:00 PM	7:00 PM	8:00 PM	9:00 PM	10:00 PM	11:00 PM
SR 60 WB Car On-ramp	9.03E+00	7.10E+00	7.23E+00	1.11E+01	2.31E+01	2.73E+01	3.07E+01	3.28E+01	3.23E+01	3.18E+01	3.22E+01	3.31E+01	3.38E+01	3.45E+01	3.58E+01	3.64E+01	3.68E+01	3.65E+01	3.23E+01	2.61E+01	2.28E+01	2.12E+01	1.75E+01	1.29E+01
SR 60 EB Car Off-Ramp	9.41E+00	6.77E+00	5.93E+00	6.91E+00	1.11E+01	1.86E+01	2.62E+01	2.92E+01	2.81E+01	2.64E+01	2.68E+01	2.80E+01	2.96E+01	3.08E+01	3.19E+01	3.13E+01	3.07E+01	3.06E+01	3.01E+01	2.79E+01	2.53E+01	2.23E+01	1.83E+01	1.36E+01
SR 60 EB Car On-ramp	1.44E+01	1.04E+01	9.10E+00	1.06E+01	1.70E+01	2.86E+01	4.01E+01	4.48E+01	4.30E+01	4.05E+01	4.11E+01	4.30E+01	4.54E+01	4.73E+01	4.89E+01	4.79E+01	4.70E+01	4.68E+01	4.62E+01	4.28E+01	3.88E+01	3.43E+01	2.81E+01	2.09E+01
SR 60 WB Car Off-Ramp	1.45E+00	1.14E+00	1.16E+00	1.78E+00	3.70E+00	4.37E+00	4.92E+00	5.25E+00	5.17E+00	5.10E+00	5.16E+00	5.29E+00	5.41E+00	5.53E+00	5.73E+00	5.83E+00	5.89E+00	5.84E+00	5.17E+00	4.17E+00	3.65E+00	3.39E+00	2.81E+00	2.07E+00

Table 4-5: SR 60 East- and Westbound On- and Off-Ramps at Eucalid - TOG Running Loss (Evap) Emissions per Hour

Roadway Segment	Running Loss (Evap) Emissions (g) by Hour of Day																						
	12:00 AM	1:00 AM	2:00 AM	3:00 AM	4:00 AM	5:00 AM	6:00 AM	7:00 AM	8:00 AM	9:00 AM	10:00 AM	11:00 AM	12:00 PM	1:00 PM	2:00 PM	3:00 PM	4:00 PM	5:00 PM	6:00 PM	7:00 PM	8:00 PM	9:00 PM	10:00 PM	11:00 PM
SR 60 WB Car On-ramp	1.23E+01	9.64E+00	9.83E+00	1.51E+01	3.14E+01	3.71E+01	4.18E+01	4.46E+01	4.38E+01	4.33E+01	4.38E+01	4.49E+01	4.59E+01	4.69E+01	4.86E+01	4.95E+01	5.00E+01	4.95E+01	4.39E+01	3.54E+01	3.10E+01	2.88E+01	2.38E+01	1.75E+01
SR 60 EB Car Off-Ramp	1.42E+00	1.02E+00	8.96E-01	1.04E+00	1.68E+00	2.82E+00	3.95E+00	4.41E+00	4.24E+00	3.99E+00	4.05E+00	4.23E+00	4.47E+00	4.66E+00	4.81E+00	4.72E+00	4.63E+00	4.61E+00	4.55E+00	4.21E+00	3.82E+00	3.37E+00	2.76E+00	2.06E+00
SR 60 EB Car On-ramp	1.96E+01	1.41E+01	1.24E+01	1.44E+01	2.32E+01	3.89E+01	5.45E+01	6.08E+01	5.85E+01	5.50E+01	5.58E+01	5.84E+01	6.17E+01	6.43E+01	6.64E+01	6.51E+01	6.39E+01	6.37E+01	6.28E+01	5.81E+01	5.27E+01	4.65E+01	3.81E+01	2.84E+01
SR 60 WB Car Off-Ramp	1.74E+00	1.36E+00	1.39E+00	2.14E+00	4.44E+00	5.25E+00	5.91E+00	6.30E+00	6.20E+00	6.12E+00	6.20E+00	6.35E+00	6.49E+00	6.63E+00	6.87E+00	7.00E+00	7.07E+00	7.01E+00	6.20E+00	5.01E+00	4.39E+00	4.07E+00	3.37E+00	2.48E+00

Table 4-6: SR 60 East- and Westbound On- and Off-Ramps at Eucalid - TOG Running (Exhaust) Emissions per Second

Roadway Segment	Running (Exhaust) Emissions (g/s)																						
	12:00 AM	1:00 AM	2:00 AM	3:00 AM	4:00 AM	5:00 AM	6:00 AM	7:00 AM	8:00 AM	9:00 AM	10:00 AM	11:00 AM	12:00 PM	1:00 PM	2:00 PM	3:00 PM	4:00 PM	5:00 PM	6:00 PM	7:00 PM	8:00 PM	9:00 PM	10:00 PM	11:00 PM
SR 60 WB Car On-ramp	2.51E-03	1.97E-03	2.01E-03	3.09E-03	6.42E-03	7.58E-03	8.54E-03	9.11E-03	8.96E-03	8.84E-03	8.96E-03	9.18E-03	9.38E-03	9.59E-03	9.93E-03	1.01E-02	1.02E-02	1.01E-02	8.97E-03	7.24E-03	6.34E-03	5.89E-03	4.87E-03	3.58E-03
SR 60 EB Car Off-Ramp	2.61E-03	1.88E-03	1.65E-03	1.92E-03	3.09E-03	5.18E-03	7.27E-03	8.11E-03	7.80E-03	7.34E-03	7.45E-03	7.79E-03	8.22E-03	8.57E-03	8.85E-03	8.68E-03	8.52E-03	8.49E-03	8.37E-03	7.75E-03	7.03E-03	6.21E-03	5.08E-03	3.78E-03
SR 60 EB Car On-ramp	4.01E-03	2.88E-03	2.53E-03	2.94E-03	4.74E-03	7.94E-03	1.11E-02	1.24E-02	1.20E-02	1.13E-02	1.14E-02	1.19E-02	1.26E-02	1.31E-02	1.36E-02	1.33E-02	1.31E-02	1.30E-02	1.28E-02	1.19E-02	1.08E-02	9.51E-03	7.79E-03	5.80E-03
SR 60 WB Car Off-Ramp	4.02E-04	3.16E-04	3.22E-04	4.95E-04	1.03E-03	1.21E-03	1.37E-03	1.46E-03	1.44E-03	1.42E-03	1.43E-03	1.47E-03	1.50E-03	1.54E-03	1.59E-03	1.62E-03	1.64E-03	1.62E-03	1.44E-03	1.16E-03	1.02E-03	9.42E-04	7.81E-04	5.74E-04

Table 4-7: SR 60 East- and Westbound On- and Off-Ramps at Eucalid - TOG Running Loss (Evap) Emissions per Second

Roadway Segment	Running Loss (Evap) Emissions (g/s)																						
	12:00 AM	1:00 AM	2:00 AM	3:00 AM	4:00 AM	5:00 AM	6:00 AM	7:00 AM	8:00 AM	9:00 AM	10:00 AM	11:00 AM	12:00 PM	1:00 PM	2:00 PM	3:00 PM	4:00 PM	5:00 PM	6:00 PM	7:00 PM	8:00 PM	9:00 PM	10:00 PM	11:00 PM
SR 60 WB Car On-ramp	3.41E-03	2.68E-03	2.73E-03	4.20E-03	8.72E-03	1.03E-02	1.16E-02	1.24E-02	1.22E-02	1.20E-02	1.22E-02	1.25E-02	1.27E-02	1.30E-02	1.35E-02	1.38E-02	1.39E-02	1.38E-02	1.22E-02	9.83E-03	8.61E-03	8.00E-03	6.62E-03	4.87E-03
SR 60 EB Car Off-Ramp	3.95E-04	2.84E-04	2.49E-04	2.90E-04	4.66E-04	7.82E-04	1.10E-03	1.22E-03	1.18E-03	1.11E-03	1.12E-03	1.18E-03	1.24E-03	1.29E-03	1.34E-03	1.31E-03	1.29E-03	1.28E-03	1.26E-03	1.17E-03	1.06E-03	9.37E-04	7.67E-04	5.71E-04
SR 60 EB Car On-ramp	5.45E-03	3.92E-03	3.43E-03	4.00E-03	6.44E-03	1.08E-02	1.51E-02	1.69E-02	1.62E-02	1.53E-02	1.55E-02	1.62E-02	1.71E-02	1.78E-02	1.84E-02	1.81E-02	1.77E-02	1.77E-02	1.74E-02	1.61E-02	1.46E-02	1.29E-02	1.06E-02	7.88E-03
SR 60 WB Car Off-Ramp	4.82E-04	3.79E-04	3.86E-04	5.94E-04	1.23E-03	1.46E-03	1.64E-03	1.75E-03	1.72E-03	1.70E-03	1.72E-03	1.76E-03	1.80E-03	1.84E-03	1.91E-03	1.94E-03	1.96E-03	1.95E-03	1.72E-03	1.39E-03	1.22E-03	1.13E-03	9.37E-04	6.89E-04

Sheet 5: I-280 DPM Emissions

Table 5-1: SR 60 AADT Information

All Veh AADT	2019	2025
SR 60	235,000	249,457

Assumes 1% Traffic Growth per year

Table 5-2: SR 60 Hourly Vehicle Volumes and Speed (DPM)

	Vehicle Volumes and Speed by Hour																						
Roadway Segment	12:00 AM	1:00 AM	2:00 AM	3:00 AM	4:00 AM	5:00 AM	6:00 AM	7:00 AM	8:00 AM	9:00 AM	10:00 AM	11:00 AM	12:00 PM	1:00 PM	2:00 PM	3:00 PM	4:00 PM	5:00 PM	6:00 PM	7:00 PM	8:00 PM	9:00 PM	10:00 PM	11:00 PM
SR 60 (WB)	0.89%	0.61%	0.54%	0.96%	2.73%	4.35%	4.90%	5.59%	6.04%	6.19%	6.40%	6.74%	6.57%	6.35%	6.16%	5.98%	5.75%	5.62%	4.59%	3.58%	3.24%	2.81%	2.08%	1.33%
SR 60 (EB)	2.55%	2.52%	2.45%	2.53%	3.15%	4.00%	5.03%	4.67%	5.49%	6.57%	6.95%	6.80%	6.42%	5.86%	4.61%	3.56%	3.10%	2.81%	3.06%	3.74%	3.97%	3.71%	3.53%	2.92%
Veh-Hr (WB)	1,110	765	671	1,196	3,411	5,430	6,115	6,969	7,529	7,723	7,981	8,405	8,199	7,916	7,678	7,455	7,177	7,012	5,727	4,470	4,040	3,502	2,593	1,655
Veh-Hr (EB)	3,183	3,144	3,057	3,154	3,933	4,992	6,280	5,820	6,852	8,191	8,671	8,480	8,006	7,308	5,749	4,442	3,865	3,503	3,814	4,669	4,947	4,622	4,408	3,637
WB Speed	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55
EB Speed	55	55	55	55	55	55	55	55	55	55	55	55	55	55	50	50	45	45	55	55	55	55	55	55

Table 5-3: SR 60 Segment Distances

Distance (Mi)	WB SR 60	EB SR 60
Segment Distance	1.1	1.1

Table 5-4: SR 60 DPM Running (Exhaust) Emissions per Hour

	Diesel PM Running Emissions (g) by Hour of Day																						
Roadway Segement	12:00 AM	1:00 AM	2:00 AM	3:00 AM	4:00 AM	5:00 AM	6:00 AM	7:00 AM	8:00 AM	9:00 AM	10:00 AM	11:00 AM	12:00 PM	1:00 PM	2:00 PM	3:00 PM	4:00 PM	5:00 PM	6:00 PM	7:00 PM	8:00 PM	9:00 PM	10:00 PM	11:00 PM
SR 60 WB	3.45E+00	2.37E+00	2.08E+00	3.71E+00	1.06E+01	1.69E+01	1.90E+01	2.16E+01	2.34E+01	2.40E+01	2.48E+01	2.61E+01	2.55E+01	2.46E+01	2.38E+01	2.31E+01	2.23E+01	2.18E+01	1.78E+01	1.39E+01	1.25E+01	1.09E+01	8.05E+00	5.14E+00
SR 60 EB	9.88E+00	9.76E+00	9.49E+00	9.79E+00	1.22E+01	1.55E+01	1.95E+01	1.81E+01	2.13E+01	2.54E+01	2.69E+01	2.63E+01	2.48E+01	2.27E+01	1.55E+01	1.20E+01	9.35E+00	8.48E+00	1.18E+01	1.45E+01	1.54E+01	1.43E+01	1.37E+01	1.13E+01

Table 5-5: SR 60 DPM Running (Exhaust) Emissions per Second

	Diesel PM Running (Exhaust) Emissions (g/s)																						
Roadway Segement	12:00 AM	1:00 AM	2:00 AM	3:00 AM	4:00 AM	5:00 AM	6:00 AM	7:00 AM	8:00 AM	9:00 AM	10:00 AM	11:00 AM	12:00 PM	1:00 PM	2:00 PM	3:00 PM	4:00 PM	5:00 PM	6:00 PM	7:00 PM	8:00 PM	9:00 PM	10:00 PM	11:00 PM
SR 60 WB	9.57E-04	6.59E-04	5.79E-04	1.03E-03	2.94E-03	4.68E-03	5.27E-03	6.01E-03	6.49E-03	6.66E-03	6.88E-03	7.25E-03	7.07E-03	6.83E-03	6.62E-03	6.43E-03	6.19E-03	6.05E-03	4.94E-03	3.85E-03	3.48E-03	3.02E-03	2.24E-03	1.43E-03
SR 60 EB	2.74E-03	2.71E-03	2.64E-03	2.72E-03	3.39E-03	4.30E-03	5.41E-03	5.02E-03	5.91E-03	7.06E-03	7.47E-03	7.31E-03	6.90E-03	6.30E-03	4.30E-03	3.33E-03	2.60E-03	2.35E-03	3.29E-03	4.02E-03	4.26E-03	3.98E-03	3.80E-03	3.14E-03

Sheet 6: SR 60 On- and Off-ramp DPM Emissions

Table 6-1: SR 60 On- and Off-Ramp AADT Information for Euclid Avenue

Segment	Year	All (Trucks+Cars) ADT Volume	
		Caltrans Data	2025
SR 60 WB On-ramp (Euclid)	2015	10,200	11,267
SR 60 EB Off-Ramp (Euclid)	2018	10,004	10,726
SR 60 EB On-ramp (Euclid)	2018	13,168	14,118
SR 60 WB Off-Ramp (Euclid)	2018	13,967	14,975

Assumes 1% Traffic Growth per year

Table 6-2: SR 60 On- and Off-Ramp Hourly Vehicle Volumes and Speed

Roadway Segment	SR 60 Off- and On-ramp Vehicle Volumes and Speed by Hour																						
	12:00 AM	1:00 AM	2:00 AM	3:00 AM	4:00 AM	5:00 AM	6:00 AM	7:00 AM	8:00 AM	9:00 AM	10:00 AM	11:00 AM	12:00 PM	1:00 PM	2:00 PM	3:00 PM	4:00 PM	5:00 PM	6:00 PM	7:00 PM	8:00 PM	9:00 PM	10:00 PM	11:00 PM
Truck Breakdown (WB)	0.89%	0.61%	0.54%	0.96%	2.73%	4.35%	4.90%	5.59%	6.04%	6.19%	6.40%	6.74%	6.57%	6.35%	6.16%	5.98%	5.75%	5.62%	4.59%	3.58%	3.24%	2.81%	2.08%	1.33%
Truck Breakdown (EB)	2.55%	2.52%	2.45%	2.53%	3.15%	4.00%	5.03%	4.67%	5.49%	6.57%	6.95%	6.80%	6.42%	5.86%	4.61%	3.56%	3.10%	2.81%	3.06%	3.74%	3.97%	3.71%	3.53%	2.92%
SR 60 WB On-ramp Vol (DPM)	100	69	61	108	308	490	552	630	680	698	721	759	741	715	694	673	648	633	517	404	365	316	234	149
SR 60 EB Off-Ramp Vol (DPM)	274	270	263	271	338	429	540	500	589	704	746	729	688	628	494	382	332	301	328	401	425	397	379	313
SR 60 EB On-ramp Vol (DPM)	360	356	346	357	445	565	711	659	776	927	981	960	906	827	651	503	438	397	432	528	560	523	499	412
SR 60 WB Off-Ramp Vol (DPM)	133	92	81	144	409	652	734	837	904	927	958	1,009	984	950	922	895	862	842	688	537	485	420	311	199
On-ramp Speed	5	5	5	5	5	45	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
Off-ramp Speed	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45

Table 6-3: SR 60 On- and Off-Ramp Segment Distances

Distance (Mi)	SR 60 WB On	SR 60 EB Off	SR 60 EB On	SR 60 WB Off
Segment Distance	0.30	0.27	0.32	0.28

Table 6-4: SR 60 East- and Westbound On- and Off-Ramps at Eucalid - DPM Running (Exhaust) Emissions per Hour

Roadway Segment	Diesel PM Running (Exhaust) Emissions (g) by Hour of Day																						
	12:00 AM	1:00 AM	2:00 AM	3:00 AM	4:00 AM	5:00 AM	6:00 AM	7:00 AM	8:00 AM	9:00 AM	10:00 AM	11:00 AM	12:00 PM	1:00 PM	2:00 PM	3:00 PM	4:00 PM	5:00 PM	6:00 PM	7:00 PM	8:00 PM	9:00 PM	10:00 PM	11:00 PM
SR 60 WB On-ramp (Euclid)	2.94E-01	2.03E-01	1.78E-01	3.17E-01	9.03E-01	3.17E-01	1.62E+00	1.85E+00	1.99E+00	2.05E+00	2.11E+00	2.23E+00	2.17E+00	2.10E+00	2.03E+00	1.97E+00	1.90E+00	1.86E+00	1.52E+00	1.18E+00	1.07E+00	9.27E-01	6.87E-01	4.38E-01
SR 60 EB Off-Ramp (Euclid)	1.62E-01	1.60E-01	1.56E-01	1.61E-01	2.01E-01	2.55E-01	3.20E-01	2.97E-01	3.50E-01	4.18E-01	4.42E-01	4.33E-01	4.09E-01	3.73E-01	2.93E-01	2.27E-01	1.97E-01	1.79E-01	1.95E-01	2.38E-01	2.52E-01	2.36E-01	2.25E-01	1.86E-01
SR 60 EB On-ramp (Euclid)	1.13E+00	1.12E+00	1.09E+00	1.12E+00	1.40E+00	3.91E-01	2.23E+00	2.07E+00	2.43E+00	2.91E+00	3.08E+00	3.01E+00	2.84E+00	2.59E+00	2.04E+00	1.58E+00	1.37E+00	1.24E+00	1.35E+00	1.66E+00	1.76E+00	1.64E+00	1.56E+00	1.29E+00
SR 60 WB Off-Ramp (Euclid)	8.25E-02	5.68E-02	4.99E-02	8.89E-02	2.53E-01	4.03E-01	4.54E-01	5.18E-01	5.59E-01	5.74E-01	5.93E-01	6.25E-01	6.09E-01	5.88E-01	5.70E-01	5.54E-01	5.33E-01	5.21E-01	4.26E-01	3.32E-01	3.00E-01	2.60E-01	1.93E-01	1.23E-01

Table 6-5: SR 60 R 60 East- and Westbound On- and Off-Ramps at Eucalid - DPM Running (Exhaust) Emissions per Second

Roadway Segment	Diesel PM Running (Exhaust) Emissions (g/s)																						
	12:00 AM	1:00 AM	2:00 AM	3:00 AM	4:00 AM	5:00 AM	6:00 AM	7:00 AM	8:00 AM	9:00 AM	10:00 AM	11:00 AM	12:00 PM	1:00 PM	2:00 PM	3:00 PM	4:00 PM	5:00 PM	6:00 PM	7:00 PM	8:00 PM	9:00 PM	10:00 PM	11:00 PM
SR 60 WB On-ramp (Euclid)	8.17E-05	5.63E-05	4.94E-05	8.80E-05	2.51E-04	8.80E-05	4.50E-04	5.13E-04	5.54E-04	5.68E-04	5.87E-04	6.18E-04	6.03E-04	5.82E-04	5.65E-04	5.48E-04	5.28E-04	5.16E-04	4.21E-04	3.29E-04	2.97E-04	2.58E-04	1.91E-04	1.22E-04
SR 60 EB Off-Ramp (Euclid)	4.51E-05	4.46E-05	4.33E-05	4.47E-05	5.58E-05	7.08E-05	8.90E-05	8.25E-05	9.71E-05	1.16E-04	1.23E-04	1.20E-04	1.13E-04	1.04E-04	8.15E-05	6.30E-05	5.48E-05	4.97E-05	5.41E-05	6.62E-05	7.01E-05	6.55E-05	6.25E-05	5.16E-05
SR 60 EB On-ramp (Euclid)	3.14E-04	3.10E-04	3.01E-04	3.11E-04	3.88E-04	1.08E-04	6.19E-04	5.74E-04	6.76E-04	8.08E-04	8.55E-04	8.36E-04	7.89E-04	7.20E-04	5.67E-04	4.38E-04	3.81E-04	3.45E-04	3.76E-04	4.60E-04	4.88E-04	4.56E-04	4.35E-04	3.59E-04
SR 60 WB Off-Ramp (Euclid)	2.29E-05	1.58E-05	1.39E-05	2.47E-05	7.04E-05	1.12E-04	1.26E-04	1.44E-04	1.55E-04	1.59E-04	1.65E-04	1.73E-04	1.69E-04	1.63E-04	1.58E-04	1.54E-04	1.48E-04	1.45E-04	1.18E-04	9.23E-05	8.34E-05	7.23E-05	5.35E-05	3.42E-05

Sheet 7: CT-EMFAC2017 Emission Factors

Freeway

Vehicle Category	VMT Fraction Across Category	Diesel VMT Fraction Within Category	Gas VMT Fraction Within Category
Truck 1	0.031	0.526	0.474
Truck 2	0.092	0.942	0.027
Non-Truck	0.877	0.012	0.965

Fleet Average Running Exhaust Emission Factors (grams/veh-mile)

	Emissions Factor by Speed (mph)														
Pollutant Name	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75
PM2.5	0.009208	0.006192	0.004301	0.003155	0.002481	0.002108	0.001944	0.001937	0.002061	0.002302	0.002654	0.003120	0.003707	0.003810	0.003810
PM10	0.00993	0.006664	0.004624	0.003388	0.002659	0.002255	0.002074	0.002062	0.002189	0.002439	0.002808	0.003297	0.003916	0.004026	0.004026
TOG	0.187712	0.127375	0.084894	0.059673	0.045314	0.036153	0.030056	0.026062	0.023615	0.022411	0.022320	0.023486	0.026013	0.027927	0.028308
ROG	0.120321	0.079002	0.051353	0.035256	0.026437	0.020996	0.017499	0.015319	0.014111	0.013694	0.014008	0.015110	0.017141	0.018705	0.019040
1,3-Butadiene	0.000764	0.000494	0.000332	0.000234	0.000176	0.000140	0.000117	0.000103	0.000095	0.000092	0.000094	0.000101	0.000115	0.000124	0.000124
Acetaldehyde	0.002473	0.001701	0.000973	0.000579	0.000427	0.000342	0.000285	0.000248	0.000228	0.000221	0.000229	0.000251	0.000286	0.000319	0.000319
Acrolein	0.000165	0.000106	0.000072	0.000052	0.000039	0.000031	0.000026	0.000023	0.000021	0.000020	0.000021	0.000022	0.000025	0.000027	0.000027
Benzene	0.003663	0.002383	0.001574	0.001094	0.000820	0.000651	0.000544	0.000477	0.000441	0.000428	0.000439	0.000472	0.000533	0.000579	0.000579
Diesel PM	0.001991	0.001637	0.001274	0.001035	0.000914	0.000888	0.000942	0.001072	0.001274	0.001546	0.001889	0.002302	0.002710	0.002732	0.002732
Ethylbenzene	0.001444	0.000932	0.000628	0.000444	0.000334	0.000265	0.000221	0.000194	0.000180	0.000175	0.000179	0.000192	0.000217	0.000235	0.000235
Formaldehyde	0.006140	0.004167	0.002468	0.001531	0.001133	0.000905	0.000754	0.000659	0.000606	0.000589	0.000607	0.000662	0.000752	0.000832	0.000832
Naphthalene	0.000127	0.000087	0.000058	0.000041	0.000031	0.000025	0.000021	0.000018	0.000016	0.000015	0.000014	0.000015	0.000017	0.000018	0.000016
POM	0.000159	0.000105	0.000068	0.000046	0.000034	0.000027	0.000023	0.000020	0.000019	0.000018	0.000019	0.000020	0.000023	0.000025	0.000025

Fleet Average Running Loss Emission Factors (grams/veh-hour)

Pollutant Name	Emission Factor
TOG	1.275299
ROG	1.275299
1,3-Butadiene	0
Benzene	0.012753
Ethylbenzene	0.020915
Naphthalene	0.001785

Sheet 8: Caltrans All Vehicle AADT Data

DISTRICT	ROUTE	RTE_SFX	COUNTY	PM_PFX	PM	PM_SFX	DESCRIPTION	BACK_PEAK_HOUR	BACK_PEAK_MADT	BACK_AADT	AHEAD_PEAK_HOUI	AHEAD_PEAK_MADT	AHEAD_AADT
08	060		SBD	R	3.602		MOUNTAIN AVENUE	15900	246000	238000	15700	243000	235000
08	060		SBD	R	4.580		ONTARIO, JCT. RTE. 83	15700	243000	235000	15600	242000	234000
08	060		SBD	R	5.855		GROVE AVENUE	15600	242000	234000	15200	236000	228000

Sheet 9: Caltrans Truck AADT Data

RTE	RTE_SFX	DIST	CNTY	POSTMILE_PFX	POSTMILE	POSTMILE_SFX	LEG	DESCRIPTION	VEHICLE_AADT_TOTAL	TRUCK_AADT_TOTAL	TRK_PERCENT_TOT	TRK_2_AXLE	TRK_3_AXLE	TRK_4_AXLE	TRK_5_AXLE	TRK_2_AXLE_PCT	TRK_3_AXLE_PCT	TRK_4_AXLE_PCT	TRK_5_AXLE_PCT	EAL	YEAR_VER	EST
060		08	SBD	R	4.580		B	ONTARIO, JCT. RTE. 83	235000	28764	12.24	7,231	2,871	903	17,759	25.14	9.98	3.14	61.74	6,777	04	E
060		08	SBD	R	4.580		A	ONTARIO, JCT. RTE. 83	234000	28642	12.24	7,201	2,858	899	17,684	25.14	9.98	3.14	61.74	6,748	04	E

Sheet 10: Caltrans All Vehicle On- and Off-ramp AADT Data

DISTRICT	COUNTY	ROUTE	RTE_SFX	PM_PFX	PM	PM_SFX	DESCRIPTION	YR_2011	YR_2012	YR_2013	YR_2014	YR_2015	YR_2016	YR_2017	YR_2018	YR_2019	YR_2020
08	SBD	060		R	4.387		WB ON FR EUCLID/83					10200					
08	SBD	060		R	4.388		EB OFF TO EUCLID/83								10004		
08	SBD	060		R	4.789		EB ON FR EUCLID/83								13168		
08	SBD	060		R	4.806		WB OFF TO EUCLID AVE								13967		

Appendix B
AERMOD Output

This page intentionally left blank.

Appendix B is comprised of 1,230 pages and is available in electronic format upon request.

This page intentionally left blank.

Appendix C
Cancer and Non-Cancer Risk Values and Health Risk Calculations

This page intentionally left blank.

Appendix C: Health Risk Assessment Calculations
Euclid/Walnut Mixed Use Planned Unit Development Project
Health Risk Assessment Report
Summary of Cancer and Non-Cancer Risks

Uncontrolled (i.e., Without Filtration) Total Excess Risk at MEI

Source	Cancer Risk (Per Million)			Total	Chronic Hazard Index	Acute Hazard Index
	DPM	TOG Exh	TOG Evap			
SR 60 Freeway	19.5	1.3	0.2	21.0	0.01	0.01
SR 60 On- and Off-ramps	3.8	0.5	0.1	4.4	0.00	0.00
Cumulative Risk	*23.3*	*1.8*	*0.3*	*25.4*	*0.02*	*0.02*

MERV13 Particle Removal Effectiveness (3 to 10 µm)
79%

Note: Assumes 90% base reduction, two hours of outdoor exposure per day, and one hour of exposure from open windows.

Controlled (i.e., with MERV 13 Filter) Total Excess Risk at MEI

Source	Cancer Risk (Per Million)			Total	Chronic Hazard Index	Acute Hazard Index
	DPM	TOG Exh	TOG Evap			
SR 60 Freeway	4.1	1.3	0.2	5.6	0.01	0.01
SR 60 On- and Off-ramps	0.8	0.5	0.1	1.4	0.00	0.00
Cumulative Risk	*5.0*	*1.8*	*0.3*	*7.0*	*0.02*	*0.02*
			Threshold	10.0	1.0	1.0
			Threshold Exceeded?	No	No	No

Note: The methodology for the HRA requires quantifying “uncontrolled” risks at receptor locations before “controlled” risks can be quantified. The “uncontrolled” risks reflect those that would occur at the site if no air filtration were to occur at all. The “uncontrolled” scenario is a hypothetical / non-realistic scenario, because the building would be required to install HVAC system air filters that meet a designated efficiency equal to Minimum Efficiency Rating Value (MERV) 13 standards, consistent with Section 120.1(b)(1)(C) of the California Title 24 Building Code. This is described on pages 5-1 and 5-2 of the Report.

In contrast, the "controlled" risks reflect those that would actually occur at the site under implementation of the project with the operation of the HVAC system. The “uncontrolled” risks are used as the baseline to assess how much the MERV-13 air filters would reduce risks (i.e., by 79%, after conservatively accounting for some non-controlled exposure from outdoor recreation and residents having their windows open for part of the day, as shown between the "uncontrolled" and "controlled" tables above).

Appendix C: Health Risk Assessment Calculations
Euclid/Walnut Mixed Use Planned Unit Development Project
Health Risk Assessment Report
Weighted Risk Factor Calculations

Summary of Fleet Average Running Exhaust Emission Factors (grams/veh-mile)

Roadway	Weighted per TOG		
	CPF	Chronic REL	Acute REL
Freeway	6.03E-03	6.73E+01	5.87E+02

Summary of Fleet Average Running Loss Emission Factors (grams/veh-hour)

Roadway	Weighted per TOG		
	CPF	Chronic REL	Acute REL
Freeway	1.31E-03	2.86E+02	2.70E+03

Freeway

Fleet Average Running Exhaust Emission Factors (grams/veh-mile)

Pollutant Name	Emissions Factor by Speed	% of TOG	CPF	Chronic REL	Acute REL	Weighted per TOG		
	5					CPF	Chronic REL	Acute REL
TOG	0.187712	--	--	--	--	--	--	--
1,3-Butadiene	0.000764	0.004070	6.00E-01	2.00E+00	6.60E+02	2.44E-03	2.04E-03	6.17E-06
Acetaldehyde	0.002473	0.013174	1.00E-02	1.40E+02	4.70E+02	1.32E-04	9.41E-05	2.80E-05
Acrolein	0.000165	0.000879	0.00E+00	3.50E-01	2.50E+00	0.00E+00	2.51E-03	3.52E-04
Benzene	0.003663	0.019514	1.00E-01	3.00E+00	2.70E+01	1.95E-03	6.50E-03	7.23E-04
Diesel PM	0.001991	--	--	--	--	--	--	--
Ethylbenzene	0.001444	0.007693	8.70E-03	2.00E+03	0.00E+00	6.69E-05	3.85E-06	0.00E+00
Formaldehyde	0.006140	0.032710	2.10E-02	9.00E+00	5.50E+01	6.87E-04	3.63E-03	5.95E-04
Naphthalene	0.000127	0.000677	1.20E-01	9.00E+00	0.00E+00	8.12E-05	7.52E-05	0.00E+00
POM	0.000159	0.000847	7.95E-01	--	--	6.73E-04	--	--
					Total	***6.03E-03***	***6.73E+01***	***5.87E+02***

Fleet Average Running Loss Emission Factors (grams/veh-hour)

Pollutant Name	Emission Factor	% of TOG	CPF	Chronic REL	Acute REL	Weighted per TOG		
						CPF	Chronic REL	Acute REL
TOG	1.275299	--	--	--	--	--	--	--
1,3-Butadiene	0	0.0%	6.00E-01	2.00E+00	6.60E+02	0.00E+00	0.00E+00	0.00E+00
Benzene	0.012753	1.0%	1.00E-01	3.00E+00	2.70E+01	1.00E-03	3.33E-03	3.70E-04
Ethylbenzene	0.020915	1.6%	8.70E-03	2.00E+03	0.00E+00	1.43E-04	8.20E-06	0.00E+00
Naphthalene	0.001785	0.1%	1.20E-01	9.00E+00	0.00E+00	1.68E-04	1.56E-04	0.00E+00
					Total	***1.31E-03***	***2.86E+02***	***2.70E+03***

Appendix C: Health Risk Assessment Calculations
Euclid/Walnut Mixed Use Planned Unit Development Project
Health Risk Assessment Report
SR 60 Freeway Uncontrolled (i.e., Without Filtration) Health Risk Calculations

METHODOLOGY

Dose (Air) = Cair x DBR x A x EF x CF

Where:
- Cair: Chemical concentration in air (µg/m^3)
- DBR: Daily breathing rate (L/kg-day)
- A: Inhalation adsorption factor (unitless)
- EF: Exposure Frequency, days at home / days in year (unitless)
- CF: 10^{-6} Conversion Factor (m^3/L and mg/µg)

Cancer Risk (per million) = Dose (Air) x CPF x ASF x (ED/AT) x FAH x 1,000,000

Where:
- Dose: Dose of chemical in the air (µg/m3)
- CPF: Cancer Potency Factor $(mg/kg\text{-}day)^{-1}$
- ASF: Age Sensitivity Factor
- ED: Exposure Duration (years)
- AT: Averaging Time for lifetime cancer risks
- FAH: Fraction of daily time spent at home

Risk Parameter Values by Age Bin

Variable	Residential Age Bin				
	3rd Trimester	0-2 Years	2-16 Years	16-30 Years	16-70 Years
DBR	361	1090	572	261	233
A	1	1	1	1	1
EF	0.96	0.96	0.96	0.96	0.96
CF	1.00E-06	1.00E-06	1.00E-06	1.00E-06	1.00E-06
ASF	10	10	3	1	1
ED	0.25	2	14	14	54
AT	70	70	70	70	70
FAH	0.85	0.85	0.72	0.73	0.73

Risk Factors

Pollutant	CPF	Chronic REL	Acute
DPM	1.1	5	0
Veh TOG Exh	6.03E-03	6.73E+01	5.87E+02
Veh TOG Evap	1.31E-03	2.86E+02	2.70E+03

AERMOD Modeled Annual Concentrations (MEI)

		MEI	
	Conc.	X	Y
DPM	0.033	439859	3765470
Veh TOG Exh	0.40777	439859	3765470
Veh TOG Evap	0.247	439859	3765470

AERMOD Modeled Maximum 1-HR Concentrations (MEI)

		MEI	
	Conc.	X	Y
Veh TOG Exh	5.44130	439789	3765475
Veh TOG Evap	4.07794	439789	3765475

Chronic Risk Assessment at MEI

Pollutant	Annual AERMOD Conc.	Chronic Hazard Index	Threshold	Exceeded?
DPM	0.03	0.01	--	--
Veh TOG Exh	0.41	0.01	--	--
Veh TOG Evap	0.25	0.00	--	--
	Hazard Index	0.01	1.0	No

1-HR Risk Assessment at MEI

Pollutant	1-HR AERMOD Conc.	1-HR Hazard Index	Threshold	Exceeded?
Veh TOG Exh	5.4413	0.01	--	--
Veh TOG Evap	4.07794	0.00	--	--
	Hazard Index	0.01	1.0	No

DPM Dose @ MEI

Age Group	Cair x	BR	A	EF	CF		Dose
3rd Trimester	0.033	361	1	0.96	1.00E-06	=	1.14E-05
0-2 Years	0.033	1090	1	0.96	1.00E-06	=	3.45E-05
2-16 Years	0.033	572	1	0.96	1.00E-06	=	1.81E-05
16-30 Years	0.033	261	1	0.96	1.00E-06	=	8.26E-06
30-70 Years	0.033	233	1	0.96	1.00E-06	=	7.37E-06

DPM Excess Risk at MEI

Age Group	Dose	CPF	ASF	ED	AT	FAH	Conversion	Risk
3rd Trimester	1.14E-05	1.1	10	0.25	70	0.85	1,000,000	0.4
0-2 Years	3.45E-05	1.1	10	1.00	70	0.85	1,000,000	4.6
2-16 Years	1.81E-05	1.1	3	1.00	70	0.72	1,000,000	0.6
16-30 Years	8.26E-06	1.1	1	1.00	70	0.73	1,000,000	0.1
30-70 Years	7.37E-06	1.1	1	1.00	70	0.73	1,000,000	0.1

TOG Exh Dose @ MEI

Age Group	Cair x	BR	A	EF	CF		Dose
3rd Trimester	0.40777	361	1	0.96	1.00E-06	=	1.41E-04
0-2 Years	0.40777	1090	1	0.96	1.00E-06	=	4.26E-04
2-16 Years	0.40777	572	1	0.96	1.00E-06	=	2.24E-04
16-30 Years	0.40777	261	1	0.96	1.00E-06	=	1.02E-04
30-70 Years	0.40777	233	1	0.96	1.00E-06	=	9.11E-05

TOG Exh Excess Risk at MEI

Age Group	Dose	CPF	ASF	ED	AT	FAH	Conversion	Risk
3rd Trimester	1.41E-04	6.03E-03	10	0.25	70	0.85	1,000,000	0.0
0-2 Years	4.26E-04	6.03E-03	10	1.00	70	0.85	1,000,000	0.3
2-16 Years	2.24E-04	6.03E-03	3	1.00	70	0.72	1,000,000	0.0
16-30 Years	1.02E-04	6.03E-03	1	1.00	70	0.73	1,000,000	0.0
30-70 Years	9.11E-05	6.03E-03	1	1.00	70	0.73	1,000,000	0.0

TOG Evap Dose @ MEI

Age Group	Cair x	BR	A	EF	CF		Dose
3rd Trimester	0.247	361	1	0.96	1.00E-06	=	8.55E-05
0-2 Years	0.247	1090	1	0.96	1.00E-06	=	2.58E-04
2-16 Years	0.247	572	1	0.96	1.00E-06	=	1.35E-04
16-30 Years	0.247	261	1	0.96	1.00E-06	=	6.18E-05
30-70 Years	0.247	233	1	0.96	1.00E-06	=	5.52E-05

TOG Evap Excess Risk at MEI

Age Group	Dose	CPF	ASF	ED	AT	FAH	Conversion	Risk
3rd Trimester	8.55E-05	1.31E-03	10	0.25	70	0.85	1,000,000	0.0
0-2 Years	2.58E-04	1.31E-03	10	1.00	70	0.85	1,000,000	0.0
2-16 Years	1.35E-04	1.31E-03	3	1.00	70	0.72	1,000,000	0.0
16-30 Years	6.18E-05	1.31E-03	1	1.00	70	0.73	1,000,000	0.0
30-70 Years	5.52E-05	1.31E-03	1	1.00	70	0.73	1,000,000	0.0

Total Excess Risk at MEI (Cumulative, Based on Age at Start of Construction)

Exposure Year	Exposure Duration (Years)	Age	Year	Cancer Risk (Per Million)			Total
				DPM	TOG Exh	TOG Evap	
0	0.25	-0.25 - 0	2025	0.4	0.0	0.0	0.4
1	1	0-1	2026	4.6	0.3	0.0	5.0
2	1	1-2	2027	4.6	0.3	0.0	5.0
3	1	2-3	2028	0.6	0.0	0.0	0.7
4	1	3-4	2029	0.6	0.0	0.0	0.7
5	1	4-5	2030	0.6	0.0	0.0	0.7
6	1	5-6	2031	0.6	0.0	0.0	0.7
7	1	6-7	2032	0.6	0.0	0.0	0.7
8	1	7-8	2033	0.6	0.0	0.0	0.7
9	1	8-9	2034	0.6	0.0	0.0	0.7
10	1	9-10	2035	0.6	0.0	0.0	0.7
11	1	10-11	2036	0.6	0.0	0.0	0.7
12	1	11-12	2037	0.6	0.0	0.0	0.7
13	1	12-13	2038	0.6	0.0	0.0	0.7
14	1	13-14	2039	0.6	0.0	0.0	0.7
15	1	14-15	2040	0.6	0.0	0.0	0.7
16	1	15-16	2041	0.6	0.0	0.0	0.7
17	1	16-17	2042	0.1	0.0	0.0	0.1
18	1	17-18	2043	0.1	0.0	0.0	0.1
19	1	18-19	2044	0.1	0.0	0.0	0.1
20	1	19-20	2045	0.1	0.0	0.0	0.1
21	1	20-21	2046	0.1	0.0	0.0	0.1
22	1	21-22	2047	0.1	0.0	0.0	0.1
23	1	22-23	2048	0.1	0.0	0.0	0.1
24	1	23-24	2049	0.1	0.0	0.0	0.1
25	1	24-25	2050	0.1	0.0	0.0	0.1
26	1	25-26	2051	0.1	0.0	0.0	0.1
27	1	26-27	2052	0.1	0.0	0.0	0.1
28	1	27-28	2053	0.1	0.0	0.0	0.1
29	1	28-29	2054	0.1	0.0	0.0	0.1
30	1	29-30	2055	0.1	0.0	0.0	0.1
			Cumulative Life	**19.5**	**1.3**	**0.2**	**21.0**

Appendix C: Health Risk Assessment Calculations
Euclid/Walnut Mixed Use Planned Unit Development Project
Health Risk Assessment Report
SR 60 On- and Off-ramp Uncontrolled (i.e., Without Filtration) Health Risk Calculations

METHODOLOGY

Dose (Air) = Cair x DBR x A x EF x CF

Where:

- Cair: Chemical concentration in air (µg/m^3)
- DBR: Daily breathing rate (L/kg-day)
- A: Inhalation adsorption factor (unitless)
- EF: Exposure Frequency, days at home / days in year (unitless)
- CF: 10^{-6} Conversion Factor (m^3/L and mg/µg)

Cancer Risk (per million) = Dose (Air) x CPF x ASF x (ED/AT) x FAH x 1,000,000

Where:

- Dose: Dose of chemical in the air (µg/m3)
- CPF: Cancer Potency Factor $(mg/kg\text{-}day)^{-1}$
- ASF: Age Sensitivity Factor
- ED: Exposure Duration (years)
- AT: Averaging Time for lifetime cancer risks
- FAH: Fraction of daily time spent at home

Risk Parameter Values by Age Bin

Variable	Residential Age Bin				
	3rd Trimester	0-2 Years	2-16 Years	16-30 Years	16-70 Years
DBR	361	1090	572	261	233
A	1	1	1	1	1
EF	0.96	0.96	0.96	0.96	0.96
CF	1.00E-06	1.00E-06	1.00E-06	1.00E-06	1.00E-06
ASF	10	10	3	1	1
ED	0.25	2	14	14	54
AT	70	70	70	70	70
FAH	0.85	0.85	0.72	0.73	0.73

Risk Factors

Pollutant	CPF	Chronic REL	Acute
DPM	1.1	5	0
Veh TOG Exh	6.03E-03	6.73E+01	5.87E+02
Veh TOG Evap	1.31E-03	2.86E+02	2.70E+03

AERMOD Modeled Annual Concentrations (MEI)

		MEI	
	Conc.	X	Y
DPM	0.00645	439859	3765470
Veh TOG Exh	0.1432	439859	3765470
Veh TOG Evap	0.12991	439859	3765470

AERMOD Modeled Maximum 1-HR Concentrations (MEI)

		MEI	
	Conc.	X	Y
Veh TOG Exh	2.32951	439789	3765475
Veh TOG Evap	2.53377	439789	3765475

Chronic Risk Assessment at MEI

Pollutant	Annual AERMOD Conc.	Chronic Hazard Index	Threshold	Exceeded?
DPM	0.01	0.00	--	--
Veh TOG Exh	0.14	0.00	--	--
Veh TOG Evap	0.13	0.00	--	--
	Hazard Index	0.00	1.0	No

1-HR Risk Assessment at MEI

Pollutant	1-HR AERMOD Conc.	1-HR Hazard Index	Threshold	Exceeded?
Veh TOG Exh	2.32951	0.00	--	--
Veh TOG Evap	2.53377	0.00	--	--
	Hazard Index	0.00	1.0	No

DPM Dose @ MEI

Age Group	Cair x	BR	A	EF	CF		Dose
3rd Trimester	0.00645	361	1	0.96	1.00E-06	=	2.23E-06
0-2 Years	0.00645	1090	1	0.96	1.00E-06	=	6.74E-06
2-16 Years	0.00645	572	1	0.96	1.00E-06	=	3.54E-06
16-30 Years	0.00645	261	1	0.96	1.00E-06	=	1.61E-06
30-70 Years	0.00645	233	1	0.96	1.00E-06	=	1.44E-06

DPM Excess Risk at MEI

Age Group	Dose	CPF	ASF	ED	AT	FAH	Conversion	Risk
3rd Trimester	2.23E-06	1.1	10	0.25	70	0.85	1,000,000	0.1
0-2 Years	6.74E-06	1.1	10	1.00	70	0.85	1,000,000	0.9
2-16 Years	3.54E-06	1.1	3	1.00	70	0.72	1,000,000	0.1
16-30 Years	1.61E-06	1.1	1	1.00	70	0.73	1,000,000	0.0
30-70 Years	1.44E-06	1.1	1	1.00	70	0.73	1,000,000	0.0

TOG Exh Dose @ MEI

Age Group	Cair x	BR	A	EF	CF		Dose
3rd Trimester	0.14320	361	1	0.96	1.00E-06	=	4.96E-05
0-2 Years	0.14320	1090	1	0.96	1.00E-06	=	1.50E-04
2-16 Years	0.14320	572	1	0.96	1.00E-06	=	7.85E-05
16-30 Years	0.14320	261	1	0.96	1.00E-06	=	3.58E-05
30-70 Years	0.14320	233	1	0.96	1.00E-06	=	3.20E-05

TOG Exh Excess Risk at MEI

Age Group	Dose	CPF	ASF	ED	AT	FAH	Conversion	Risk
3rd Trimester	4.96E-05	6.03E-03	10	0.25	70	0.85	1,000,000	0.0
0-2 Years	1.50E-04	6.03E-03	10	1.00	70	0.85	1,000,000	0.1
2-16 Years	7.85E-05	6.03E-03	3	1.00	70	0.72	1,000,000	0.0
16-30 Years	3.58E-05	6.03E-03	1	1.00	70	0.73	1,000,000	0.0
30-70 Years	3.20E-05	6.03E-03	1	1.00	70	0.73	1,000,000	0.0

TOG Evap Dose @ MEI

Age Group	Cair x	BR	A	EF	CF		Dose
3rd Trimester	0.12991	361	1	0.96	1.00E-06	=	4.50E-05
0-2 Years	0.12991	1090	1	0.96	1.00E-06	=	1.36E-04
2-16 Years	0.12991	572	1	0.96	1.00E-06	=	7.13E-05
16-30 Years	0.12991	261	1	0.96	1.00E-06	=	3.25E-05
30-70 Years	0.12991	233	1	0.96	1.00E-06	=	2.90E-05

TOG Evap Excess Risk at MEI

Age Group	Dose	CPF	ASF	ED	AT	FAH	Conversion	Risk
3rd Trimester	4.50E-05	1.31E-03	10	0.25	70	0.85	1,000,000	0.0
0-2 Years	1.36E-04	1.31E-03	10	1.00	70	0.85	1,000,000	0.0
2-16 Years	7.13E-05	1.31E-03	3	1.00	70	0.72	1,000,000	0.0
16-30 Years	3.25E-05	1.31E-03	1	1.00	70	0.73	1,000,000	0.0
30-70 Years	2.90E-05	1.31E-03	1	1.00	70	0.73	1,000,000	0.0

Total Excess Risk at MEI (Cumulative, Based on Age at Start of Construction)

Exposure Year	Exposure Duration (Years)	Age	Year	Cancer Risk (Per Million)			Total
				DPM	TOG Exh	TOG Evap	
0	0.25	-0.25 - 0	2025	0.1	0.0	0.0	0.1
1	1	0-1	2026	0.9	0.1	0.0	1.0
2	1	1-2	2027	0.9	0.1	0.0	1.0
3	1	2-3	2028	0.1	0.0	0.0	0.1
4	1	3-4	2029	0.1	0.0	0.0	0.1
5	1	4-5	2030	0.1	0.0	0.0	0.1
6	1	5-6	2031	0.1	0.0	0.0	0.1
7	1	6-7	2032	0.1	0.0	0.0	0.1
8	1	7-8	2033	0.1	0.0	0.0	0.1
9	1	8-9	2034	0.1	0.0	0.0	0.1
10	1	9-10	2035	0.1	0.0	0.0	0.1
11	1	10-11	2036	0.1	0.0	0.0	0.1
12	1	11-12	2037	0.1	0.0	0.0	0.1
13	1	12-13	2038	0.1	0.0	0.0	0.1
14	1	13-14	2039	0.1	0.0	0.0	0.1
15	1	14-15	2040	0.1	0.0	0.0	0.1
16	1	15-16	2041	0.1	0.0	0.0	0.1
17	1	16-17	2042	0.0	0.0	0.0	0.0
18	1	17-18	2043	0.0	0.0	0.0	0.0
19	1	18-19	2044	0.0	0.0	0.0	0.0
20	1	19-20	2045	0.0	0.0	0.0	0.0
21	1	20-21	2046	0.0	0.0	0.0	0.0
22	1	21-22	2047	0.0	0.0	0.0	0.0
23	1	22-23	2048	0.0	0.0	0.0	0.0
24	1	23-24	2049	0.0	0.0	0.0	0.0
25	1	24-25	2050	0.0	0.0	0.0	0.0
26	1	25-26	2051	0.0	0.0	0.0	0.0
27	1	26-27	2052	0.0	0.0	0.0	0.0
28	1	27-28	2053	0.0	0.0	0.0	0.0
29	1	28-29	2054	0.0	0.0	0.0	0.0
30	1	29-30	2055	0.0	0.0	0.0	0.0
			Cumulative Life	**3.8**	**0.5**	**0.1**	**4.4**

Appendix B
AERMOD Output

This page intentionally left blank.

FUSCOE ENGINEERING

FULL CIRCLE THINKING®

PRELIMINARY HYDROLOGY REPORT

EUCLID-WALNUT
ONTARIO, CA

NW Corner of E. Euclid Avenue and Walnut Street
Ontario, California

Prepared For
LEGARY PARTNERS
5141 California Avenue, Suite 100
Irvine, CA 92617
Ph 949.930.7712

Prepared By
Moyenuddin Sirajee, P.E.
Fuscoe Engineering, Inc.
2850 Inland Empire Blvd. Building B
Ontario, California, 91764
909.581.0676
www.fuscoe.com



Project Manager:
Carolina Gonzalez

Date Prepared: September 2022
Revision 1 : April 2023
Job Number: 424-027

full circle thinking®

PRELIMINARY HYDROLOGY REPORT

EUCLID-WALNUT

Located at NW corner of E. Euclid Avenue and Walnut Street
in the
City of Ontario
County of San Bernardino, California

Prepared for:

LEGACY PARTNERS
5141 California Avenue, Suite 100
Irvine, CA 92617
949.930.7712

Prepared by:

FUSCOE ENGINEERING, INC.
2850 Inland Empire Blvd. Building B
Ontario, CA 91764
909.581.0676

Date Created: September 2022
Revised : April 2023

Table of Contents

1.0 INTRODUCTION 3

1.1 GEOGRAPHIC SETTING 3

1.2 PURPOSE OF THIS REPORT 3

1.3 REFERENCES 3

1.3 PROJECT SITE LOCATION MAP 4

1.4 SOIL & PRECIPITATION DATA 4

2.0 EXISTING TOPOGRAPHIC & HYDROLOGIC CONDITIONS 5

2.1 EXISTING TOPOGRAPHY 5

2.2 EXISTING DRAINAGE SYSTEM 5

3.0 PROPOSED DEVELOPMENT AND DRAINAGE FACILITIES 5

3.1 PROPOSED DEVELOPMENT 5

3.2 PROPOSED DRAINAGE FACILITY 6

4.0 HYDROLOGY AND HYDRAULIC STUDY 7

4.1 METHODOLOGY 7

5.0 RESULTS AND CONCLUSIONS 7

6.0 APPENDICES 9

Appendix 1 *Soil Classification and Maps*

Appendix 2 *NOAA Precipitation Data*

Appendix 3 *Rational Method Pre and Post Development (Q_{100}-24H & Q_{10}-24H)*

Appendix 4 *Hydrology Maps Pre and Post Development Plan*

Appendix 5 *Unit Hydrograph and Routing Calculation and Proposed Temporary Detention system*

Appendix 6 *Supporting Documents (MPD Map)*

Appendix 7 *Soil's Report*

1.0 INTRODUCTION

1.1 GEOGRAPHIC SETTING

The proposed Euclid-Walnut project is located at the northwest corner of East Euclid Avenue and Walnut Street. It is currently developed commercial area with a gross land area of approximately 9.60 Acres. This specific site is part of APN 1051-271-66-0 in the City of Ontario, CA. The approximate latitude and longitude of the project is 34.027414 and -117.652412 respectively. The total disturbed area for this development is approximately 9.83 Ac. For additional detail see Project Site Location or Vicinity Map on paragraph 1.3 next page.

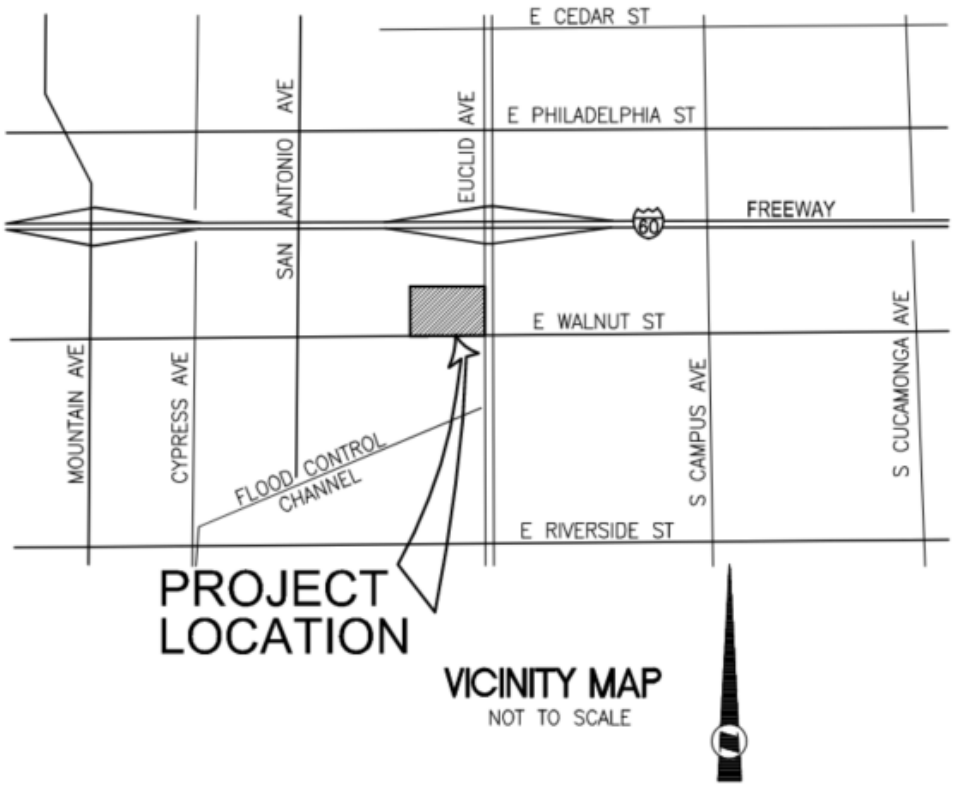
1.2 PURPOSE OF THIS REPORT

The proposed Euclid and Walnut development will include the construction of an apartment complex with its amenities, drive aisles , landscaping, parking areas and dry/wet utilities. The purpose of this report is to determine the storm water runoff from the completed project site will not exceed 90% of the pre-project runoff discharge rate for the 24-hour design storm for 10-year and 100-year return frequency rainfall events. Sizing of all on-site and off-site drainage pipes and structures will not be part of this preliminary report.

1.3 REFERENCES

- San Bernardino County Hydrology Manual 1986
- The Urban Drainage Design Manual (Federal Highway Administration)

1.3 PROJECT SITE LOCATION MAP



1.4 SOIL & PRECIPITATION-RAINFALL INTENSITY DATA

Per the Geotechnical Exploration Report conducted Leighton and Associates, Inc under Project No. 13493.001 dated May 13, 2022, the site is underlain by a relatively thin mantle of undocumented artificial fill materials overlaying Ouatemary-aged young alluvial fan deposits. Groundwater was not encountered during the subsurface exploration to the maximum depth of 51.5 feet. Therefore, groundwater is not expected to pose a constraint during or after construction. Percolation testing was also performed and concluded that the site is marginally feasible for stormwater infiltration.

The Precipitation and Rainfall Intensity Data for this site was obtained from NOAA web site.

2.0 EXISTING TOPOGRAPHIC & HYDROLOGIC CONDITIONS

2.1 EXISTING TOPOGRAPHY

The project site is currently a developed commercial site with approximately 93.3% imperviousness. It is slightly elevated from northeast to southwest with elevations ranging from 825 to 809 feet above mean sea level (amsl). The ground surface cover consisted of commercial buildings, asphalt pavement and some landscaped areas. West and North of the property are currently commercial and residential areas. East of the property is bounded by Euclid Avenue while at the southern portion by Walnut Street.

2.2 EXISTING DRAINAGE SYSTEM

Per City of Ontario Master Plan of Drainage (MPD) this project lies within the drainage subbasins E12, draining to system EULD-VII-1 on the east and subbasin E15, draining to system FERN-VII-1 on the west. Currently there is no existing drainage facilities on site. Therefore, runoff generating from the site surface flows into the adjacent public street. Runoff generating from easterly portion of the site (Area DA-1 per Pre-Development drainage Map, this report) sheet flows from northeast location then it drains to a valley gutter at the mid-portion of the property. It then goes along to a parkway drain that runs to the public street (Walnut Street) gutter from east to west direction. Similarly, runoff generating from the rest of the site (Area DA-2 per Pre-Development drainage Map, this report) sheet flows and then drain through an onsite valley gutter located on the west side of the site, draining south, towards Walnut street through the existing concrete driveway approach. Therefore, in existing condition the entire site drain into the existing MPD drainage system FERN-VII-1 located on the west side of the project. See Appendix 4 for the existing drainage map.

3.0 PROPOSED DEVELOPMENT AND DRAINAGE FACILITIES

3.1 PROPOSED DEVELOPMENT

The proposed development will include the construction of an apartment complex, drive aisles, landscaping and parking areas. In addition, the development will include installation of

appropriate drainage facilities and other utilities. Post development imperviousness will be 80% using proposed Land Use Development type (Apartment) per SBC Hydrology manual.

3.2 PROPOSED DRAINAGE FACILITY

As mentioned earlier that per Master Plan of Drainage (MPD) this project lies within the drainage subbasin E12, draining to system EULD-VII-1 on the east and subbasin E15, draining to system FERN-VII-1 on the west. The proposed drainage improvement will have storm drain system which will mimic MPD drainage pattern as practically as possible. On site runoff will be intercepted by series of catch basins which then drain into the proposed underground Modular wetland (Proprietary Bioretention Systems to mitigate Water Quality requirements) and then into underground storm drain system. The drainage area DA-9 (Per Post-Development drainage Map, this report) will drain toward east into the proposed 24-inch SD system, an extension of EULD-VII-1, per MPD. The remaining site will drain to south into Walnut Street and then drain westward into the system FERN-VII-1 per MPD. Due to site's low infiltration capacity all the water quality runoff needs to be treated with proprietary Bioretention system. These systems are underground and therefore the storm drain system need to be underground. As there is no underground storm drain system on the south to receive runoff from drainage area draining toward south, therefore 100-year runoff generating from some of the drainage area needed to be pumped out to the street on the south. Therefore, it has been proposed to collect runoff generating from the drainage area as designated by DA-1 thru DA-3 as well as water quality flow from the drainage areas DA-4 to DA-8 temporarily into an underground detention facility and pump these out into Walnut Street. The pumping will begin as soon as the detention facility start to receive runoff from these drainage areas. The pumping capacity generally are far lower than the 100-year runoff rate. Therefore, an underground storage facility is required. It will be sized based on the delta flow between 100-years flow and the to be installed pumping capacity. A preliminary calculation using a pump system with 230-gpm (0.51cfs) pumping capacity will require a 1.08 acre-ft of onsite storage. The location and layout of the detention facility and pump system can be found in Post-Development Drainage Map in Appendix 4 of this report. The proposed storm drain system will be designed to capture 100yr storm events. Additionally, this specific project site is a HCOC Exempt area per County of San Bernardino Storm Water Facility Mapping Tool. Pre and Post development Maps are shown in the Hydrology Map in Appendix 4.

4.0 HYDROLOGY AND HYDRAULIC STUDY

4.1 METHODOLOGY

The hydrology study was performed under the guidelines of the San Bernardino County (SBC) Hydrology Manual. Rational method was used to calculate peak runoff rates as prescribed by the San Bernardino County Hydrology Manual.

Computer programs were used:

- Rational Method, Unit Hydrograph &

  Flood Hydrograph Routing; CIVILD

Results of the analysis are included in this report on Appendix 3.

5.0 RESULTS AND CONCLUSIONS

Based on the calculations, it was determined that the proposed development discharge rates for 100-year storm event decreased from 34.85 cfs to 25.86 due to the reduction of imperviousness and temporary detention. It is anticipated that there will be no flooding in the site due to this development and mitigation measures. Rational Method calculation, Unit Hydrograph calculation and Routing Calculation for pre and post development condition shown on Appendix 3.

PRE-DEVELOPED CONDITIONS 100 YEAR 24HR STORM EVENT

Drainage Area	Remarks	Area (acre)	Soil Type	Q100Y 24H (cfs)
DA-1	Discharging to Location Node 1.02	6.8	A / B	25.06
DA-2	Discharging to Location Node 2.02	2.8	A / B	9.79
Total Site	Leaving site at S/W corner on Walnut St.	9.6	A / B	34.85

POST-DEVELOPED CONDITIONS 100 YEAR 24HR STORM EVENT (BEFORE DETENTION)

Drainage Area	Remarks	Area (acre)	Soil Type	Q100Y 24H (cfs)
DA-1 to DA-3	Discharging to Location Node 1.05	4.73	A / B	17.71
DA-4	Discharging to Location Node 4.02	1.32	B	4.63
DA-5	Discharging to Location Node 5.02	0.54	B	2.45
DA-6	Discharging to Location Node 6.02	0.41	B	1.85
DA-7.1	Discharging to Parkway Drain-4	0.75	B	3.44
DA-7.2	Discharging to Parkway Drain-5	0.19	B	0.92
DA-8	Discharging to Location Node 8.03	0.69	B	3.28
DA-9	Discharging to Location Node 9.04	0.97	A / B	4.18
Total Site		9.6	A / B	38.46

POST-DEVELOPED CONDITIONS 100 YEAR 24HR STORM EVENT (AFTER DETENTION)

Drainage Area	Remarks	Area (acre)	Soil Type	Q100Y 24H (cfs)
DA-1 to DA-3	Discharging to Location Node 1.05	4.73	A / B	5.11
DA-4	Discharging to Location Node 4.02	1.32	B	4.63
DA-5	Discharging to Location Node 5.02	0.54	B	2.45
DA-6	Discharging to Location Node 6.02	0.41	B	1.85
DA-7.1	Discharging to Parkway Drain-4	0.75	B	3.44
DA-7.2	Discharging to Parkway Drain-5	0.19	B	0.92
DA-8	Discharging to Location Node 8.03	0.69	B	3.28
DA-9	Discharging to Location Node 9.04	0.97	A / B	4.18
Total Site		9.6	A / B	25.86

CONCLUSION:

PRE-CONSTRUCTION VS. POST-CONSTRUCTION FLOW SUMMARY			
Discharge Location	Pre-Development Flow rate, Q100Y-24H	Post-Development Flow rate Q100Y-24H	Conclusion
LEAVING SITE	**34.85 cfs**		
LEAVING SITE		**25.86 cfs**	**Post Development flow decreased to 74% of Pre-Development**

6.0 APPENDICES

Appendix 1 *Soil Classification and Maps*

Appendix 2 *NOAA Precipitation Data*

Appendix 3 *Rational Method Pre and Post Development (Q_{100}-24H & Q_{10}-24H)*

Appendix 4 *Hydrology Maps Pre and Post Development Plan*

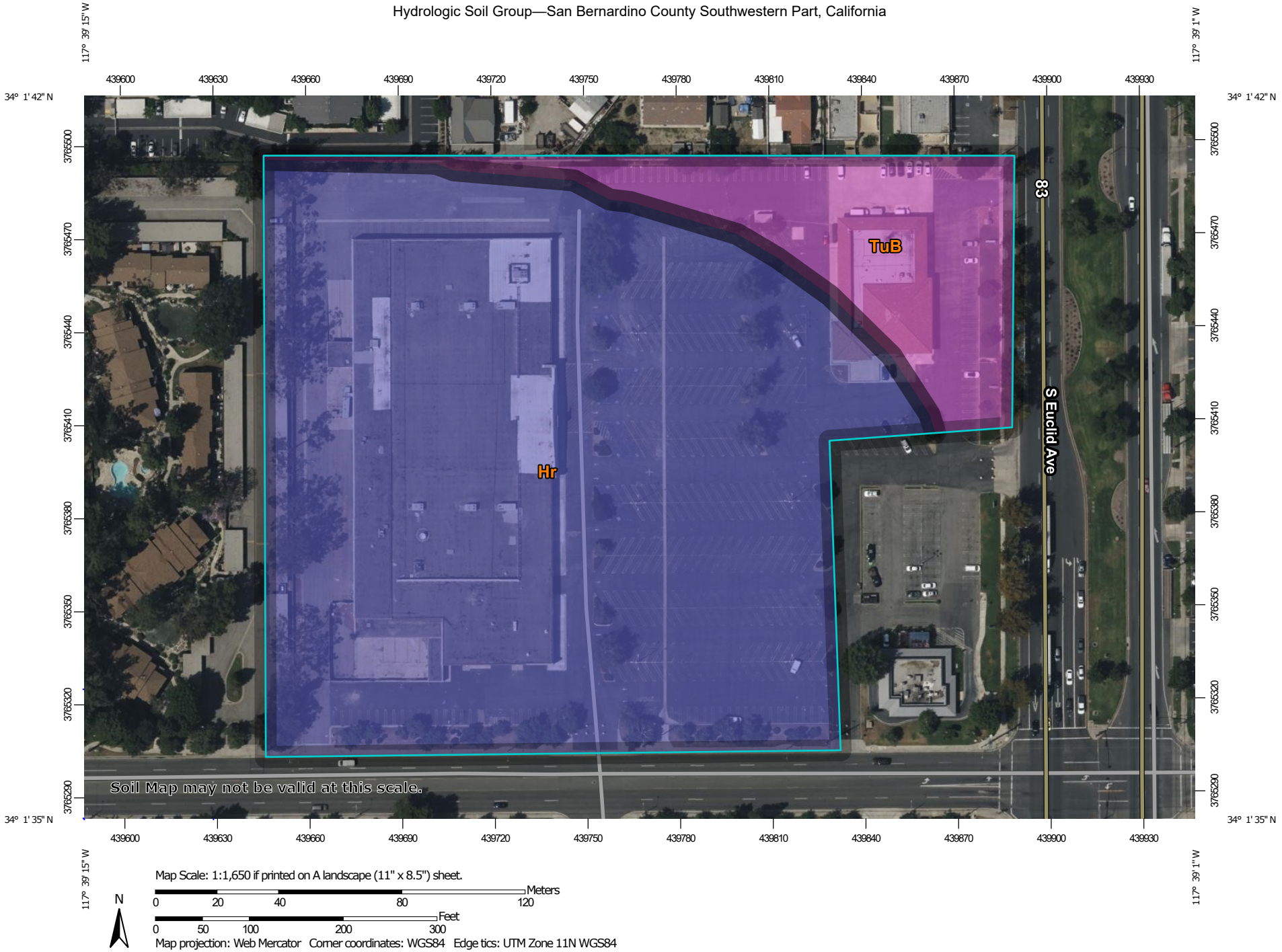
Appendix 5 *Unit Hydrograph and Routing Calculation and Proposed Temporary Detention system*

Appendix 6 *Supporting Documents (MPD Map)*

Appendix 7 *Soil's Report*

APPENDIX 1

SOIL CLASSIFICATION AND MAPS



Map Scale: 1:1,650 if printed on A landscape (11" x 8.5") sheet.

N

Meters: 0 20 40 80 120

Feet: 0 50 100 200 300

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 11N WGS84

APPENDIX 2

NOAA PRECIPITATION DATA

NOAA Atlas 14, Volume 6, Version 2
Location name: Ontario, California, USA*
Latitude: 34.0275°, Longitude: -117.6526°
Elevation: m/ft**
* source: ESRI Maps
** source: USGS

POINT PRECIPITATION FREQUENCY ESTIMATES

Sanja Perica, Sarah Dietz, Sarah Heim, Lillian Hiner, Kazungu Maitaria, Deborah Martin, Sandra Pavlovic, Ishani Roy, Carl Trypaluk, Dale Unruh, Fenglin Yan, Michael Yekta, Tan Zhao, Geoffrey Bonnin, Daniel Brewer, Li-Chuan Chen, Tye Parzybok, John Yarchoan

NOAA, National Weather Service, Silver Spring, Maryland

PF_tabular | PF_graphical | Maps_&_aerials

PF tabular

PDS-based point precipitation frequency estimates with 90% confidence intervals (in inches)[1]

Duration	Average recurrence interval (years)									
	1	2	5	10	25	50	100	200	500	1000
5-min	0.116 (0.097-0.141)	0.153 (0.127-0.185)	0.199 (0.166-0.242)	0.237 (0.196-0.291)	0.289 (0.230-0.366)	0.328 (0.255-0.425)	0.367 (0.279-0.489)	0.408 (0.301-0.559)	0.463 (0.327-0.663)	0.506 (0.345-0.751)
10-min	0.167 (0.139-0.202)	0.219 (0.182-0.265)	0.286 (0.238-0.347)	0.340 (0.280-0.417)	0.414 (0.329-0.525)	0.470 (0.366-0.609)	0.526 (0.400-0.701)	0.585 (0.431-0.802)	0.664 (0.469-0.950)	0.726 (0.494-1.08)
15-min	0.202 (0.168-0.244)	0.264 (0.220-0.320)	0.346 (0.287-0.420)	0.411 (0.339-0.504)	0.500 (0.398-0.635)	0.568 (0.442-0.737)	0.637 (0.483-0.847)	0.707 (0.521-0.969)	0.803 (0.567-1.15)	0.878 (0.598-1.30)
30-min	0.305 (0.255-0.370)	0.401 (0.334-0.485)	0.524 (0.435-0.636)	0.623 (0.514-0.764)	0.758 (0.603-0.961)	0.860 (0.670-1.12)	0.964 (0.732-1.28)	1.07 (0.790-1.47)	1.22 (0.859-1.74)	1.33 (0.905-1.97)
60-min	0.456 (0.381-0.552)	0.598 (0.498-0.724)	0.782 (0.650-0.950)	0.930 (0.767-1.14)	1.13 (0.900-1.44)	1.28 (1.00-1.67)	1.44 (1.09-1.92)	1.60 (1.18-2.19)	1.82 (1.28-2.60)	1.98 (1.35-2.94)
2-hr	0.682 (0.570-0.826)	0.894 (0.745-1.08)	1.16 (0.965-1.41)	1.37 (1.13-1.68)	1.65 (1.31-2.09)	1.85 (1.44-2.40)	2.06 (1.56-2.74)	2.26 (1.66-3.09)	2.52 (1.78-3.61)	2.72 (1.86-4.04)
3-hr	0.858 (0.716-1.04)	1.12 (0.936-1.36)	1.45 (1.21-1.77)	1.71 (1.41-2.10)	2.05 (1.63-2.60)	2.30 (1.79-2.98)	2.54 (1.93-3.38)	2.78 (2.05-3.81)	3.10 (2.19-4.43)	3.33 (2.27-4.94)
6-hr	1.19 (0.996-1.44)	1.56 (1.30-1.89)	2.01 (1.67-2.45)	2.37 (1.95-2.90)	2.83 (2.25-3.59)	3.16 (2.46-4.10)	3.49 (2.65-4.64)	3.82 (2.81-5.23)	4.24 (2.99-6.06)	4.55 (3.10-6.75)
12-hr	1.55 (1.29-1.88)	2.03 (1.69-2.45)	2.63 (2.18-3.19)	3.10 (2.55-3.79)	3.71 (2.95-4.71)	4.17 (3.24-5.40)	4.61 (3.50-6.14)	5.06 (3.73-6.94)	5.64 (3.98-8.08)	6.08 (4.14-9.02)
24-hr	2.02 (1.79-2.33)	2.65 (2.35-3.06)	3.47 (3.06-4.02)	4.13 (3.61-4.82)	5.00 (4.23-6.03)	5.66 (4.69-6.96)	6.32 (5.12-7.96)	6.98 (5.50-9.05)	7.88 (5.96-10.6)	8.56 (6.26-11.9)
2-day	2.41 (2.13-2.78)	3.23 (2.85-3.73)	4.31 (3.80-4.99)	5.19 (4.54-6.06)	6.40 (5.42-7.72)	7.34 (6.08-9.03)	8.29 (6.71-10.4)	9.28 (7.31-12.0)	10.6 (8.05-14.3)	11.7 (8.55-16.3)
3-day	2.58 (2.28-2.97)	3.50 (3.10-4.04)	4.73 (4.17-5.48)	5.75 (5.03-6.71)	7.16 (6.06-8.63)	8.27 (6.86-10.2)	9.40 (7.62-11.9)	10.6 (8.35-13.7)	12.3 (9.27-16.5)	13.6 (9.92-18.9)
4-day	2.77 (2.45-3.20)	3.80 (3.36-4.38)	5.16 (4.55-5.98)	6.30 (5.51-7.35)	7.86 (6.66-9.48)	9.09 (7.54-11.2)	10.4 (8.39-13.1)	11.7 (9.21-15.1)	13.5 (10.2-18.3)	15.0 (11.0-20.9)
7-day	3.22 (2.85-3.71)	4.43 (3.91-5.11)	6.03 (5.32-6.98)	7.35 (6.43-8.58)	9.17 (7.76-11.1)	10.6 (8.78-13.0)	12.0 (9.75-15.2)	13.6 (10.7-17.6)	15.6 (11.8-21.1)	17.3 (12.6-24.1)
10-day	3.51 (3.11-4.05)	4.85 (4.28-5.59)	6.61 (5.83-7.65)	8.06 (7.05-9.41)	10.1 (8.51-12.1)	11.6 (9.62-14.3)	13.2 (10.7-16.6)	14.8 (11.7-19.2)	17.1 (12.9-23.0)	18.8 (13.8-26.3)
20-day	4.26 (3.77-4.91)	5.94 (5.25-6.86)	8.19 (7.22-9.48)	10.0 (8.79-11.7)	12.6 (10.7-15.2)	14.6 (12.1-18.0)	16.7 (13.5-21.0)	18.8 (14.9-24.4)	21.8 (16.5-29.4)	24.2 (17.7-33.7)
30-day	5.00 (4.43-5.77)	7.01 (6.19-8.09)	9.72 (8.57-11.2)	12.0 (10.5-14.0)	15.2 (12.8-18.3)	17.7 (14.6-21.7)	20.3 (16.4-25.5)	23.0 (18.1-29.8)	26.8 (20.3-36.2)	29.9 (21.9-41.7)
45-day	5.97 (5.29-6.89)	8.35 (7.38-9.64)	11.6 (10.2-13.4)	14.4 (12.6-16.8)	18.3 (15.5-22.1)	21.5 (17.8-26.5)	24.9 (20.1-31.3)	28.4 (22.4-36.8)	33.5 (25.4-45.2)	37.6 (27.5-52.5)
60-day	6.94 (6.14-8.00)	9.62 (8.50-11.1)	13.4 (11.8-15.5)	16.6 (14.5-19.3)	21.2 (18.0-25.6)	25.1 (20.8-30.8)	29.1 (23.6-36.7)	33.6 (26.4-43.5)	39.9 (30.2-53.8)	45.2 (33.0-63.0)

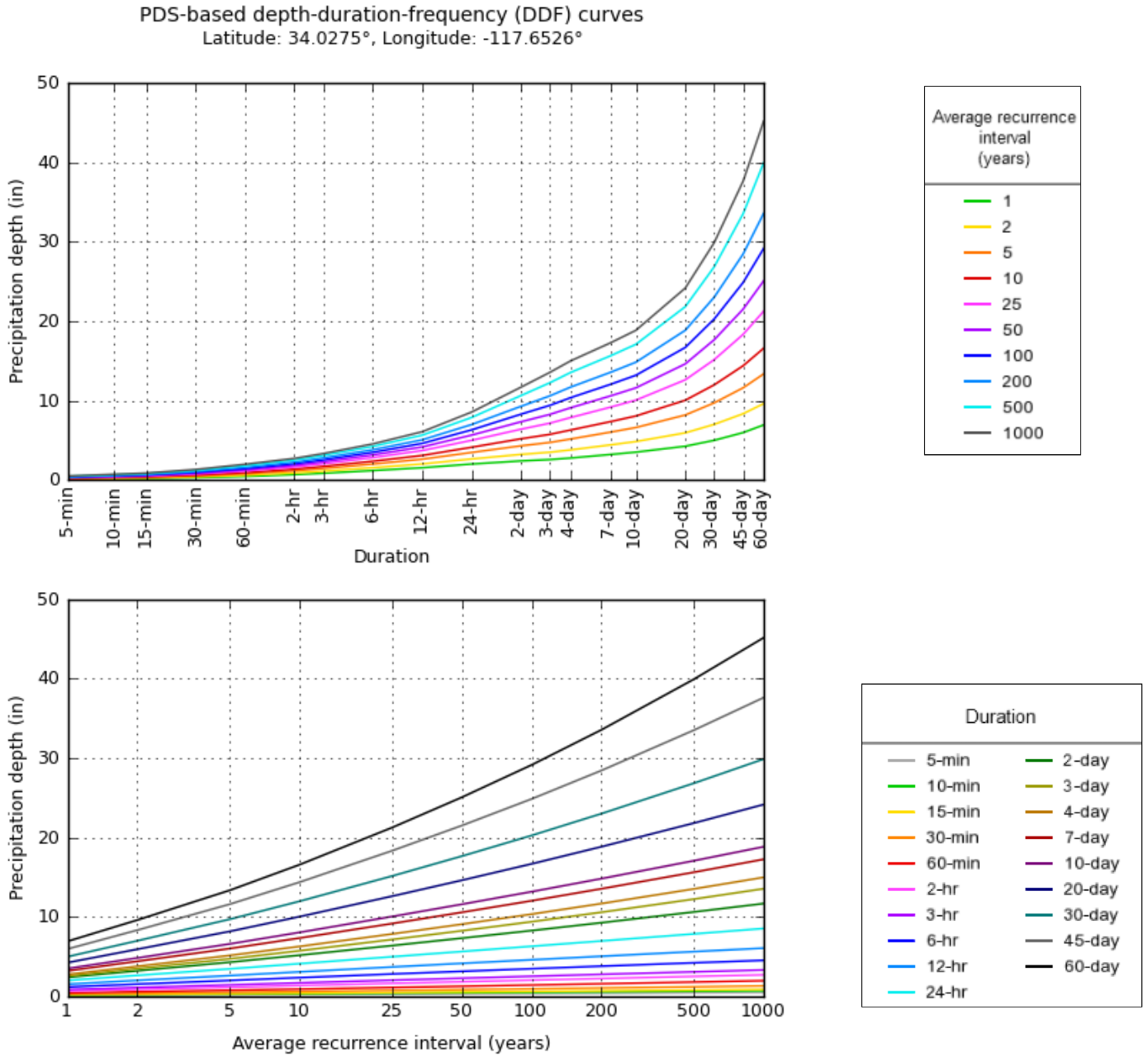
[1] Precipitation frequency (PF) estimates in this table are based on frequency analysis of partial duration series (PDS).

Numbers in parenthesis are PF estimates at lower and upper bounds of the 90% confidence interval. The probability that precipitation frequency estimates (for a given duration and average recurrence interval) will be greater than the upper bound (or less than the lower bound) is 5%. Estimates at upper bounds are not checked against probable maximum precipitation (PMP) estimates and may be higher than currently valid PMP values.

Please refer to NOAA Atlas 14 document for more information.

Back to Top

PF graphical



NOAA Atlas 14, Volume 6, Version 2

Created (GMT): Mon Mar 20 23:09:57 2023

ack to Top

ps & aerials

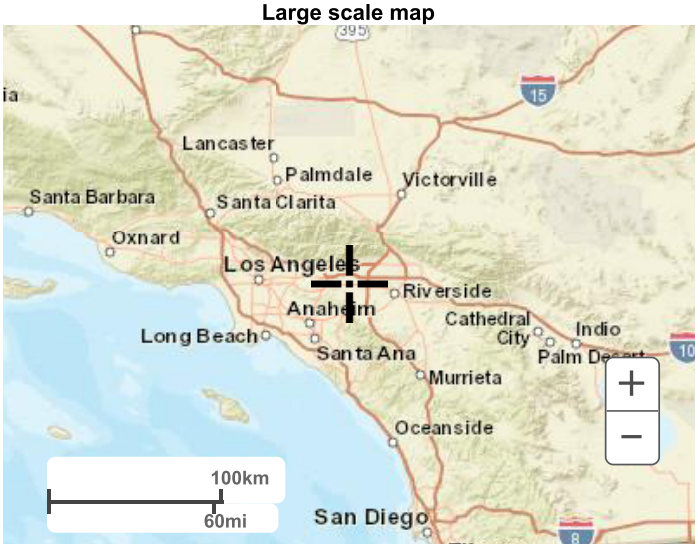
Small scale terrain



arge scale terrain



Large scale map



Large scale aerial



Back to Top

US Department of Commerce
National Oceanic and Atmospheric Administration
National Weather Service
National Water Center
1325 East West Highway
Silver Spring, MD 20910
Questions?: HDSC.Questions@noaa.gov

Disclaimer

APPENDIX 3

RATIONAL METHOD: PRE AND POST DEVELOPMENT (Q100-24HR & Q10-24HR) PARKWAY CULVERT CALCULATION

```
                San Bernardino County Rational Hydrology Program

                    (Hydrology Manual Date - August 1986)

 CIVILCADD/CIVILDESIGN  Engineering Software, (c) 1989-2005 Version 7.1
        Rational Hydrology Study        Date: 04/19/23
--------------------------------------------------------------------------
RATIONAL, EUCLID AND WALNUT
100-YEAR EVENT
PRE CONSTRUCTION
FUSCOE ENGINEERING
--------------------------------------------------------------------------


Program License Serial Number 6049

--------------------------------------------------------------------------
 *********   Hydrology Study Control Information **********

--------------------------------------------------------------------------
Rational hydrology study storm event year is   100.0
Computed rainfall intensity:
Storm year =   100.00   1 hour rainfall =     1.440 (In.)
Slope used for rainfall intensity curve b =  0.6000
Soil antecedent moisture condition (AMC) = 2


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station        1.010 to Point/Station        1.020
**** INITIAL AREA EVALUATION ****
__________________________________________________________________________
Soil classification AP and SCS  values input by user
USER INPUT of soil data for subarea
SCS curve number for soil(AMC 2)  = 95.00
Pervious ratio(Ap) = 0.0700     Max loss rate(Fm)=     0.007(In/Hr)
Initial subarea data:
Initial area flow distance =   898.000(Ft.)
Top (of initial area) elevation =   824.100(Ft.)
Bottom (of initial area) elevation =   812.000(Ft.)
Difference in elevation =    12.100(Ft.)
Slope =    0.01347  s(%)=       1.35
TC = k(0.292)*[(length^3)/(elevation change)]^0.2
Initial area time of concentration =   10.482 min.
Rainfall intensity =      4.102(In/Hr) for a   100.0 year storm
Effective runoff coefficient used for area (Q=KCIA) is C = 0.898
Subarea runoff =     25.062(CFS)
Total initial stream area =        6.800(Ac.)
Pervious area fraction = 0.070
Initial area Fm value =    0.007(In/Hr)
```

```
++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station        2.010 to Point/Station        2.020
**** INITIAL AREA EVALUATION ****
________________________________________________________________________
Soil classification AP and SCS  values input by user
USER INPUT of soil data for subarea
SCS curve number for soil(AMC 2)  = 95.00
Pervious ratio(Ap) = 0.0500     Max loss rate(Fm)=     0.005(In/Hr)
Initial subarea data:
Initial area flow distance =   879.000(Ft.)
Top (of initial area) elevation =   817.000(Ft.)
Bottom (of initial area) elevation =   810.300(Ft.)
Difference in elevation =     6.700(Ft.)
Slope =    0.00762  s(%)=       0.76
TC = k(0.287)*[(length^3)/(elevation change)]^0.2
Initial area time of concentration =   11.450 min.
Rainfall intensity =      3.890(In/Hr) for a   100.0 year storm
Effective runoff coefficient used for area (Q=KCIA) is C = 0.899
Subarea runoff =      9.791(CFS)
Total initial stream area =        2.800(Ac.)
Pervious area fraction = 0.050
Initial area Fm value =    0.005(In/Hr)
End of computations, Total Study Area =            9.60 (Ac.)
The following figures may
be used for a unit hydrograph study of the same area.
Note: These figures do not consider reduced effective area
effects caused by confluences in the rational equation.

Area averaged pervious area fraction(Ap) = 0.064
Area averaged SCS curve number =  95.0
```

```
                San Bernardino County Rational Hydrology Program

                    (Hydrology Manual Date - August 1986)

 CIVILCADD/CIVILDESIGN  Engineering Software, (c) 1989-2005 Version 7.1
        Rational Hydrology Study        Date: 04/25/23
--------------------------------------------------------------------------
RATIONAL, EUCLID AND WALNUT
100-YEAR EVENT
POST CONSTRUCTION
FUSCOE ENGINEERING
--------------------------------------------------------------------------


Program License Serial Number 6049

--------------------------------------------------------------------------
 *********   Hydrology Study Control Information **********

--------------------------------------------------------------------------
Rational hydrology study storm event year is   100.0
Computed rainfall intensity:
Storm year =   100.00   1 hour rainfall =     1.440 (In.)
Slope used for rainfall intensity curve b =  0.6000
Soil antecedent moisture condition (AMC) = 2


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station        1.010 to Point/Station        1.020
**** INITIAL AREA EVALUATION ****
__________________________________________________________________________
APARTMENT subarea type
Decimal fraction soil group A = 0.480
Decimal fraction soil group B = 0.520
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.000
SCS curve number for soil(AMC 2)  = 44.48
Pervious ratio(Ap) = 0.2000     Max loss rate(Fm)=     0.174(In/Hr)
Initial subarea data:
Initial area flow distance =   595.000(Ft.)
Top (of initial area) elevation =   821.000(Ft.)
Bottom (of initial area) elevation =   814.800(Ft.)
Difference in elevation =     6.200(Ft.)
Slope =    0.01042  s(%)=       1.04
TC = k(0.324)*[(length^3)/(elevation change)]^0.2
Initial area time of concentration =   10.394 min.
Rainfall intensity =      4.123(In/Hr) for a   100.0 year storm
Effective runoff coefficient used for area (Q=KCIA) is C = 0.862
Subarea runoff =      6.290(CFS)
```

```
Total initial stream area =        1.770(Ac.)
Pervious area fraction = 0.200
Initial area Fm value =    0.174(In/Hr)


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station        1.020 to Point/Station        1.030
**** PIPEFLOW TRAVEL TIME (User specified size) ****
______________________________________________________________________________
Upstream point/station elevation =   810.700(Ft.)
Downstream point/station elevation =   810.300(Ft.)
Pipe length  =    63.00(Ft.)   Manning's N = 0.013
No. of pipes = 1  Required pipe flow  =     6.290(CFS)
Given pipe size =     18.00(In.)
Calculated individual pipe flow  =     6.290(CFS)
Normal flow depth in pipe =   11.65(In.)
Flow top width inside pipe =   17.20(In.)
Critical Depth =   11.63(In.)
Pipe flow velocity =      5.20(Ft/s)
Travel time through pipe =    0.20 min.
Time of concentration (TC) =    10.60 min.


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station        1.030 to Point/Station        1.040
**** PIPEFLOW TRAVEL TIME (User specified size) ****
______________________________________________________________________________
Upstream point/station elevation =   809.000(Ft.)
Downstream point/station elevation =   806.300(Ft.)
Pipe length  =   346.00(Ft.)   Manning's N = 0.013
No. of pipes = 1  Required pipe flow  =     6.290(CFS)
Given pipe size =     18.00(In.)
Calculated individual pipe flow  =     6.290(CFS)
Normal flow depth in pipe =   10.86(In.)
Flow top width inside pipe =   17.61(In.)
Critical Depth =   11.63(In.)
Pipe flow velocity =      5.64(Ft/s)
Travel time through pipe =    1.02 min.
Time of concentration (TC) =    11.62 min.


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station        1.030 to Point/Station        1.040
**** CONFLUENCE OF MAIN STREAMS ****
______________________________________________________________________________
The following data inside Main Stream is listed:
In Main Stream number: 1
Stream flow area =      1.770(Ac.)
Runoff from this stream =      6.290(CFS)
Time of concentration =   11.62 min.
```

```
Rainfall intensity =     3.856(In/Hr)
Area averaged loss rate (Fm) =    0.1744(In/Hr)
Area averaged Pervious ratio (Ap) = 0.2000
Program is now starting with Main Stream No. 2


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station        2.010 to Point/Station        2.020
**** INITIAL AREA EVALUATION ****
________________________________________________________________________
APARTMENT subarea type
Decimal fraction soil group A = 0.000
Decimal fraction soil group B = 1.000
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.000
SCS curve number for soil(AMC 2)  = 56.00
Pervious ratio(Ap) = 0.2000     Max loss rate(Fm)=     0.147(In/Hr)
Initial subarea data:
Initial area flow distance =   376.000(Ft.)
Top (of initial area) elevation =   820.100(Ft.)
Bottom (of initial area) elevation =   815.600(Ft.)
Difference in elevation =     4.500(Ft.)
Slope =    0.01197  s(%)=       1.20
TC = k(0.324)*[(length^3)/(elevation change)]^0.2
Initial area time of concentration =    8.414 min.
Rainfall intensity =      4.680(In/Hr) for a   100.0 year storm
Effective runoff coefficient used for area (Q=KCIA) is C = 0.872
Subarea runoff =      5.957(CFS)
Total initial stream area =        1.460(Ac.)
Pervious area fraction = 0.200
Initial area Fm value =    0.147(In/Hr)


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station        2.020 to Point/Station        2.030
**** PIPEFLOW TRAVEL TIME (User specified size) ****
________________________________________________________________________
Upstream point/station elevation =   809.600(Ft.)
Downstream point/station elevation =   809.200(Ft.)
Pipe length  =    77.00(Ft.)   Manning's N = 0.013
No. of pipes = 1  Required pipe flow  =     5.957(CFS)
Given pipe size =     18.00(In.)
Calculated individual pipe flow  =     5.957(CFS)
Normal flow depth in pipe =   12.02(In.)
Flow top width inside pipe =   16.95(In.)
Critical Depth =   11.31(In.)
Pipe flow velocity =      4.74(Ft/s)
Travel time through pipe =    0.27 min.
Time of concentration (TC) =     8.68 min.
```

```
++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station        2.030 to Point/Station        2.040
**** PIPEFLOW TRAVEL TIME (User specified size) ****
______________________________________________________________________________
Upstream point/station elevation =   807.800(Ft.)
Downstream point/station elevation =   806.500(Ft.)
Pipe length  =   262.00(Ft.)   Manning's N = 0.013
No. of pipes = 1  Required pipe flow  =     5.957(CFS)
Given pipe size =     18.00(In.)
Calculated individual pipe flow  =     5.957(CFS)
Normal flow depth in pipe =   12.23(In.)
Flow top width inside pipe =   16.80(In.)
Critical Depth =   11.31(In.)
Pipe flow velocity =      4.66(Ft/s)
Travel time through pipe =    0.94 min.
Time of concentration (TC) =     9.62 min.


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station        2.030 to Point/Station        2.040
**** CONFLUENCE OF MINOR STREAMS ****
______________________________________________________________________________
Along Main Stream number: 2 in normal stream number 1
Stream flow area =      1.460(Ac.)
Runoff from this stream =      5.957(CFS)
Time of concentration =    9.62 min.
Rainfall intensity =     4.318(In/Hr)
Area averaged loss rate (Fm) =    0.1468(In/Hr)
Area averaged Pervious ratio (Ap) = 0.2000


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station        3.010 to Point/Station        3.020
**** INITIAL AREA EVALUATION ****
______________________________________________________________________________
APARTMENT subarea type
Decimal fraction soil group A = 0.000
Decimal fraction soil group B = 1.000
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.000
SCS curve number for soil(AMC 2)  = 56.00
Pervious ratio(Ap) = 0.2000     Max loss rate(Fm)=     0.147(In/Hr)
Initial subarea data:
Initial area flow distance =   293.000(Ft.)
Top (of initial area) elevation =   817.700(Ft.)
Bottom (of initial area) elevation =   815.100(Ft.)
Difference in elevation =     2.600(Ft.)
Slope =    0.00887  s(%)=       0.89
TC = k(0.324)*[(length^3)/(elevation change)]^0.2
```

```
Initial area time of concentration =    8.085 min.
Rainfall intensity =      4.793(In/Hr) for a   100.0 year storm
Effective runoff coefficient used for area (Q=KCIA) is C = 0.872
Subarea runoff =      6.273(CFS)
Total initial stream area =        1.500(Ac.)
Pervious area fraction = 0.200
Initial area Fm value =    0.147(In/Hr)


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station        3.020 to Point/Station        3.030
**** PIPEFLOW TRAVEL TIME (User specified size) ****
______________________________________________________________________________
Upstream point/station elevation =   810.100(Ft.)
Downstream point/station elevation =   809.200(Ft.)
Pipe length  =   181.00(Ft.)   Manning's N = 0.013
No. of pipes = 1  Required pipe flow  =     6.273(CFS)
Given pipe size =     18.00(In.)
Calculated individual pipe flow  =     6.273(CFS)
Normal flow depth in pipe =   12.70(In.)
Flow top width inside pipe =   16.41(In.)
Critical Depth =   11.62(In.)
Pipe flow velocity =      4.70(Ft/s)
Travel time through pipe =    0.64 min.
Time of concentration (TC) =     8.73 min.


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station        3.030 to Point/Station        2.040
**** PIPEFLOW TRAVEL TIME (User specified size) ****
______________________________________________________________________________
Upstream point/station elevation =   807.900(Ft.)
Downstream point/station elevation =   806.500(Ft.)
Pipe length  =    16.00(Ft.)   Manning's N = 0.013
No. of pipes = 1  Required pipe flow  =     6.273(CFS)
Given pipe size =     18.00(In.)
Calculated individual pipe flow  =     6.273(CFS)
Normal flow depth in pipe =    5.48(In.)
Flow top width inside pipe =   16.57(In.)
Critical Depth =   11.62(In.)
Pipe flow velocity =     13.76(Ft/s)
Travel time through pipe =    0.02 min.
Time of concentration (TC) =     8.75 min.


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station        3.030 to Point/Station        2.040
**** CONFLUENCE OF MINOR STREAMS ****
______________________________________________________________________________
Along Main Stream number: 2 in normal stream number 2
```

```
Stream flow area =      1.500(Ac.)
Runoff from this stream =      6.273(CFS)
Time of concentration =    8.75 min.
Rainfall intensity =     4.573(In/Hr)
Area averaged loss rate (Fm) =    0.1468(In/Hr)
Area averaged Pervious ratio (Ap) = 0.2000
Summary of stream data:

Stream Flow rate    Area    TC     Fm       Rainfall Intensity
 No.    (CFS)   (Ac.)       (min) (In/Hr)     (In/Hr)


1      5.96     1.460      9.62    0.147      4.318
2      6.27     1.500      8.75    0.147      4.573
Qmax(1) =
           1.000 *    1.000 *     5.957) +
           0.942 *    1.000 *     6.273) + =      11.869
Qmax(2) =
           1.061 *    0.909 *     5.957) +
           1.000 *    1.000 *     6.273) + =      12.018

Total of 2 streams to confluence:
Flow rates before confluence point:
       5.957       6.273
Maximum flow rates at confluence using above data:
       11.869       12.018
Area of streams before confluence:
        1.460        1.500
Effective area values after confluence:
        2.960        2.827
Results of confluence:
Total flow rate =     12.018(CFS)
Time of concentration =     8.746 min.
Effective stream area after confluence =      2.827(Ac.)
Study area average Pervious fraction(Ap) =  0.200
Study area average soil loss rate(Fm) =    0.147(In/Hr)
Study area total (this main stream) =       2.96(Ac.)


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station        2.040 to Point/Station        1.040
**** PIPEFLOW TRAVEL TIME (User specified size) ****
________________________________________________________________________
Upstream point/station elevation =   806.500(Ft.)
Downstream point/station elevation =   806.300(Ft.)
Pipe length  =    42.00(Ft.)   Manning's N = 0.013
No. of pipes = 1  Required pipe flow  =    12.018(CFS)
Given pipe size =     24.00(In.)
Calculated individual pipe flow  =    12.018(CFS)
Normal flow depth in pipe =   15.80(In.)
```

```
Flow top width inside pipe =   22.77(In.)
Critical Depth =   14.94(In.)
Pipe flow velocity =      5.48(Ft/s)
Travel time through pipe =    0.13 min.
Time of concentration (TC) =     8.87 min.


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station        2.040 to Point/Station        1.040
**** CONFLUENCE OF MAIN STREAMS ****
________________________________________________________________________
The following data inside Main Stream is listed:
In Main Stream number: 2
Stream flow area =      2.827(Ac.)
Runoff from this stream =     12.018(CFS)
Time of concentration =    8.87 min.
Rainfall intensity =     4.533(In/Hr)
Area averaged loss rate (Fm) =    0.1468(In/Hr)
Area averaged Pervious ratio (Ap) = 0.2000
Summary of stream data:

Stream Flow rate    Area    TC     Fm       Rainfall Intensity
 No.    (CFS)   (Ac.)       (min) (In/Hr)     (In/Hr)


1      6.29     1.770     11.62    0.174      3.856
2     12.02     2.827      8.87    0.147      4.533
Qmax(1) =
           1.000 *    1.000 *     6.290) +
           0.846 *    1.000 *    12.018) + =      16.453
Qmax(2) =
           1.184 *    0.764 *     6.290) +
           1.000 *    1.000 *    12.018) + =      17.705

Total of 2 main streams to confluence:
Flow rates before confluence point:
       7.290      13.018
Maximum flow rates at confluence using above data:
       16.453       17.705
Area of streams before confluence:
        1.770        2.827
Effective area values after confluence:
        4.597        4.179


Results of confluence:
Total flow rate =     17.705(CFS)
Time of concentration =     8.874 min.
Effective stream area after confluence  =      4.179(Ac.)
Study area average Pervious fraction(Ap) =  0.200
```

```
Study area average soil loss rate(Fm) =    0.157(In/Hr)
Study area total =       4.60(Ac.)


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station        1.040 to Point/Station        1.050
**** PIPEFLOW TRAVEL TIME (User specified size) ****
________________________________________________________________________
Upstream point/station elevation =   806.300(Ft.)
Downstream point/station elevation =   805.800(Ft.)
Pipe length  =   100.00(Ft.)   Manning's N = 0.013
No. of pipes = 1  Required pipe flow  =    17.705(CFS)
Given pipe size =     30.00(In.)
Calculated individual pipe flow  =    17.705(CFS)
Normal flow depth in pipe =   16.92(In.)
Flow top width inside pipe =   29.75(In.)
Critical Depth =   17.09(In.)
Pipe flow velocity =      6.20(Ft/s)
Travel time through pipe =    0.27 min.
Time of concentration (TC) =     9.14 min.


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station        4.010 to Point/Station        4.020
**** INITIAL AREA EVALUATION ****
________________________________________________________________________
APARTMENT subarea type
Decimal fraction soil group A = 0.000
Decimal fraction soil group B = 1.000
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.000
SCS curve number for soil(AMC 2)  = 56.00
Pervious ratio(Ap) = 0.2000     Max loss rate(Fm)=     0.147(In/Hr)
Initial subarea data:
Initial area flow distance =   641.000(Ft.)
Top (of initial area) elevation =   816.000(Ft.)
Bottom (of initial area) elevation =   809.400(Ft.)
Difference in elevation =     6.600(Ft.)
Slope =    0.01030  s(%)=       1.03
TC = k(0.324)*[(length^3)/(elevation change)]^0.2
Initial area time of concentration =   10.734 min.
Rainfall intensity =      4.044(In/Hr) for a   100.0 year storm
Effective runoff coefficient used for area (Q=KCIA) is C = 0.867
Subarea runoff =      4.630(CFS)
Total initial stream area =        1.320(Ac.)
Pervious area fraction = 0.200
Initial area Fm value =    0.147(In/Hr)


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
```

```
Process from Point/Station        5.010 to Point/Station        5.020
**** INITIAL AREA EVALUATION ****
----------------------------------------------------------------------
APARTMENT subarea type
Decimal fraction soil group A = 0.000
Decimal fraction soil group B = 1.000
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.000
SCS curve number for soil(AMC 2)  = 56.00
Pervious ratio(Ap) = 0.2000     Max loss rate(Fm)=     0.147(In/Hr)
Initial subarea data:
Initial area flow distance =   269.000(Ft.)
Top (of initial area) elevation =   813.700(Ft.)
Bottom (of initial area) elevation =   809.800(Ft.)
Difference in elevation =     3.900(Ft.)
Slope =    0.01450  s(%)=       1.45
TC = k(0.324)*[(length^3)/(elevation change)]^0.2
Initial area time of concentration =    7.082 min.
Rainfall intensity =      5.190(In/Hr) for a   100.0 year storm
Effective runoff coefficient used for area (Q=KCIA) is C = 0.875
Subarea runoff =      2.451(CFS)
Total initial stream area =        0.540(Ac.)
Pervious area fraction = 0.200
Initial area Fm value =    0.147(In/Hr)


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station        6.010 to Point/Station        6.020
**** INITIAL AREA EVALUATION ****
----------------------------------------------------------------------
APARTMENT subarea type
Decimal fraction soil group A = 0.000
Decimal fraction soil group B = 1.000
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.000
SCS curve number for soil(AMC 2)  = 56.00
Pervious ratio(Ap) = 0.2000     Max loss rate(Fm)=     0.147(In/Hr)
Initial subarea data:
Initial area flow distance =   269.000(Ft.)
Top (of initial area) elevation =   813.900(Ft.)
Bottom (of initial area) elevation =   810.200(Ft.)
Difference in elevation =     3.700(Ft.)
Slope =    0.01375  s(%)=       1.38
TC = k(0.324)*[(length^3)/(elevation change)]^0.2
Initial area time of concentration =    7.157 min.
Rainfall intensity =      5.157(In/Hr) for a   100.0 year storm
Effective runoff coefficient used for area (Q=KCIA) is C = 0.874
Subarea runoff =      1.849(CFS)
Total initial stream area =        0.410(Ac.)
Pervious area fraction = 0.200
```

```
Initial area Fm value =    0.147(In/Hr)


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station        7.010 to Point/Station        7.020
**** INITIAL AREA EVALUATION ****
______________________________________________________________________________
APARTMENT subarea type
Decimal fraction soil group A = 0.000
Decimal fraction soil group B = 1.000
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.000
SCS curve number for soil(AMC 2)  = 56.00
Pervious ratio(Ap) = 0.2000     Max loss rate(Fm)=     0.147(In/Hr)
Initial subarea data:
Initial area flow distance =   284.000(Ft.)
Top (of initial area) elevation =   816.200(Ft.)
Bottom (of initial area) elevation =   810.700(Ft.)
Difference in elevation =     5.500(Ft.)
Slope =    0.01937  s(%)=       1.94
TC = k(0.324)*[(length^3)/(elevation change)]^0.2
Initial area time of concentration =    6.831 min.
Rainfall intensity =      5.304(In/Hr) for a   100.0 year storm
Effective runoff coefficient used for area (Q=KCIA) is C = 0.875
Subarea runoff =      4.363(CFS)
Total initial stream area =        0.940(Ac.)
Pervious area fraction = 0.200
Initial area Fm value =    0.147(In/Hr)


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station        8.010 to Point/Station        8.020
**** INITIAL AREA EVALUATION ****
______________________________________________________________________________
APARTMENT subarea type
Decimal fraction soil group A = 0.000
Decimal fraction soil group B = 1.000
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.000
SCS curve number for soil(AMC 2)  = 56.00
Pervious ratio(Ap) = 0.2000     Max loss rate(Fm)=     0.147(In/Hr)
Initial subarea data:
Initial area flow distance =   204.000(Ft.)
Top (of initial area) elevation =   817.400(Ft.)
Bottom (of initial area) elevation =   814.900(Ft.)
Difference in elevation =     2.500(Ft.)
Slope =    0.01225  s(%)=       1.23
TC = k(0.324)*[(length^3)/(elevation change)]^0.2
Initial area time of concentration =    6.557 min.
Rainfall intensity =      5.435(In/Hr) for a   100.0 year storm
```

```
Effective runoff coefficient used for area (Q=KCIA) is C = 0.876
Subarea runoff =      3.284(CFS)
Total initial stream area =        0.690(Ac.)
Pervious area fraction = 0.200
Initial area Fm value =    0.147(In/Hr)


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station        8.020 to Point/Station        8.030
**** PIPEFLOW TRAVEL TIME (User specified size) ****
________________________________________________________________________
Upstream point/station elevation =   812.700(Ft.)
Downstream point/station elevation =   811.900(Ft.)
Pipe length  =   110.00(Ft.)   Manning's N = 0.013
No. of pipes = 1  Required pipe flow  =     3.284(CFS)
Given pipe size =     12.00(In.)
NOTE: Normal flow is pressure flow in user selected pipe size.
The approximate hydraulic grade line above the pipe invert is
     0.542(Ft.)  at the headworks or inlet of the pipe(s)
 Pipe friction loss =      0.934(Ft.)
 Minor friction loss =      0.407(Ft.)  K-factor =   1.50
Pipe flow velocity =      4.18(Ft/s)
Travel time through pipe =    0.44 min.
Time of concentration (TC) =     7.00 min.


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station        9.010 to Point/Station        9.020
**** INITIAL AREA EVALUATION ****
________________________________________________________________________
APARTMENT subarea type
Decimal fraction soil group A = 0.850
Decimal fraction soil group B = 0.150
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.000
SCS curve number for soil(AMC 2)  = 35.60
Pervious ratio(Ap) = 0.2000     Max loss rate(Fm)=     0.191(In/Hr)
Initial subarea data:
Initial area flow distance =   340.000(Ft.)
Top (of initial area) elevation =   824.000(Ft.)
Bottom (of initial area) elevation =   818.400(Ft.)
Difference in elevation =     5.600(Ft.)
Slope =    0.01647  s(%)=       1.65
TC = k(0.324)*[(length^3)/(elevation change)]^0.2
Initial area time of concentration =    7.582 min.
Rainfall intensity =      4.982(In/Hr) for a   100.0 year storm
Effective runoff coefficient used for area (Q=KCIA) is C = 0.866
Subarea runoff =      4.182(CFS)
Total initial stream area =        0.970(Ac.)
Pervious area fraction = 0.200
```

```
Initial area Fm value =    0.191(In/Hr)


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station        9.020 to Point/Station        9.030
**** PIPEFLOW TRAVEL TIME (User specified size) ****
______________________________________________________________________________
Upstream point/station elevation =   815.300(Ft.)
Downstream point/station elevation =   815.200(Ft.)
Pipe length  =    30.00(Ft.)   Manning's N = 0.013
No. of pipes = 1  Required pipe flow  =     4.182(CFS)
Given pipe size =     18.00(In.)
Calculated individual pipe flow  =     4.182(CFS)
Normal flow depth in pipe =   10.99(In.)
Flow top width inside pipe =   17.55(In.)
Critical Depth =    9.41(In.)
Pipe flow velocity =      3.70(Ft/s)
Travel time through pipe =    0.14 min.
Time of concentration (TC) =     7.72 min.


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station        9.030 to Point/Station        9.040
**** PIPEFLOW TRAVEL TIME (User specified size) ****
______________________________________________________________________________
Upstream point/station elevation =   813.800(Ft.)
Downstream point/station elevation =   813.600(Ft.)
Pipe length  =    49.00(Ft.)   Manning's N = 0.013
No. of pipes = 1  Required pipe flow  =     4.182(CFS)
Given pipe size =     18.00(In.)
Calculated individual pipe flow  =     4.182(CFS)
Normal flow depth in pipe =   10.29(In.)
Flow top width inside pipe =   17.81(In.)
Critical Depth =    9.41(In.)
Pipe flow velocity =      4.00(Ft/s)
Travel time through pipe =    0.20 min.
Time of concentration (TC) =     7.92 min.
End of computations, Total Study Area =            9.60 (Ac.)
The following figures may
be used for a unit hydrograph study of the same area.
Note: These figures do not consider reduced effective area
effects caused by confluences in the rational equation.

Area averaged pervious area fraction(Ap) = 0.200
Area averaged SCS curve number =  51.8
```

San Bernardino County Rational Hydrology Program

(Hydrology Manual Date - August 1986)

CIVILCADD/CIVILDESIGN Engineering Software, (c) 1989-2005 Version 7.1
Rational Hydrology Study Date: 04/26/23

RATIONAL, EUCLID AND WALNUT
10-YEAR EVENT
PRE CONSTRUCTION
FUSCOE ENGINEERING

Program License Serial Number 6049

********* Hydrology Study Control Information **********

Rational hydrology study storm event year is 10.0
Computed rainfall intensity:
Storm year = 10.00 1 hour rainfall = 0.930 (In.)
Slope used for rainfall intensity curve b = 0.6000
Soil antecedent moisture condition (AMC) = 2

++

Process from Point/Station 1.010 to Point/Station 1.020
**** INITIAL AREA EVALUATION ****

Soil classification AP and SCS values input by user
USER INPUT of soil data for subarea
SCS curve number for soil(AMC 2) = 95.00
Pervious ratio(Ap) = 0.0700 Max loss rate(Fm)= 0.007(In/Hr)
Initial subarea data:
Initial area flow distance = 898.000(Ft.)
Top (of initial area) elevation = 824.100(Ft.)
Bottom (of initial area) elevation = 812.000(Ft.)
Difference in elevation = 12.100(Ft.)
Slope = 0.01347 s(%)= 1.35
TC = k(0.292)*[(length^3)/(elevation change)]^0.2
Initial area time of concentration = 10.482 min.
Rainfall intensity = 2.649(In/Hr) for a 10.0 year storm
Effective runoff coefficient used for area (Q=KCIA) is C = 0.898
Subarea runoff = 16.171(CFS)
Total initial stream area = 6.800(Ac.)
Pervious area fraction = 0.070
Initial area Fm value = 0.007(In/Hr)

```
++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station        2.010 to Point/Station        2.020
**** INITIAL AREA EVALUATION ****
________________________________________________________________________
Soil classification AP and SCS  values input by user
USER INPUT of soil data for subarea
SCS curve number for soil(AMC 2)  = 95.00
Pervious ratio(Ap) = 0.0500     Max loss rate(Fm)=     0.005(In/Hr)
Initial subarea data:
Initial area flow distance =   879.000(Ft.)
Top (of initial area) elevation =   817.000(Ft.)
Bottom (of initial area) elevation =   810.300(Ft.)
Difference in elevation =     6.700(Ft.)
Slope =    0.00762  s(%)=       0.76
TC = k(0.287)*[(length^3)/(elevation change)]^0.2
Initial area time of concentration =   11.450 min.
Rainfall intensity =      2.512(In/Hr) for a    10.0 year storm
Effective runoff coefficient used for area (Q=KCIA) is C = 0.898
Subarea runoff =      6.319(CFS)
Total initial stream area =        2.800(Ac.)
Pervious area fraction = 0.050
Initial area Fm value =    0.005(In/Hr)
End of computations, Total Study Area =            9.60 (Ac.)
The following figures may
be used for a unit hydrograph study of the same area.
Note: These figures do not consider reduced effective area
effects caused by confluences in the rational equation.

Area averaged pervious area fraction(Ap) = 0.064
Area averaged SCS curve number =  95.0
```

```
                San Bernardino County Rational Hydrology Program

                    (Hydrology Manual Date - August 1986)

 CIVILCADD/CIVILDESIGN  Engineering Software, (c) 1989-2005 Version 7.1
        Rational Hydrology Study        Date: 04/26/23
--------------------------------------------------------------------------
RATIONAL, EUCLID AND WALNUT
10-YEAR EVENT
POST CONSTRUCTION
FUSCOE ENGINEERING
--------------------------------------------------------------------------


Program License Serial Number 6049

--------------------------------------------------------------------------
 *********   Hydrology Study Control Information **********

--------------------------------------------------------------------------
Rational hydrology study storm event year is    10.0
Computed rainfall intensity:
Storm year =    10.00   1 hour rainfall =     0.930 (In.)
Slope used for rainfall intensity curve b =  0.6000
Soil antecedent moisture condition (AMC) = 2


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station        1.010 to Point/Station        1.020
**** INITIAL AREA EVALUATION ****
__________________________________________________________________________
APARTMENT subarea type
Decimal fraction soil group A = 0.480
Decimal fraction soil group B = 0.520
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.000
SCS curve number for soil(AMC 2)  = 44.48
Pervious ratio(Ap) = 0.2000     Max loss rate(Fm)=     0.174(In/Hr)
Initial subarea data:
Initial area flow distance =   595.000(Ft.)
Top (of initial area) elevation =   821.000(Ft.)
Bottom (of initial area) elevation =   814.800(Ft.)
Difference in elevation =     6.200(Ft.)
Slope =    0.01042  s(%)=       1.04
TC = k(0.324)*[(length^3)/(elevation change)]^0.2
Initial area time of concentration =   10.394 min.
Rainfall intensity =      2.663(In/Hr) for a    10.0 year storm
Effective runoff coefficient used for area (Q=KCIA) is C = 0.841
Subarea runoff =      3.964(CFS)
```

```
Total initial stream area =        1.770(Ac.)
Pervious area fraction = 0.200
Initial area Fm value =    0.174(In/Hr)


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station        1.020 to Point/Station        1.030
**** PIPEFLOW TRAVEL TIME (User specified size) ****
______________________________________________________________________________
Upstream point/station elevation =   810.700(Ft.)
Downstream point/station elevation =   810.300(Ft.)
Pipe length  =    63.00(Ft.)   Manning's N = 0.013
No. of pipes = 1  Required pipe flow  =     3.964(CFS)
Given pipe size =     18.00(In.)
Calculated individual pipe flow  =     3.964(CFS)
Normal flow depth in pipe =    8.72(In.)
Flow top width inside pipe =   17.99(In.)
Critical Depth =    9.14(In.)
Pipe flow velocity =      4.67(Ft/s)
Travel time through pipe =    0.22 min.
Time of concentration (TC) =    10.62 min.


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station        1.030 to Point/Station        1.040
**** PIPEFLOW TRAVEL TIME (User specified size) ****
______________________________________________________________________________
Upstream point/station elevation =   809.000(Ft.)
Downstream point/station elevation =   806.300(Ft.)
Pipe length  =   346.00(Ft.)   Manning's N = 0.013
No. of pipes = 1  Required pipe flow  =     3.964(CFS)
Given pipe size =     18.00(In.)
Calculated individual pipe flow  =     3.964(CFS)
Normal flow depth in pipe =    8.21(In.)
Flow top width inside pipe =   17.93(In.)
Critical Depth =    9.14(In.)
Pipe flow velocity =      5.04(Ft/s)
Travel time through pipe =    1.14 min.
Time of concentration (TC) =    11.76 min.


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station        1.030 to Point/Station        1.040
**** CONFLUENCE OF MAIN STREAMS ****
______________________________________________________________________________
The following data inside Main Stream is listed:
In Main Stream number: 1
Stream flow area =      1.770(Ac.)
Runoff from this stream =      3.964(CFS)
Time of concentration =   11.76 min.
```

```
Rainfall intensity =     2.472(In/Hr)
Area averaged loss rate (Fm) =    0.1744(In/Hr)
Area averaged Pervious ratio (Ap) = 0.2000
Program is now starting with Main Stream No. 2


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station        2.010 to Point/Station        2.020
**** INITIAL AREA EVALUATION ****
________________________________________________________________________
APARTMENT subarea type
Decimal fraction soil group A = 0.000
Decimal fraction soil group B = 1.000
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.000
SCS curve number for soil(AMC 2)  = 56.00
Pervious ratio(Ap) = 0.2000     Max loss rate(Fm)=     0.147(In/Hr)
Initial subarea data:
Initial area flow distance =   376.000(Ft.)
Top (of initial area) elevation =   820.100(Ft.)
Bottom (of initial area) elevation =   815.600(Ft.)
Difference in elevation =     4.500(Ft.)
Slope =    0.01197  s(%)=       1.20
TC = k(0.324)*[(length^3)/(elevation change)]^0.2
Initial area time of concentration =    8.414 min.
Rainfall intensity =      3.022(In/Hr) for a    10.0 year storm
Effective runoff coefficient used for area (Q=KCIA) is C = 0.856
Subarea runoff =      3.779(CFS)
Total initial stream area =        1.460(Ac.)
Pervious area fraction = 0.200
Initial area Fm value =    0.147(In/Hr)


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station        2.020 to Point/Station        2.030
**** PIPEFLOW TRAVEL TIME (User specified size) ****
________________________________________________________________________
Upstream point/station elevation =   809.600(Ft.)
Downstream point/station elevation =   809.200(Ft.)
Pipe length  =    77.00(Ft.)   Manning's N = 0.013
No. of pipes = 1  Required pipe flow  =     3.779(CFS)
Given pipe size =     18.00(In.)
Calculated individual pipe flow  =     3.779(CFS)
Normal flow depth in pipe =    8.99(In.)
Flow top width inside pipe =   18.00(In.)
Critical Depth =    8.92(In.)
Pipe flow velocity =      4.28(Ft/s)
Travel time through pipe =    0.30 min.
Time of concentration (TC) =     8.71 min.
```

```
++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station        2.030 to Point/Station        2.040
**** PIPEFLOW TRAVEL TIME (User specified size) ****
______________________________________________________________________________
Upstream point/station elevation =   807.800(Ft.)
Downstream point/station elevation =   806.500(Ft.)
Pipe length  =   262.00(Ft.)   Manning's N = 0.013
No. of pipes = 1  Required pipe flow  =     3.779(CFS)
Given pipe size =     18.00(In.)
Calculated individual pipe flow  =     3.779(CFS)
Normal flow depth in pipe =    9.12(In.)
Flow top width inside pipe =   18.00(In.)
Critical Depth =    8.92(In.)
Pipe flow velocity =      4.21(Ft/s)
Travel time through pipe =    1.04 min.
Time of concentration (TC) =     9.75 min.


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station        2.030 to Point/Station        2.040
**** CONFLUENCE OF MINOR STREAMS ****
______________________________________________________________________________
Along Main Stream number: 2 in normal stream number 1
Stream flow area =      1.460(Ac.)
Runoff from this stream =      3.779(CFS)
Time of concentration =    9.75 min.
Rainfall intensity =     2.767(In/Hr)
Area averaged loss rate (Fm) =    0.1468(In/Hr)
Area averaged Pervious ratio (Ap) = 0.2000


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station        3.010 to Point/Station        3.020
**** INITIAL AREA EVALUATION ****
______________________________________________________________________________
APARTMENT subarea type
Decimal fraction soil group A = 0.000
Decimal fraction soil group B = 1.000
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.000
SCS curve number for soil(AMC 2)  = 56.00
Pervious ratio(Ap) = 0.2000     Max loss rate(Fm)=     0.147(In/Hr)
Initial subarea data:
Initial area flow distance =   293.000(Ft.)
Top (of initial area) elevation =   817.700(Ft.)
Bottom (of initial area) elevation =   815.100(Ft.)
Difference in elevation =     2.600(Ft.)
Slope =    0.00887  s(%)=       0.89
TC = k(0.324)*[(length^3)/(elevation change)]^0.2
```

```
Initial area time of concentration =    8.085 min.
Rainfall intensity =      3.096(In/Hr) for a    10.0 year storm
Effective runoff coefficient used for area (Q=KCIA) is C = 0.857
Subarea runoff =      3.981(CFS)
Total initial stream area =        1.500(Ac.)
Pervious area fraction = 0.200
Initial area Fm value =    0.147(In/Hr)


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station        3.020 to Point/Station        3.030
**** PIPEFLOW TRAVEL TIME (User specified size) ****
______________________________________________________________________________
Upstream point/station elevation =   810.100(Ft.)
Downstream point/station elevation =   809.200(Ft.)
Pipe length  =   181.00(Ft.)   Manning's N = 0.013
No. of pipes = 1  Required pipe flow  =     3.981(CFS)
Given pipe size =     18.00(In.)
Calculated individual pipe flow  =     3.981(CFS)
Normal flow depth in pipe =    9.40(In.)
Flow top width inside pipe =   17.98(In.)
Critical Depth =    9.15(In.)
Pipe flow velocity =      4.27(Ft/s)
Travel time through pipe =    0.71 min.
Time of concentration (TC) =     8.79 min.


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station        3.030 to Point/Station        2.040
**** PIPEFLOW TRAVEL TIME (User specified size) ****
______________________________________________________________________________
Upstream point/station elevation =   807.900(Ft.)
Downstream point/station elevation =   806.500(Ft.)
Pipe length  =    16.00(Ft.)   Manning's N = 0.013
No. of pipes = 1  Required pipe flow  =     3.981(CFS)
Given pipe size =     18.00(In.)
Calculated individual pipe flow  =     3.981(CFS)
Normal flow depth in pipe =    4.35(In.)
Flow top width inside pipe =   15.41(In.)
Critical Depth =    9.15(In.)
Pipe flow velocity =     12.08(Ft/s)
Travel time through pipe =    0.02 min.
Time of concentration (TC) =     8.81 min.


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station        3.030 to Point/Station        2.040
**** CONFLUENCE OF MINOR STREAMS ****
______________________________________________________________________________
Along Main Stream number: 2 in normal stream number 2
```

```
Stream flow area =      1.500(Ac.)
Runoff from this stream =      3.981(CFS)
Time of concentration =    8.81 min.
Rainfall intensity =     2.940(In/Hr)
Area averaged loss rate (Fm) =    0.1468(In/Hr)
Area averaged Pervious ratio (Ap) = 0.2000
Summary of stream data:

Stream Flow rate    Area    TC     Fm       Rainfall Intensity
 No.    (CFS)   (Ac.)       (min) (In/Hr)     (In/Hr)


1      3.78     1.460      9.75    0.147      2.767
2      3.98     1.500      8.81    0.147      2.940
Qmax(1) =
           1.000 *    1.000 *     3.779) +
           0.938 *    1.000 *     3.981) + =       7.513
Qmax(2) =
           1.066 *    0.904 *     3.779) +
           1.000 *    1.000 *     3.981) + =       7.622

Total of 2 streams to confluence:
Flow rates before confluence point:
       3.779       3.981
Maximum flow rates at confluence using above data:
        7.513        7.622
Area of streams before confluence:
        1.460        1.500
Effective area values after confluence:
        2.960        2.820
Results of confluence:
Total flow rate =      7.622(CFS)
Time of concentration =     8.814 min.
Effective stream area after confluence =      2.820(Ac.)
Study area average Pervious fraction(Ap) =  0.200
Study area average soil loss rate(Fm) =    0.147(In/Hr)
Study area total (this main stream) =       2.96(Ac.)


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station        2.040 to Point/Station        1.040
**** PIPEFLOW TRAVEL TIME (User specified size) ****
________________________________________________________________________
Upstream point/station elevation =   806.500(Ft.)
Downstream point/station elevation =   806.300(Ft.)
Pipe length  =    42.00(Ft.)   Manning's N = 0.013
No. of pipes = 1  Required pipe flow  =     7.622(CFS)
Given pipe size =     24.00(In.)
Calculated individual pipe flow  =     7.622(CFS)
Normal flow depth in pipe =   11.84(In.)
```

```
Flow top width inside pipe =   24.00(In.)
Critical Depth =   11.78(In.)
Pipe flow velocity =      4.94(Ft/s)
Travel time through pipe =    0.14 min.
Time of concentration (TC) =     8.96 min.


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station        2.040 to Point/Station        1.040
**** CONFLUENCE OF MAIN STREAMS ****
________________________________________________________________________
The following data inside Main Stream is listed:
In Main Stream number: 2
Stream flow area =      2.820(Ac.)
Runoff from this stream =      7.622(CFS)
Time of concentration =    8.96 min.
Rainfall intensity =     2.912(In/Hr)
Area averaged loss rate (Fm) =    0.1468(In/Hr)
Area averaged Pervious ratio (Ap) = 0.2000
Summary of stream data:

Stream Flow rate    Area    TC     Fm       Rainfall Intensity
 No.    (CFS)   (Ac.)       (min) (In/Hr)     (In/Hr)


1      3.96     1.770     11.76    0.174      2.472
2      7.62     2.820      8.96    0.147      2.912
Qmax(1) =
           1.000 *    1.000 *     3.964) +
           0.841 *    1.000 *     7.622) + =      10.375
Qmax(2) =
           1.191 *    0.761 *     3.964) +
           1.000 *    1.000 *     7.622) + =      11.217

Total of 2 main streams to confluence:
Flow rates before confluence point:
       4.964       8.622
Maximum flow rates at confluence using above data:
       10.375       11.217
Area of streams before confluence:
        1.770        2.820
Effective area values after confluence:
        4.590        4.167


Results of confluence:
Total flow rate =     11.217(CFS)
Time of concentration =     8.955 min.
Effective stream area after confluence  =      4.167(Ac.)
Study area average Pervious fraction(Ap) =  0.200
```

```
Study area average soil loss rate(Fm) =    0.157(In/Hr)
Study area total =       4.59(Ac.)


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station        1.040 to Point/Station        1.050
**** PIPEFLOW TRAVEL TIME (User specified size) ****
______________________________________________________________________________
Upstream point/station elevation =   806.300(Ft.)
Downstream point/station elevation =   805.800(Ft.)
Pipe length  =   100.00(Ft.)   Manning's N = 0.013
No. of pipes = 1  Required pipe flow  =    11.217(CFS)
Given pipe size =     30.00(In.)
Calculated individual pipe flow  =    11.217(CFS)
Normal flow depth in pipe =   12.95(In.)
Flow top width inside pipe =   29.72(In.)
Critical Depth =   13.45(In.)
Pipe flow velocity =      5.53(Ft/s)
Travel time through pipe =    0.30 min.
Time of concentration (TC) =     9.26 min.


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station        4.010 to Point/Station        4.020
**** INITIAL AREA EVALUATION ****
______________________________________________________________________________
APARTMENT subarea type
Decimal fraction soil group A = 0.000
Decimal fraction soil group B = 1.000
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.000
SCS curve number for soil(AMC 2)  = 56.00
Pervious ratio(Ap) = 0.2000     Max loss rate(Fm)=     0.147(In/Hr)
Initial subarea data:
Initial area flow distance =   641.000(Ft.)
Top (of initial area) elevation =   816.000(Ft.)
Bottom (of initial area) elevation =   809.400(Ft.)
Difference in elevation =     6.600(Ft.)
Slope =    0.01030  s(%)=       1.03
TC = k(0.324)*[(length^3)/(elevation change)]^0.2
Initial area time of concentration =   10.734 min.
Rainfall intensity =      2.612(In/Hr) for a    10.0 year storm
Effective runoff coefficient used for area (Q=KCIA) is C = 0.849
Subarea runoff =      2.928(CFS)
Total initial stream area =        1.320(Ac.)
Pervious area fraction = 0.200
Initial area Fm value =    0.147(In/Hr)


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
```

```
Process from Point/Station        5.010 to Point/Station        5.020
**** INITIAL AREA EVALUATION ****
____________________________________________________________________________
APARTMENT subarea type
Decimal fraction soil group A = 0.000
Decimal fraction soil group B = 1.000
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.000
SCS curve number for soil(AMC 2)  = 56.00
Pervious ratio(Ap) = 0.2000     Max loss rate(Fm)=     0.147(In/Hr)
Initial subarea data:
Initial area flow distance =   269.000(Ft.)
Top (of initial area) elevation =   813.700(Ft.)
Bottom (of initial area) elevation =   809.800(Ft.)
Difference in elevation =     3.900(Ft.)
Slope =    0.01450  s(%)=       1.45
TC = k(0.324)*[(length^3)/(elevation change)]^0.2
Initial area time of concentration =    7.082 min.
Rainfall intensity =      3.352(In/Hr) for a    10.0 year storm
Effective runoff coefficient used for area (Q=KCIA) is C = 0.861
Subarea runoff =      1.558(CFS)
Total initial stream area =        0.540(Ac.)
Pervious area fraction = 0.200
Initial area Fm value =    0.147(In/Hr)


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station        6.010 to Point/Station        6.020
**** INITIAL AREA EVALUATION ****
____________________________________________________________________________
APARTMENT subarea type
Decimal fraction soil group A = 0.000
Decimal fraction soil group B = 1.000
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.000
SCS curve number for soil(AMC 2)  = 56.00
Pervious ratio(Ap) = 0.2000     Max loss rate(Fm)=     0.147(In/Hr)
Initial subarea data:
Initial area flow distance =   269.000(Ft.)
Top (of initial area) elevation =   813.900(Ft.)
Bottom (of initial area) elevation =   810.200(Ft.)
Difference in elevation =     3.700(Ft.)
Slope =    0.01375  s(%)=       1.38
TC = k(0.324)*[(length^3)/(elevation change)]^0.2
Initial area time of concentration =    7.157 min.
Rainfall intensity =      3.331(In/Hr) for a    10.0 year storm
Effective runoff coefficient used for area (Q=KCIA) is C = 0.860
Subarea runoff =      1.175(CFS)
Total initial stream area =        0.410(Ac.)
Pervious area fraction = 0.200
```

```
Initial area Fm value =    0.147(In/Hr)


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station        7.010 to Point/Station        7.020
**** INITIAL AREA EVALUATION ****
______________________________________________________________________________
APARTMENT subarea type
Decimal fraction soil group A = 0.000
Decimal fraction soil group B = 1.000
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.000
SCS curve number for soil(AMC 2)  = 56.00
Pervious ratio(Ap) = 0.2000     Max loss rate(Fm)=     0.147(In/Hr)
Initial subarea data:
Initial area flow distance =   284.000(Ft.)
Top (of initial area) elevation =   816.200(Ft.)
Bottom (of initial area) elevation =   810.700(Ft.)
Difference in elevation =     5.500(Ft.)
Slope =    0.01937  s(%)=       1.94
TC = k(0.324)*[(length^3)/(elevation change)]^0.2
Initial area time of concentration =    6.831 min.
Rainfall intensity =      3.425(In/Hr) for a    10.0 year storm
Effective runoff coefficient used for area (Q=KCIA) is C = 0.861
Subarea runoff =      2.774(CFS)
Total initial stream area =        0.940(Ac.)
Pervious area fraction = 0.200
Initial area Fm value =    0.147(In/Hr)


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station        8.010 to Point/Station        8.020
**** INITIAL AREA EVALUATION ****
______________________________________________________________________________
APARTMENT subarea type
Decimal fraction soil group A = 0.000
Decimal fraction soil group B = 1.000
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.000
SCS curve number for soil(AMC 2)  = 56.00
Pervious ratio(Ap) = 0.2000     Max loss rate(Fm)=     0.147(In/Hr)
Initial subarea data:
Initial area flow distance =   204.000(Ft.)
Top (of initial area) elevation =   817.400(Ft.)
Bottom (of initial area) elevation =   814.900(Ft.)
Difference in elevation =     2.500(Ft.)
Slope =    0.01225  s(%)=       1.23
TC = k(0.324)*[(length^3)/(elevation change)]^0.2
Initial area time of concentration =    6.557 min.
Rainfall intensity =      3.510(In/Hr) for a    10.0 year storm
```

```
Effective runoff coefficient used for area (Q=KCIA) is C = 0.862
Subarea runoff =      2.089(CFS)
Total initial stream area =        0.690(Ac.)
Pervious area fraction = 0.200
Initial area Fm value =    0.147(In/Hr)


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station        8.020 to Point/Station        8.030
**** PIPEFLOW TRAVEL TIME (User specified size) ****
________________________________________________________________________
Upstream point/station elevation =   812.700(Ft.)
Downstream point/station elevation =   811.900(Ft.)
Pipe length  =   110.00(Ft.)   Manning's N = 0.013
No. of pipes = 1  Required pipe flow  =     2.089(CFS)
Given pipe size =     12.00(In.)
Calculated individual pipe flow  =     2.089(CFS)
Normal flow depth in pipe =    7.31(In.)
Flow top width inside pipe =   11.71(In.)
Critical Depth =    7.41(In.)
Pipe flow velocity =      4.17(Ft/s)
Travel time through pipe =    0.44 min.
Time of concentration (TC) =     7.00 min.


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station        9.010 to Point/Station        9.020
**** INITIAL AREA EVALUATION ****
________________________________________________________________________
APARTMENT subarea type
Decimal fraction soil group A = 0.850
Decimal fraction soil group B = 0.150
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.000
SCS curve number for soil(AMC 2)  = 35.60
Pervious ratio(Ap) = 0.2000     Max loss rate(Fm)=     0.191(In/Hr)
Initial subarea data:
Initial area flow distance =   340.000(Ft.)
Top (of initial area) elevation =   824.000(Ft.)
Bottom (of initial area) elevation =   818.400(Ft.)
Difference in elevation =     5.600(Ft.)
Slope =    0.01647  s(%)=       1.65
TC = k(0.324)*[(length^3)/(elevation change)]^0.2
Initial area time of concentration =    7.582 min.
Rainfall intensity =      3.217(In/Hr) for a    10.0 year storm
Effective runoff coefficient used for area (Q=KCIA) is C = 0.847
Subarea runoff =      2.642(CFS)
Total initial stream area =        0.970(Ac.)
Pervious area fraction = 0.200
Initial area Fm value =    0.191(In/Hr)
```

```
++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station        9.020 to Point/Station        9.030
**** PIPEFLOW TRAVEL TIME (User specified size) ****
______________________________________________________________________________
Upstream point/station elevation =   815.300(Ft.)
Downstream point/station elevation =   815.200(Ft.)
Pipe length  =    30.00(Ft.)   Manning's N = 0.013
No. of pipes = 1  Required pipe flow  =     2.642(CFS)
Given pipe size =     18.00(In.)
Calculated individual pipe flow  =     2.642(CFS)
Normal flow depth in pipe =    8.31(In.)
Flow top width inside pipe =   17.95(In.)
Critical Depth =    7.38(In.)
Pipe flow velocity =      3.31(Ft/s)
Travel time through pipe =    0.15 min.
Time of concentration (TC) =     7.73 min.


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station        9.030 to Point/Station        9.040
**** PIPEFLOW TRAVEL TIME (User specified size) ****
______________________________________________________________________________
Upstream point/station elevation =   813.800(Ft.)
Downstream point/station elevation =   813.600(Ft.)
Pipe length  =    49.00(Ft.)   Manning's N = 0.013
No. of pipes = 1  Required pipe flow  =     2.642(CFS)
Given pipe size =     18.00(In.)
Calculated individual pipe flow  =     2.642(CFS)
Normal flow depth in pipe =    7.85(In.)
Flow top width inside pipe =   17.85(In.)
Critical Depth =    7.38(In.)
Pipe flow velocity =      3.57(Ft/s)
Travel time through pipe =    0.23 min.
Time of concentration (TC) =     7.96 min.
End of computations, Total Study Area =            9.60 (Ac.)
The following figures may
be used for a unit hydrograph study of the same area.
Note: These figures do not consider reduced effective area
effects caused by confluences in the rational equation.

Area averaged pervious area fraction(Ap) = 0.200
Area averaged SCS curve number =  51.8
```

Worksheet for PARKWAY DRAIN-1

Project Description	
Friction Method	Manning Formula
Solve For	Full Flow Capacity

Input Data	
Roughness Coefficient	0.015
Channel Slope	0.020 ft/ft
Normal Depth	3.0 in
Height	0.3 ft
Bottom Width	6.00 ft
Discharge	5.11 cfs

Results	
Flow Area	1.5 ft²
Wetted Perimeter	12.5 ft
Hydraulic Radius	1.4 in
Top Width	6.00 ft
Critical Depth	3.0 in
Percent Full	100.0 %
Critical Slope	0.020 ft/ft
Velocity	3.41 ft/s
Velocity Head	0.18 ft
Specific Energy	0.43 ft
Froude Number	1.202
Discharge Full	5.11 cfs
Slope Full	0.020 ft/ft
Flow Type	Critical

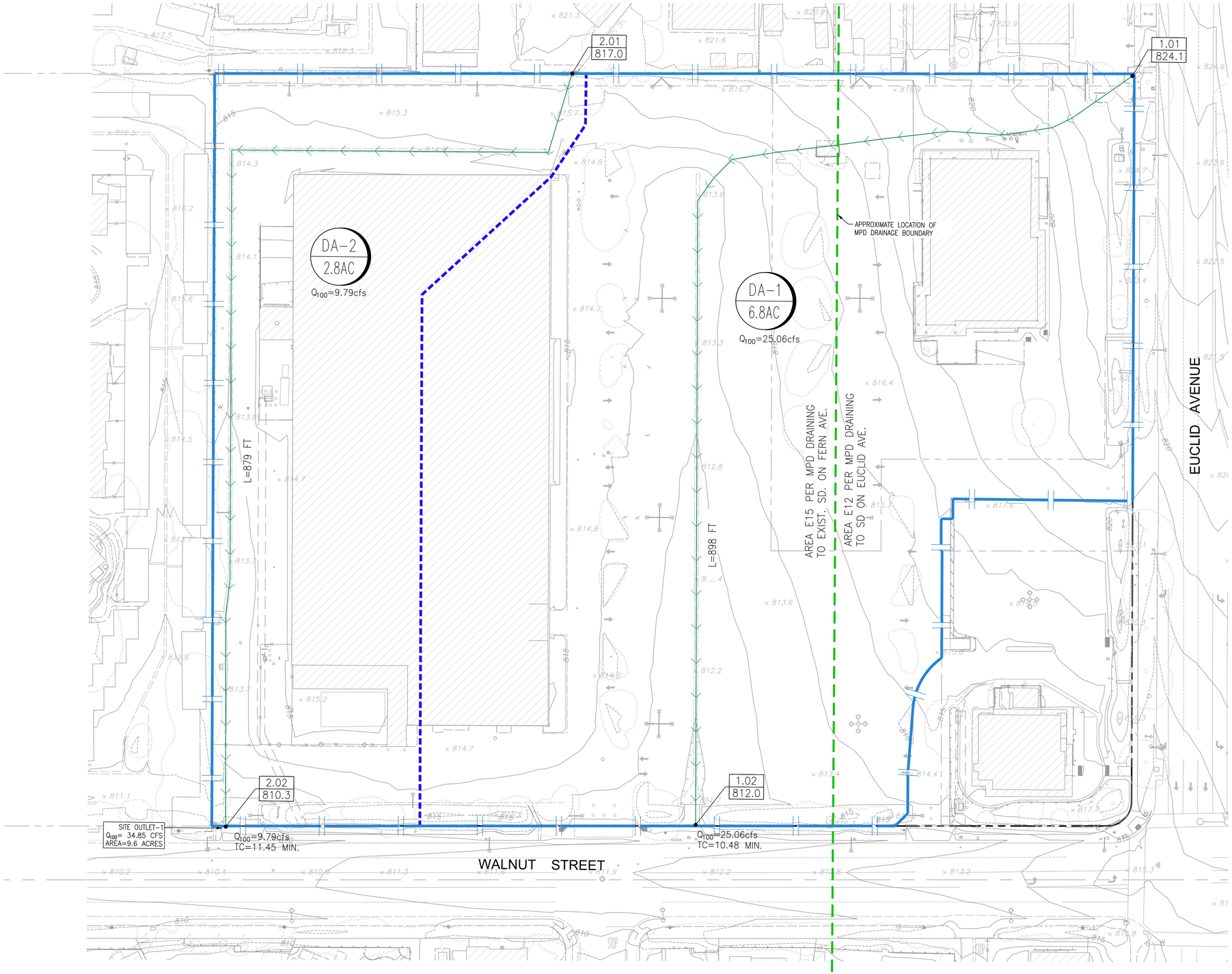
GVF Input Data	
Downstream Depth	0.0 in
Length	0.0 ft
Number Of Steps	0

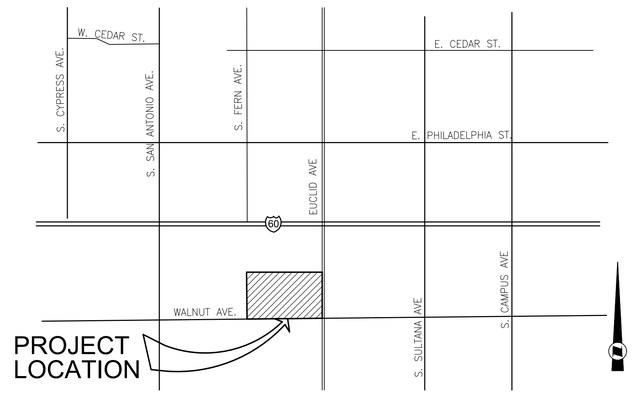
GVF Output Data	
Upstream Depth	0.0 in
Profile Description	N/A
Profile Headloss	0.00 ft
Average End Depth Over Rise	0.0 %
Normal Depth Over Rise	100.0 %
Downstream Velocity	Infinity ft/s
Upstream Velocity	Infinity ft/s
Normal Depth	3.0 in
Critical Depth	3.0 in
Channel Slope	0.020 ft/ft
Critical Slope	0.020 ft/ft

APPENDIX 4

HYDROLOGY MAPS:
PRE AND POST DEVELOPMENT PLANS

PRE DEVELOPMENT DRAINAGE MAP
WALNUT & EUCLID MIXED USE
ONTARIO, CA





VICINITY MAP
NOT TO SCALE

LEGEND

- PROJECT BOUNDARY
- DRAINAGE AREA BOUNDARY
- AREA–E15 / AREA–E12 — DRAINAGE BOUNDARY PER MASTER PLAN OF DRAINAGE (MPD)
- DA# / X AC (SUB–AREA (ACRES) / SUB AREA) — DRAINAGE AREA ID AND INFO.
- # / EL (NODE# / POINT ELEVATION) — NODE ID AND ELEVATION
- RUNOFF CONVEYANCE LINE (SURFACE)
- L=XXX' — RUNOFF CONVEYANCE LENGTH

PRE CONSTRUCTION FLOW CALCULATION		
DRAINAGE AREA ID	ACRE	Q100 (cfs)
DA-1	6.8	25.06
DA-2	2.8	9.79
TOTAL AT OUTLET -1 DRAINING TO SYSTEM "FERN-VII-1" PER MPD	9.6	34.85
TOTAL FLOW LEAVING SITE AT PRE CONSTRUCTION =	9.6	34.85

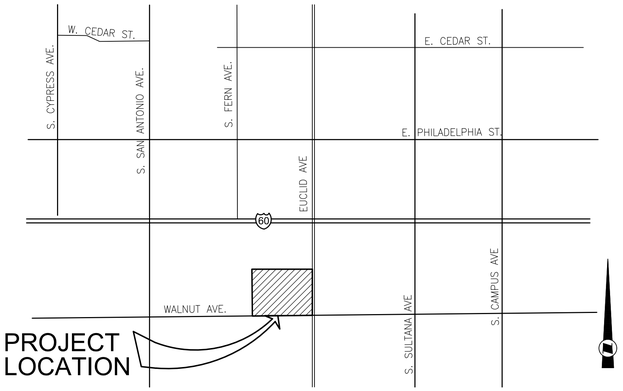
N

Scale: 1" = 40'
Exhibit Date:4-26-2023

PROJECT SITE
EUCLID AND WALNUT MIXED USE
NW CORNER OF E. EUCLID
AND WALNUT STREET
ONTARIO, CA

FUSCOE ENGINEERING
full circle thinking

POST DEVELOPMENT DRAINAGE MAP
WALNUT & EUCLID MIXED USE
ONTARIO, CA



VICINITY MAP
NOT TO SCALE

LEGEND

- PROJECT BOUNDARY
- DRAINAGE AREA BOUNDARY
- AREA–E15 / AREA–E12 — DRAINAGE BOUNDARY PER MASTER PLAN OF DRAINAGE (MPD)
- DA# / X AC / SUB AREA — SUB-AREA (ACRES); DRAINAGE AREA ID AND INFO.
- # / EL — NODE# / POINT ELEVATION — NODE ID AND ELEVATION
- RUNOFF CONVEYANCE LINE (SURFACE)
- RUNOFF CONVEYANCE LINE (SD PIPE)
- L=XXX' — RUNOFF CONVEYANCE LENGTH
- TEMPORARY UNDERGROUND STORAGE CHAMBER TO ATTENUATE ONSITE FLOODING
- MODULAR WETLAND TO MITIGATE PROJECT WATER QUALITY REQUIREMENTS

POST CONSTRUCTION FLOW CALCULATION							
DRAINAGE AREA ID	ACRE	Q100 (cfs)	Q100 (cfs) LEAVING SITE	DRAINAGE AREA ID	ACRE	Q100 (cfs)	Q100 (cfs) LEAVING SITE
DA-1 TO DA-3	4.73	17.71	5.11 *	DA-9	0.97	4.18	4.18
DA-4	1.32	4.63	4.63				
DA-5	0.54	2.45	2.45				
DA-6	0.41	1.85	1.85				
DA-7.1	0.75	3.44	3.44				
DA-7.2	0.19	0.92	0.92				
DA-8	0.69	3.28	3.28				
TOTAL AT OUTLET -1 DRAINING TOSYSTEM "FERN-VII-1" PER MPD	8.63	34.28	21.68	**TOTAL AT OUTLET -2 DRAINING TO SYSTEM "EULD-VII-1" PER MPD**	0.97	4.18	4.18
TOTAL FLOW LEAVING SITE AT POST CONSTRUCTION =	9.6		25.86				

* THE HIGHER FLOW 5.11 cfs IS TAKEN INTO CONSIDERATION. OUT OF FLOW CAPACITY OF THE PROPOSED PUMP SYSTEM (0.51 cfs) OR FLOW CAPACITY OF THE PARKWAY DRAIN–1 (5.11 cfs).

N

Scale: 1" = 40'
Exhibit Date: 4-26-2023

PROJECT SITE
EUCLID AND WALNUT MIXED USE
NW CORNER OF E. EUCLID
AND WALNUT STREET
ONTARIO, CA

FUSCOE ENGINEERING
full circle thinking

APPENDIX 5

UNIT HYDROGRAPH, ROUTING CALCULATION AND TEMPORARY DETENTION SYSTEM

U n i t H y d r o g r a p h A n a l y s i s

Copyright (c) CIVILCADD/CIVILDESIGN, 1989 - 2004, Version 7.0

Study date 04/25/23

++

San Bernardino County Synthetic Unit Hydrology Method
Manual date - August 1986

Program License Serial Number 6049

UNIT HYDROGRAPH, DRAIN-1
100-YEAR EVENT
POST CONSTRUCTION
EUCLID AND WALNUT

Storm Event Year = 100

Antecedent Moisture Condition = 2

English (in-lb) Input Units Used

English Rainfall Data (Inches) Input Values Used

English Units used in output format

Area averaged rainfall intensity isohyetal data:

Sub-Area (Ac.)	Duration (hours)	Isohyetal (In)
Rainfall data for year 100		
4.73	1	1.44
Rainfall data for year 100		
4.73	6	3.49
Rainfall data for year 100		
4.73	24	6.32

++

******** Area-averaged max loss rate, Fm ********

SCS curve No.(AMCII)	SCS curve NO.(AMC 2)	Area (Ac.)	Area Fraction	Fp(Fig C6) (In/Hr)	Ap (dec.)	Fm (In/Hr)
51.8	51.8	4.73	1.000	0.788	0.200	0.158

Area-averaged adjusted loss rate Fm (In/Hr) = 0.158

********* Area-Averaged low loss rate fraction, Yb **********

Area (Ac.)	Area Fract	SCS CN (AMC2)	SCS CN (AMC2)	S	Pervious Yield Fr
0.95	0.200	51.8	51.8	9.31	0.229
3.78	0.800	98.0	98.0	0.20	0.962

Area-averaged catchment yield fraction, Y = 0.816
Area-averaged low loss fraction, Yb = 0.184
User entry of time of concentration = 0.145 (hours)
++
Watershed area = 4.73(Ac.)
Catchment Lag time = 0.116 hours
Unit interval = 5.000 minutes
Unit interval percentage of lag time = 71.8391
Hydrograph baseflow = 0.00(CFS)
Average maximum watershed loss rate(Fm) = 0.158(In/Hr)
Average low loss rate fraction (Yb) = 0.184 (decimal)
VALLEY DEVELOPED S-Graph Selected
Computed peak 5-minute rainfall = 0.533(In)
Computed peak 30-minute rainfall = 1.091(In)
Specified peak 1-hour rainfall = 1.440(In)
Computed peak 3-hour rainfall = 2.478(In)
Specified peak 6-hour rainfall = 3.490(In)
Specified peak 24-hour rainfall = 6.320(In)

Rainfall depth area reduction factors:
Using a total area of 4.73(Ac.) (Ref: fig. E-4)

5-minute factor = 1.000 Adjusted rainfall = 0.533(In)
30-minute factor = 1.000 Adjusted rainfall = 1.091(In)
1-hour factor = 1.000 Adjusted rainfall = 1.440(In)
3-hour factor = 1.000 Adjusted rainfall = 2.478(In)
6-hour factor = 1.000 Adjusted rainfall = 3.490(In)
24-hour factor = 1.000 Adjusted rainfall = 6.320(In)

U n i t H y d r o g r a p h
++

Interval Number	'S' Graph Mean values	Unit Hydrograph ((CFS))
	(K = 57.20 (CFS))	
1	9.222	5.275
2	55.464	26.452
3	90.385	19.976
4	98.145	4.439
5	100.000	1.061

Peak Unit Number	Adjusted mass rainfall (In)	Unit rainfall (In)
1	0.5328	0.5328
2	0.7031	0.1702
3	0.8269	0.1238
4	0.9277	0.1008
5	1.0143	0.0866
6	1.0911	0.0767
7	1.1605	0.0694
8	1.2241	0.0637
9	1.2832	0.0591
10	1.3384	0.0552
11	1.3904	0.0520
12	1.4397	0.0492
13	1.4978	0.0581
14	1.5537	0.0559
15	1.6075	0.0539
16	1.6597	0.0521
17	1.7101	0.0505
18	1.7591	0.0490
19	1.8068	0.0476
20	1.8532	0.0464
21	1.8984	0.0452
22	1.9426	0.0442
23	1.9857	0.0432
24	2.0279	0.0422
25	2.0692	0.0413
26	2.1097	0.0405
27	2.1495	0.0397
28	2.1885	0.0390
29	2.2267	0.0383
30	2.2644	0.0376
31	2.3014	0.0370
32	2.3378	0.0364
33	2.3736	0.0358
34	2.4089	0.0353
35	2.4436	0.0348
36	2.4779	0.0343
37	2.5117	0.0338

38	2.5450	0.0333
39	2.5779	0.0329
40	2.6103	0.0324
41	2.6423	0.0320
42	2.6740	0.0316
43	2.7053	0.0313
44	2.7362	0.0309
45	2.7667	0.0306
46	2.7969	0.0302
47	2.8268	0.0299
48	2.8564	0.0296
49	2.8856	0.0292
50	2.9146	0.0289
51	2.9432	0.0287
52	2.9716	0.0284
53	2.9997	0.0281
54	3.0275	0.0278
55	3.0551	0.0276
56	3.0824	0.0273
57	3.1095	0.0271
58	3.1363	0.0268
59	3.1629	0.0266
60	3.1893	0.0264
61	3.2155	0.0262
62	3.2414	0.0259
63	3.2671	0.0257
64	3.2926	0.0255
65	3.3180	0.0253
66	3.3431	0.0251
67	3.3680	0.0249
68	3.3928	0.0247
69	3.4173	0.0246
70	3.4417	0.0244
71	3.4659	0.0242
72	3.4899	0.0240
73	3.5106	0.0207
74	3.5311	0.0205
75	3.5515	0.0204
76	3.5717	0.0202
77	3.5918	0.0201
78	3.6117	0.0199
79	3.6314	0.0198
80	3.6511	0.0196
81	3.6705	0.0195
82	3.6899	0.0193
83	3.7091	0.0192
84	3.7282	0.0191
85	3.7471	0.0189
86	3.7659	0.0188
87	3.7846	0.0187

88	3.8032	0.0186
89	3.8217	0.0185
90	3.8400	0.0183
91	3.8582	0.0182
92	3.8763	0.0181
93	3.8943	0.0180
94	3.9122	0.0179
95	3.9300	0.0178
96	3.9476	0.0177
97	3.9652	0.0176
98	3.9827	0.0175
99	4.0000	0.0174
100	4.0173	0.0173
101	4.0344	0.0172
102	4.0515	0.0171
103	4.0685	0.0170
104	4.0853	0.0169
105	4.1021	0.0168
106	4.1188	0.0167
107	4.1354	0.0166
108	4.1519	0.0165
109	4.1683	0.0164
110	4.1847	0.0163
111	4.2009	0.0163
112	4.2171	0.0162
113	4.2332	0.0161
114	4.2492	0.0160
115	4.2651	0.0159
116	4.2810	0.0158
117	4.2967	0.0158
118	4.3124	0.0157
119	4.3281	0.0156
120	4.3436	0.0155
121	4.3591	0.0155
122	4.3745	0.0154
123	4.3898	0.0153
124	4.4050	0.0153
125	4.4202	0.0152
126	4.4353	0.0151
127	4.4504	0.0150
128	4.4653	0.0150
129	4.4803	0.0149
130	4.4951	0.0148
131	4.5099	0.0148
132	4.5246	0.0147
133	4.5392	0.0147
134	4.5538	0.0146
135	4.5684	0.0145
136	4.5828	0.0145
137	4.5972	0.0144

138	4.6116	0.0143
139	4.6259	0.0143
140	4.6401	0.0142
141	4.6543	0.0142
142	4.6684	0.0141
143	4.6824	0.0141
144	4.6964	0.0140
145	4.7104	0.0139
146	4.7242	0.0139
147	4.7381	0.0138
148	4.7519	0.0138
149	4.7656	0.0137
150	4.7793	0.0137
151	4.7929	0.0136
152	4.8065	0.0136
153	4.8200	0.0135
154	4.8334	0.0135
155	4.8469	0.0134
156	4.8602	0.0134
157	4.8736	0.0133
158	4.8868	0.0133
159	4.9001	0.0132
160	4.9132	0.0132
161	4.9264	0.0131
162	4.9394	0.0131
163	4.9525	0.0130
164	4.9655	0.0130
165	4.9784	0.0129
166	4.9913	0.0129
167	5.0042	0.0129
168	5.0170	0.0128
169	5.0298	0.0128
170	5.0425	0.0127
171	5.0552	0.0127
172	5.0678	0.0126
173	5.0804	0.0126
174	5.0930	0.0126
175	5.1055	0.0125
176	5.1180	0.0125
177	5.1304	0.0124
178	5.1428	0.0124
179	5.1552	0.0124
180	5.1675	0.0123
181	5.1798	0.0123
182	5.1920	0.0122
183	5.2042	0.0122
184	5.2164	0.0122
185	5.2285	0.0121
186	5.2406	0.0121
187	5.2526	0.0121

188	5.2646	0.0120
189	5.2766	0.0120
190	5.2886	0.0119
191	5.3005	0.0119
192	5.3123	0.0119
193	5.3242	0.0118
194	5.3360	0.0118
195	5.3477	0.0118
196	5.3595	0.0117
197	5.3712	0.0117
198	5.3828	0.0117
199	5.3944	0.0116
200	5.4060	0.0116
201	5.4176	0.0116
202	5.4291	0.0115
203	5.4406	0.0115
204	5.4521	0.0115
205	5.4635	0.0114
206	5.4749	0.0114
207	5.4863	0.0114
208	5.4976	0.0113
209	5.5089	0.0113
210	5.5202	0.0113
211	5.5315	0.0112
212	5.5427	0.0112
213	5.5539	0.0112
214	5.5650	0.0112
215	5.5761	0.0111
216	5.5872	0.0111
217	5.5983	0.0111
218	5.6093	0.0110
219	5.6203	0.0110
220	5.6313	0.0110
221	5.6423	0.0110
222	5.6532	0.0109
223	5.6641	0.0109
224	5.6749	0.0109
225	5.6858	0.0108
226	5.6966	0.0108
227	5.7074	0.0108
228	5.7181	0.0108
229	5.7289	0.0107
230	5.7396	0.0107
231	5.7502	0.0107
232	5.7609	0.0106
233	5.7715	0.0106
234	5.7821	0.0106
235	5.7927	0.0106
236	5.8032	0.0105
237	5.8138	0.0105

238	5.8243	0.0105
239	5.8347	0.0105
240	5.8452	0.0104
241	5.8556	0.0104
242	5.8660	0.0104
243	5.8764	0.0104
244	5.8867	0.0103
245	5.8970	0.0103
246	5.9073	0.0103
247	5.9176	0.0103
248	5.9278	0.0103
249	5.9381	0.0102
250	5.9483	0.0102
251	5.9585	0.0102
252	5.9686	0.0102
253	5.9787	0.0101
254	5.9889	0.0101
255	5.9989	0.0101
256	6.0090	0.0101
257	6.0191	0.0100
258	6.0291	0.0100
259	6.0391	0.0100
260	6.0491	0.0100
261	6.0590	0.0100
262	6.0689	0.0099
263	6.0789	0.0099
264	6.0887	0.0099
265	6.0986	0.0099
266	6.1085	0.0098
267	6.1183	0.0098
268	6.1281	0.0098
269	6.1379	0.0098
270	6.1476	0.0098
271	6.1574	0.0097
272	6.1671	0.0097
273	6.1768	0.0097
274	6.1865	0.0097
275	6.1961	0.0097
276	6.2058	0.0096
277	6.2154	0.0096
278	6.2250	0.0096
279	6.2346	0.0096
280	6.2442	0.0096
281	6.2537	0.0095
282	6.2632	0.0095
283	6.2727	0.0095
284	6.2822	0.0095
285	6.2917	0.0095
286	6.3011	0.0094
287	6.3106	0.0094

288 6.3200 0.0094

Unit Period (number)	Unit Rainfall (In)	Unit Soil-Loss (In)	Effective Rainfall (In)
1	0.0094	0.0017	0.0077
2	0.0094	0.0017	0.0077
3	0.0095	0.0017	0.0077
4	0.0095	0.0017	0.0077
5	0.0095	0.0018	0.0078
6	0.0095	0.0018	0.0078
7	0.0096	0.0018	0.0078
8	0.0096	0.0018	0.0078
9	0.0096	0.0018	0.0079
10	0.0097	0.0018	0.0079
11	0.0097	0.0018	0.0079
12	0.0097	0.0018	0.0079
13	0.0098	0.0018	0.0080
14	0.0098	0.0018	0.0080
15	0.0098	0.0018	0.0080
16	0.0098	0.0018	0.0080
17	0.0099	0.0018	0.0081
18	0.0099	0.0018	0.0081
19	0.0100	0.0018	0.0081
20	0.0100	0.0018	0.0081
21	0.0100	0.0018	0.0082
22	0.0100	0.0019	0.0082
23	0.0101	0.0019	0.0082
24	0.0101	0.0019	0.0082
25	0.0102	0.0019	0.0083
26	0.0102	0.0019	0.0083
27	0.0102	0.0019	0.0083
28	0.0103	0.0019	0.0084
29	0.0103	0.0019	0.0084
30	0.0103	0.0019	0.0084
31	0.0104	0.0019	0.0085
32	0.0104	0.0019	0.0085
33	0.0104	0.0019	0.0085
34	0.0105	0.0019	0.0085
35	0.0105	0.0019	0.0086
36	0.0105	0.0019	0.0086
37	0.0106	0.0020	0.0086
38	0.0106	0.0020	0.0087
39	0.0107	0.0020	0.0087
40	0.0107	0.0020	0.0087
41	0.0108	0.0020	0.0088
42	0.0108	0.0020	0.0088
43	0.0108	0.0020	0.0088
44	0.0109	0.0020	0.0089

45	0.0109	0.0020	0.0089
46	0.0110	0.0020	0.0089
47	0.0110	0.0020	0.0090
48	0.0110	0.0020	0.0090
49	0.0111	0.0020	0.0090
50	0.0111	0.0021	0.0091
51	0.0112	0.0021	0.0091
52	0.0112	0.0021	0.0091
53	0.0113	0.0021	0.0092
54	0.0113	0.0021	0.0092
55	0.0114	0.0021	0.0093
56	0.0114	0.0021	0.0093
57	0.0115	0.0021	0.0093
58	0.0115	0.0021	0.0094
59	0.0116	0.0021	0.0094
60	0.0116	0.0021	0.0095
61	0.0117	0.0022	0.0095
62	0.0117	0.0022	0.0095
63	0.0118	0.0022	0.0096
64	0.0118	0.0022	0.0096
65	0.0119	0.0022	0.0097
66	0.0119	0.0022	0.0097
67	0.0120	0.0022	0.0098
68	0.0120	0.0022	0.0098
69	0.0121	0.0022	0.0099
70	0.0121	0.0022	0.0099
71	0.0122	0.0023	0.0100
72	0.0122	0.0023	0.0100
73	0.0123	0.0023	0.0100
74	0.0124	0.0023	0.0101
75	0.0124	0.0023	0.0101
76	0.0125	0.0023	0.0102
77	0.0126	0.0023	0.0102
78	0.0126	0.0023	0.0103
79	0.0127	0.0023	0.0103
80	0.0127	0.0023	0.0104
81	0.0128	0.0024	0.0105
82	0.0129	0.0024	0.0105
83	0.0129	0.0024	0.0106
84	0.0130	0.0024	0.0106
85	0.0131	0.0024	0.0107
86	0.0131	0.0024	0.0107
87	0.0132	0.0024	0.0108
88	0.0133	0.0024	0.0108
89	0.0134	0.0025	0.0109
90	0.0134	0.0025	0.0109
91	0.0135	0.0025	0.0110
92	0.0136	0.0025	0.0111
93	0.0137	0.0025	0.0112
94	0.0137	0.0025	0.0112

95	0.0138	0.0026	0.0113
96	0.0139	0.0026	0.0113
97	0.0140	0.0026	0.0114
98	0.0141	0.0026	0.0115
99	0.0142	0.0026	0.0116
100	0.0142	0.0026	0.0116
101	0.0143	0.0026	0.0117
102	0.0144	0.0027	0.0117
103	0.0145	0.0027	0.0118
104	0.0146	0.0027	0.0119
105	0.0147	0.0027	0.0120
106	0.0148	0.0027	0.0121
107	0.0149	0.0028	0.0122
108	0.0150	0.0028	0.0122
109	0.0151	0.0028	0.0123
110	0.0152	0.0028	0.0124
111	0.0153	0.0028	0.0125
112	0.0154	0.0028	0.0126
113	0.0155	0.0029	0.0127
114	0.0156	0.0029	0.0127
115	0.0158	0.0029	0.0129
116	0.0158	0.0029	0.0129
117	0.0160	0.0030	0.0131
118	0.0161	0.0030	0.0131
119	0.0163	0.0030	0.0133
120	0.0163	0.0030	0.0133
121	0.0165	0.0030	0.0135
122	0.0166	0.0031	0.0135
123	0.0168	0.0031	0.0137
124	0.0169	0.0031	0.0138
125	0.0171	0.0031	0.0139
126	0.0172	0.0032	0.0140
127	0.0174	0.0032	0.0142
128	0.0175	0.0032	0.0142
129	0.0177	0.0033	0.0144
130	0.0178	0.0033	0.0145
131	0.0180	0.0033	0.0147
132	0.0181	0.0033	0.0148
133	0.0183	0.0034	0.0150
134	0.0185	0.0034	0.0150
135	0.0187	0.0034	0.0152
136	0.0188	0.0035	0.0153
137	0.0191	0.0035	0.0156
138	0.0192	0.0035	0.0157
139	0.0195	0.0036	0.0159
140	0.0196	0.0036	0.0160
141	0.0199	0.0037	0.0162
142	0.0201	0.0037	0.0164
143	0.0204	0.0038	0.0166
144	0.0205	0.0038	0.0167

145	0.0240	0.0044	0.0196
146	0.0242	0.0045	0.0197
147	0.0246	0.0045	0.0200
148	0.0247	0.0046	0.0202
149	0.0251	0.0046	0.0205
150	0.0253	0.0047	0.0206
151	0.0257	0.0047	0.0210
152	0.0259	0.0048	0.0212
153	0.0264	0.0049	0.0215
154	0.0266	0.0049	0.0217
155	0.0271	0.0050	0.0221
156	0.0273	0.0050	0.0223
157	0.0278	0.0051	0.0227
158	0.0281	0.0052	0.0229
159	0.0287	0.0053	0.0234
160	0.0289	0.0053	0.0236
161	0.0296	0.0055	0.0241
162	0.0299	0.0055	0.0244
163	0.0306	0.0056	0.0249
164	0.0309	0.0057	0.0252
165	0.0316	0.0058	0.0258
166	0.0320	0.0059	0.0261
167	0.0329	0.0061	0.0268
168	0.0333	0.0061	0.0272
169	0.0343	0.0063	0.0279
170	0.0348	0.0064	0.0283
171	0.0358	0.0066	0.0292
172	0.0364	0.0067	0.0297
173	0.0376	0.0069	0.0307
174	0.0383	0.0071	0.0312
175	0.0397	0.0073	0.0324
176	0.0405	0.0075	0.0330
177	0.0422	0.0078	0.0344
178	0.0432	0.0080	0.0352
179	0.0452	0.0083	0.0369
180	0.0464	0.0086	0.0378
181	0.0490	0.0090	0.0400
182	0.0505	0.0093	0.0412
183	0.0539	0.0099	0.0440
184	0.0559	0.0103	0.0456
185	0.0492	0.0091	0.0402
186	0.0520	0.0096	0.0424
187	0.0591	0.0109	0.0482
188	0.0637	0.0117	0.0519
189	0.0767	0.0131	0.0636
190	0.0866	0.0131	0.0735
191	0.1238	0.0131	0.1107
192	0.1702	0.0131	0.1571
193	0.5328	0.0131	0.5197
194	0.1008	0.0131	0.0877

195	0.0694	0.0128	0.0566
196	0.0552	0.0102	0.0450
197	0.0581	0.0107	0.0474
198	0.0521	0.0096	0.0425
199	0.0476	0.0088	0.0389
200	0.0442	0.0081	0.0360
201	0.0413	0.0076	0.0337
202	0.0390	0.0072	0.0318
203	0.0370	0.0068	0.0302
204	0.0353	0.0065	0.0288
205	0.0338	0.0062	0.0275
206	0.0324	0.0060	0.0265
207	0.0313	0.0058	0.0255
208	0.0302	0.0056	0.0246
209	0.0292	0.0054	0.0239
210	0.0284	0.0052	0.0231
211	0.0276	0.0051	0.0225
212	0.0268	0.0050	0.0219
213	0.0262	0.0048	0.0213
214	0.0255	0.0047	0.0208
215	0.0249	0.0046	0.0203
216	0.0244	0.0045	0.0199
217	0.0207	0.0038	0.0169
218	0.0202	0.0037	0.0165
219	0.0198	0.0036	0.0161
220	0.0193	0.0036	0.0158
221	0.0189	0.0035	0.0155
222	0.0186	0.0034	0.0151
223	0.0182	0.0034	0.0149
224	0.0179	0.0033	0.0146
225	0.0176	0.0032	0.0143
226	0.0173	0.0032	0.0141
227	0.0170	0.0031	0.0138
228	0.0167	0.0031	0.0136
229	0.0164	0.0030	0.0134
230	0.0162	0.0030	0.0132
231	0.0159	0.0029	0.0130
232	0.0157	0.0029	0.0128
233	0.0155	0.0029	0.0126
234	0.0153	0.0028	0.0124
235	0.0150	0.0028	0.0123
236	0.0148	0.0027	0.0121
237	0.0147	0.0027	0.0119
238	0.0145	0.0027	0.0118
239	0.0143	0.0026	0.0116
240	0.0141	0.0026	0.0115
241	0.0139	0.0026	0.0114
242	0.0138	0.0025	0.0112
243	0.0136	0.0025	0.0111
244	0.0135	0.0025	0.0110

```
245              0.0133          0.0025              0.0109
246              0.0132          0.0024              0.0107
247              0.0130          0.0024              0.0106
248              0.0129          0.0024              0.0105
249              0.0128          0.0024              0.0104
250              0.0126          0.0023              0.0103
251              0.0125          0.0023              0.0102
252              0.0124          0.0023              0.0101
253              0.0123          0.0023              0.0100
254              0.0122          0.0022              0.0099
255              0.0121          0.0022              0.0098
256              0.0119          0.0022              0.0097
257              0.0118          0.0022              0.0097
258              0.0117          0.0022              0.0096
259              0.0116          0.0021              0.0095
260              0.0115          0.0021              0.0094
261              0.0114          0.0021              0.0093
262              0.0113          0.0021              0.0092
263              0.0112          0.0021              0.0092
264              0.0112          0.0021              0.0091
265              0.0111          0.0020              0.0090
266              0.0110          0.0020              0.0090
267              0.0109          0.0020              0.0089
268              0.0108          0.0020              0.0088
269              0.0107          0.0020              0.0088
270              0.0106          0.0020              0.0087
271              0.0106          0.0020              0.0086
272              0.0105          0.0019              0.0086
273              0.0104          0.0019              0.0085
274              0.0103          0.0019              0.0084
275              0.0103          0.0019              0.0084
276              0.0102          0.0019              0.0083
277              0.0101          0.0019              0.0083
278              0.0101          0.0019              0.0082
279              0.0100          0.0018              0.0082
280              0.0099          0.0018              0.0081
281              0.0099          0.0018              0.0080
282              0.0098          0.0018              0.0080
283              0.0097          0.0018              0.0079
284              0.0097          0.0018              0.0079
285              0.0096          0.0018              0.0078
286              0.0096          0.0018              0.0078
287              0.0095          0.0018              0.0078
288              0.0094          0.0017              0.0077
--------------------------------------------------------------------
--------------------------------------------------------------------
Total soil rain loss =      1.04(In)
Total effective rainfall =      5.28(In)
Peak flow rate in flood hydrograph =     17.92(CFS)
--------------------------------------------------------------------
```

++

24 - H O U R S T O R M

R u n o f f H y d r o g r a p h

Hydrograph in 5 Minute intervals ((CFS))

Time(h+m)	Volume Ac.Ft	Q(CFS)	0	5.0	10.0	15.0	20.0
0+ 5	0.0003	0.04	Q				
0+10	0.0020	0.24	Q				
0+15	0.0047	0.40	Q				
0+20	0.0077	0.43	Q				
0+25	0.0107	0.44	Q				
0+30	0.0138	0.44	Q				
0+35	0.0168	0.44	Q				
0+40	0.0199	0.45	Q				
0+45	0.0230	0.45	Q				
0+50	0.0261	0.45	Q				
0+55	0.0292	0.45	Q				
1+ 0	0.0323	0.45	Q				
1+ 5	0.0354	0.45	Q				
1+10	0.0385	0.45	Q				
1+15	0.0417	0.46	Q				
1+20	0.0448	0.46	Q				
1+25	0.0480	0.46	Q				
1+30	0.0512	0.46	Q				
1+35	0.0543	0.46	QV				
1+40	0.0575	0.46	QV				
1+45	0.0607	0.46	QV				
1+50	0.0640	0.47	QV				
1+55	0.0672	0.47	QV				
2+ 0	0.0704	0.47	QV				
2+ 5	0.0737	0.47	QV				
2+10	0.0769	0.47	QV				
2+15	0.0802	0.47	QV				
2+20	0.0835	0.48	QV				
2+25	0.0868	0.48	QV				
2+30	0.0901	0.48	QV				
2+35	0.0934	0.48	QV				
2+40	0.0967	0.48	QV				
2+45	0.1000	0.48	QV				
2+50	0.1034	0.49	QV				
2+55	0.1067	0.49	Q V				
3+ 0	0.1101	0.49	Q V				
3+ 5	0.1135	0.49	Q V				
3+10	0.1169	0.49	Q V				
3+15	0.1203	0.50	Q V				
3+20	0.1237	0.50	Q V				
3+25	0.1272	0.50	Q V				

```
3+30       0.1306      0.50  |QV       |         |         |         |
3+35       0.1341      0.50  |QV       |         |         |         |
3+40       0.1375      0.50  |QV       |         |         |         |
3+45       0.1410      0.51  |QV       |         |         |         |
3+50       0.1445      0.51  |QV       |         |         |         |
3+55       0.1480      0.51  |QV       |         |         |         |
4+ 0       0.1516      0.51  |QV       |         |         |         |
4+ 5       0.1551      0.51  |QV       |         |         |         |
4+10       0.1587      0.52  |Q V      |         |         |         |
4+15       0.1622      0.52  |Q V      |         |         |         |
4+20       0.1658      0.52  |Q V      |         |         |         |
4+25       0.1694      0.52  |Q V      |         |         |         |
4+30       0.1730      0.52  |Q V      |         |         |         |
4+35       0.1767      0.53  |Q V      |         |         |         |
4+40       0.1803      0.53  |Q V      |         |         |         |
4+45       0.1840      0.53  |Q V      |         |         |         |
4+50       0.1876      0.53  |Q V      |         |         |         |
4+55       0.1913      0.54  |Q V      |         |         |         |
5+ 0       0.1950      0.54  |Q V      |         |         |         |
5+ 5       0.1987      0.54  |Q V      |         |         |         |
5+10       0.2025      0.54  |Q V      |         |         |         |
5+15       0.2062      0.54  |Q V      |         |         |         |
5+20       0.2100      0.55  |Q  V     |         |         |         |
5+25       0.2138      0.55  |Q  V     |         |         |         |
5+30       0.2176      0.55  |Q  V     |         |         |         |
5+35       0.2214      0.55  |Q  V     |         |         |         |
5+40       0.2253      0.56  |Q  V     |         |         |         |
5+45       0.2291      0.56  |Q  V     |         |         |         |
5+50       0.2330      0.56  |Q  V     |         |         |         |
5+55       0.2369      0.56  |Q  V     |         |         |         |
6+ 0       0.2408      0.57  |Q  V     |         |         |         |
6+ 5       0.2447      0.57  |Q  V     |         |         |         |
6+10       0.2487      0.57  |Q  V     |         |         |         |
6+15       0.2526      0.58  |Q  V     |         |         |         |
6+20       0.2566      0.58  |Q  V     |         |         |         |
6+25       0.2606      0.58  |Q   V    |         |         |         |
6+30       0.2646      0.58  |Q   V    |         |         |         |
6+35       0.2687      0.59  |Q   V    |         |         |         |
6+40       0.2727      0.59  |Q   V    |         |         |         |
6+45       0.2768      0.59  |Q   V    |         |         |         |
6+50       0.2809      0.60  |Q   V    |         |         |         |
6+55       0.2850      0.60  |Q   V    |         |         |         |
7+ 0       0.2892      0.60  |Q   V    |         |         |         |
7+ 5       0.2934      0.61  |Q   V    |         |         |         |
7+10       0.2975      0.61  |Q   V    |         |         |         |
7+15       0.3018      0.61  |Q   V    |         |         |         |
7+20       0.3060      0.61  |Q   V    |         |         |         |
7+25       0.3102      0.62  |Q   V    |         |         |         |
7+30       0.3145      0.62  |Q    V   |         |         |         |
7+35       0.3188      0.62  |Q    V   |         |         |         |
```

```
 7+40       0.3232      0.63  |Q    V   |          |          |          |
 7+45       0.3275      0.63  |Q    V   |          |          |          |
 7+50       0.3319      0.64  |Q    V   |          |          |          |
 7+55       0.3363      0.64  |Q    V   |          |          |          |
 8+ 0       0.3407      0.64  |Q    V   |          |          |          |
 8+ 5       0.3452      0.65  |Q    V   |          |          |          |
 8+10       0.3497      0.65  |Q    V   |          |          |          |
 8+15       0.3542      0.65  |Q    V   |          |          |          |
 8+20       0.3587      0.66  |Q    V   |          |          |          |
 8+25       0.3633      0.66  |Q    V   |          |          |          |
 8+30       0.3679      0.67  |Q     V  |          |          |          |
 8+35       0.3725      0.67  |Q     V  |          |          |          |
 8+40       0.3771      0.68  |Q     V  |          |          |          |
 8+45       0.3818      0.68  |Q     V  |          |          |          |
 8+50       0.3865      0.68  |Q     V  |          |          |          |
 8+55       0.3912      0.69  |Q     V  |          |          |          |
 9+ 0       0.3960      0.69  |Q     V  |          |          |          |
 9+ 5       0.4008      0.70  |Q     V  |          |          |          |
 9+10       0.4057      0.70  |Q     V  |          |          |          |
 9+15       0.4105      0.71  |Q     V  |          |          |          |
 9+20       0.4154      0.71  |Q     V  |          |          |          |
 9+25       0.4204      0.72  |Q      V |          |          |          |
 9+30       0.4253      0.72  |Q      V |          |          |          |
 9+35       0.4303      0.73  |Q      V |          |          |          |
 9+40       0.4354      0.73  |Q      V |          |          |          |
 9+45       0.4405      0.74  |Q      V |          |          |          |
 9+50       0.4456      0.74  |Q      V |          |          |          |
 9+55       0.4507      0.75  |Q      V |          |          |          |
10+ 0       0.4559      0.75  |Q      V |          |          |          |
10+ 5       0.4612      0.76  |Q      V |          |          |          |
10+10       0.4665      0.77  |Q      V |          |          |          |
10+15       0.4718      0.77  |Q       V|          |          |          |
10+20       0.4771      0.78  |Q       V|          |          |          |
10+25       0.4825      0.79  |Q       V|          |          |          |
10+30       0.4880      0.79  |Q       V|          |          |          |
10+35       0.4935      0.80  |Q       V|          |          |          |
10+40       0.4990      0.81  |Q       V|          |          |          |
10+45       0.5046      0.81  |Q       V|          |          |          |
10+50       0.5103      0.82  |Q       V|          |          |          |
10+55       0.5160      0.83  |Q       V|          |          |          |
11+ 0       0.5217      0.83  |Q        V          |          |          |
11+ 5       0.5275      0.84  |Q        V          |          |          |
11+10       0.5334      0.85  |Q        V          |          |          |
11+15       0.5393      0.86  |Q        V          |          |          |
11+20       0.5453      0.87  |Q        V          |          |          |
11+25       0.5513      0.88  |Q        V          |          |          |
11+30       0.5574      0.88  |Q        V          |          |          |
11+35       0.5635      0.89  |Q        V          |          |          |
11+40       0.5698      0.90  |Q        V          |          |          |
11+45       0.5760      0.91  |Q         |V         |          |          |
```

```
11+50       0.5824      0.92  |Q        |V        |         |         |
11+55       0.5888      0.93  |Q        |V        |         |         |
12+ 0       0.5953      0.94  |Q        |V        |         |         |
12+ 5       0.6020      0.97  |Q        |V        |         |         |
12+10       0.6092      1.05  | Q       |V        |         |         |
12+15       0.6168      1.11  | Q       |V        |         |         |
12+20       0.6247      1.14  | Q       | V       |         |         |
12+25       0.6326      1.15  | Q       | V       |         |         |
12+30       0.6406      1.16  | Q       | V       |         |         |
12+35       0.6487      1.18  | Q       | V       |         |         |
12+40       0.6569      1.19  | Q       | V       |         |         |
12+45       0.6652      1.21  | Q       | V       |         |         |
12+50       0.6736      1.22  | Q       | V       |         |         |
12+55       0.6821      1.24  | Q       |  V      |         |         |
13+ 0       0.6908      1.25  | Q       |  V      |         |         |
13+ 5       0.6995      1.27  | Q       |  V      |         |         |
13+10       0.7084      1.29  | Q       |  V      |         |         |
13+15       0.7174      1.31  | Q       |  V      |         |         |
13+20       0.7265      1.32  | Q       |  V      |         |         |
13+25       0.7357      1.34  | Q       |   V     |         |         |
13+30       0.7452      1.37  | Q       |   V     |         |         |
13+35       0.7547      1.39  | Q       |   V     |         |         |
13+40       0.7644      1.41  | Q       |   V     |         |         |
13+45       0.7743      1.43  | Q       |   V     |         |         |
13+50       0.7844      1.46  | Q       |    V    |         |         |
13+55       0.7946      1.49  | Q       |    V    |         |         |
14+ 0       0.8050      1.52  |  Q      |    V    |         |         |
14+ 5       0.8157      1.54  |  Q      |    V    |         |         |
14+10       0.8265      1.58  |  Q      |    V    |         |         |
14+15       0.8376      1.61  |  Q      |     V   |         |         |
14+20       0.8490      1.65  |  Q      |     V   |         |         |
14+25       0.8606      1.69  |  Q      |     V   |         |         |
14+30       0.8725      1.73  |  Q      |     V   |         |         |
14+35       0.8847      1.77  |  Q      |      V  |         |         |
14+40       0.8973      1.82  |  Q      |      V  |         |         |
14+45       0.9102      1.87  |  Q      |      V  |         |         |
14+50       0.9235      1.93  |  Q      |      V  |         |         |
14+55       0.9372      1.99  |  Q      |       V |         |         |
15+ 0       0.9515      2.07  |   Q     |       V |         |         |
15+ 5       0.9662      2.14  |   Q     |       V |         |         |
15+10       0.9816      2.23  |   Q     |       V |         |         |
15+15       0.9976      2.33  |   Q     |        V|         |         |
15+20       1.0144      2.44  |   Q     |        V|         |         |
15+25       1.0318      2.52  |    Q    |        V|         |         |
15+30       1.0485      2.44  |   Q     |         V         |         |
15+35       1.0653      2.43  |   Q     |         V         |         |
15+40       1.0833      2.62  |    Q    |         V         |         |
15+45       1.1033      2.90  |    Q    |         |V        |         |
15+50       1.1265      3.37  |     Q   |         |V        |         |
15+55       1.1546      4.08  |       Q |         | V       |         |
```

```
16+ 0       1.1929      5.56  |          |Q         | V        |          |
16+ 5       1.2583      9.50  |          |         Q|   V      |          |
16+10       1.3817     17.92  |          |          |     V    |    Q     |
16+15       1.4769     13.82  |          |          |      QV  |          |
16+20       1.5179      5.96  |          |Q         |        V |          |
16+25       1.5421      3.51  |       Q  |          |        V |          |
16+30       1.5609      2.72  |    Q     |          |          V          |
16+35       1.5783      2.54  |    Q     |          |          V          |
16+40       1.5943      2.32  |   Q      |          |          V          |
16+45       1.6091      2.15  |   Q      |          |          V          |
16+50       1.6229      2.00  |  Q       |          |          |V         |
16+55       1.6358      1.87  |  Q       |          |          |V         |
17+ 0       1.6480      1.77  |  Q       |          |          |V         |
17+ 5       1.6596      1.69  |  Q       |          |          |V         |
17+10       1.6707      1.61  |  Q       |          |          | V        |
17+15       1.6813      1.54  |  Q       |          |          | V        |
17+20       1.6916      1.49  | Q        |          |          | V        |
17+25       1.7014      1.43  | Q        |          |          | V        |
17+30       1.7110      1.39  | Q        |          |          | V        |
17+35       1.7202      1.34  | Q        |          |          |  V       |
17+40       1.7292      1.30  | Q        |          |          |  V       |
17+45       1.7380      1.27  | Q        |          |          |  V       |
17+50       1.7465      1.24  | Q        |          |          |  V       |
17+55       1.7548      1.20  | Q        |          |          |  V       |
18+ 0       1.7629      1.18  | Q        |          |          |  V       |
18+ 5       1.7707      1.14  | Q        |          |          |   V      |
18+10       1.7779      1.04  | Q        |          |          |   V      |
18+15       1.7845      0.97  |Q         |          |          |   V      |
18+20       1.7910      0.93  |Q         |          |          |   V      |
18+25       1.7973      0.91  |Q         |          |          |   V      |
18+30       1.8034      0.89  |Q         |          |          |   V      |
18+35       1.8094      0.87  |Q         |          |          |   V      |
18+40       1.8153      0.86  |Q         |          |          |   V      |
18+45       1.8211      0.84  |Q         |          |          |    V     |
18+50       1.8268      0.83  |Q         |          |          |    V     |
18+55       1.8324      0.81  |Q         |          |          |    V     |
19+ 0       1.8379      0.80  |Q         |          |          |    V     |
19+ 5       1.8433      0.78  |Q         |          |          |    V     |
19+10       1.8486      0.77  |Q         |          |          |    V     |
19+15       1.8539      0.76  |Q         |          |          |    V     |
19+20       1.8590      0.75  |Q         |          |          |    V     |
19+25       1.8641      0.74  |Q         |          |          |    V     |
19+30       1.8691      0.73  |Q         |          |          |    V     |
19+35       1.8740      0.72  |Q         |          |          |     V    |
19+40       1.8789      0.71  |Q         |          |          |     V    |
19+45       1.8837      0.70  |Q         |          |          |     V    |
19+50       1.8884      0.69  |Q         |          |          |     V    |
19+55       1.8931      0.68  |Q         |          |          |     V    |
20+ 0       1.8977      0.67  |Q         |          |          |     V    |
20+ 5       1.9023      0.66  |Q         |          |          |     V    |
```

```
20+10       1.9068      0.65  |Q        |         |         |     V   |
20+15       1.9112      0.65  |Q        |         |         |     V   |
20+20       1.9156      0.64  |Q        |         |         |     V   |
20+25       1.9200      0.63  |Q        |         |         |     V   |
20+30       1.9243      0.62  |Q        |         |         |      V  |
20+35       1.9286      0.62  |Q        |         |         |      V  |
20+40       1.9328      0.61  |Q        |         |         |      V  |
20+45       1.9369      0.60  |Q        |         |         |      V  |
20+50       1.9411      0.60  |Q        |         |         |      V  |
20+55       1.9451      0.59  |Q        |         |         |      V  |
21+ 0       1.9492      0.59  |Q        |         |         |      V  |
21+ 5       1.9532      0.58  |Q        |         |         |      V  |
21+10       1.9571      0.58  |Q        |         |         |      V  |
21+15       1.9611      0.57  |Q        |         |         |      V  |
21+20       1.9650      0.56  |Q        |         |         |      V  |
21+25       1.9688      0.56  |Q        |         |         |      V  |
21+30       1.9726      0.55  |Q        |         |         |      V  |
21+35       1.9764      0.55  |Q        |         |         |       V |
21+40       1.9802      0.54  |Q        |         |         |       V |
21+45       1.9839      0.54  |Q        |         |         |       V |
21+50       1.9876      0.54  |Q        |         |         |       V |
21+55       1.9912      0.53  |Q        |         |         |       V |
22+ 0       1.9949      0.53  |Q        |         |         |       V |
22+ 5       1.9985      0.52  |Q        |         |         |       V |
22+10       2.0020      0.52  |Q        |         |         |       V |
22+15       2.0056      0.51  |Q        |         |         |       V |
22+20       2.0091      0.51  |Q        |         |         |       V |
22+25       2.0126      0.51  |Q        |         |         |       V |
22+30       2.0160      0.50  |Q        |         |         |       V |
22+35       2.0195      0.50  Q        |         |         |       V |
22+40       2.0229      0.49  Q        |         |         |       V |
22+45       2.0262      0.49  Q        |         |         |       V |
22+50       2.0296      0.49  Q        |         |         |        V|
22+55       2.0329      0.48  Q        |         |         |        V|
23+ 0       2.0363      0.48  Q        |         |         |        V|
23+ 5       2.0395      0.48  Q        |         |         |        V|
23+10       2.0428      0.47  Q        |         |         |        V|
23+15       2.0461      0.47  Q        |         |         |        V|
23+20       2.0493      0.47  Q        |         |         |        V|
23+25       2.0525      0.46  Q        |         |         |        V|
23+30       2.0557      0.46  Q        |         |         |        V|
23+35       2.0588      0.46  Q        |         |         |        V|
23+40       2.0620      0.46  Q        |         |         |        V|
23+45       2.0651      0.45  Q        |         |         |        V|
23+50       2.0682      0.45  Q        |         |         |        V|
23+55       2.0713      0.45  Q        |         |         |        V|
24+ 0       2.0743      0.44  Q        |         |         |        V|
24+ 5       2.0771      0.40  Q        |         |         |        V|
24+10       2.0784      0.20  Q        |         |         |        V|
24+15       2.0787      0.04  Q        |         |         |        V|
```

```
   24+20       2.0788      0.01  Q         |         |         |        V|
-------------------------------------------------------------------------
```

FLOOD HYDROGRAPH ROUTING PROGRAM
Copyright (c) CIVILCADD/CIVILDESIGN, 1989 - 2005
Study date: 04/25/23

ROUTING CALCULATION
DA-1 TO DA-3
PUMP CAPACITY 0.51 CFS
EUCLID AND WALNUT

Program License Serial Number 6049

********** HYDROGRAPH INFORMATION **********

From study/file name: 424027UHPOST1.rte
**********HYDROGRAPH DATA**********
Number of intervals = 292
Time interval = 5.0 (Min.)
Maximum/Peak flow rate = 17.918 (CFS)
Total volume = 2.079 (Ac.Ft)

Status of hydrographs being held in storage

	Stream 1	Stream 2	Stream 3	Stream 4	Stream 5
Peak (CFS)	0.000	0.000	0.000	0.000	0.000
Vol (Ac.Ft)	0.000	0.000	0.000	0.000	0.000

****

++
Process from Point/Station 1.050 to Point/Station 1.060
**** FLOWBY BASIN ROUTING OR SPLIT FLOW ****
_____
All flow in excess of 0.51(CFS) is diverted
into stream number 1
Total volume of excess flow diverted into flowby
basin (stream number 1) is 1.08(Ac.Ft)
++
P R I N T O F S T O R M
R u n o f f H y d r o g r a p h

Hydrograph in 5 Minute intervals (CFS)

Time(h+m)	Volume(Ac.Ft)	Q(CFS)	0	0.1	0.3	0.4	0.5
0+ 5	0.0003	0.04	V Q	|	|	|	|
0+10	0.0020	0.24	V	|	Q|	|	|
0+15	0.0047	0.40	V	|	|	|	Q |
0+20	0.0077	0.43	V	|	|	|	Q |
0+25	0.0107	0.44	V	|	|	|	Q |
0+30	0.0138	0.44	V	|	|	|	Q |
0+35	0.0168	0.44	V	|	|	|	Q |
0+40	0.0199	0.45	V	|	|	|	Q |
0+45	0.0230	0.45	V	|	|	|	Q |
0+50	0.0261	0.45	V	|	|	|	Q |
0+55	0.0292	0.45	|V	|	|	|	Q |
1+ 0	0.0323	0.45	|V	|	|	|	Q |
1+ 5	0.0354	0.45	|V	|	|	|	Q |
1+10	0.0385	0.45	|V	|	|	|	Q |
1+15	0.0417	0.46	|V	|	|	|	Q |
1+20	0.0448	0.46	|V	|	|	|	Q |
1+25	0.0480	0.46	|V	|	|	|	Q |
1+30	0.0512	0.46	| V	|	|	|	Q |
1+35	0.0543	0.46	| V	|	|	|	Q |
1+40	0.0575	0.46	| V	|	|	|	Q |
1+45	0.0607	0.46	| V	|	|	|	Q |
1+50	0.0640	0.47	| V	|	|	|	Q |
1+55	0.0672	0.47	| V	|	|	|	Q |
2+ 0	0.0704	0.47	| V	|	|	|	Q |
2+ 5	0.0737	0.47	| V	|	|	|	Q |
2+10	0.0769	0.47	| V	|	|	|	Q |
2+15	0.0802	0.47	| V	|	|	|	Q |
2+20	0.0835	0.48	| V	|	|	|	Q |
2+25	0.0868	0.48	| V	|	|	|	Q |
2+30	0.0901	0.48	| V	|	|	|	Q |
2+35	0.0934	0.48	| V	|	|	|	Q |
2+40	0.0967	0.48	| V	|	|	|	Q |
2+45	0.1000	0.48	| V	|	|	|	Q |
2+50	0.1034	0.49	| V	|	|	|	Q |
2+55	0.1067	0.49	| V	|	|	|	Q |
3+ 0	0.1101	0.49	| V	|	|	|	Q |
3+ 5	0.1135	0.49	| V	|	|	|	Q |
3+10	0.1169	0.49	| V	|	|	|	Q |
3+15	0.1203	0.50	| V	|	|	|	Q |
3+20	0.1237	0.50	| V	|	|	|	Q |
3+25	0.1272	0.50	| V	|	|	|	Q|
3+30	0.1306	0.50	| V	|	|	|	Q|
3+35	0.1341	0.50	| V	|	|	|	Q|
3+40	0.1375	0.50	| V	|	|	|	Q|
3+45	0.1410	0.51	| V	|	|	|	Q|
3+50	0.1445	0.51	| V	|	|	|	Q|
3+55	0.1480	0.51	| V	|	|	|	Q
4+ 0	0.1516	0.51	| V	|	|	|	Q

```
4+ 5       0.1551      0.51  |     V   |         |         |         Q
4+10       0.1586      0.51  |     V   |         |         |         Q
4+15       0.1621      0.51  |     V   |         |         |         Q
4+20       0.1656      0.51  |     V   |         |         |         Q
4+25       0.1691      0.51  |     V   |         |         |         Q
4+30       0.1726      0.51  |     V   |         |         |         Q
4+35       0.1761      0.51  |      V  |         |         |         Q
4+40       0.1797      0.51  |      V  |         |         |         Q
4+45       0.1832      0.51  |      V  |         |         |         Q
4+50       0.1867      0.51  |      V  |         |         |         Q
4+55       0.1902      0.51  |      V  |         |         |         Q
5+ 0       0.1937      0.51  |      V  |         |         |         Q
5+ 5       0.1972      0.51  |      V  |         |         |         Q
5+10       0.2007      0.51  |       V |         |         |         Q
5+15       0.2042      0.51  |       V |         |         |         Q
5+20       0.2077      0.51  |       V |         |         |         Q
5+25       0.2113      0.51  |       V |         |         |         Q
5+30       0.2148      0.51  |       V |         |         |         Q
5+35       0.2183      0.51  |       V |         |         |         Q
5+40       0.2218      0.51  |       V |         |         |         Q
5+45       0.2253      0.51  |        V|         |         |         Q
5+50       0.2288      0.51  |        V|         |         |         Q
5+55       0.2323      0.51  |        V|         |         |         Q
6+ 0       0.2358      0.51  |        V|         |         |         Q
6+ 5       0.2394      0.51  |        V|         |         |         Q
6+10       0.2429      0.51  |        V|         |         |         Q
6+15       0.2464      0.51  |        V|         |         |         Q
6+20       0.2499      0.51  |         V         |         |         Q
6+25       0.2534      0.51  |         V         |         |         Q
6+30       0.2569      0.51  |         V         |         |         Q
6+35       0.2604      0.51  |         V         |         |         Q
6+40       0.2639      0.51  |         V         |         |         Q
6+45       0.2675      0.51  |         V         |         |         Q
6+50       0.2710      0.51  |         V         |         |         Q
6+55       0.2745      0.51  |          V        |         |         Q
7+ 0       0.2780      0.51  |         |V        |         |         Q
7+ 5       0.2815      0.51  |         |V        |         |         Q
7+10       0.2850      0.51  |         |V        |         |         Q
7+15       0.2885      0.51  |         |V        |         |         Q
7+20       0.2920      0.51  |         |V        |         |         Q
7+25       0.2956      0.51  |         |V        |         |         Q
7+30       0.2991      0.51  |         | V       |         |         Q
7+35       0.3026      0.51  |         | V       |         |         Q
7+40       0.3061      0.51  |         | V       |         |         Q
7+45       0.3096      0.51  |         | V       |         |         Q
7+50       0.3131      0.51  |         | V       |         |         Q
7+55       0.3166      0.51  |         | V       |         |         Q
8+ 0       0.3201      0.51  |         | V       |         |         Q
8+ 5       0.3237      0.51  |         |  V      |         |         Q
8+10       0.3272      0.51  |         |  V      |         |         Q
```

```
 8+15       0.3307      0.51  |         |  V      |         |         Q
 8+20       0.3342      0.51  |         |  V      |         |         Q
 8+25       0.3377      0.51  |         |  V      |         |         Q
 8+30       0.3412      0.51  |         |  V      |         |         Q
 8+35       0.3447      0.51  |         |  V      |         |         Q
 8+40       0.3482      0.51  |         |   V     |         |         Q
 8+45       0.3518      0.51  |         |   V     |         |         Q
 8+50       0.3553      0.51  |         |   V     |         |         Q
 8+55       0.3588      0.51  |         |   V     |         |         Q
 9+ 0       0.3623      0.51  |         |   V     |         |         Q
 9+ 5       0.3658      0.51  |         |   V     |         |         Q
 9+10       0.3693      0.51  |         |   V     |         |         Q
 9+15       0.3728      0.51  |         |    V    |         |         Q
 9+20       0.3763      0.51  |         |    V    |         |         Q
 9+25       0.3799      0.51  |         |    V    |         |         Q
 9+30       0.3834      0.51  |         |    V    |         |         Q
 9+35       0.3869      0.51  |         |    V    |         |         Q
 9+40       0.3904      0.51  |         |    V    |         |         Q
 9+45       0.3939      0.51  |         |    V    |         |         Q
 9+50       0.3974      0.51  |         |    V    |         |         Q
 9+55       0.4009      0.51  |         |     V   |         |         Q
10+ 0       0.4044      0.51  |         |     V   |         |         Q
10+ 5       0.4080      0.51  |         |     V   |         |         Q
10+10       0.4115      0.51  |         |     V   |         |         Q
10+15       0.4150      0.51  |         |     V   |         |         Q
10+20       0.4185      0.51  |         |     V   |         |         Q
10+25       0.4220      0.51  |         |     V   |         |         Q
10+30       0.4255      0.51  |         |      V  |         |         Q
10+35       0.4290      0.51  |         |      V  |         |         Q
10+40       0.4325      0.51  |         |      V  |         |         Q
10+45       0.4361      0.51  |         |      V  |         |         Q
10+50       0.4396      0.51  |         |      V  |         |         Q
10+55       0.4431      0.51  |         |      V  |         |         Q
11+ 0       0.4466      0.51  |         |      V  |         |         Q
11+ 5       0.4501      0.51  |         |       V |         |         Q
11+10       0.4536      0.51  |         |       V |         |         Q
11+15       0.4571      0.51  |         |       V |         |         Q
11+20       0.4606      0.51  |         |       V |         |         Q
11+25       0.4642      0.51  |         |       V |         |         Q
11+30       0.4677      0.51  |         |       V |         |         Q
11+35       0.4712      0.51  |         |       V |         |         Q
11+40       0.4747      0.51  |         |        V|         |         Q
11+45       0.4782      0.51  |         |        V|         |         Q
11+50       0.4817      0.51  |         |        V|         |         Q
11+55       0.4852      0.51  |         |        V|         |         Q
12+ 0       0.4887      0.51  |         |        V|         |         Q
12+ 5       0.4923      0.51  |         |        V|         |         Q
12+10       0.4958      0.51  |         |        V|         |         Q
12+15       0.4993      0.51  |         |         V         |         Q
12+20       0.5028      0.51  |         |         V         |         Q
```

```
12+25       0.5063      0.51  |         |         V         |         Q
12+30       0.5098      0.51  |         |         V         |         Q
12+35       0.5133      0.51  |         |         V         |         Q
12+40       0.5168      0.51  |         |         V         |         Q
12+45       0.5204      0.51  |         |         V         |         Q
12+50       0.5239      0.51  |         |          V        |         Q
12+55       0.5274      0.51  |         |         |V        |         Q
13+ 0       0.5309      0.51  |         |         |V        |         Q
13+ 5       0.5344      0.51  |         |         |V        |         Q
13+10       0.5379      0.51  |         |         |V        |         Q
13+15       0.5414      0.51  |         |         |V        |         Q
13+20       0.5449      0.51  |         |         |V        |         Q
13+25       0.5485      0.51  |         |         | V       |         Q
13+30       0.5520      0.51  |         |         | V       |         Q
13+35       0.5555      0.51  |         |         | V       |         Q
13+40       0.5590      0.51  |         |         | V       |         Q
13+45       0.5625      0.51  |         |         | V       |         Q
13+50       0.5660      0.51  |         |         | V       |         Q
13+55       0.5695      0.51  |         |         | V       |         Q
14+ 0       0.5730      0.51  |         |         |  V      |         Q
14+ 5       0.5766      0.51  |         |         |  V      |         Q
14+10       0.5801      0.51  |         |         |  V      |         Q
14+15       0.5836      0.51  |         |         |  V      |         Q
14+20       0.5871      0.51  |         |         |  V      |         Q
14+25       0.5906      0.51  |         |         |  V      |         Q
14+30       0.5941      0.51  |         |         |  V      |         Q
14+35       0.5976      0.51  |         |         |   V     |         Q
14+40       0.6011      0.51  |         |         |   V     |         Q
14+45       0.6047      0.51  |         |         |   V     |         Q
14+50       0.6082      0.51  |         |         |   V     |         Q
14+55       0.6117      0.51  |         |         |   V     |         Q
15+ 0       0.6152      0.51  |         |         |   V     |         Q
15+ 5       0.6187      0.51  |         |         |   V     |         Q
15+10       0.6222      0.51  |         |         |    V    |         Q
15+15       0.6257      0.51  |         |         |    V    |         Q
15+20       0.6292      0.51  |         |         |    V    |         Q
15+25       0.6327      0.51  |         |         |    V    |         Q
15+30       0.6363      0.51  |         |         |    V    |         Q
15+35       0.6398      0.51  |         |         |    V    |         Q
15+40       0.6433      0.51  |         |         |    V    |         Q
15+45       0.6468      0.51  |         |         |     V   |         Q
15+50       0.6503      0.51  |         |         |     V   |         Q
15+55       0.6538      0.51  |         |         |     V   |         Q
16+ 0       0.6573      0.51  |         |         |     V   |         Q
16+ 5       0.6608      0.51  |         |         |     V   |         Q
16+10       0.6644      0.51  |         |         |     V   |         Q
16+15       0.6679      0.51  |         |         |     V   |         Q
16+20       0.6714      0.51  |         |         |      V  |         Q
16+25       0.6749      0.51  |         |         |      V  |         Q
16+30       0.6784      0.51  |         |         |      V  |         Q
```

```
16+35       0.6819      0.51  |         |         |      V  |         Q
16+40       0.6854      0.51  |         |         |      V  |         Q
16+45       0.6889      0.51  |         |         |      V  |         Q
16+50       0.6925      0.51  |         |         |      V  |         Q
16+55       0.6960      0.51  |         |         |       V |         Q
17+ 0       0.6995      0.51  |         |         |       V |         Q
17+ 5       0.7030      0.51  |         |         |       V |         Q
17+10       0.7065      0.51  |         |         |       V |         Q
17+15       0.7100      0.51  |         |         |       V |         Q
17+20       0.7135      0.51  |         |         |       V |         Q
17+25       0.7170      0.51  |         |         |       V |         Q
17+30       0.7206      0.51  |         |         |       V |         Q
17+35       0.7241      0.51  |         |         |        V|         Q
17+40       0.7276      0.51  |         |         |        V|         Q
17+45       0.7311      0.51  |         |         |        V|         Q
17+50       0.7346      0.51  |         |         |        V|         Q
17+55       0.7381      0.51  |         |         |        V|         Q
18+ 0       0.7416      0.51  |         |         |        V|         Q
18+ 5       0.7451      0.51  |         |         |        V|         Q
18+10       0.7487      0.51  |         |         |         V         Q
18+15       0.7522      0.51  |         |         |         V         Q
18+20       0.7557      0.51  |         |         |         V         Q
18+25       0.7592      0.51  |         |         |         V         Q
18+30       0.7627      0.51  |         |         |         V         Q
18+35       0.7662      0.51  |         |         |         V         Q
18+40       0.7697      0.51  |         |         |         V         Q
18+45       0.7732      0.51  |         |         |          |V        Q
18+50       0.7768      0.51  |         |         |          |V        Q
18+55       0.7803      0.51  |         |         |          |V        Q
19+ 0       0.7838      0.51  |         |         |          |V        Q
19+ 5       0.7873      0.51  |         |         |          |V        Q
19+10       0.7908      0.51  |         |         |          |V        Q
19+15       0.7943      0.51  |         |         |          |V        Q
19+20       0.7978      0.51  |         |         |          | V       Q
19+25       0.8013      0.51  |         |         |          | V       Q
19+30       0.8049      0.51  |         |         |          | V       Q
19+35       0.8084      0.51  |         |         |          | V       Q
19+40       0.8119      0.51  |         |         |          | V       Q
19+45       0.8154      0.51  |         |         |          | V       Q
19+50       0.8189      0.51  |         |         |          | V       Q
19+55       0.8224      0.51  |         |         |          |  V      Q
20+ 0       0.8259      0.51  |         |         |          |  V      Q
20+ 5       0.8294      0.51  |         |         |          |  V      Q
20+10       0.8330      0.51  |         |         |          |  V      Q
20+15       0.8365      0.51  |         |         |          |  V      Q
20+20       0.8400      0.51  |         |         |          |  V      Q
20+25       0.8435      0.51  |         |         |          |  V      Q
20+30       0.8470      0.51  |         |         |          |   V     Q
20+35       0.8505      0.51  |         |         |          |   V     Q
20+40       0.8540      0.51  |         |         |          |   V     Q
```

```
  20+45       0.8575      0.51  |          |          |          |   V     Q
  20+50       0.8611      0.51  |          |          |          |   V     Q
  20+55       0.8646      0.51  |          |          |          |   V     Q
  21+ 0       0.8681      0.51  |          |          |          |   V     Q
  21+ 5       0.8716      0.51  |          |          |          |    V    Q
  21+10       0.8751      0.51  |          |          |          |    V    Q
  21+15       0.8786      0.51  |          |          |          |    V    Q
  21+20       0.8821      0.51  |          |          |          |    V    Q
  21+25       0.8856      0.51  |          |          |          |    V    Q
  21+30       0.8892      0.51  |          |          |          |    V    Q
  21+35       0.8927      0.51  |          |          |          |    V    Q
  21+40       0.8962      0.51  |          |          |          |     V   Q
  21+45       0.8997      0.51  |          |          |          |     V   Q
  21+50       0.9032      0.51  |          |          |          |     V   Q
  21+55       0.9067      0.51  |          |          |          |     V   Q
  22+ 0       0.9102      0.51  |          |          |          |     V   Q
  22+ 5       0.9137      0.51  |          |          |          |     V   Q
  22+10       0.9173      0.51  |          |          |          |     V   Q
  22+15       0.9208      0.51  |          |          |          |      V  Q
  22+20       0.9243      0.51  |          |          |          |      V  Q
  22+25       0.9278      0.51  |          |          |          |      V Q|
  22+30       0.9312      0.50  |          |          |          |      V Q|
  22+35       0.9347      0.50  |          |          |          |      V Q|
  22+40       0.9381      0.49  |          |          |          |      VQ |
  22+45       0.9414      0.49  |          |          |          |      VQ |
  22+50       0.9448      0.49  |          |          |          |       Q |
  22+55       0.9481      0.48  |          |          |          |      QV |
  23+ 0       0.9515      0.48  |          |          |          |      QV |
  23+ 5       0.9547      0.48  |          |          |          |      QV |
  23+10       0.9580      0.47  |          |          |          |      QV |
  23+15       0.9613      0.47  |          |          |          |     Q V |
  23+20       0.9645      0.47  |          |          |          |     Q V |
  23+25       0.9677      0.46  |          |          |          |     Q V |
  23+30       0.9709      0.46  |          |          |          |     Q  V|
  23+35       0.9740      0.46  |          |          |          |    Q   V|
  23+40       0.9772      0.46  |          |          |          |    Q   V|
  23+45       0.9803      0.45  |          |          |          |    Q   V|
  23+50       0.9834      0.45  |          |          |          |    Q   V|
  23+55       0.9865      0.45  |          |          |          |    Q   V|
  24+ 0       0.9895      0.44  |          |          |          |   Q    V|
  24+ 5       0.9923      0.40  |          |          |          |Q       V|
  24+10       0.9936      0.20  |          |    Q     |          |        V|
  24+15       0.9939      0.04  |  Q       |          |          |        V|
  24+20       0.9940      0.01  Q          |          |          |        V|
--------------------------------------------------------------------------
      ****************************HYDROGRAPH DATA****************************
                    Number of intervals =   292
                    Time interval =    5.0 (Min.)
                    Maximum/Peak flow rate =        0.510 (CFS)
                    Total volume =       0.994 (Ac.Ft)
```

```
        Status of hydrographs being held in storage
                    Stream 1  Stream 2  Stream 3  Stream 4  Stream 5
        Peak (CFS)     17.408     0.000     0.000     0.000     0.000
        Vol (Ac.Ft)      1.085     0.000     0.000     0.000     0.000
**********************************************************************

----------------------------------------------------------------------
```

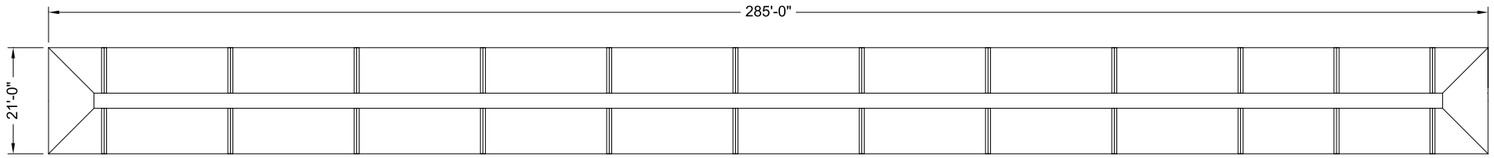
PROJECT SUMMARY

CALCULATION DETAILS
- LOADING = HS20/HS25
- APPROX. LINEAR FOOTAGE = 576 LF

STORAGE SUMMARY
- STORAGE VOLUME REQUIRED = 48,000 CF
- PIPE STORAGE VOLUME = 36,644 CF
- BACKFILL STORAGE VOLUME = 11,433 CF
- TOTAL STORAGE PROVIDED = 48,077 CF

PIPE DETAILS
- DIAMETER = 108"
- CORRUGATION = 5x1
- GAGE = 14
- COATING = ALT2
- WALL TYPE = PERFORATED
- BARREL SPACING = 36"

BACKFILL DETAILS
- WIDTH AT ENDS = 12"
- ABOVE PIPE = 12"
- WIDTH AT SIDES = 12"
- BELOW PIPE = 6"



NOTES

- ALL RISER AND STUB DIMENSIONS ARE TO CENTERLINE. ALL ELEVATIONS, DIMENSIONS, AND LOCATIONS OF RISERS AND INLETS, SHALL BE VERIFIED BY THE ENGINEER OF RECORD PRIOR TO RELEASING FOR FABRICATION.
- ALL FITTINGS AND REINFORCEMENT COMPLY WITH ASTM A998.
- ALL RISERS AND STUBS ARE $2\frac{2}{3}$" x $\frac{1}{2}$" CORRUGATION AND 16 GAGE UNLESS OTHERWISE NOTED.
- RISERS TO BE FIELD TRIMMED TO GRADE.
- QUANTITY OF PIPE SHOWN DOES NOT PROVIDE EXTRA PIPE FOR CONNECTING THE SYSTEM TO EXISTING PIPE OR DRAINAGE STRUCTURES. OUR SYSTEM AS DETAILED PROVIDES NOMINAL INLET AND/OR OUTLET PIPE STUB FOR CONNECTION TO EXISTING DRAINAGE FACILITIES. IF ADDITIONAL PIPE IS NEEDED IT IS THE RESPONSIBILITY OF THE CONTRACTOR.
- BAND TYPE TO BE DETERMINED UPON FINAL DESIGN.
- THE PROJECT SUMMARY IS REFLECTIVE OF THE DYODS DESIGN, QUANTITIES ARE APPROX. AND SHOULD BE VERIFIED UPON FINAL DESIGN AND APPROVAL. FOR EXAMPLE, TOTAL EXCAVATION DOES NOT CONSIDER ALL VARIABLES SUCH AS SHORING AND ONLY ACCOUNTS FOR MATERIAL WITHIN THE ESTIMATED EXCAVATION FOOTPRINT.
- THESE DRAWINGS ARE FOR CONCEPTUAL PURPOSES AND DO NOT REFLECT ANY LOCAL PREFERENCES OR REGULATIONS. PLEASE CONTACT YOUR LOCAL CONTECH REP FOR MODIFICATIONS.

ASSEMBLY
SCALE: 1" = 30'

The design and information shown on this drawing is provided as a service to the project owner, engineer and contractor by Contech Engineered Solutions LLC ("Contech"). Neither this drawing, nor any part thereof, may be used, reproduced or modified in any manner without the prior written consent of Contech. Failure to comply is done at the user's own risk and Contech expressly disclaims any liability or responsibility for such use.

If discrepancies between the supplied information upon which the drawing is based and actual field conditions are encountered as site work progresses, these discrepancies must be reported to Contech immediately for re-evaluation of the design. Contech accepts no liability for designs based on missing, incomplete or inaccurate information supplied by others.

DATE	REVISION DESCRIPTION	BY

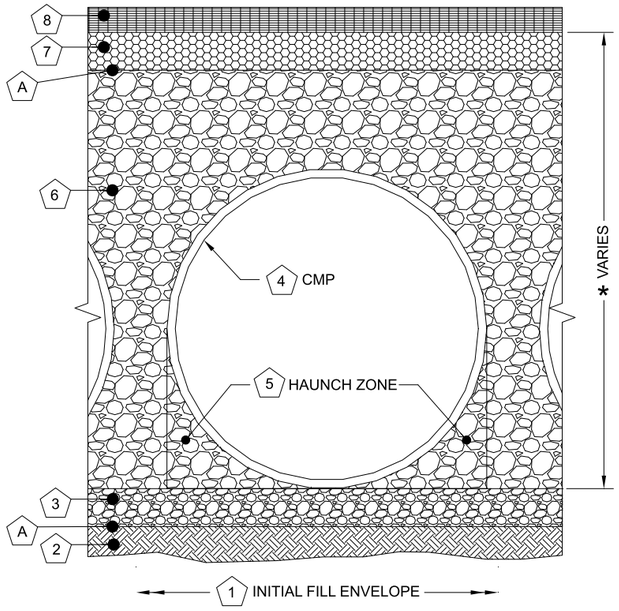
CONTECH® ENGINEERED SOLUTIONS LLC
www.ContechES.com
9025 Centre Pointe Dr., Suite 400, West Chester, OH 45069
800-338-1122 513-645-7000 513-645-7993 FAX

CONTECH® CMP DETENTION SYSTEMS
CONTECH DYODS DRAWING

DYO30787 Euclid and Walnut
Underground Detention
Ontario, CA
DETENTION SYSTEM

PROJECT No.:	SEQ. No.:	DATE:
20769	30787	4/26/2023
DESIGNED: DYO	DRAWN: DYO	
CHECKED: DYO	APPROVED: DYO	
SHEET NO.:		

C:\EXPORTS\TEMPLATES\CMP_V8.DWG 10/18/2019 10:02 AM



	Infiltration Systems - CMP Infiltration & CMP Perforated Drainage Pipe			
	Material Location	Description	Material Designation	Designation
8	Rigid or Flexible Pavement (if applicable)			
7	Road Base (if applicable			
A	Geotextile Layer	Non-Woven Geotextile	CONTECH C-40 or C-45	Engineer Decision for consideration to prevent soil migration into varying soil types. Wrap the trench only.
6	Backfill	Infiltration pipe systems have a pipe perforation sized of 3/8" diameter. An open graded, free draining stone, with a particle size of ½" – 2 ½" diameter is recommended.	AASHTO M 145-A-1 or AASHTO M 43 - 3, 4	Material shall be worked into the pipe haunches by means of shovel-slicing, rodding, air-tamper, vibratory rod, or other effective methods. Compaction of all placed fill material is necessary and shall be considered adequate when no further yielding of the material is observed under the compactor, or under foot, and the Project Engineer or his representative is satisfied with the level of compaction"
3	Bedding Stone	Well graded granular bedding material w/maximum particle size of 3"	AASHTO M43 - 3,357,4,467, 5, 56, 57	For soil aggregates larger than 3/8" a dedicated bedding layer is not required for CMP. Pipe may be placed on the trench bottom comprised of native suitable well graded & granular material. For Arch pipes it is recommended to be shaped to a relatively flat bottom or fine-grade the foundation to a slight v-shape. Soil aggregates less than 3/8" and unsuitable material should be over-excavated and re-placed with a 4"-6" layer of well graded & granular stone per the material designation.
A	Geotextile Layer	None	None	Contech does not recommend geotextiles be placed under the invert of Infiltration systems due to the propensity for geotextiles to clog over time.
*	Note: The listed AASHTO designations are for gradation only. The stone must also be angular and clean.			

1 MINIMUM WIDTH DEPENDS ON SITE CONDITIONS AND ENGINEERING JUDGEMENT.

FOUNDATION/BEDDING PREPARATION

2 PRIOR TO PLACING THE BEDDING, THE FOUNDATION MUST BE CONSTRUCTED TO A UNIFORM AND STABLE GRADE. IN THE EVENT THAT UNSUITABLE FOUNDATION MATERIALS ARE ENCOUNTERED DURING EXCAVATION, THEY SHALL BE REMOVED AND BROUGHT BACK TO THE GRADE WITH A FILL MATERIAL AS APPROVED BY THE ENGINEER.

5 HAUNCH ZONE MATERIAL SHALL BE PLACED AND UNIFORMLY COMPACTED WITHOUT SOFT SPOTS.

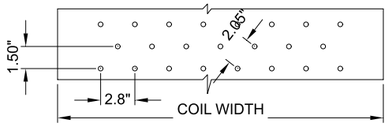
BACKFILL

MATERIAL SHALL BE PLACED IN 8"-10" MAXIMUM LIFTS. INADEQUATE COMPACTION CAN LEAD TO EXCESSIVE DEFLECTIONS WITHIN THE SYSTEM AND SETTLEMENT OF THE SOILS OVER THE SYSTEM. BACKFILL SHALL BE PLACED SUCH THAT THERE IS NO MORE THAN A TWO-LIFT DIFFERENTIAL BETWEEN THE SIDES OF ANY PIPE IN THE SYSTEM AT ALL TIMES DURING THE BACKFILL PROCESS. BACKFILL SHALL BE ADVANCED ALONG THE LENGTH OF THE SYSTEM AT THE SAME RATE TO AVOID DIFFERENTIAL LOADING ON ANY PIPES IN THE SYSTEM.

EQUIPMENT USED TO PLACE AND COMPACT THE BACKFILL SHALL BE OF A SIZE AND TYPE SO AS NOT TO DISTORT, DAMAGE, OR DISPLACE THE PIPE. ATTENTION MUST BE GIVEN TO PROVIDING ADEQUATE MINIMUM COVER FOR SUCH EQUIPMENT. MAINTAIN BALANCED LOADING ON ALL PIPES IN THE SYSTEM DURING ALL SUCH OPERATIONS.

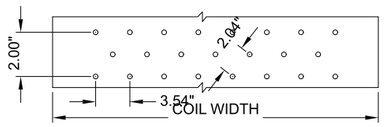
OTHER ALTERNATE BACKFILL MATERIAL MAY BE ALLOWED DEPENDING ON SITE SPECIFIC CONDITIONS. REFER TO TYPICAL BACKFILL DETAIL FOR MATERIAL REQUIRED.

2 2/3" x 1/2" CORRUGATION - STEEL AND ALUMINUM CMP EDGE SPACING EQUAL ON BOTH SIDES



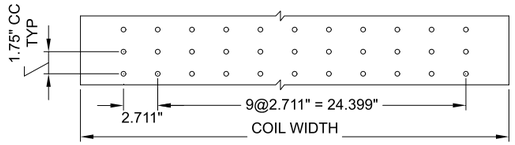
OPEN AREA = 3.76 SQ IN/SQ FT

3" x 1" CORRUGATION - STEEL AND ALUMINUM CMP (COIL PROVIDED FROM CONTECH LANTANA, FL PLANT)



OPEN AREA = 4.16 SQ IN/SQ FT

5" x 1" CORRUGATION - STEEL ONLY
EDGE SPACING EQUAL ON BOTH SIDES



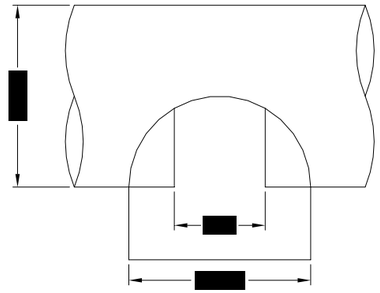
OPEN AREA = 3.33 SQ IN/SQ FT

NOTES:

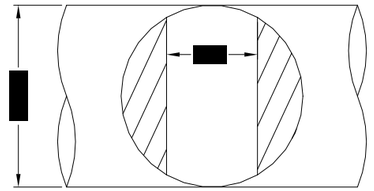
1. PERFORATIONS MEET AASHTO AND ASTM SPECIFICATIONS.
2. PERFORATION OPEN AREA PER SQUARE FOOT OF PIPE IS BASED ON THE NOMINAL DIAMETER AND LENGTH OF PIPE.
3. ALL DIMENSIONS ARE SUBJECT TO MANUFACTURING TOLERANCES.
4. ALL HOLES ⌀3/8".

TYPICAL PERFORATION DETAIL

SCALE: N.T.S.



PLAN

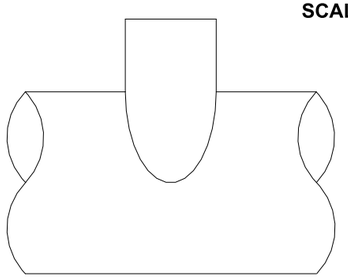


FRONT

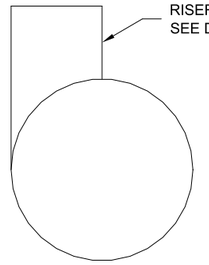
TYPICAL MANWAY DETAIL

SCALE: N.T.S.

NOTE:
MANWAY DETAIL APPLICABLE FOR CMP SYSTEMS WITH DIAMETERS 48" AND LARGER. MANWAYS MAY BE REQUIRED ON SMALLER SYSTEMS DEPENDING ON ACTUAL SITE SPECIFIC CONDITIONS.



ELEVATION

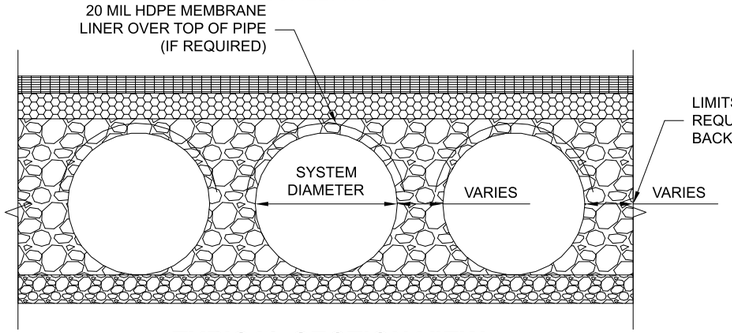


END

TYPICAL RISER DETAIL

SCALE: N.T.S.

NOTE:
LADDERS ARE OPTIONAL AND ARE NOT REQUIRED FOR ALL SYSTEMS.



TYPICAL SECTION VIEW

LINER OVER ROWS
SCALE: N.T.S.

NOTE: IF SALTING AGENTS FOR SNOW AND ICE REMOVAL ARE USED ON OR NEAR THE PROJECT, AN HDPE MEMBRANE LINER IS RECOMMENDED WITH THE SYSTEM. THE IMPERMEABLE LINER IS INTENDED TO HELP PROTECT THE SYSTEM FROM THE POTENTIAL ADVERSE EFFECTS THAT MAY RESULT FROM A CHANGE IN THE SURROUNDING ENVIRONMENT OVER A PERIOD OF TIME. PLEASE REFER TO THE CORRUGATED METAL PIPE DETENTION DESIGN GUIDE FOR ADDITIONAL INFORMATION.

The design and information shown on this drawing is provided as a service to the project owner, engineer and contractor by Contech Engineered Solutions LLC ("Contech"). Neither this drawing, nor any part thereof, may be used, reproduced or modified in any manner without the prior written consent of Contech. Failure to comply is done at the user's own risk and Contech expressly disclaims any liability or responsibility for such use.

If discrepancies between the supplied information upon which the drawing is based and actual field conditions are encountered as site work progresses, these discrepancies must be reported to Contech immediately for re-evaluation of the design. Contech accepts no liability for designs based on missing, incomplete or inaccurate information supplied by others.

DATE	REVISION DESCRIPTION	BY

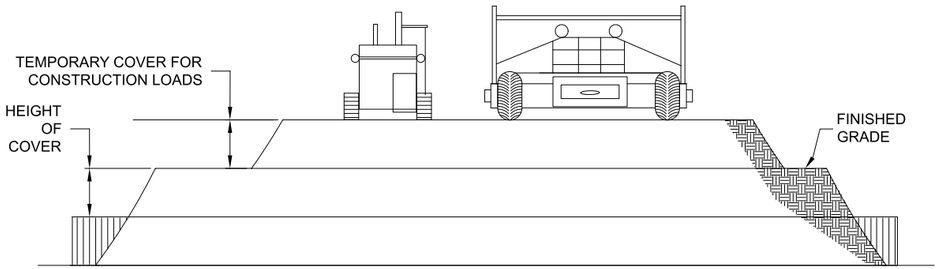
CONTECH ENGINEERED SOLUTIONS LLC
www.ContechES.com
9025 Centre Pointe Dr., Suite 400, West Chester, OH 45069
800-338-1122 513-645-7000 513-645-7993 FAX

CONTECH CMP DETENTION SYSTEMS
CONTECH DYODS DRAWING

DYO30787 Euclid and Walnut
Underground Detention
Ontario, CA
DETENTION SYSTEM

PROJECT No.:	SEQ. No.:	DATE:
20769	30787	4/26/2023
DESIGNED: DYO	DRAWN: DYO	
CHECKED: DYO	APPROVED: DYO	
SHEET NO.:		

C:\EXPORTS\TEMPLATES\CMP_V8.DWG 10/18/2019 10:02 AM



CONSTRUCTION LOADS

FOR TEMPORARY CONSTRUCTION VEHICLE LOADS, AN EXTRA AMOUNT OF COMPACTED COVER MAY BE REQUIRED OVER THE TOP OF THE PIPE. THE HEIGHT-OF-COVER SHALL MEET THE MINIMUM REQUIREMENTS SHOWN IN THE TABLE BELOW. THE USE OF HEAVY CONSTRUCTION EQUIPMENT NECESSITATES GREATER PROTECTION FOR THE PIPE THAN FINISHED GRADE COVER MINIMUMS FOR NORMAL HIGHWAY TRAFFIC.

PIPE SPAN, INCHES	AXLE LOADS (kips)			
	18-50	50-75	75-110	110-150
	MINIMUM COVER (FT)			
12-42	2.0	2.5	3.0	3.0
48-72	3.0	3.0	3.5	4.0
78-120	3.0	3.5	4.0	4.0
126-144	3.5	4.0	4.5	4.5

*MINIMUM COVER MAY VARY, DEPENDING ON LOCAL CONDITIONS. THE CONTRACTOR MUST PROVIDE THE ADDITIONAL COVER REQUIRED TO AVOID DAMAGE TO THE PIPE. MINIMUM COVER IS MEASURED FROM THE TOP OF THE PIPE TO THE TOP OF THE MAINTAINED CONSTRUCTION ROADWAY SURFACE.

CONSTRUCTION LOADING DIAGRAM

SCALE: N.T.S.

SPECIFICATION FOR DESIGNED DETENTION SYSTEM:

SCOPE
THIS SPECIFICATION COVERS THE MANUFACTURE AND INSTALLATION OF THE DESIGNED DETENTION SYSTEM DETAILED IN THE PROJECT PLANS.

MATERIAL
THE MATERIAL SHALL CONFORM TO THE APPLICABLE REQUIREMENTS LISTED BELOW:

ALUMINIZED TYPE 2 STEEL COILS SHALL CONFORM TO THE REQUIREMENTS OF AASHTO M-274 OR ASTM A-92.

THE GALVANIZED STEEL COILS SHALL CONFORM TO THE REQUIREMENTS OF AASHTO M-218 OR ASTM A-929.

THE POLYMER COATED STEEL COILS SHALL CONFORM TO THE REQUIREMENTS OF AASHTO M-246 OR ASTM A-742.

THE ALUMINUM COILS SHALL CONFORM TO THE APPLICABLE OF AASHTO M-197 OR ASTM B-744.

CONSTRUCTION LOADS
CONSTRUCTION LOADS MAY BE HIGHER THAN FINAL LOADS. FOLLOW THE MANUFACTURER'S OR NCSPA GUIDELINES.

PIPE
THE PIPE SHALL BE MANUFACTURED IN ACCORDANCE TO THE APPLICABLE REQUIREMENTS LISTED BELOW:

ALUMINIZED TYPE 2: AASHTO M-36 OR ASTM A-760

GALVANIZED: AASHTO M-36 OR ASTM A-760

APPLICABLE POLYMER COATED: AASHTO M-245 OR ASTM A-762

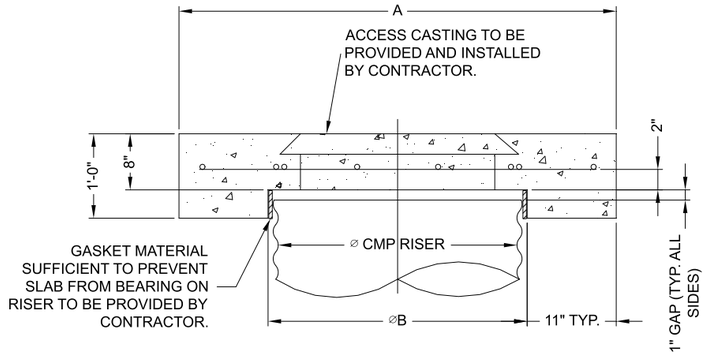
ALUMINUM: AASHTO M-196 OR ASTM B-745

APPLICABLE HANDLING AND ASSEMBLY
SHALL BE IN ACCORDANCE WITH NCSP'S (NATIONAL CORRUGATED STEEL PIPE ASSOCIATION) FOR ALUMINIZED TYPE 2, GALVANIZED OR POLYMER COATED STEEL. SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS FOR ALUMINUM PIPE.

REQUIREMENTS INSTALLATION
SHALL BE IN ACCORDANCE WITH AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES, SECTION 26, DIVISION II DIVISION II OR ASTM A-798 (FOR ALUMINIZED TYPE 2, GALVANIZED OR POLYMER COATED STEEL) OR ASTM B-788 (FOR ALUMINUM PIPE) AND IN CONFORMANCE WITH THE PROJECT PLANS AND SPECIFICATIONS. IF THERE ARE ANY INCONSISTENCIES OR CONFLICTS THE CONTRACTOR SHOULD DISCUSS AND RESOLVE WITH THE SITE ENGINEER.

IT IS ALWAYS THE RESPONSIBILITY OF THE CONTRACTOR TO FOLLOW OSHA GUIDELINES FOR SAFE PRACTICES.

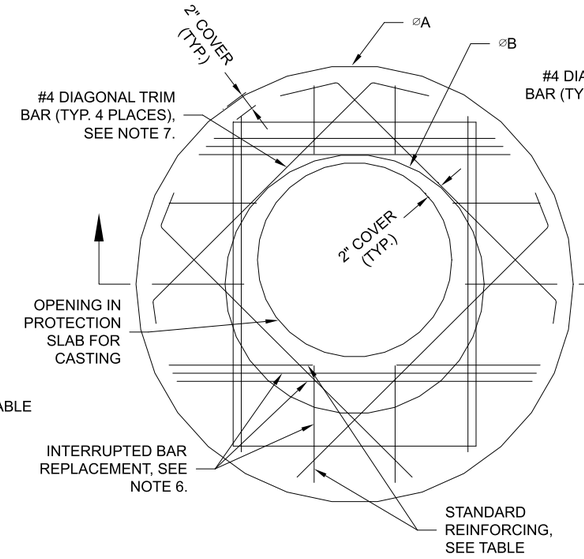
NOTE:
THESE DRAWINGS ARE FOR CONCEPTUAL PURPOSES AND DO NOT REFLECT ANY LOCAL PREFERENCES OR REGULATIONS. PLEASE CONTACT YOUR LOCAL CONTECH REP FOR MODIFICATIONS.



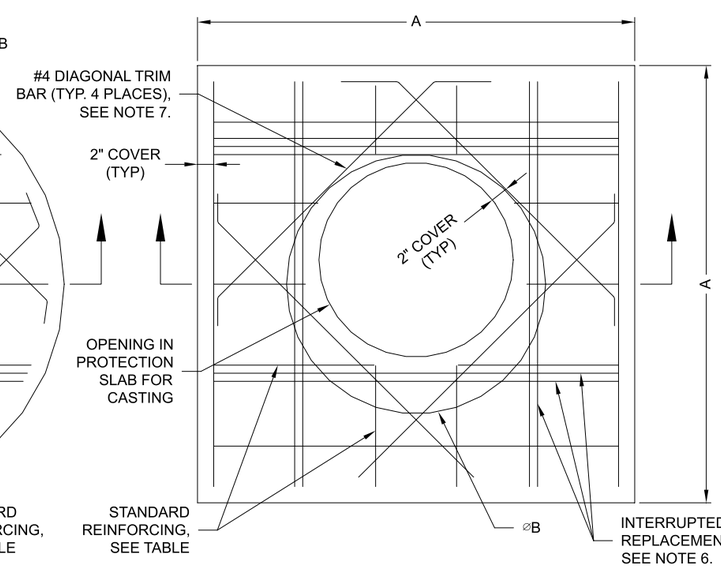
SECTION VIEW

REINFORCING TABLE				
⌀ CMP RISER	A	⌀ B	REINFORCING	**BEARING PRESSURE (PSF)
24"	⌀ 4' 4'X4'	26"	#5 @ 12" OCEW #5 @ 12" OCEW	2,410 1,780
30"	⌀ 4'-6" 4'-6" X 4'-6"	32"	#5 @ 12" OCEW #5 @ 12" OCEW	2,120 1,530
36"	⌀ 5' 5' X 5'	38"	#5 @ 10" OCEW #5 @ 10" OCEW	1,890 1,350
42"	⌀ 5'-6" 5'-6" X 5'-6"	44"	#5 @ 10" OCEW #5 @ 9" OCEW	1,720 1,210
48"	⌀ 6' 6' X 6'	50"	#5 @ 9" OCEW #5 @ 8" OCEW	1,600 1,100

** ASSUMED SOIL BEARING CAPACITY



ROUND OPTION PLAN VIEW



SQUARE OPTION PLAN VIEW

NOTES:

1. DESIGN IN ACCORDANCE WITH AASHTO, 17th EDITION.
2. DESIGN LOAD HS25.
3. EARTH COVER = 1' MAX.
4. CONCRETE STRENGTH = 3,500 psi
5. REINFORCING STEEL = ASTM A615, GRADE 60.
6. PROVIDE ADDITIONAL REINFORCING AROUND OPENINGS EQUAL TO THE BARS INTERRUPTED, HALF EACH SIDE. ADDITIONAL BARS TO BE IN THE SAME PLANE.
7. TRIM OPENING WITH DIAGONAL #4 BARS, EXTEND BARS A MINIMUM OF 12" BEYOND OPENING, BEND BARS AS REQUIRED TO MAINTAIN BAR COVER.
8. PROTECTION SLAB AND ALL MATERIALS TO BE PROVIDED AND INSTALLED BY CONTRACTOR.
9. DETAIL DESIGN BY DELTA ENGINEERING, BINGHAMTON, NY.

MANHOLE CAP DETAIL

SCALE: N.T.S.

The design and information shown on this drawing is provided as a service to the project owner, engineer and contractor by Contech Engineered Solutions LLC ("Contech"). Neither this drawing, nor any part thereof, may be used, reproduced or modified in any manner without the prior written consent of Contech. Failure to comply is done at the user's own risk and Contech expressly disclaims any liability or responsibility for such use.

If discrepancies between the supplied information upon which the drawing is based and actual field conditions are encountered as site work progresses, these discrepancies must be reported to Contech immediately for re-evaluation of the design. Contech accepts no liability for designs based on missing, incomplete or inaccurate information supplied by others.

DATE	REVISION DESCRIPTION	BY

CONTECH ENGINEERED SOLUTIONS LLC
www.ContechES.com
9025 Centre Pointe Dr., Suite 400, West Chester, OH 45069
800-338-1122 513-645-7000 513-645-7993 FAX

CONTECH CMP DETENTION SYSTEMS
CONTECH DYODS DRAWING

DYO30787 Euclid and Walnut
Underground Detention
Ontario, CA
DETENTION SYSTEM

PROJECT No.:	SEQ. No.:	DATE:
20769	30787	4/26/2023
DESIGNED: DYO	DRAWN: DYO	
CHECKED: DYO	APPROVED: DYO	
SHEET NO.:		

C:\EXPORTS\TEMPLATES\CMP_V8.DWG 10/18/2019 10:02 AM

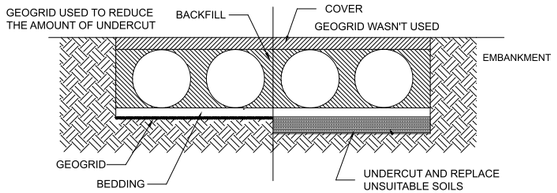
CMP DETENTION INSTALLATION GUIDE

PROPER INSTALLATION OF A FLEXIBLE UNDERGROUND DETENTION SYSTEM WILL ENSURE LONG-TERM PERFORMANCE. THE CONFIGURATION OF THESE SYSTEMS OFTEN REQUIRES SPECIAL CONSTRUCTION PRACTICES THAT DIFFER FROM CONVENTIONAL FLEXIBLE PIPE CONSTRUCTION. CONTECH ENGINEERED SOLUTIONS STRONGLY SUGGESTS SCHEDULING A PRE-CONSTRUCTION MEETING WITH YOUR LOCAL SALES ENGINEER TO DETERMINE IF ADDITIONAL MEASURES, NOT COVERED IN THIS GUIDE, ARE APPROPRIATE FOR YOUR SITE.

FOUNDATION

CONSTRUCT A FOUNDATION THAT CAN SUPPORT THE DESIGN LOADING APPLIED BY THE PIPE AND ADJACENT BACKFILL WEIGHT AS WELL AS MAINTAIN ITS INTEGRITY DURING CONSTRUCTION.

IF SOFT OR UNSUITABLE SOILS ARE ENCOUNTERED, REMOVE THE POOR SOILS DOWN TO A SUITABLE DEPTH AND THEN BUILD UP TO THE APPROPRIATE ELEVATION WITH A COMPETENT BACKFILL MATERIAL. THE STRUCTURAL FILL MATERIAL GRADATION SHOULD NOT ALLOW THE MIGRATION OF FINES, WHICH CAN CAUSE SETTLEMENT OF THE DETENTION SYSTEM OR PAVEMENT ABOVE. IF THE STRUCTURAL FILL MATERIAL IS NOT COMPATIBLE WITH THE UNDERLYING SOILS AN ENGINEERING FABRIC SHOULD BE USED AS A SEPARATOR. IN SOME CASES, USING A STIFF REINFORCING GEOGRID REDUCES OVER EXCAVATION AND REPLACEMENT FILL QUANTITIES.

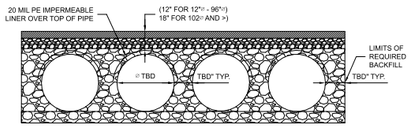


GRADE THE FOUNDATION SUBGRADE TO A UNIFORM OR SLIGHTLY SLOPING GRADE. IF THE SUBGRADE IS CLAY OR RELATIVELY NON-POROUS AND THE CONSTRUCTION SEQUENCE WILL LAST FOR AN EXTENDED PERIOD OF TIME, IT IS BEST TO SLOPE THE GRADE TO ONE END OF THE SYSTEM. THIS WILL ALLOW EXCESS WATER TO DRAIN QUICKLY, PREVENTING SATURATION OF THE SUBGRADE.

GEOMEMBRANE BARRIER

A SITE'S RESISTIVITY MAY CHANGE OVER TIME WHEN VARIOUS TYPES OF SALTING AGENTS ARE USED, SUCH AS ROAD SALTS FOR DEICING AGENTS. IF SALTING AGENTS ARE USED ON OR NEAR THE PROJECT SITE, A GEOMEMBRANE BARRIER IS RECOMMENDED WITH THE SYSTEM. THE GEOMEMBRANE LINER IS INTENDED TO HELP PROTECT THE SYSTEM FROM THE POTENTIAL ADVERSE EFFECTS THAT MAY RESULT FROM THE USE OF SUCH AGENTS INCLUDING PREMATURE CORROSION AND REDUCED ACTUAL SERVICE LIFE.

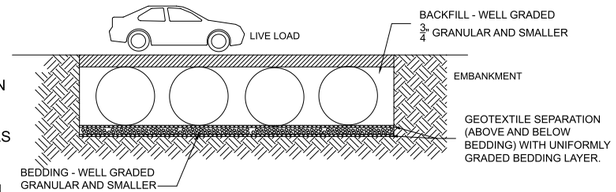
THE PROJECT'S ENGINEER OF RECORD IS TO EVALUATE WHETHER SALTING AGENTS WILL BE USED ON OR NEAR THE PROJECT SITE, AND USE HIS/HER BEST JUDGEMENT TO DETERMINE IF ANY ADDITIONAL PROTECTIVE MEASURES ARE REQUIRED. BELOW IS A TYPICAL DETAIL SHOWING THE PLACEMENT OF A GEOMEMBRANE BARRIER FOR PROJECTS WHERE SALTING AGENTS ARE USED ON OR NEAR THE PROJECT SITE.



IN-SITU TRENCH WALL

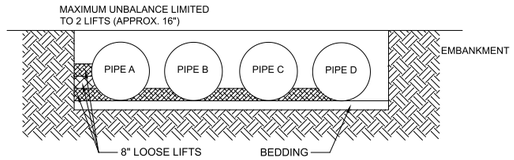
IF EXCAVATION IS REQUIRED, THE TRENCH WALL NEEDS TO BE CAPABLE OF SUPPORTING THE LOAD THAT THE PIPE SHEDS AS THE SYSTEM IS LOADED. IF SOILS ARE NOT CAPABLE OF SUPPORTING THESE LOADS, THE PIPE CAN DEFLECT. PERFORM A SIMPLE SOIL PRESSURE CHECK USING THE APPLIED LOADS TO DETERMINE THE LIMITS OF EXCAVATION BEYOND THE SPRING LINE OF THE OUTER MOST PIPES.

IN MOST CASES THE REQUIREMENTS FOR A SAFE WORK ENVIRONMENT AND PROPER BACKFILL PLACEMENT AND COMPACTION TAKE CARE OF THIS CONCERN.



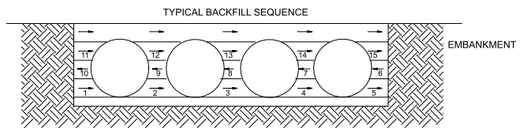
BACKFILL PLACEMENT

MATERIAL SHALL BE WORKED INTO THE PIPE HAUNCHES BY MEANS OF SHOVEL-SLICING, RODDING, AIR TAMPER, VIBRATORY ROD, OR OTHER EFFECTIVE METHODS.

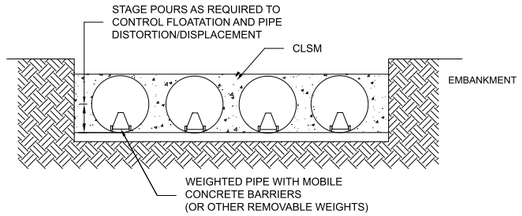


IF AASHTO T99 PROCEDURES ARE DETERMINED INFEASIBLE BY THE GEOTECHNICAL ENGINEER OF RECORD, COMPACTION IS CONSIDERED ADEQUATE WHEN NO FURTHER YIELDING OF THE MATERIAL IS OBSERVED UNDER THE COMPACTOR, OR UNDER FOOT, AND THE GEOTECHNICAL ENGINEER OF RECORD (OR REPRESENTATIVE THEREOF) IS SATISFIED WITH THE LEVEL OF COMPACTION.

FOR LARGE SYSTEMS, CONVEYOR SYSTEMS, BACKHOES WITH LONG REACHES OR DRAGLINES WITH STONE BUCKETS MAY BE USED TO PLACE BACKFILL. ONCE MINIMUM COVER FOR CONSTRUCTION LOADING ACROSS THE ENTIRE WIDTH OF THE SYSTEM IS REACHED, ADVANCE THE EQUIPMENT TO THE END OF THE RECENTLY PLACED FILL, AND BEGIN THE SEQUENCE AGAIN UNTIL THE SYSTEM IS COMPLETELY BACKFILLED. THIS TYPE OF CONSTRUCTION SEQUENCE PROVIDES ROOM FOR STOCKPILED BACKFILL DIRECTLY BEHIND THE BACKHOE, AS WELL AS THE MOVEMENT OF CONSTRUCTION TRAFFIC. MATERIAL STOCKPILES ON TOP OF THE BACKFILLED DETENTION SYSTEM SHOULD BE LIMITED TO 8- TO 10-FEET HIGH AND MUST PROVIDE BALANCED LOADING ACROSS ALL BARRELS. TO DETERMINE THE PROPER COVER OVER THE PIPES TO ALLOW THE MOVEMENT OF CONSTRUCTION EQUIPMENT SEE TABLE 1, OR CONTACT YOUR LOCAL CONTECH SALES ENGINEER.



WHEN FLOWABLE FILL IS USED, YOU MUST PREVENT PIPE FLOATATION. TYPICALLY, SMALL LIFTS ARE PLACED BETWEEN THE PIPES AND THEN ALLOWED TO SET-UP PRIOR TO THE PLACEMENT OF THE NEXT LIFT. THE ALLOWABLE THICKNESS OF THE CLSM LIFT IS A FUNCTION OF A PROPER BALANCE BETWEEN THE UPLIFT FORCE OF THE CLSM, THE OPPOSING WEIGHT OF THE PIPE, AND THE EFFECT OF OTHER RESTRAINING MEASURES. THE PIPE CAN CARRY LIMITED FLUID PRESSURE WITHOUT PIPE DISTORTION OR DISPLACEMENT, WHICH ALSO AFFECTS THE CLSM LIFT THICKNESS. YOUR LOCAL CONTECH SALES ENGINEER CAN HELP DETERMINE THE PROPER LIFT THICKNESS.

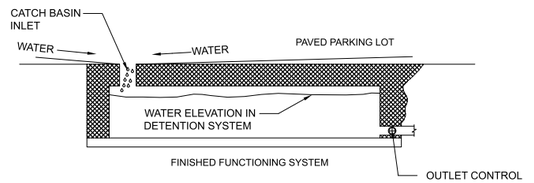


CONSTRUCTION LOADING

TYPICALLY, THE MINIMUM COVER SPECIFIED FOR A PROJECT ASSUMES H-20 LIVE LOAD. BECAUSE CONSTRUCTION LOADS OFTEN EXCEED DESIGN LIVE LOADS, INCREASED TEMPORARY MINIMUM COVER REQUIREMENTS ARE NECESSARY. SINCE CONSTRUCTION EQUIPMENT VARIES FROM JOB TO JOB, IT IS BEST TO ADDRESS EQUIPMENT SPECIFIC MINIMUM COVER REQUIREMENTS WITH YOUR LOCAL CONTECH SALES ENGINEER DURING YOUR PRE-CONSTRUCTION MEETING.

ADDITIONAL CONSIDERATIONS

BECAUSE MOST SYSTEMS ARE CONSTRUCTED BELOW-GRADE, RAINFALL CAN RAPIDLY FILL THE EXCAVATION; POTENTIALLY CAUSING FLOATATION AND MOVEMENT OF THE PREVIOUSLY PLACED PIPES. TO HELP MITIGATE POTENTIAL PROBLEMS, IT IS BEST TO START THE INSTALLATION AT THE DOWNSTREAM END WITH THE OUTLET ALREADY CONSTRUCTED TO ALLOW A ROUTE FOR THE WATER TO ESCAPE. TEMPORARY DIVERSION MEASURES MAY BE REQUIRED FOR HIGH FLOWS DUE TO THE RESTRICTED NATURE OF THE OUTLET PIPE.



CMP DETENTION SYSTEM INSPECTION AND MAINTENANCE

UNDERGROUND STORMWATER DETENTION AND INFILTRATION SYSTEMS MUST BE INSPECTED AND MAINTAINED AT REGULAR INTERVALS FOR PURPOSES OF PERFORMANCE AND LONGEVITY.

INSPECTION

INSPECTION IS THE KEY TO EFFECTIVE MAINTENANCE OF CMP DETENTION SYSTEMS AND IS EASILY PERFORMED. CONTECH RECOMMENDS ONGOING, ANNUAL INSPECTIONS. SITES WITH HIGH TRASH LOAD OR SMALL OUTLET CONTROL ORIFICES MAY NEED MORE FREQUENT INSPECTIONS. THE RATE AT WHICH THE SYSTEM COLLECTS POLLUTANTS WILL DEPEND MORE ON SITE SPECIFIC ACTIVITIES RATHER THAN THE SIZE OR CONFIGURATION OF THE SYSTEM.

INSPECTIONS SHOULD BE PERFORMED MORE OFTEN IN EQUIPMENT WASHDOWN AREAS, IN CLIMATES WHERE SANDING AND/OR SALTING OPERATIONS TAKE PLACE, AND IN OTHER VARIOUS INSTANCES IN WHICH ONE WOULD EXPECT HIGHER ACCUMULATIONS OF SEDIMENT OR ABRASIVE/ CORROSIVE CONDITIONS. A RECORD OF EACH INSPECTION IS TO BE MAINTAINED FOR THE LIFE OF THE SYSTEM

MAINTENANCE

CMP DETENTION SYSTEMS SHOULD BE CLEANED WHEN AN INSPECTION REVEALS ACCUMULATED SEDIMENT OR TRASH IS CLOGGING THE DISCHARGE ORIFICE.

ACCUMULATED SEDIMENT AND TRASH CAN TYPICALLY BE EVACUATED THROUGH THE MANHOLE OVER THE OUTLET ORIFICE. IF MAINTENANCE IS NOT PERFORMED AS RECOMMENDED, SEDIMENT AND TRASH MAY ACCUMULATE IN FRONT OF THE OUTLET ORIFICE. MANHOLE COVERS SHOULD BE SECURELY SEATED FOLLOWING CLEANING ACTIVITIES. CONTECH SUGGESTS THAT ALL SYSTEMS BE DESIGNED WITH AN ACCESS/INSPECTION MANHOLE SITUATED AT OR NEAR THE INLET AND THE OUTLET ORIFICE. SHOULD IT BE NECESSARY TO GET INSIDE THE SYSTEM TO PERFORM MAINTENANCE ACTIVITIES, ALL APPROPRIATE PRECAUTIONS REGARDING CONFINED SPACE ENTRY AND OSHA REGULATIONS SHOULD BE FOLLOWED.

ANNUAL INSPECTIONS ARE BEST PRACTICE FOR ALL UNDERGROUND SYSTEMS. DURING THIS INSPECTION, IF EVIDENCE OF SALTING/DE-ICING AGENTS IS OBSERVED WITHIN THE SYSTEM, IT IS BEST PRACTICE FOR THE SYSTEM TO BE RINSED, INCLUDING ABOVE THE SPRING LINE SOON AFTER THE SPRING THAW AS PART OF THE MAINTENANCE PROGRAM FOR THE SYSTEM.

MAINTAINING AN UNDERGROUND DETENTION OR INFILTRATION SYSTEM IS EASIEST WHEN THERE IS NO FLOW ENTERING THE SYSTEM. FOR THIS REASON, IT IS A GOOD IDEA TO SCHEDULE THE CLEANOUT DURING DRY WEATHER.

THE FOREGOING INSPECTION AND MAINTENANCE EFFORTS HELP ENSURE UNDERGROUND PIPE SYSTEMS USED FOR STORMWATER STORAGE CONTINUE TO FUNCTION AS INTENDED BY IDENTIFYING RECOMMENDED REGULAR INSPECTION AND MAINTENANCE PRACTICES. INSPECTION AND MAINTENANCE RELATED TO THE STRUCTURAL INTEGRITY OF THE PIPE OR THE SOUNDNESS OF PIPE JOINT CONNECTIONS IS BEYOND THE SCOPE OF THIS GUIDE.

C:\EXPORTS\TEMPLATES\CMP_V8.DWG 10/18/2019 10:02 AM

The design and information shown on this drawing is provided as a service to the project owner, engineer and contractor by Contech Engineered Solutions LLC ("Contech"). Neither this drawing, nor any part thereof, may be used, reproduced or modified in any manner without the prior written consent of Contech. Failure to comply is done at the user's own risk and Contech expressly disclaims any liability or responsibility for such use.

If discrepancies between the supplied information upon which the drawing is based and actual field conditions are encountered as site work progresses, these discrepancies must be reported to Contech immediately for re-evaluation of the design. Contech accepts no liability for designs based on missing, incomplete or inaccurate information supplied by others.

DATE	REVISION DESCRIPTION	BY

CONTECH ENGINEERED SOLUTIONS LLC
www.ContechES.com
9025 Centre Pointe Dr., Suite 400, West Chester, OH 45069
800-338-1122 513-645-7000 513-645-7993 FAX

CONTECH CMP DETENTION SYSTEMS
CONTECH DYODS DRAWING

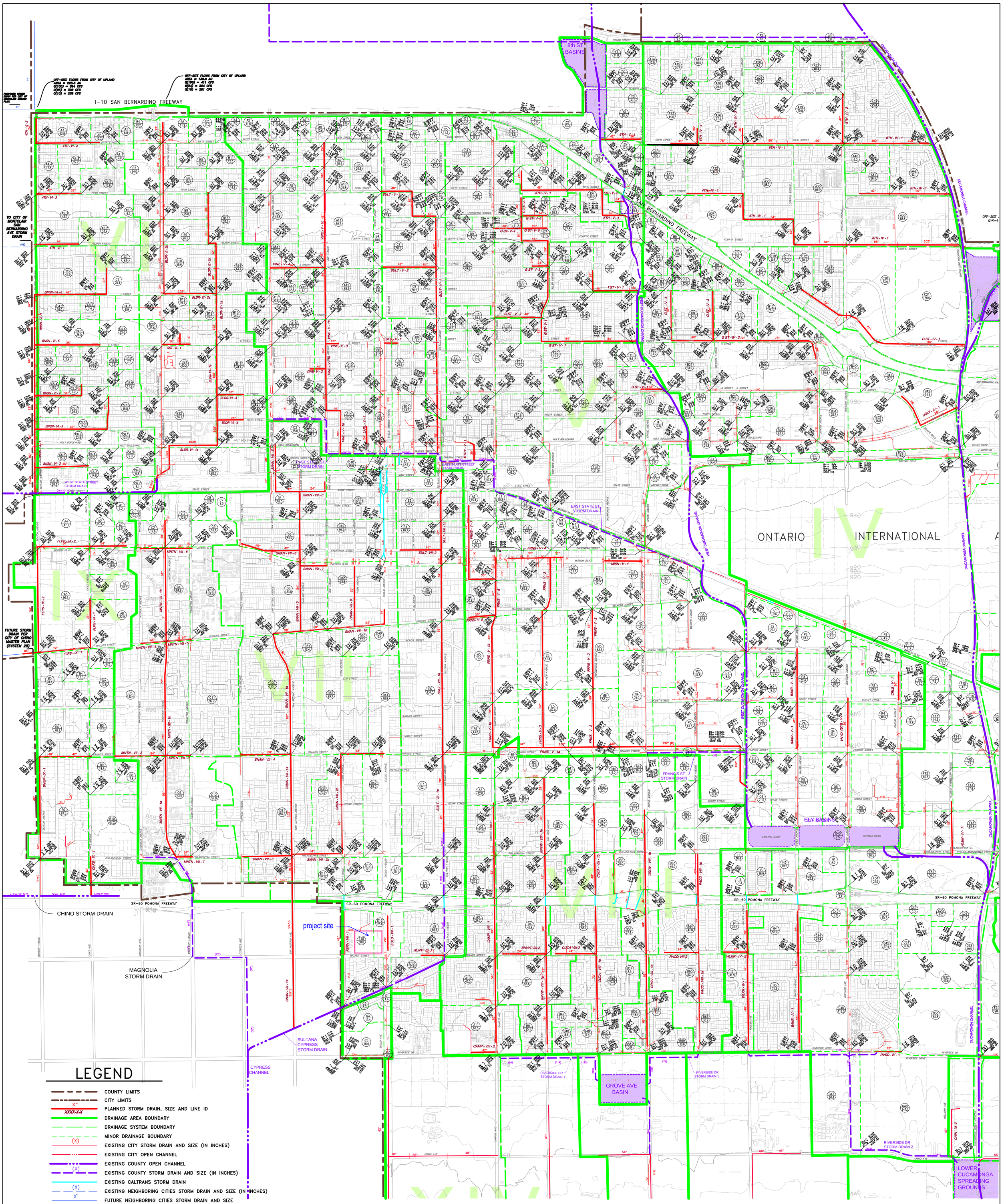
DYO30787 Euclid and Walnut
Underground Detention
Ontario, CA
DETENTION SYSTEM

PROJECT No.:	SEQ. No.:	DATE:
20769	30787	4/26/2023
DESIGNED: DYO	DRAWN: DYO	
CHECKED: DYO	APPROVED: DYO	
SHEET NO.:		

APPENDIX 6

SUPPORTING DOCUMENT (MPD MAP)

HYDROLOGY MAP
OLD MODEL COLONY–WEST



LEGEND

- COUNTY LIMITS
- CITY LIMITS
- X" / XXXX-X-X — PLANNED STORM DRAIN, SIZE AND LINE ID
- DRAINAGE AREA BOUNDARY
- DRAINAGE SYSTEM BOUNDARY
- MINOR DRAINAGE BOUNDARY
- (X) — EXISTING CITY STORM DRAIN AND SIZE (IN INCHES)
- EXISTING CITY OPEN CHANNEL
- EXISTING COUNTY OPEN CHANNEL
- (X) — EXISTING COUNTY STORM DRAIN AND SIZE (IN INCHES)
- EXISTING CALTRANS STORM DRAIN
- (X) / X" — EXISTING NEIGHBORING CITIES STORM DRAIN AND SIZE (IN INCHES)
- FUTURE NEIGHBORING CITIES STORM DRAIN AND SIZE
- EXISTING DETENTION BASIN
- X — DRAINAGE AREA #

DRAINAGE SYSTEM NAME — WLKR - XII - 3 — SYSTEM IDENTIFICATION
DRAINAGE AREA NUMBER — LINE NUMBER

X / X.X — AREA DESIGNATION / AREA ACREAGE (IN ACRES)

Q_{10} =861.0cfs
Q_{25} =981.1cfs
Q_{100}=1213.7cfs
833.9 AC — PEAK FLOW RATE
NODE 350 — AREA (IN ACRES) / NODE NO.

SCALE: 1" = 900'

900 450 0 900 2700
GRAPHIC SCALE 1"=900'

DATED: 7/10/2012 2:49 PM

MARCH 2012

REVISIONS

HUNSAKER & ASSOCIATES
IRVINE, INC.
PLANNING ▪ ENGINEERING ▪ SURVEYING
Three Hughes ▪ Irvine, CA 92618 ▪ PH: (949) 583-1010 ▪ FX: (949) 583-0759

CITY OF ONTARIO
MASTER PLAN OF DRAINAGE

1 OF 3

F:\0641\Engineering\SY_SD Master Plan\Rpt_SD Master Plan\HYDROLOGY MAPS\HYDROLOGY MAP-OMC-ALL.dwg

APPENDIX 7

SOILS REPORT

GEOTECHNICAL EXPLORATION REPORT
PROPOSED EUCLID AND WALNUT MIXED-USE DEVELOPMENT
112 WALNUT STREET, 2502 AND 2530 EUCLID AVENUE
ONTARIO, CALIFORNIA

Prepared For

LEGACY/COLLIER RESIDENTIAL, LLC
5154 CALIFORNIA AVENUE
IRVINE, CALIFORNIA 92617

Prepared By

LEIGHTON AND ASSOCIATES, INC.
17781 COWAN
IRVINE, CALIFORNIA 92614

Project No. 13493.001

May 13, 2022

May 13, 2022

Project No. 13493.001

Legacy/Collier Residential, LLC
5154 California Avenue
Irvine, California 92617

Attention: Mr. David Pinto

Subject: Geotechnical Exploration Report
Proposed "Euclid and Walnut Mixed Use" Development
112 Walnut Street, 2502 and 2530 Euclid Avenue
Ontario, San Bernardino County, California

In accordance with our March 30, 2022 proposal, Leighton and Associates, Inc. submits this geotechnical engineering report for the proposed Euclid and Walnut Mixed-Use Development located at 112 Walnut Street, 2502 and 2530 Euclid Avenue in the City of Ontario, California. The purpose of our study was to evaluate the subsurface soil and groundwater conditions at the site to provide geotechnical recommendations for the design and construction of the proposed concept as currently planned. The results of our exploration, findings, conclusions and recommendations are presented in this report.

The recommendations presented in this report are considered to be preliminary and subject to revision based upon the limited information regarding the proposed development. Upon review of project design concept plans, revision to the recommendations may be considered necessary. In addition, revision to design recommendations may be necessary upon review by the local building official or their designated, third party technical reviewer.

We sincerely appreciate the opportunity to be of service to you. If you have any questions or if we can be of further service, please contact us at ***(866) LEIGHTON***; directly at the phone extensions or e-mail as listed below.

Respectfully submitted,

LEIGHTON AND ASSOCIATES, INC.

PROFESSIONAL GEOLOGIST
ERIC M. HOLLIDAY
No. 9219
STATE OF CALIFORNIA

REGISTERED PROFESSIONAL ENGINEER
JOHN E. HAERTLE
No. 2352
GEOTECHNICAL
STATE OF CALIFORNIA

Eric M. Holliday, PG, 9219
Senior Project Geologist
Ext 4252, eholliday@leightongroup.com

John E. Haertle, PE, GE 2352
Principal Engineer
Ext: 4268, jhaertle@leightongroup.com

EMH/JEH/ lr

TABLE OF CONTENTS

Section **Page**

1.0 INTRODUCTION 1

1.1 Site Description 1
1.2 Proposed Development 1

1.2.1 Structural Loads 2
1.2.2 Finish Floor Elevations 2
1.2.3 Pavement 2
1.2.4 Ancillary Improvements 3

1.3 Purpose and Scope 3

2.0 GEOTECHNICAL FINDINGS 6

2.1 Regional Geologic Setting 6
2.2 Surficial Geology 6
2.3 Subsurface Soil Conditions 6

2.3.1 Undocumented Artificial Fill (Afu) 7
2.3.2 Quaternary-Aged Young Alluvial Fan Deposits (Qyf) 7

2.4 Engineering Properties 7

2.4.1 Expansive Soil Characteristics 7
2.4.2 Soil Corrosivity 8
2.4.3 Soil Compressibility 8
2.4.4 Shear Strength 9
2.4.5 Excavation Characteristics 9

2.5 Groundwater Conditions 9
2.6 Infiltration 10

3.0 SEISMIC AND GEOLOGIC HAZARDS 12

3.1 Surface Fault Rupture 12
3.2 Regional Faulting 12
3.3 Strong Ground Shaking 12
3.4 Liquefaction Potential 14
3.5 Seismically-Induced Settlement 14
3.6 Lateral Spreading 15
3.7 Earthquake-Induced Landsliding 16
3.8 Flooding 16
3.9 Seiches and Tsunamis 16
3.10 Methane 17

4.0 FINDINGS AND CONCLUSIONS 18

5.0 GEOTECHNICAL DESIGN RECOMMENDATIONS 19

5.1 Earthwork 19
5.1.1 Site Preparation 20
5.1.2 Removals and Overexcavations 20
5.1.3 Subgrade Preparation 21
5.1.4 Fill Placement and Compaction 22
5.1.5 Shrinkage and Bulking 22
5.1.6 Reuse of Concrete and Asphalt Rubble 23
5.2 Foundation Design 24
5.2.1 Vertical Load Bearing Capacity 24
5.2.2 Lateral Load Resistance 25
5.2.3 Settlement Estimate 26
5.3 Slab-on-Grade Floors 26
5.4 Temporary Excavations 27
5.5 Trench Backfill 28
5.6 Soil Corrosivity 29
5.7 Cement Type 30
5.8 Elevator Pit Wall Design 31
5.9 Pavements 31
5.9.1 Pavement Subgrades 31
5.9.2 Hot Mix Asphalt (HMA) Pavement Sections 31
5.9.3 Portland Cement Concrete (PCC) Pavements 33
5.10 Concrete Flatwork and Exterior Slabs 33
Surface 34
5.11 Drainage 34
5.12 Additional Geotechnical Services 35
6.0 LIMITATIONS 36
7.0 REFERENCES 38

Tables

Table 1 – Measured (Unfactored) Infiltration Rate 10
Table 2 – 2019 CBC Based Ground Motion Parameters (Mapped Values) 13
Table 3 – Seismically-Induced Settlement - MCE_G Seismic Event 15
Table 4 – Soil Corrosivity as a Function of Resistivity 29
Table 5 – Summary of Corrosivity Testing 30
Table 6 – Asphalt Pavement Sections 32

Attachments

Important Information About Your Geotechnical Engineering Report Rear of Text

Figure 1 – Site Location Map Rear of Text
Figure 2 – Geotechnical Map Rear of Text
Figure 3 – Regional Geology Map Rear of Text
Figure 4 – Regional Fault Map and Historical Seismicity Map Rear of Text
Figure 5 – Flood Hazard Zone Map Rear of Text
Figure 6 – Dam Inundation Map Rear of Text
Figure 7 – Retaining Wall Backfill and Subdrain Detail (EI≤50) Rear of Text

Appendix A – Exploration Logs
Appendix B – Percolation Test Data
Appendix C – Laboratory Test Results
Appendix D – General Earthworks and Grading Recommendations

1.0 INTRODUCTION

1.1 Site Description

The project site is a rectangular parcel of land, approximately 10.6-acres in size, located at the northwest corner of Walnut Street and Euclid Avenue in the city of Ontario, California. The site consists of the properties located at the street addresses of 112 W. Walnut Street, and 2502 and 2530 S. Euclid Avenue. The site is bordered by Euclid Avenue on the east, Walnut Street to the south, and residential development on the west and north. The southeastern region of the property is occupied by an existing Carl's Jr. restaurant. The site location (latitude 34.0275°, longitude -117.6524°) and immediate vicinity are shown on Figure 1, *Site Location Map.*

Based on visual site reconnaissance and review of the *Alta/NSPS Land Title Survey* prepared by Hillwig-Goodrow Inc., the site is currently occupied by a large rectangular-shaped structure formerly used as a K-Mart store located in the western portion of the site, and a strip mall retail development in the northeast region. The remainder of the site was generally paved with asphalt concrete and served as the parking lot for the development. The property is relatively flat, generally level with the adjacent roadways with site elevations (EL.) ranging from approximately EL. +823 feet above mean sea level (msl) in the northeastern region to approximately EL. +812 feet msl in the southwest region.

Based on review of historic aerial photographs (NETR, 2021), the project site appears to have a similar configuration dating back to at least 1985. The strip mall located in the northeast corner of the site was constructed between 1980 and 1985 and the K-Mart and Carl's Jr. structures were constructed at some point between 1966 and 1980. Prior to at least 1966, the site seems to have been used for agricultural purposes.

1.2 Proposed Development

Our understanding of the proposed development is based on review of the *Euclid and Walnut Mixed Use Site Plan* Options A and B, Scale 1" = 100', dated March 10, 2022, prepared by AO Architects (AOA, 2022). The development conceptually consists of two options for a proposed mixed-use development with 3- to 4-story residential and commercial structures:

- Option A includes a total of 346 residential units in 8 structures with 5,000 square feet of commercial development. In the Option A development scheme it appears the existing Carl's Jr. restaurant in the southeast corner of the site will remain.
- Option B consists of full-site development with 376 residential units in 10 structures with 11,400 square feet of commercial development.

We understand the current preferred option for development is Option A and, therefore, is the development scheme that serves as the basis for the geotechnical recommendations presented in this report. Ancillary improvements will include pavement for vehicle access and parking, landscaping, utility infrastructure, and flatwork.

1.2.1 Structural Loads

Information regarding total building height, finish floor elevations, and proposed loading conditions were not readily available at the time of this report. However, we understand that subterranean levels are not currently planned. Based upon the type of development planned for project site and our experience with similar developments, the buildings have been assumed to consist of wood frame structures supported by load bearing wall and isolated columns. Structural loads have been assumed to be a maximum of 3 kips per lineal foot for bearing walls and 40 kips for columns, Should additional design information become available, it should be provided to Leighton for review.

1.2.2 Finish Floor Elevations

The finish first floor elevations of the proposed structures have been assumed to be within 1 to 2 feet of existing grade with floor elevations established or minimize cut and fill required on site. The actual quantity of cut and fill will be dependent upon the actual floor elevations determined by the project civil engineer and the quantity of overexcavation required to prepare building pad areas.

1.2.3 Pavement

Pavements proposed for the development are expected to be primarily subjected to automobiles and occasional heavy truck traffic. Pavement

recommendations have been based upon a Traffic Index of 4.0 for automobile parking stalls; 5.0 for general purpose drive aisles; and 6.0 for areas subject to heavy trucks. Pavement recommendations have been based upon a twenty-year design life.

1.2.4 Ancillary Improvements

Based on email correspondence with Mr. Steve Ellis with Fuscoe Engineering, Inc., we understand preliminary infiltration system design is considering an invert depth of 15 feet below ground surface (bgs) along the southern property line.

1.3 Purpose and Scope

The purpose of our geotechnical exploration was to evaluate the subsurface conditions at the site relative to the proposed development concept and provide geotechnical recommendations to aid in the design and construction for the project as currently planned. The scope of this geotechnical exploration included the following tasks:

- *Background Review* – We reviewed readily available in-house geotechnical reports, literature, aerial photographs, and maps relevant to the site. We evaluated geological hazards and potential geotechnical issues that may significantly impact the site. The documents reviewed are listed in Section 7.0.

- *Pre-Field Exploration Activities* – A site visit was performed by a member of our technical staff to mark the proposed exploration locations. Underground Service Alert (USA) was notified to identify and mark the locations of existing underground utilities prior to our subsurface exploration.

- *Field Exploration* – Our subsurface exploration was performed on April 6, 2022 and included drilling, logging, and sampling of five (5) hollow-stem auger borings (designated LB-1 through LB-5) to approximate depths ranging from 25 to 51½ feet below the existing ground surface (bgs). One (1) additional boring (designated LP-2) was drilled to an approximate depth of 20 feet bgs for subsequent percolation testing. To supplement the hollow-stem auger borings, four (4) Cone Penetrometer Test (CPT) soundings (designated CPT-1 through CPT-4) were advanced to depths of approximately 50 feet bgs. The approximate locations of the explorations are shown on Figure 2, *Geotechnical Map.* The boring and CPT logs are presented in Appendix A, *Exploration Logs.*

During drilling of the hollow-stem auger borings both bulk and drive samples were obtained from the borings for geotechnical laboratory testing. Driven ring samples were collected from the borings using a Modified California ring-lined sampler conducted in accordance with ASTM Test Method D 3550. Representative samples were also collected by conducting the Standard Penetration Test (SPT) within the borings in accordance with ASTM Test Method D 1586. Samples were collected at 5-foot intervals throughout the depth of exploration. In both test methods, the sampler is driven below the bottom of the borehole by a 140-pound weight (hammer) free-falling 30 inches. The drilling rig was equipped with an automatic hammer to provide greater consistency in the drop height and striking frequency. The number of blows to drive the sampler the final 12-inches of the 18-inch drive interval is termed the "blowcount" or SPT N-value. The N-values provide a measure of relative density in granular (non-cohesive) soils and comparative consistency in cohesive soils. The number of blows per 6 inches of penetration was recorded on the boring logs included in Appendix A, *Exploration Logs*.

The borings were logged in the field by a geologist from our firm. Each soil sample collected was reviewed and described in accordance with the Unified Soil Classification System (USCS). The samples were sealed and packaged for transportation to our laboratory. After completion of drilling, the borings were backfilled with soil cuttings and patched with cold-mix asphalt concrete at the surface.

- *Percolation Testing* – Boring LB-4 /LP-1 and LP-2 were converted to temporary percolation test wells upon completion of drilling and sampling. The test wells consisted of 2-inch diameter slotted (0.020") PVC well casing surrounded by #3 Monterey Sand placed in the annulus of the borehole within the test zone. In-situ percolation testing was performed in general accordance with the County of San Bernardino guidelines. The results of the percolation testing are presented in Appendix B, *Percolation Test Data*. Additional details regarding the field percolation tests and results are presented in Section 2.4.1, *Infiltration*. Upon completion of the percolation testing, the well casing was removed from each boring and the borings were backfilled with soil cuttings and patched at the surface with cold-mix asphalt concrete to match existing site conditions.

- *Laboratory Testing* – Laboratory tests were performed on selected soil samples obtained from the borings during our field exploration. The laboratory testing

program was designed to evaluate the physical and engineering characteristics of the onsite soil. Tests performed during this exploration included:

- In- situ Moisture Content and Dry Density (ASTM D2216 and ASTM D2937);
- Atterberg Limits (ASTM D 4318)
- Direct Shear (ASTM D 3080)
- Consolidation (ASTM D 2435);
- One Dimensional Swell or Settlement (ASTM D 4546)
- Maximum Dry Density (ASTM D 1557);
- Particle Size Distribution (ASTM D 6913);
- Expansion Index (ASTM D 4829);
- R-value (DOT CA Test 301)
- Sand Equivalent Test (DOT CA Test 217); and
- Corrosivity Suite – pH, Sulfate, Chloride, and Resistivity (California Test Methods 417, 422, and 532/643).

Results of the in-situ moisture content and dry density testing are presented on the boring logs in Appendix A. Other laboratory test results are presented in Appendix C, *Laboratory Test Results*

- *Engineering Analysis* – The data obtained from our background review and field exploration were evaluated and analyzed to develop recommendations for the proposed development.
- *Report Preparation* – This report presents our findings, conclusions, and recommendations for the proposed development.

2.0 GEOTECHNICAL FINDINGS

2.1 Regional Geologic Setting

The project site is located in the Chino Basin in the northern portion of the Peninsular Ranges geomorphic province of California. Major structural features surround this region, including the Cucamonga fault and the San Gabriel Mountains to the north, the Chino fault and Puente/Chino Hills to the west, and the San Jacinto fault to the east. This is an area of large-scale crustal disturbance as the relatively northwestward moving Peninsular Ranges province collides with the Transverse Ranges province (San Gabriel Mountains) to the north. Several active and potentially active faults have been mapped in the region and are believed to accommodate compression associated with this collision. The Sierra Madre fault, a major structural feature along the southern flank of the San Gabriel Mountains, is located approximately 8.3 miles north of the site. This fault, as well as other faults in the region, has the potential for generating strong ground motions at the project site. Further discussion of faulting relative to the site is provided in Section 3.0, Seismic and Geologic Hazards.

The site is located in an area underlain by thick accumulations of alluvial sand, silt, gravel, cobbles, and boulders eroded from the mountains and deposited in the site vicinity by the Santa Ana River and smaller tributaries such as the San Antonio Creek and Cucamonga Creek (Morton and Miller, 2006; Dibblee, 2002).

2.2 Surficial Geology

The Quaternary age deposits that cover the floor and margins of the Chino Basin are composed primarily of unconsolidated recent (Holocene) young alluvial fan deposits consisting predominately of sands and gravels derived from the surrounding mountains and hills with finer clays and silts deposited into the basin over the broad floodplain. The surficial geologic units mapped in the vicinity of the project site are shown on Figure 3, *Regional Geology Map*.

2.3 Subsurface Soil Conditions

Based on our subsurface explorations, the site is underlain by a relatively thin mantle of undocumented artificial fill materials (Afu) overlying Quaternary-aged (Holocene) young alluvial fan deposits (Qyf).

A general description of the encountered soils is presented as follows:

2.3.1 Undocumented Artificial Fill (Afu)

The artificial fill encountered in our borings extended to a depth of approximately 5 feet below grade and likely associated with the existing site improvements. In general, the encountered fill soils consist primarily of sandy silt and silty sand. Localized thicker accumulations of fill materials may be present between explored locations, particularly beneath the existing buildings.

2.3.2 Quaternary-Aged Young Alluvial Fan Deposits (Qyf)

Below the mantle of artificial fill material, Quaternary-aged young alluvial fan deposits were encountered in the borings to the maximum depth explored (approximately 51½ feet). As encountered, this younger alluvial unit consists of stiff to very stiff sandy silt, silty clay, and clay; interbedded with medium dense to dense silty sand, sand with silt, and sand with gravel. Although relatively variable across the site, in general, fine-grained material is more prevalent in the upper 15 to 25 feet with coarser grained material becoming more frequent at depths of 25 feet or greater.

Detailed descriptions of the subsurface soils encountered in the borings are presented on the logs included in Appendix A. The locations of the borings are shown on Figure 2, *Geotechnical Location Map.*

2.4 Engineering Properties

The results of laboratory testing are presented in Appendix C of this report. Discussion regarding select engineering properties of these soils are described in the following sections based upon the results of the laboratory testing program.

2.4.1 Expansive Soil Characteristics

Expansive soils contain significant amounts of clay particles that swell considerably when wetted and which shrink when dried. Foundations constructed on these soils are subject to uplifting forces caused by the swelling. Without proper mitigation measures, heaving and cracking of both building foundations and slabs-on-grade could result.

One (1) near-surface bulk soil sample collected from Boring LB-1 was tested for expansion potential. The test results indicate an Expansion Index (EI) value of 18, corresponding to a "Very Low" expansion potential. The Expansion Index laboratory test results are included in Appendix C of this report.

Variance in expansion potential of onsite soil is anticipated; therefore, additional testing is recommended upon completion of site grading and excavation to confirm the expansion potential presented in this report. For purposes of this report and based upon visual characterization of alluvial materials at approximate foundation depth, low expansion potential of site materials may be considered to support design and verified upon completion of earthwork grading.

2.4.2 Soil Corrosivity

One (1) near-surface bulk soil sample collected from Boring LB-3 was tested for corrosivity to assess corrosion potential to buried concrete. The chemical analysis test results for the onsite soil from our geotechnical exploration are included in Appendix C of this report.

The test results indicate a soluble sulfate concentration of 266 parts per million (ppm), chloride content of 40 ppm, pH 7.92, and a minimum resistivity value of 1,335 ohm-cm.

The results of the resistivity tests indicate the underlying soil is severely corrosive to buried ferrous metals per ASTM STP 1013. Based on the measured water-soluble sulfate contents from the soil samples, concrete in contact with the soil is expected to have negligible exposure to sulfate attack per ACI 318 (ACI, 2014). The samples tested for water-soluble chloride content indicate a low potential for corrosion of steel in concrete due to the chloride content of the soil.

2.4.3 Soil Compressibility

Three (3) samples of the onsite soils recovered from the borings were subjected to consolidation testing to evaluate the compressibility of these materials under assumed loads representative of anticipated structural bearing stresses. The results of testing indicate these soils exhibit a low

compressibility potential. The results of testing are presented in Appendix C.

2.4.4 Shear Strength

Evaluation of the shear strength characteristics of the soils included laboratory direct shear testing. The results of testing are included in Appendix C that provide values of angle of internal friction (ø) and cohesion (c) for use in geotechnical analysis.

2.4.5 Excavation Characteristics

Based on our subsurface explorations performed at the site and our experience from grading jobs in the vicinity of the site, we anticipate the onsite artificial fill and alluvial materials can generally be excavated using conventional excavation equipment in good operating condition.

The soils within the planned excavation depths are variable, and locally consist of layers that contain granular, unconsolidated soils with little or no cementation and few fines. These materials are prone to cave in or collapse in unshored excavations. See Section 5.4, *Temporary Excavations* for additional information on soil type and excavation characteristics.

2.5 Groundwater Conditions

Groundwater was not encountered during our subsurface exploration to the maximum depth of 51.5 feet bgs. Based on review of the *Chino Basin Optimum Basin Management Plan 2008 State of the Basin Report* (Wildermuth, 2009), groundwater depth at the site is anticipated to be on the order of approximately 225 feet bgs. Review of available information from the California Department of Water Resources (DWR, 2022) for a nearby groundwater monitoring well located approximately 1.8 miles northwest of the project site (State Well # 01S07W29A001S) indicates the shallowest groundwater level measured for a monitoring period between October 1959 and September 2021 was approximately 214 feet bgs in 1959; with the most recent groundwater levels documented to be on the order of 250 feet bgs.

Based on these findings, groundwater is not expected to pose a constraint during or after construction. Fluctuations of the groundwater level, localized zones of perched water, and an increase in soil moisture, should be anticipated during and

following the rainy seasons or periods of locally intense rainfall or storm water runoff, or from stormwater infiltration.

2.6 Infiltration

Percolation testing was performed in temporary wells installed within borings LB-4/LP-1 and LP-2 located in the southern region of the site with test zone at depths of 17 to 22 feet bgs and 15 to 20 feet bgs, respectively. The percolation tests were conducted in general accordance with the *San Bernardino County Technical Guidance Document (TGD) for Water Quality Management Plans* (2013). Results of the percolation testing are presented in Appendix B. The test locations and tested depth intervals are shown on Figure 2.

A boring percolation test is useful for field measurements of the infiltration rate of soils, and is suited for testing when the design depth of the infiltration device is deeper than current existing grades, especially in areas where it is difficult to dig test pits, or where the depths of these test pits would be considerably deep. At the subject site, testing consisted of advancing the borings to the anticipated depth for the invert of the proposed infiltration devices.

The *Percolation Test Procedure* (falling-head test method) as outlined in the County Guidelines was implemented at each percolation test well location. The infiltration rate was calculated by dividing the rate of discharge by the infiltration surface area, or flow area. The volume of discharge was calculated by adding the total volume of water that dropped within the PVC pipe and within the annulus, and incorporating a porosity reduction factor to account for the porosity of the annulus material. The flow area was based on the average water height within the test well.

Detailed results of the field testing data and measured infiltration rate for the test well are presented in Appendix B. The test results are summarized in the table below:

Table 1 – Measured (Unfactored) Infiltration Rate

Test Well Designation	Approximate Depth of Test Zone (feet bgs)	Measured Infiltration Rate (inches per hour)
LB-4/LP-1	17 to 22	0.32
LP-2	15 to 20	0.69

Based on the results of our field percolation testing that was performed at the site, the measured (unfactored) infiltration rates for the two (2) tests performed were 0.32 inches per hour (LB-4/LP-1) and 0.69 inches per hour (LP-2), respectively. According to the *San Bernardino County Technical Guidance Document (TGD) for Water Quality Management Plans* (2013), the measured infiltration rate at both test well locations technically exceeds the minimum feasibility criteria of 0.3 inch per hour. However, implementation of a minimum factor of safety of 2.0 as required for the design infiltration rate indicates the depth and location tested for LB-4/LP-1 is considered infeasible for infiltration.

In consideration of the general greater prevalence of coarse-grained material at the site below depths of 25 feet or deeper, a more feasible infiltration rate may be achieved in percolation testing performed at depths greater than those tested during this exploration.

3.0 SEISMIC AND GEOLOGIC HAZARDS

Depending upon the geographic location and geologic setting of a particular site in southern California, seismic-related hazards can include surface fault rupture; strong ground shaking; seismically-induced landslides; liquefaction and associated effects such as settlement and/or lateral spreading; and seiches, tsunamis and/or flooding depending upon the proximity of bodies of water. The following sections discuss each of these hazards and potential effect upon this site.

3.1 Surface Fault Rupture

Known surface faults in the region are mapped on Figure 4, *Regional Surface Fault and Historical Seismicity Map*. Review of available literature indicates that no known active faults have been mapped across the site, and the site is **not** located within a currently established *Alquist-Priolo Earthquake Fault Zone* (Bryant and Hart, 2007). Therefore, a surface fault rupture hazard evaluation is not mandated for this site. Given an absence of known faults, potential risk for surface fault rupture at this site is low.

3.2 Regional Faulting

The location of the closest active faults to the site was evaluated using the United States Geological Survey (USGS) Earthquake Hazards Program National Seismic Hazard Maps (USGS, 2008b). The closest active faults to the site with the potential for surface fault rupture are the Chino fault, San Jose fault, Cucamonga fault and Sierra Madre fault, located approximately 4.7 miles, 6.0 miles, 7.9 miles and 8.3 miles from the site, respectively. The San Andreas fault, which is the largest active fault in California, is approximately 20.3 miles northeast of the site on the north side of the San Gabriel Mountains. As discussed, major regional faults with surface expression in proximity to the site are shown on Figure 4, *Regional Fault and Historic Seismicity Map*.

3.3 Strong Ground Shaking

The principal seismic hazard to the site is ground shaking resulting from an earthquake occurring along any of several major active and potentially active faults in southern California (Figure 4). The intensity of ground shaking at a given location depends primarily upon the earthquake magnitude, the distance from the source, and the site response characteristics. Accordingly, design of the project should be performed in accordance with all applicable current codes and standards

utilizing the appropriate seismic design parameters to reduce seismic risk as defined by California Geological Survey (CGS) Chapter 2 of Special Publication 117A (CGS, 2008). The 2019 edition of the California Building Code (CBC) is the current edition of the code. Through compliance with these regulatory requirements and the utilization of appropriate seismic design parameters selected by the design professionals, potential effects relating to seismic shaking can be reduced.

The following code-based seismic parameters should be considered for design under the 2019 CBC:

Table 2 – 2019 CBC Based Ground Motion Parameters (Mapped Values)

Categorization/Coefficient	Code-Based
Site Latitude	34.0275°
Site Longitude	-117.6523°
Site Class	D
Mapped Spectral Response Acceleration at Short Period (0.2 sec), S_S	1.5 g
Mapped Spectral Response Acceleration at Long Period (1 sec), S_1	0.579 g
Short Period (0.2 sec) Site Coefficient, F_a	1.0
Long Period (1 sec) Site Coefficient, F_v	1.72*
Adjusted Spectral Response Acceleration at Short Period (0.2 sec), S_{MS}	1.5 g
Adjusted Spectral Response Acceleration at Long Period (1 sec), S_{M1}	0.996*
Design Spectral Response Acceleration at Short Period (0.2 sec), S_{DS}	1.0 g
Design Spectral Response Acceleration at Long Period (1 sec), S_{D1}	0.664*
Site Coefficient for Peak Ground Acceleration, F_{PGA}	1.1
Peak Ground Acceleration adjusted for Site Class effects, PGA_M	0.644 g

1. All were derived from the ASCE 7 Hazard Tool web page: https://asce7hazardtool.online/
2. All coefficients in units of g (spectral acceleration)
3. *Requires C_s calculation, see *Note* below.

Based on Table 1613.2.3(2) of the 2019 CBC, the long period site coefficient (F_v) should be determined in accordance with Section 11.4.8 of ASCE 7-16 since the mapped spectral response acceleration at 1 second is greater than 0.2g for Site Class D. In accordance with Section 11.4.8 of ASCE 7-16, a site-specific seismic analysis is required; however, the values provided herein may be utilized if design

is performed in accordance with exception (2) in Section 11.4.8 of ASCE 7-16, with special requirements for the seismic response coefficient (Cs) as noted below. The project structural engineer should review the seismic parameters.

Note: Long period coefficient (Fv) of 1.7 may be utilized for calculation of Ts, provided that the value of the Seismic Response Coefficient (Cs) is determined by Equation 12.8-2 for values of the fundamental period of the building (T) less than or equal to 1.5Ts, and taken as 1.5 times the value computed in accordance with either equation 12.8-3 for T greater than 1.5 Ts and less than or equal to T_L or equation 12.8-4 for T greater than T_L.

3.4 Liquefaction Potential

The term liquefaction is generally referenced to loss of strength and stiffness in soils due to build-up of pore water pressure when subject to cyclic or monotonic loading. Both sandy and clayey soils are susceptible to loss of strength and stiffness. Because of the difference in strength characteristic and methods for evaluating strength loss potential for granular and clayey soils, the term liquefaction is used for granular soils while cyclic softening is used for fine-grained soils (i.e. clays and plastic silts).

In general, adverse effects of liquefaction or cyclic softening include excessive ground settlement, loss of bearing support for structural foundations, and seismically-induced lateral ground deformations such as lateral spreading. Depending upon the relative thickness of the liquefied strata with respect to overlying non-liquefiable soils, other potentially adverse effects such as ground oscillation and ground fissuring may occur.

As regionally mapped on the California Geological Survey *Earthquake Zones of Required Investigation (EZRIM) for the Ontario Quadrangle* (CGS, 200) and shown on Figure 4, *Seismic Hazard Zone Map*, the site is **not** within an area potentially susceptible to liquefaction. In addition, review of the San Bernardino County *Geologic Hazard Overlays* map FH27C (2010), the project site is not located within a County liquefaction susceptibility zone. The historically shallowest groundwater level recorded by DWR near the site is 214 feet bgs and the recent recorded depth to groundwater is greater than 200 feet bgs. Based on these findings, liquefaction is not considered a hazard at the site.

3.5 Seismically-Induced Settlement

Seismically-induced settlement consists of dynamic settlement of unsaturated soil (above groundwater) and liquefaction-induced settlement (below groundwater).

These settlements occur primarily within low density sandy soil due to reduction in volume during and shortly after an earthquake event.

As previously discussed, the site is not considered susceptible to the occurrence of liquefaction. Therefore, seismically-induced settlement will consist solely of densification of non-saturated soils upon exposure to strong ground shaking. Evaluation of the potential for such seismically-induced settlements to occur was performed for the Geomean Maximum Considered Event (MCE_G) and the associated ground motion that corresponds to a 2,475 year average return period (ARP) for the CPT soundings that were advanced to a depth of 50 feet below grade. The results of the analysis are presented below:

Table 3 – Seismically-Induced Settlement - MCE_G Seismic Event

Design Scenario		CPT I.D.	Settlement (inches)		
PGA	M_W		Liquefaction[1]	Non-Liquefaction[2]	Total
0.64	6.78	CPT-1	No Liquefaction	0.23	0.23
		CPT-2	No Liquefaction	0.09	0.09
		CPT-3A	No Liquefaction	0.16	0.16
		CPT-4	No Liquefaction	0.45	0.45

Notes: (1) Liquefaction-induced settlement; Design Groundwater below depth of 50 feet

(2) Non-liquefaction induced ("dry sand") settlement

The results of the analysis indicated the magnitude of seismically-induced settlement under the MCE_G scenario will be less than ½ to 1 inch. Based on the general consistency in soil conditions as depicted by the test borings conducted at the site, the differential settlement is estimated to be approximately ½ inch over a distance of at least 40 feet, which results in an angular distortion less than 0.0021 in./in., which is anticipated to be within tolerable levels for structural design.

3.6 Lateral Spreading

Liquefaction may also cause lateral spreading. For lateral spreading to occur, the liquefiable zone must be continuous, unconstrained laterally, and free to move along gently sloping ground toward an unconfined area. Since the site is relatively flat and constrained laterally and liquefaction is not considered a hazard at the site, earthquake-induced lateral spreading is also not considered a hazard at the site.

3.7 Earthquake-Induced Landsliding

As regionally mapped on the California Geological Survey *Earthquake Zones of Required Investigation for the Torrance Quadrangle* (CGS, March 25, 1999) and shown on Figure 4, *Seismic Hazard Zone Map*, the site is **not** located within an area potentially susceptible to liquefaction (CGS, 2000a). Review of the San Bernardino County *Geologic Hazard Overlays* map FH27C (2010) indicates the project site is not located within a County landslide susceptibility zone. The project site is relatively flat with no significant slopes on or immediately adjacent. It is our opinion that seismically-induced landsliding is not considered a hazard at the site.

3.8 Flooding

According to a Federal Emergency Management Agency (FEMA) flood insurance rate map (FEMA, 2015), the project site is located within a flood hazard area identified as “Zone X”, which is defined as an area of minimal flood hazard. Regionally, storm runoff flow is generally directed to the southwest. As shown on Figure 5, *Flood Hazard Zone Map*, the site is **not** located within a 100-year or 500-year flood hazard zone.

Earthquake-induced flooding can be caused by failure of dams or other water-retaining structures as a result of earthquakes. As shown on Figure 6, *Dam Inundation Map*, the site **is** mapped within an inundation zone associated with San Antonio Dam. Catastrophic failure of this dam is expected to be a very unlikely event in that dam safety regulations exist and are enforced by the DOSD, Army Corps of Engineers and Department of Water Resources. Inspectors may require dam owners to perform work, maintenance or implement controls if issues are found with the safety of the dam. Due to the location and distance of the site from San Antonio Dam, along with the unlikely failure of the dam, the potential for earthquake-induced flooding to occur due to a failure of this dam is considered low.

3.9 Seiches and Tsunamis

Seiches are large waves generated in enclosed bodies of water in response to ground shaking. Tsunamis are waves generated in large bodies of water by fault displacement or major ground movement. Based on the absence of an enclosed water body near the site and the inland location of the site, seiche and tsunami risks at the site are considered negligible.

3.10 Methane

Based on review of State of California Geologic Energy Management Division (CalGEM) records, the project site is not located within an oil field boundary (CalGEM, 2021). The nearest documented oil well to the site is located approximately 0.6 miles southwest of the site (API# 0407100083; Donald B. Lamont, Donald B. Lamont Lease, Well No. 1) and is reported as a plugged dry hole (CalGEM, 2021). Based on these findings, the potential for methane hazard at the site is low.

4.0 FINDINGS AND CONCLUSIONS

No evidence of adverse geological or geotechnical hazards was noted at the site that will preclude the development of the project as currently planned. Presented below is a summary of findings based upon the results of our geotechnical exploration of the site. Geotechnical recommendations for design and construction are presented in Section 4.0 of this report.

- The potential for surface fault rupture is considered to be low since the site is not located in a designated Alquist-Priolo Earthquake Fault Zone.

- The site may be subjected to strong ground shaking during the design life of the proposed development due to the proximity of several active faults in the vicinity of the site. The Chino fault, located approximately 4.7 miles southwest of the site is the nearest active fault to the site with a potential for surface rupture and generation of strong ground shaking. However, strong ground shaking may occur at the site due to seismic activity on one of a number of faults in the area.

- The site is **not** located within an area shown as susceptible to liquefaction according to the CGS *Earthquake Zones of Required Investigation Map* for the Ontario Quadrangle or the San Bernardino County *Geologic Hazard Overlays* map FH27C. Given the lack of shallow groundwater underlying the site, the potential for liquefaction is considered low.

- Groundwater was not encountered to the maximum depth explored of 51½ feet bgs. Recent nearby groundwater levels as documented by the California Department of Water Resources indicate the depth to groundwater is likely on the order of greater than 200 feet bgs. Groundwater is not anticipated to be a constraint to site grading or construction.

- At a minimum, development of the site for support of the proposed mixed-use development should include overexcavation and recompaction of the existing artificial fill materials as well as a portion of the underlying native soils to develop a layer of structural compacted fill to provide foundation support.

- The results of the infiltration testing performed at the site indicate stormwater infiltration is marginally feasible based on the tested locations and depths.

- The proposed structures may be supported by a shallow foundation system supported on structural compacted fill underlain by suitable bearing native soils.

5.0 GEOTECHNICAL DESIGN RECOMMENDATIONS

Based upon this study, we conclude that the proposed development for the subject site is feasible from a geotechnical standpoint, provided that the recommendations presented in this report are properly incorporated in design and construction. Geotechnical recommendations for the proposed development are presented in the following sections and are intended to provide sufficient geotechnical information to develop the project plans in accordance with 2019 CBC requirements. The following recommendations may be superseded by more restrictive requirements of the architect, structural engineer, and/or local building official.

The recommendations below are based upon the exhibited geotechnical engineering properties of the soils and their anticipated response both during and after construction. The recommendations are also based upon proper field observation and testing during construction. The project geotechnical engineer should be notified of suspected variances in field conditions to determine the effect upon the recommendations subsequently presented. These recommendations are considered minimal and may be superseded by more restrictive requirements of the civil and structural engineers, the City of Ontario, the County of San Bernardino and other governing agencies.

Leighton should review the grading plans, foundation plans and project specifications as they become available to verify that the recommendations presented in this report have been incorporated into the plans for this project.

5.1 Earthwork

All site grading should be performed in accordance with the project specifications that are prepared by the appropriate design professional. The guide specifications presented in Appendix D, General Earthwork and Grading Recommendations may be used as a guideline in developing the project specifications.

Earthwork and grading operations are recommended to be observed and appropriate testing be performed by representatives of the geotechnical engineer to verify that the site is properly prepared, the selected fill materials are satisfactory, and that placement and compaction of fills has been performed in accordance with our recommendations and the project specifications.

5.1.1 Site Preparation

Initial preparation of the site should include demolition and removal of the existing facility from the project site including all foundations, slabs and underground structures. Existing utilities not planned for reuse with the proposed development should be either removed in their entirety, properly abandoned in-place, or rerouted around the development area to preserve their function. Disposal of all debris and remnants of the existing development should be performed in accordance with the type of material and local regulations.

The existing development includes a relatively large paved parking lot that consists of asphalt concrete. Based upon the conditions encountered at the test boring locations, the thickness of the existing asphalt concrete ranged from 2½ to 5 inches underlain by base course that ranged from 3 to 12 inches in thickness. Reuse of the pavement with the proposed development will require consideration of proposed finish grades and the need to construct an asphalt overlay to prolong the service life of the pavement. Recommendations for reuse of the pavement can be provided upon request. However, for purposes of this report, the existing pavement is assumed to not be salvaged for reuse and will be removed from the site. If properly processed during demolition and removal, the pavement may be reused as the base course for construction of new pavement.

Upon completion of demolition and site clearing activities, the soils should be carefully observed for the removal of all unsuitable deposits. All undocumented fill or man-made debris, unsuitable native soils and former foundation remnants should be excavated and removed from the proposed building/structure footprint prior to fill placement.

5.1.2 Removals and Overexcavations

The recommended depths of overexcavation presented below have been based upon the assumed structural loads and the recommended allowable bearing pressure. The actual depth recommended for preparation of foundation areas may be revised depending upon the actual footing sizes that result from structural design of the foundations. Consequently, the recommendations for building pad preparation/overexcavation should be reviewed by the geotechnical engineer as foundation design proceeds.

To provide uniform foundation support and reduce the potential for excessive static settlement, all existing undocumented fill and any unsuitable soil, as deemed by the geotechnical engineer, should be removed to expose suitable native soils and replaced as engineered fill below the proposed building and other structural improvements. Based on our field explorations, we estimate removals of existing undocumented fill will be approximately 5 feet below existing grade across most of the site. Localized areas are anticipated to require deeper removals, in particular beneath the existing buildings and in areas of existing utilities.

Removals should be performed such that all undocumented fill is removed and replaced as engineered fill. In addition, overexcavations should be performed such that a minimum of 4 feet of engineered fill is established below the proposed building foundation elements and the at-grade slabs of the buildings. The lateral extent of overexcavation beyond foundations should be equal to the depth of overexcavation below the proposed foundations as measured at the excavation subgrade.

The depth of overexcavation in non-structural areas planned for new pavement construction is recommended to be 2 feet below the current grade or planned subgrade elevation to develop a suitable bearing subgrade for pavement support. Deeper overexcavations in localized areas may be recommended during grading by a representative of the geotechnical engineer depending on observed subsurface conditions.

5.1.3 Subgrade Preparation

All excavation bottoms or removal bottoms should be observed by a representative of the geotechnical engineer prior to placement of fill or other improvements to determine that geotechnically suitable soil is exposed. Excavation bottoms observed to be suitable for fill placement or other improvements should be scarified to a depth of at least 8 inches, moisture-conditioned as necessary to achieve a moisture content of at least 2 percentage points above the optimum moisture content, and then compacted to a minimum of 90 percent of the maximum dry density as determined by ASTM Test Method D 1557 (Modified Proctor).

5.1.4 Fill Placement and Compaction

The onsite soil, free of organic material, cobbles, boulders, rubble, and rock less than 3 inches in largest dimension, is suitable to be used as structural fill. All fill soil should be placed in loose lifts no greater than 8 inches in thickness, moisture-conditioned as necessary to a moisture content 1 to 2 percentage points above optimum moisture content and compacted using proper equipment to the minimum standard as noted below, unless stated otherwise in the specific sections.

- Fill soil should be moisture-conditioned and compacted to a minimum of 90 percent relative compaction as determined by ASTM Test Method D1557.
- Subgrade exposures should be moisture-conditioned and compacted to a minimum of 90 percent relative compaction as determined by ASTM Test Method D1557
- Base course material should be compacted to a minimum of 95 percent relative compaction.
- Utility trench backfill is discussed in Section 5.5.

Material imported to the site for use as fill should be reviewed and approved by the geotechnical engineer prior to import to the site and placement as fill. Imported soils should be very low in expansion potential (EI less than 20); non-corrosive to metals and concrete; and be free of hazardous substances.

When grading is interrupted by heavy rains, fill operations should not be resumed until the moisture content and the dry density of the placed fill are satisfactory.

5.1.5 Shrinkage and Bulking

The change in volume of excavated and recompacted soil varies according to soil type and location. This volume change is represented as a percentage increase (bulking) or decrease (shrinkage) in volume of fill after removal and recompaction. Field and laboratory data used in our calculations included laboratory-measured maximum dry density for the

general soil type encountered at the subject site, the measured in-place densities of near surface soils encountered and our experience.

Earthwork operations are generally anticipated to be limited to soils to a depth of 5 to 6 feet below current grade with some additional overexcavation in localized areas of the site where unsuitable bearing/very loose relative density soils may be encountered in the southern to southwestern region of the site. Data regarding the in-place density of the near surface soils could not be collected due to the manner in which field exploration was encountered whereby the soils to a depth of 5 feet at the boring locations were pre-drilled by use of a hand auger to protect against damaging buried utilities. Therefore, earthwork quantities (shrinkage/bulking) are primarily based upon experience with similar materials at other project sites and the limited available data from soils recovered from a depth of 6 feet.

On a preliminary basis, the existing fill materials requiring removal and recompaction are anticipated to exhibit volume shrinkage on the order of of 10 to 15 percent. The estimated shrinkage does not include material losses due to removal of organic material or other unsuitable bearing materials (debris, rubble, oversize material greater than 6-inches) and the actual shrinkage that occurs during grading may vary throughout the site.

5.1.6 Reuse of Concrete and Asphalt Rubble

If encountered during site clearing and/or during preparation activities, construction rubble (i.e., Portland cement concrete and asphalt concrete) may be incorporated in the proposed development. For use as structural fill, the processed material should be crushed to develop a relatively well-graded mixture with a maximum particle size of 3-inch nominal diameter. Concrete rubble should be free of rebar and processed asphalt pavement rubble may be used if mixed with the existing base course (where present). Processed material may be used as structural fill if uniformly mixed with onsite soils in proportion of 1 part processed material to 3 parts soil. For use as pavement base course, rubble should be crushed to satisfy gradation requirements of Section 200-2.4 of the *Standard Specifications for Public Works Construction,* (SSPWC, “Greenbook”). Such materials must be free of and segregated from any hazardous materials and/or organic material of any kind.

5.2 Foundation Design

Preparation of the building areas should be performed as described in Section 5.1 of this report. Upon completion of building pad preparation, the soils that will provide support of the foundations are expected to consist of properly moisture-conditioned structural compacted fill that exhibits very low to low expansion potential underlain by suitable bearing native soils.

5.2.1 Vertical Load Bearing Capacity

The proposed structures are recommended to be supported by a shallow foundation system in which continuous strip footings are used for wall support and isolated square pad footings for column support. Footings to support the proposed buildings are recommended to be designed for a maximum net allowable soil bearing pressure of 2,500 pounds per square foot (psf) for continuous strip footings for wall support and 3,000 psf for isolated square pad footings for column support.

The foundations for ancillary structures separate from the proposed buildings are recommend to be designed for a maximum 2,000 pounds per square foot (psf) for continuous strip footings for wall support and 2,500 psf for isolated square pad footings for column support. The recommended bearing pressures assume the foundations will be supported by a layer of structural compacted fill that is a minimum 2 feet in thickness below foundations and extends laterally distance of at least 2 feet beyond the edges of the foundations.

The allowable bearing values may be increased by one-third when considering short-term seismic or wind loads. The recommended bearing pressure is net so the unit weight of concrete may be assumed to be 50 pcf when calculating the component of load demand due to foundation weight; the weight of soil backfill can be neglected when determining the downward loads.

The recommended allowable bearing pressures stated above have been based upon specific minimum footing sizes and embedment depths:

- Minimum widths for foundations are recommended to be 18 inches for continuous strip footings and 24 inches for square pad footings.

- Minimum footing embedment depth for the isolated exterior footings and the footings for the exterior walls is recommended to be 18 inches.
- The minimum embedment depth for interior footings is recommended to be 18 inches.
- The minimum embedment depth for ancillary structures is 18 inches below adjacent subgrade elevation.

The depth of embedment should be determined from the finish subgrade elevation adjacent to the building for the perimeter footings and the finish pad grade within the structure for interior footings. Additional foundation embedment depth may be considered for foundations located close to property lines to protect foundations from being undermined due future excavation that may be performed on the adjacent properties.

Determination of the minimum steel reinforcement requirements of the continuous strip and isolated square pad footings should be performed by the structural engineer.

The foundation bearing soils are recommended to be evaluated by the geotechnical engineer prior to placing reinforcing steel. Evaluation is intended to verify suitable bearing conditions to support the footings and the footing excavations are generally in compliance with foundation plans.

5.2.2 Lateral Load Resistance

Lateral loads may be resisted by friction acting along the bottoms of the footings and passive resistance of the soil adjacent to the vertical sides of the foundations provided the foundations are poured neat against properly compacted fill or undisturbed native soils. Resistance to lateral load may be calculated on the basis of an allowable frictional coefficient of 0.30 and allowable passive resistance equal to an equivalent fluid density of 250 pounds-per-cubic-foot (pcf) to a maximum of 2,500 psf. No reduction will be needed to any of the above two components for computing the total resistance to lateral loads. The use of passive resistance in lateral load analysis requires the foundations to be cast against vertical, undisturbed trench walls or any voids along the footing be backfilled with structural compacted fill.

5.2.3 Settlement Estimate

Estimated post-construction total and differential settlement under the assumed loading conditions and preparation of the building areas as described in this report are estimated to be on the order of 1 inch and ½ inch, respectively. The differential settlement is expected to occur over a minimum span of 30 feet, thereby resulting in an angular distortion less than 0.002, which is expected to be within tolerable limits for the proposed structures.

Settlement is a function of footing size and contact bearing pressure. As a result, differential settlement can be expected between adjacent columns or walls where a large differential loading condition exists. Leighton should review the settlement estimates when final foundation plans and loads for the proposed structures become available.

5.3 Slab-on-Grade Floors

Upon completion of the recommended building pad preparation, the subgrades of the slabs supported on grade are anticipated to consist of newly placed structural compacted fill, which is generally expected to consist of the existing soils that have been overexcavated and recompacted under engineering controlled conditions.

Based upon the anticipated subgrade conditions, the floor slabs of the proposed buildings that will be supported on grade may be designed and constructed as a mat on elastic foundation using a modulus of subgrade reaction (k_{v1}) of 100 pounds per cubic inch (pci). These slabs are recommended to be a minimum of 4 inches in thickness and include No. 3 rebar placed at center of the slab at 18 inches on-center in each direction based on geotechnical considerations. Increase in the slab thickness and/or reinforcing may be necessary due to structural engineering considerations as determined by the structural engineer.

The slabs may are recommended to be underlain by a minimum 4-inch thick coarse granular material to serve as a working mat during construction and serve as a capillary moisture break.

Interior slabs-on-grade are recommended to be underlain by a synthetic sheeting to serve as a retarder to moisture vapor transmission in areas where moisture-sensitive floor coverings are used (such as vinyl, tile, or carpet) or storage areas

for personal possessions. Prior to installing the synthetic sheeting, the exposed subgrade surface should be clear of all extruding rock and gravel that could damage the sheeting. The sheeting should be evaluated for the presence of punctures or tears by the installer prior to pouring concrete. Installation of the sheeting should include proper overlap and taping of seams.

Appropriate synthetic sheeting should be determined by others qualified in evaluating and mitigating moisture vapor transmission through concrete slabs. Our firm does not practice in the field of moisture vapor transmission evaluation, since this is not specifically a geotechnical issue. Therefore, we recommend that a qualified person, such as the flooring subcontractor and/or structural engineer, be consulted with to evaluate the general and specific moisture vapor transmission paths and any impact on the proposed construction with respect to the storage facility and retail areas. That person should provide recommendations for mitigation of the potential adverse effects of moisture vapor transmission on various components of the structures as deemed appropriate.

Care should be taken to avoid slab curling if slabs are poured in hot weather. Frequent construction joints should be provided to minimize the potential for cracking. Slabs should be designed and constructed as promulgated by the Portland Cement Association (PCA). Prior to the slab pour, all utility trenches should be properly backfilled and compacted. Differential settlement of this material could result in movement and distress to hardscape and other improvements. The need to repair cracks, etc. should be anticipated.

5.4 Temporary Excavations

All temporary excavations, including utility trenches, retaining wall excavations, and other excavations should be performed in accordance with project plans, specifications and all Occupational Safety and Health Administration (OSHA) requirements.

Temporary excavations should be treated in accordance with the State of California version of OSHA excavation regulations, Construction Safety Orders for Excavation General Requirements, Article 6, Section 1541, effective October 1, 1995. The sides of excavations should be shored or sloped in accordance with OSHA regulations. OSHA allows the sides of unbraced excavations, up to a maximum height of 20 feet, to be cut to a ¾H:1V (horizontal:vertical) slope for Type A soils, 1H:1V for Type B soils, and 1½H:1V for Type C soils. Onsite sandy soils

are to be considered Type C soils which are subject to collapse in shallow unbraced excavations (i.e., approximately 3 to 4 feet in vertical height).

OSHA regulations are applicable in areas with no restriction of surrounding ground deformations. Shoring should be designed for areas with deformation restrictions. The soil type should be verified or revised based on geotechnical observation and testing during construction, as soil classifications may vary over short horizontal distances.

Typical cantilever shoring should be designed based on an active fluid pressure of 38 pcf, assuming level ground above the shoring. If excavations are braced at the top and at specific design intervals, the active pressure may then be approximated by a rectangular soil pressure distribution with the pressure per foot of width equal to 25***H*** psf, where ***H*** is equal to the depth of the excavation being shored.

Heavy construction loads, such as those resulting from stockpiles and heavy machinery, should be kept a minimum distance equivalent to the excavation height or 5 feet, whichever is greater, from the excavation unless the excavation is shored and these surcharges are considered in the design of the shoring system. Excavations that extend below an imaginary plane inclined at 45 degrees below the edge of any adjacent existing site foundation should be properly shored to maintain support of the adjacent structures.

5.5 Trench Backfill

Utility trenches should be backfilled with compacted fill in accordance with Sections 306-1.2 and 306-1.3 of the *Standard Specifications for Public Works Construction,* (SSPWC, “Greenbook”), 2018 Edition. Utility trenches can be backfilled with onsite material free of rubble, debris, organic and oversized material up to 3 inches in largest dimension. Prior to backfilling trenches, pipes should be bedded in and covered with either:

- **Granular Bedding:** a) ½-inch open grade aggregate; or b) a uniform sand material with a Sand Equivalent (SE) greater than or equal to (≥) 30, passing the No. 4 U.S. Standard Sieve (or as specified by the pipe manufacturer). Testing to evaluate the Sand Equivalent (SE) of representative samples of the near surface soils indicated SE values below 30, thereby indicating the on-site soils may not be suitable for reuse in this manner.

- **CLSM:** Controlled Low Strength Material (CLSM) conforming to Section 201-6 of the SSPWC. CLSM bedding should be placed to 1 foot (0.3 m) over the top of the conduit, and vibrated.

Pipe bedding should extend at least 4 inches below the pipeline invert and at least 12 inches over the top of the pipeline. The bedding and shading sand is recommended to be densified in place by vibratory, lightweight compaction equipment. Jetting or hydro-consolidation may be suitable for this project site where utility trenches will be underlain by the silty sands, typically present in the upper 5 to 10 feet.

Trench backfill over the pipe bedding zone may consist of native and clean fill soils. All backfill should be placed in thin lifts (appropriate for the type of compaction equipment), moisture conditioned above optimum, and mechanically compacted to at least 90 percent relative compaction, relative to the ASTM D 1557 laboratory maximum density.

5.6 Soil Corrosivity

In general, soil resistivity, which is a measure of how easily electrical current flows through soils, is the most influential factor for corrosion to ferrous metals. The following table presents an approximate relationship between soil resistivity and soil corrosiveness.

Table 4 – Soil Corrosivity as a Function of Resistivity

Soil Resistivity (ohm-cm)	Classification of Soil Corrosiveness
0 to 900	Very severe corrosion
900 to 2,300	Severely corrosive
2,300 to 5,000	Moderately corrosive
5,000 to 10,000	Mildly corrosive
10,000 to >100,000	Very mildly corrosive
Note: [1] ASTM STP 1013 titled *Effects of Soil Characteristics on Corrosion* (February, 1989).	

In addition to resistivity, the concentration of chloride ions can also be used to evaluate corrosive potential to steel, either in the form of reinforcement protected by concrete cover or plain steel substructures, such as steel pipes. As a general guideline, the chloride threshold adopted by Caltrans is a concentration of 500 ppm

or greater as determined by California Test 532. Concentrations of chloride ions above the stated concentration or other characteristics such as soil resistivity or redox potential may warrant special corrosion protection measures. The results of corrosivity testing are summarized in the following table.

Table 5 – Summary of Corrosivity Testing

Test Parameter	Test Results LB-3 @ 0'-5'	General Classification of Hazard
Water-Soluble Sulfate in Soil (ppm)	260	Negligible sulfate exposure to buried concrete
Water-Soluble Chloride in Soil (ppm)	40	Non-corrosive to buried reinforced concrete
pH	7.92	Moderately alkaline
Minimum Resistivity (saturated, ohm-cm)	1,335	Severely corrosive to buried ferrous pipes

The results of the resistivity tests indicate the underlying soil is moderately corrosive to buried ferrous metals per ASTM STP 1013. The samples tested for water-soluble chloride content indicate a low potential for corrosion of steel in concrete due to the chloride content of the soil.

Based on the test results, ferrous pipes buried in moist to wet site earth materials should be avoided by using high-density polyethylene (HDPE), polyvinyl chloride (PVC) and/or other non-ferrous pipe when possible provided the pipe walls possess sufficient strength for the embedment and external loading to which the pipe will be subjected. Ferrous pipe can also be protected by polyethylene bags, tape or coatings, di-electric fittings or other means to separate pipe from on-site soils. If buried ferrous pipes are planned for this site, further corrosivity testing of soil samples should be performed upon completion of rough grading and specific corrosion protection measures should be recommended by a qualified corrosion engineer.

5.7 Cement Type

In general, soil environments that are detrimental to concrete have high concentrations of soluble sulfates and/or pH values of less than 5.5. Section 4.3 of ACI 318 (ACI, 2014) provides specific guidelines for the concrete mix-design when the soluble sulfate content of the soil exceeds 0.1 percent by weight or 1,000 parts per million (ppm).

The results of laboratory testing indicated concentrations of soluble sulfate less than 0.1 percent. The test results indicate a sulfate Exposure Class designation of "S0" appears to be appropriate for the project site based upon criteria presented in ACI 318. However, if the concrete is expected to be in contact with reclaimed water, Type V cement and a water/cement ratio of 0.45 should be used. Samples should be collected from the compacted fill subgrade upon completion of grading to confirm the initial findings of this exploration.

5.8 Elevator Pit Wall Design

The proposed development is not expected to include new earth retaining structures due to the generally level topographic relief of the site and no below grade levels associated with the buildings. However, in consideration that the buildings will be multi-stories in height, the buildings are anticipated to include elevators. In the anticipation that elevator equipment will include below-grade pits to house the mechanical workings, design of the pit walls should include provisions to resist the lateral load of the adjacent soils. Based on the recommended building pad parathion and the anticipated soil conditions, design of the pit walls is recommended to be based upon an equivalent lateral earth pressure of 60 psf per foot of retained height.

5.9 Pavements

5.9.1 Pavement Subgrades

The pavement subgrades should be prepared as described in Section 5.1 of this report. In accordance with the recommendations, preparation of the subgrade within the areas of new pavement construction are recommended to be overexcavated to a depth of 2 feet below the current grade or planned subgrade elevation, or to the depth of undocumented fill whichever is greater, to allow placement of a minimum of 2 feet of structural fill to develop a suitable bearing subgrade for pavement support.

5.9.2 Hot Mix Asphalt (HMA) Pavement Sections

Asphalt pavements are anticipated to be feasible for the proposed development. Based on the anticipated subgrade conditions and the results of laboratory testing conducted on one bulk sample of the near surface soils

(LB-1), the following recommendations for pavement design have been based upon a design R-value of 30 for the anticipated subgrade. R-value tests should be performed upon completion of grading to verify the design value is appropriate for the actual subgrade conditions. Based on the design procedures outlined in the current Caltrans Highway Design Manual and using an R-value of 78 for the pavement base course, the following flexible pavement sections may be used for Traffic Index values that correspond to various levels of vehicle traffic.

Table 6 – Asphalt Pavement Sections

Traffic Index	Asphalt Concrete (inches)	Base Course (inches)	
		CAB	CMB
4 or less	3	5	6
5.0	3	6	7
6.0	4	7	8

Notes: CAB – Crushed Aggregate Base Course; Caltrans Class 2, Section 26 or SSPWC Section 200-2.2

CMB – Crushed Miscellaneous Base Course; SSPWC Section 200-2.4

The asphalt concrete should conform to the specifications outlined in Section 203-6 of the Standard Specifications for Public Works Construction (SSPWC, a.k.a. “Greenbook”), and asphalt concrete construction methods should meet the requirements of Section 302-5 of the Green Book.

The base course should conform to requirements of Section 26 of State of California Department of Transportation Standard Specifications (Caltrans), latest edition, or meet the specifications for untreated base as defined in Section 200-2.2 of the SSPWC (Greenbook). As an alternate, the base course may comply with the specifications for Crushed Miscellaneous Base per SSPWC Section 200-2.4 with an appropriate increase in thickness.

Prior to placement of the base course, the subgrade soil should be processed to a minimum depth of 8 inches, moisture-conditioned to 1 to 2 percent above optimum moisture content, and recompacted to a minimum of 95 percent relative compaction. Base course should be placed in thin lifts, moisture conditioned, as necessary, and compacted to a minimum of 95 percent relative compaction (ASTM D1557).

5.9.3 Portland Cement Concrete (PCC) Pavements

Portland cement concrete is recommended for areas of the development subjected to large loads and truck loading/unloading areas. In such areas, a minimum 6-inch thick Portland Concrete Cement (PCC) pavement section reinforced is recommended. Reinforcement is recommended to consist of No. 4 rebar at a maximum on-center spaced at 16 inches in each direction. The recommended PCC pavement section was based on the procedures described in the *Guide for Design and Construction of Concrete Parking Lots by the American Concrete Inst*itute (ACI 330R-08).

All PCC pavements should have a minimum 28-day concrete compressive strength of 3,000 pounds-per-square-inch (psi). The reinforcement should be evaluated by the civil/structural engineer to accommodate any additional structural loading requirements. Control joints are recommended to be installed at a maximum on-center spacing of 12 feet for 6-inch thick slabs, and should form square panels.

Concrete pavement may be underlain by a minimum 4-inch thick layer of compacted granular base to serve as a leveling mat for construction and to assist in load transfer at construction joints.

Integral curbs should be used at the perimeter of PCC pavement. Longitudinal joints should be avoided near curbs and gutters. Use of concrete cutoff or edge barriers should be considered at the perimeter of common parking or driveway areas when abutting either open (unfinished) or landscaped areas.

5.10 Concrete Flatwork and Exterior Slabs

Exterior concrete slabs-on-grade should have a minimum thickness of 4 inches. Common Type II cement should be adequate for concrete flatwork not exposed to recycled water. Type V cement and a water:cement ratio of 0.45 should be used for concrete exposed to recycled water.

Concrete flatwork should be placed on compacted fill. If this material has been disturbed or dried out, the subgrade soil to a depth of 12 inches should be moisture conditioned to 1 to 2 percent above optimum moisture content and recompacted to minimum 90 percent relative compaction.

Exterior concrete driveways, ramps, curbs, gutters, sidewalks often crack. Inclusion of joints at frequent intervals and reinforcement will help control the locations of the cracks, and thus reduce the unsightly appearance. Construction or weakened plane joints should be spaced at intervals of 6 feet or less for sidewalks, curbs and gutters. The spacing may be increased to 10 feet for ramps and driveways. If cracking occurs, repairs may be needed to mitigate the trip hazard and/or improve the appearance.

Minor cracking of concrete after curing due to expansion, drying and shrinkage is normal and should be expected. However, cracking is often aggravated by a high water-to-cement ratio, high concrete temperature at the time of placement, small nominal aggregate size, and rapid moisture loss due to hot, dry, and/or windy weather conditions during placement and curing. Cracking due to temperature and moisture fluctuations can also be expected.

The use of low-slump concrete or low water/cement ratios can reduce the potential for shrinkage cracking. Inclusion of joints at frequent intervals and reinforcement will help control the locations of the cracks, and thus improve aesthetics. Control joints should be spaced at intervals no more than 10 feet. If cracking occurs, repairs may be needed to mitigate the trip hazard and/or improve the appearance.

Slab cracking and/or uneven slab surfaces may result due to the presence of fill if the fill is left in place below the slabs. Slab distortion may result in tripping hazards. Standard methods to mitigate trip hazards include the following:

- Saw Cutting
- Grinding
- Patching and ramping
- Removing and replacement

A regular maintenance program should be implemented to mitigate trip hazards and comply with safety requirements.

5.11 Surface Drainage

Positive drainage of surface water away from structures is very important. Water should not be allowed to pond adjacent to buildings or new site improvements. Positive drainage may be accomplished by providing drainage away at a minimum of 2 percent for earthen surfaces for a lateral distance of at least five feet and further maintained by a swale or drainage path at a gradient of at least 1 percent.

Where necessary, drainage paths may be shortened by the use of area drains and collector pipes. Eave gutters are recommended and should reduce water infiltration into the subgrade materials. Downspouts should be connected to appropriate outlet devices.
Irrigation of landscaping should be controlled to maintain, as much as possible, consistent moisture content sufficient to provide healthy plant growth without over watering.

5.12 Additional Geotechnical Services

Leighton should review the grading plans, foundation plans, and specifications when they are available to verify that the recommendations presented in this report have been properly interpreted and incorporated.

Geotechnical observation and testing should be provided during the following activities:

- Grading and excavation of the site;
- Subgrade Preparation;
- Compaction of all fill materials;
- Utility trench backfilling and compaction;
- Footing excavation and slab-on-grade preparation;
- Pavement subgrade and base preparation;
- Placement of asphalt concrete and/or concrete; and
- When conditions are encountered on site that are not consistent with the conditions described in this report.

6.0 LIMITATIONS

This report was prepared using the degree of care and skill ordinarily exercised, under similar circumstances, by reputable geotechnical consultants practicing at this time in San Bernardino County. We do not make any warranty, either express or implied.

As in many projects, conditions revealed in excavations may be at variance with preliminary findings. If this occurs, the changed conditions must be evaluated by the geotechnical consultant and additional recommendations be developed as needed.

The identification and testing of hazardous, toxic or contaminated materials was outside the scope of Leighton's work. Should such materials be encountered at any time, or their existence be suspected, all measures stipulated in local, County, State and Federal regulations, as applicable, should be implemented.

This report is issued with the understanding that it is the responsibility of the owner, or of his representative, to ensure that the information and recommendations contained herein are brought to the attention of the necessary design consultants for the project and incorporated into the plans; and that the necessary steps are taken to see that the contractors carry out such recommendations in the field.

Changes in the conditions of a property can occur with the passage of time, whether due to natural processes or the work of man on the subject or adjacent properties. In addition, changes in standards of practice may occur from legislation or the broadening of knowledge. Accordingly, the findings of this report may at some future time be invalidated wholly or partially by changes outside Leighton’s control.

The conclusions and recommendations in this report are based in part upon data that were obtained from a necessarily limited number of observations, site visits, excavations, samples and tests. Such information can be obtained only with respect to the specific locations explored, and therefore may not completely define all subsurface conditions throughout the site. The nature of many sites is that differing geotechnical or geological conditions can occur within small distances and under varying climatic conditions. Furthermore, changes in subsurface conditions can and do occur over time. Therefore, the findings, conclusions and recommendations presented in this report can be relied upon only if Leighton has the opportunity to perform additional investigation of the site, finalize and complete the conclusions and recommendations presented in this report, and finally to observe the subsurface conditions during grading and construction of the project, in order to verify that our preliminary findings are representative of the site.

This report is intended only for the use of Legacy/Collier Residential, LLC and its design consultants, and only as related expressly to evaluation of the feasibility of developing the subject site with the proposed development and for preliminary planning and design.

If parties other than Leighton are engaged to provide construction geotechnical services, they must be notified that they will be required to assume complete responsibility for the geotechnical phase of the project by concurring with the findings and recommendations in this report or by providing alternative recommendations.

Any persons using this report for bidding or construction purposes should perform such independent explorations as they deem necessary to satisfy themselves as to the surface and subsurface conditions to be encountered and the procedures to be used in the performance of work on the subject site.

7.0 REFERENCES

American Concrete Institute (ACI), 2014, Building Code Requirements for Structural Concrete (ACI 318-14) and Commentary, an ACI Standard, reported by ACI Committee 318.

American Society of Civil Engineers (ASCE), 2017, Minimum Design Loads for Buildings and Other Structures, ASCE/SEI 7-16, with Supplement 1, Effective December 12, 2018.

Bray, J.D. and Sancio, R.B., 2006, Assessment of the Liquefaction Susceptibility of Fine-Grained Soils, Journal of Geotechnical and Geoenvironmental Engineering, American Society of Civil Engineers, September 2006, V. 132, No. 9, pp. 1165-1177.

Bryant, W.A., and Hart, E.W., 2007, Fault Rupture Hazard Zones in California, Alquist-Priolo Earthquake Fault Zoning Act with Index to Earthquake Zones Maps, Department of Conservation, California Geological Survey, Special Publication 42, 2007 Interim Revision.

California Building Standards Commission, 2019, 2019 California Building Code (CBC), California Code of Regulations, Title 24, Part 2, Volume 2 of 2, Based on 2018 International Building Code, Effective January 1, 2020.

California Department of Conservation, Geologic Energy Management Division (CalGEM), 2021, Interactive Wellfinder Website, https://maps.conservation.ca.gov/doggr/wellfinder/

California Geological Survey (CGS; formerly California Division of Mines and Geology, CDMG), 2000a, Seismic Hazards Zones, Ontario Quadrangle, Official Map Released November 17, 2000.

———, 2000b, Seismic Hazard Zone Report for the Ontario 7.5-Minute Quadrangle, Los Angeles County, California, Seismic Hazard Zone Report No. 040.

_____, 2000c, CD-ROM containing digital images of Official Maps of Alquist-Priolo Earthquake Fault Zones that affect the Southern Region, DMG CD 2000-003 2000.

_____, 2008, Special Publication 117A, Guidelines for Evaluating and Mitigating Seismic Hazards in California.

_____, 2018, Earthquake Fault Zones, A Guide for Government Agencies, Property Owners / Developers, and Geoscience Practitioners for Assessing Fault Rupture Hazards in California, Special Publication 42, Revised 2018.

San Bernardino County, 2010, Land Use Services, General Plan, Geologic Hazard Overlays, map FH27 C – Ontario, scale 1:14,400, dated march 9, 2010.

_____, 2013, Technical Guidance Document for Water Quality Management Plans, Prepared by CDM Smith, Inc. for the County of San Bernardino Areawide Stormwater Program, dated June 7, 2013.

Dibblee, T.W. Jr., 2002, Geologic Map of the San Dimas and Ontario Quadrangles, Los Angeles and San Bernardino Counties, California, Dibblee Geological Foundation Map No. DF-91.

Federal Emergency Management Agency, 2015, Flood Insurance Rate Map, City of Ontario, Map Number 06071C8620H, dated August 8, 2008.

Jennings, C.W., 2010, Fault Activity Map of California, California Geological Survey, Geologic Data Map No. 6, map scale 1:750,000.

Morton D.M., and Miller, F.K., 2006, Geologic Map of the San Bernardino and Santa Ana, 30' x 60' Quadrangles, California, USGS Open File Report 2006-1217.

Nationwide Environmental Title Research, LLC (NETR), 2021, Historic Aerials by NETR Online, website: http://www.historicaerials.com/aerials.

United States Geological Survey (USGS), 2018, Ontario Quadrangle, California, 7.5 Minute Series Topographic Map, map scale 1:24,000.

_____, 2008a, Unified Hazard Tool for Deaggregations, https://earthquake.usgs.gov/hazards/interactive/

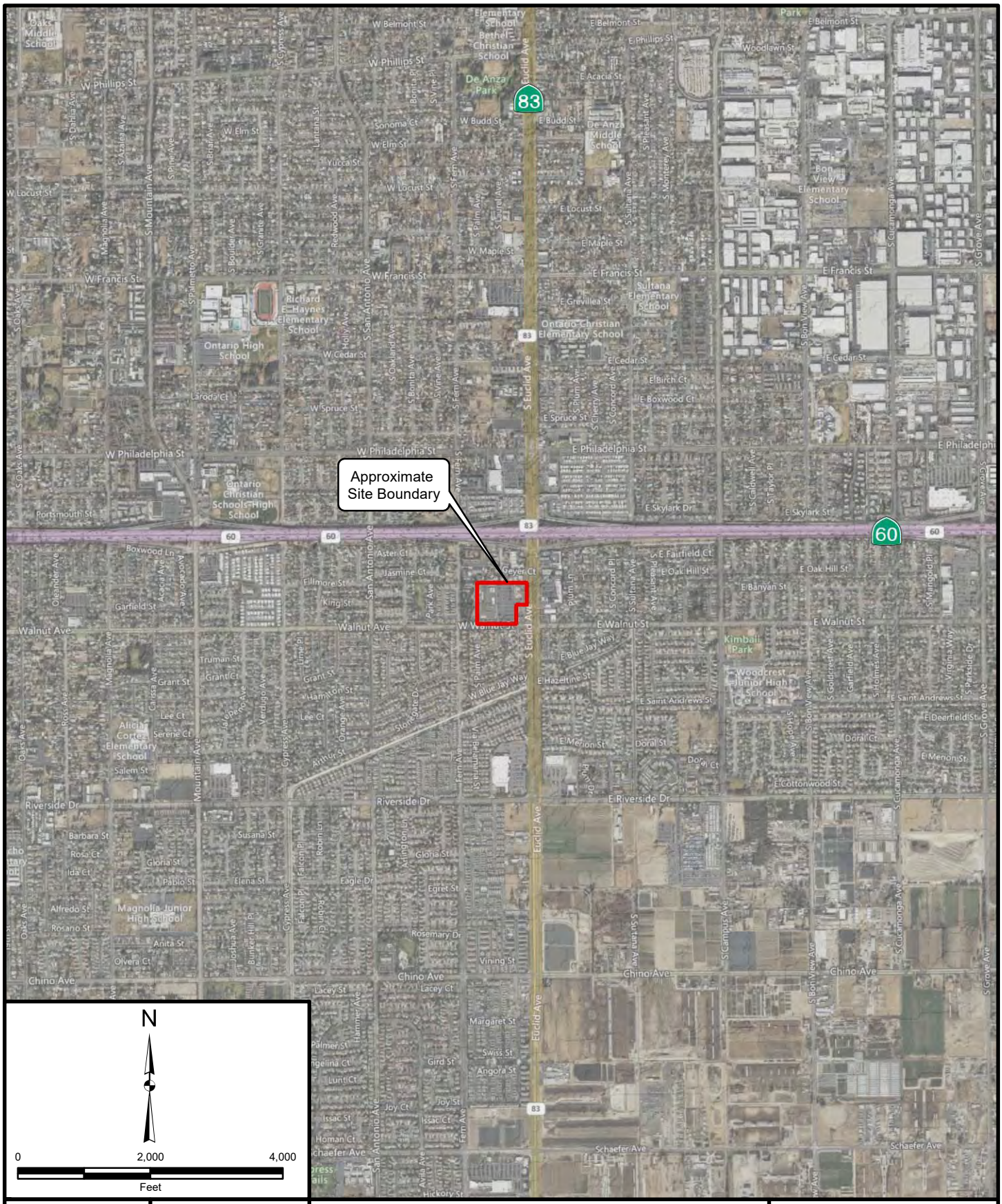
_____, 2008b, National Seismic Hazard Maps – Fault Parameters, https://earthquake.usgs.gov/cfusion/hazfaults_2008_search/query_main.cfm

_____, 2021a, Interactive Fault Map, http://earthquake.usgs.gov/hazards/qfaults/map/

_____, 2021b, Interactive Geologic Map, http://ngmdb.usgs.gov/maps/MapView/

Wildermuth Environmental, Inc., 2009, Chino Basin Optimum Basin Management Program, 2008 State of the Basin Report, Final Report, Prepared for Chino Basin Watermaster, dated November, 2009.

FIGURES



Project: 13493.001	Eng/Geol: JEH/EMH
Scale:1 " = 2,000 '	Date: May 2022

Reference: © 2022 Microsoft Corporation © 2022 Maxar ©CNES (2022) Distribution Airbus

SITE LOCATION MAP

Proposed Euclid and Walnut Mixed-Use Development
2502 and 2530 S. Euclid Avenue
Ontario, California

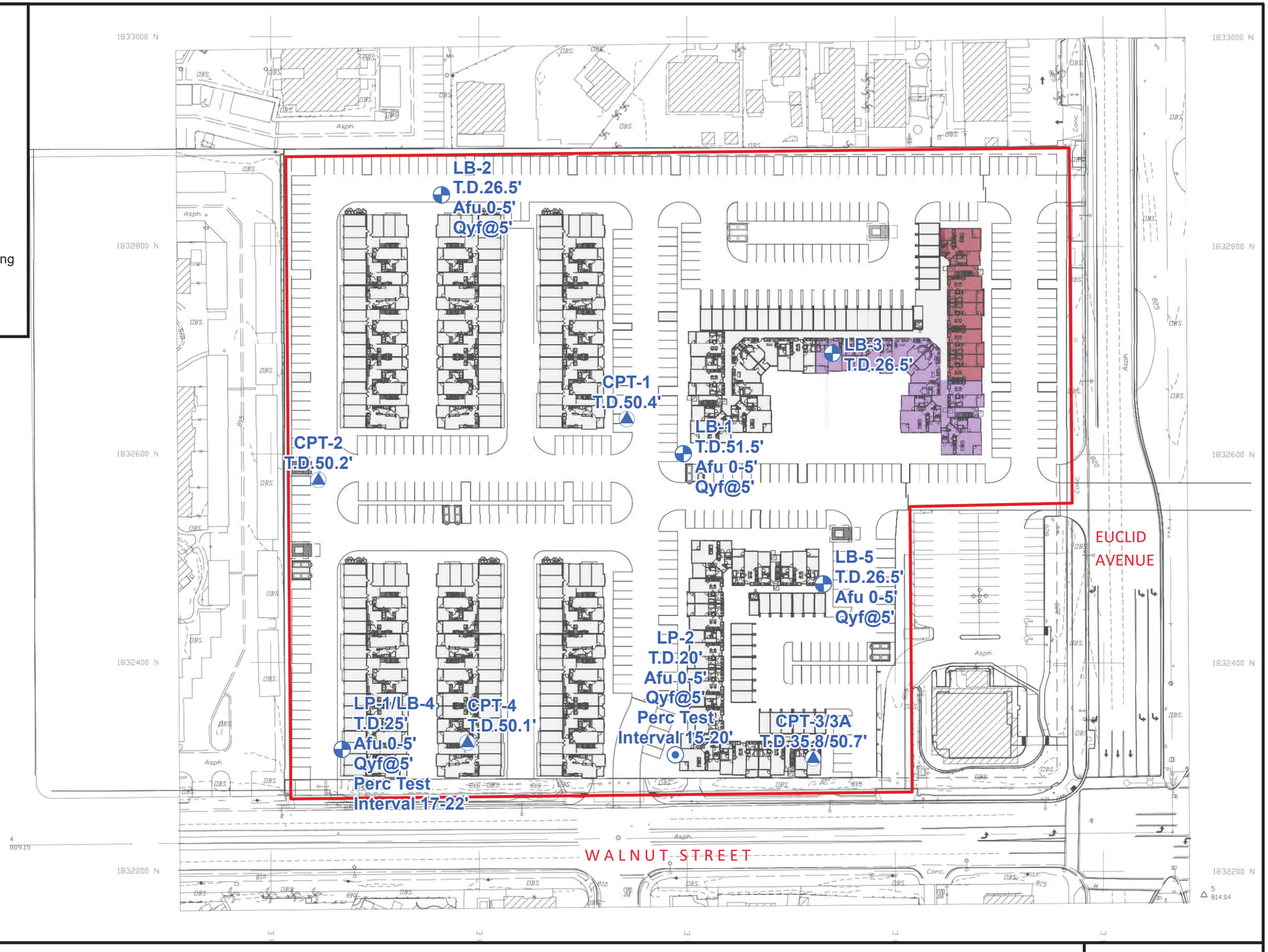
FIGURE 1

Leighton

Map Saved as J:\Drafting\13493\001\Maps\13493-001_F01_SLM_2022-04-19.mxd on 4/14/2022 2:00:06 PM Author: KVM (btran)

LEGEND

Afu	Artificial Fill
Qyf	Quaternary Young Alluvial Fan Deposits
LB-5	Approximate location of hollow-stem auger boring showing total depth (T.D.) and depth to earth units in feet below ground surface.
LP-2	Approximate location of percolation test well showing percolation test interval in feet below ground surface.
CPT-4	Approximate location of cone penetrometer test sounding showing total depth (T.D.) in feet below ground surface
	Approximate Site Boundary



N

0 100 200

Feet

Project: 13493.001	Eng/Geol: JEH/EMH
Scale:1 " = 100 '	Date: May 2022

Base Map: Option A Site Plan, Euclid and Walnut Mixed Use
Sheet 01, Dated: 03/10/2022
by AO Architecture Design Relationships

GEOTECHNICAL MAP

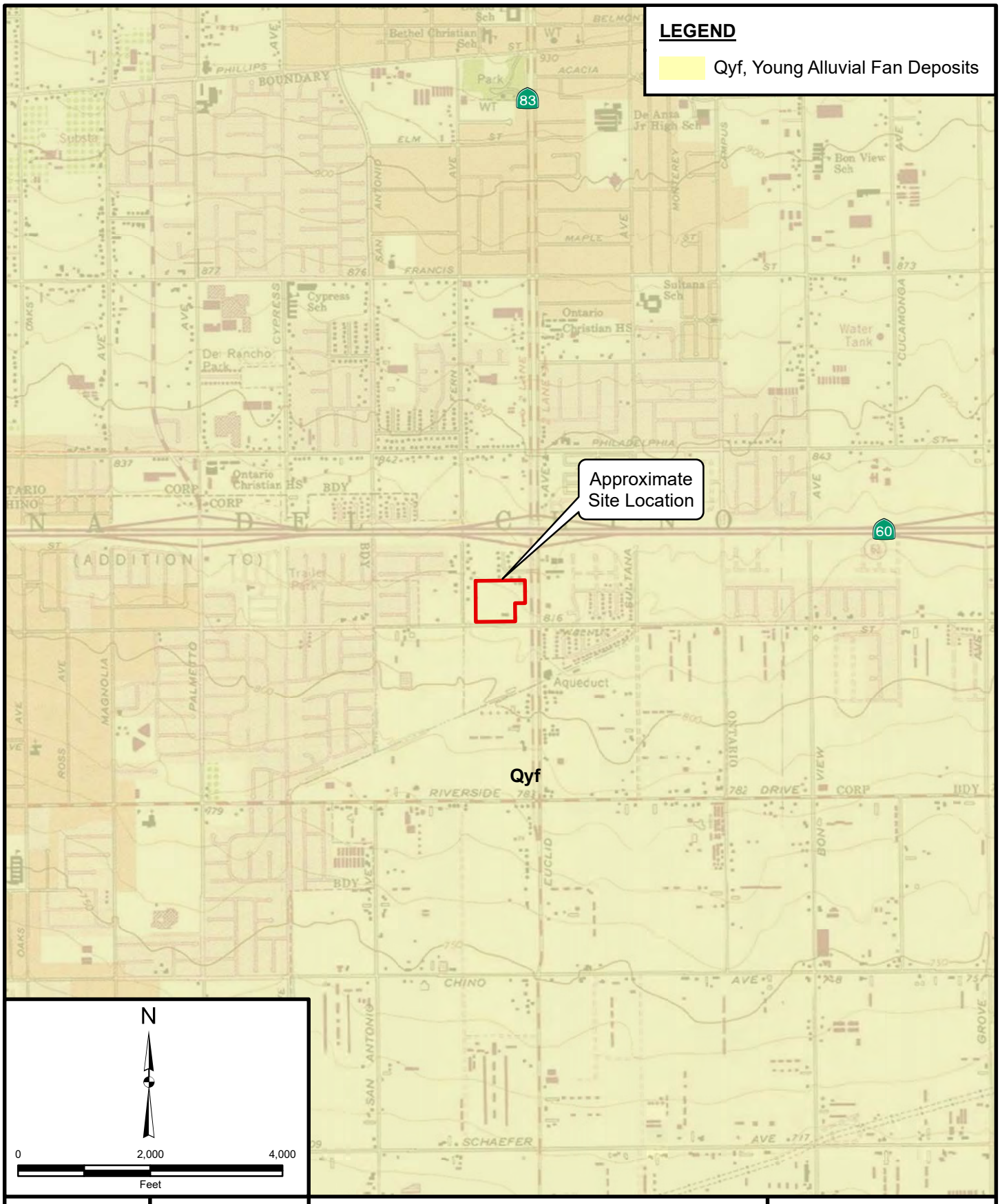
Proposed Euclid and Walnut Mixed-Use Development
2502 and 2530 S. Euclid Avenue
Ontario, California

FIGURE 2

Leighton

Map Saved as J:\Drafting\13493\001\Maps\13493-001_F02_GM_2022-04-20.mxd on 4/19/2022 11:14:24 AM Author: KVM (btran)

1065



Project: 13493.001	Eng/Geol: JEH/EMH
Scale:1 " = 2,000 '	Date: May 2022

Basemap: USGS Topo Map Service from Esri, 2021
Reference: USGS Geologic Map of the Sotuthern California GIS Compilation by CGS, Lancaster, et al., 2012

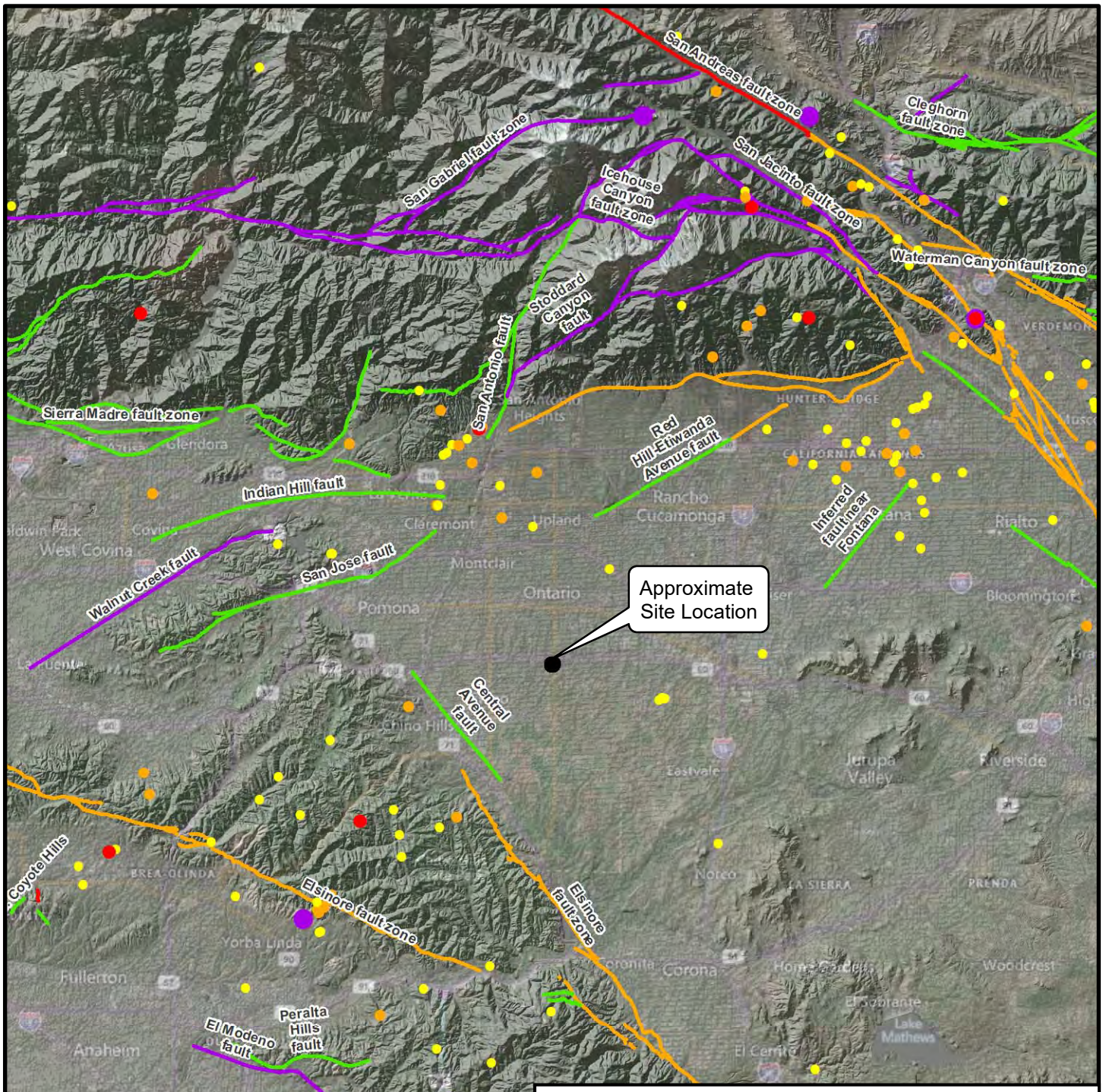
REGIONAL GEOLOGY MAP

Proposed Euclid and
Walnut Mixed-Use Development
2502 and 2530 S. Euclid Avenue
Ontario, California

FIGURE 3

Leighton

Map Saved as J:\Drafting\13493\001\Maps\13493-001_F03_RGM_2022-04-19.mxd on 4/14/2022 2:02:07 PM Author: KVM (btran)



LEGEND

Fault activity

Recency of Movement

- Historic (<200 years)
- Holocene (<11,700 years)
- Late Quaternary (last 700,000 years)
- Quaternary (<1.6M years)

Historical Earthquakes (≥M3.5)

- 3.5 - 3.99
- 4.0 - 4.99
- 5.0 - 5.99
- 6.0 - 6.99

Project: 13493.001	Eng/Geol: JEH/EMH
Scale: 1 " = 5 miles	Date: May 2022

Base Map: ESRI ArcGIS Online 2022
Reference: maps.conservation.ca.gov

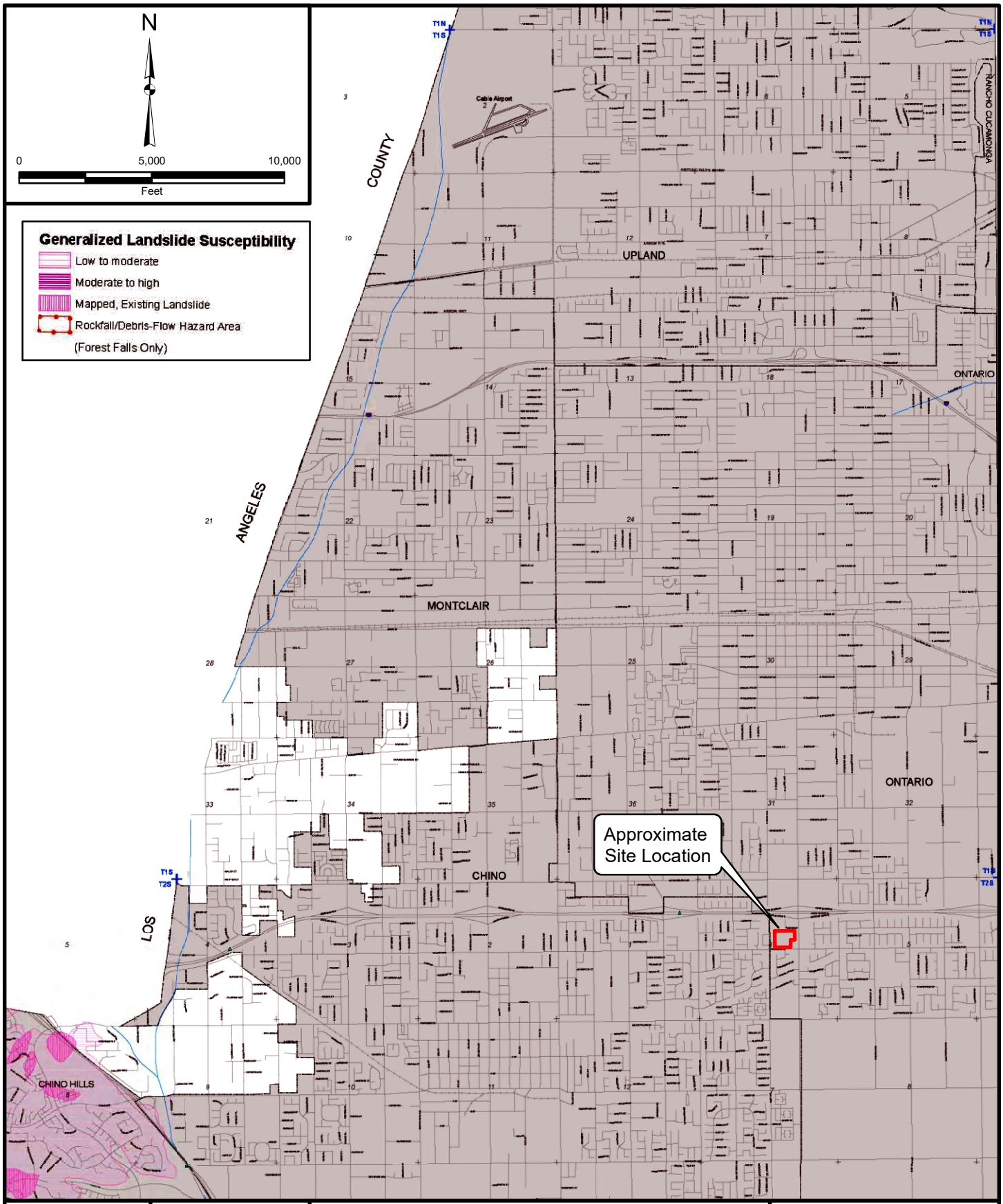
REGIONAL FAULTS AND HISTORIC SEISMICITY MAP

Proposed Euclid and Walnut Mixed-Use Development
2502 and 2530 S. Euclid Avenue
Ontario, California

FIGURE 4

Leighton

Map Saved as J:\Drafting\13493\001\Maps\13493-001_F04_RFHSM_2022-04-19.mxd on 4/14/2022 2:03:52 PM Author: KVM (btran)



Project: 13493.001	Eng/Geol: JEH/EMH
Scale: 1 " = 5,000 '	Date: May 2022

Base Map: San Bernardino County Land Use Plan General Plan, Geologic Hazard Overlays, FH27 C Ontario

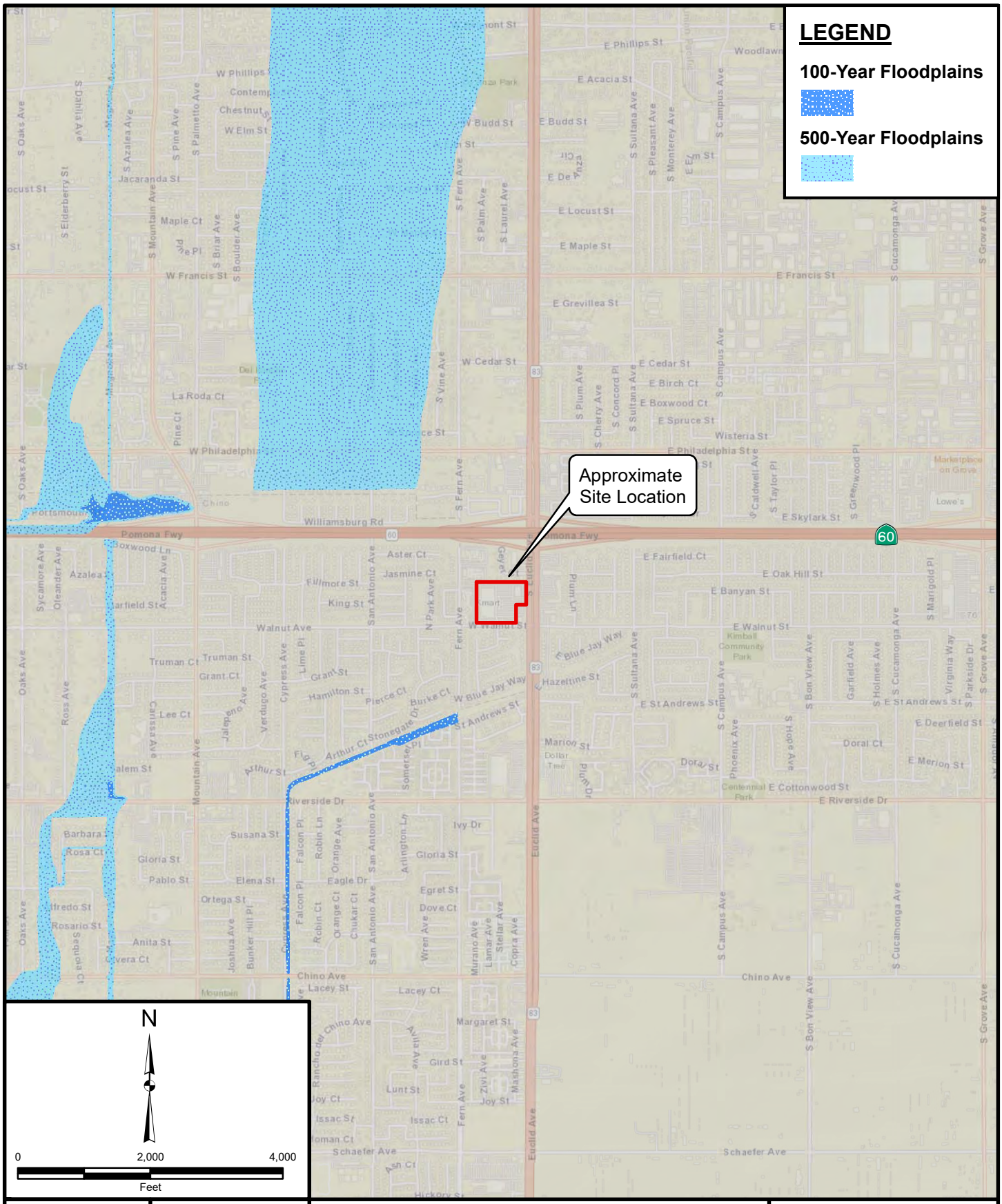
SEISMIC HAZARD MAP

Proposed Euclid and Walnut Mixed-Use Development
2502 and 2530 S. Euclid Avenue
Ontario, California

FIGURE 5

Leighton

Map Saved as J:\Drafting\13493\001\Maps\13493-001_F05_SHM_2022-04-20.mxd on 4/20/2022 1:12:49 PM Author: KVM (btran)



Project: 13493.001	Eng/Geol: JEH/EMH
Scale:1 " = 2,000 '	Date: May 2022
Base Map: ESRI ArcGIS Online 2022 Reference: FEMA, DWR	

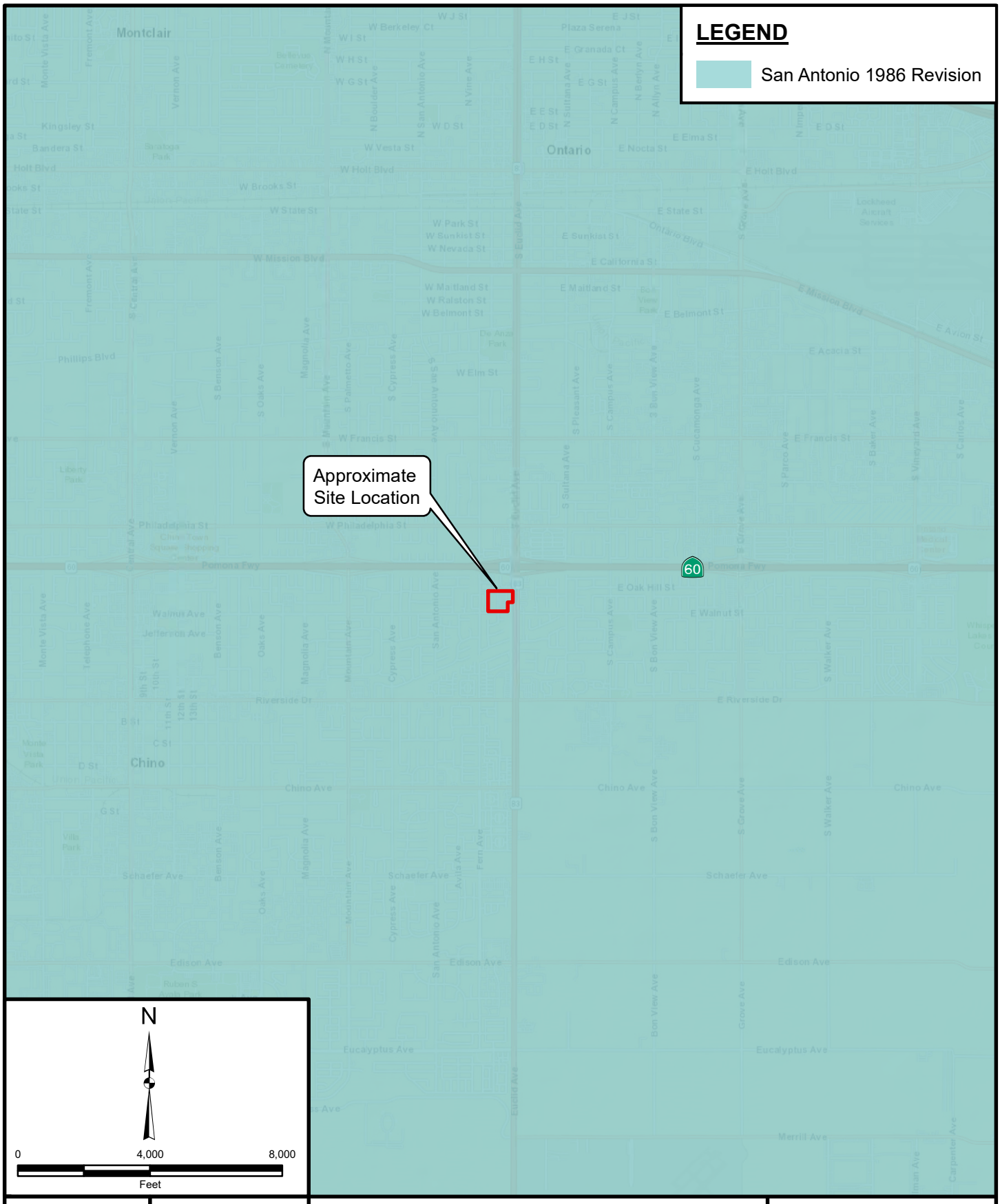
FLOOD HAZARD ZONE MAP

Proposed Euclid and
Walnut Mixed-Use Development
2502 and 2530 S. Euclid Avenue
Ontario, California

FIGURE 6

Leighton

Map Saved as J:\Drafting\13493\001\Maps\13493-001_F06_FHM_2022-04-19.mxd on 4/14/2022 2:10:26 PM Author: KVM (btran)



Project: 13493.001	Eng/Geol: JEH/EMH
Scale:1 " = 4,000 '	Date:May 2022

Base Map: ESRI ArcGIS Online 2022
Reference: FEMA, DWR

DAM INUNDATION MAP

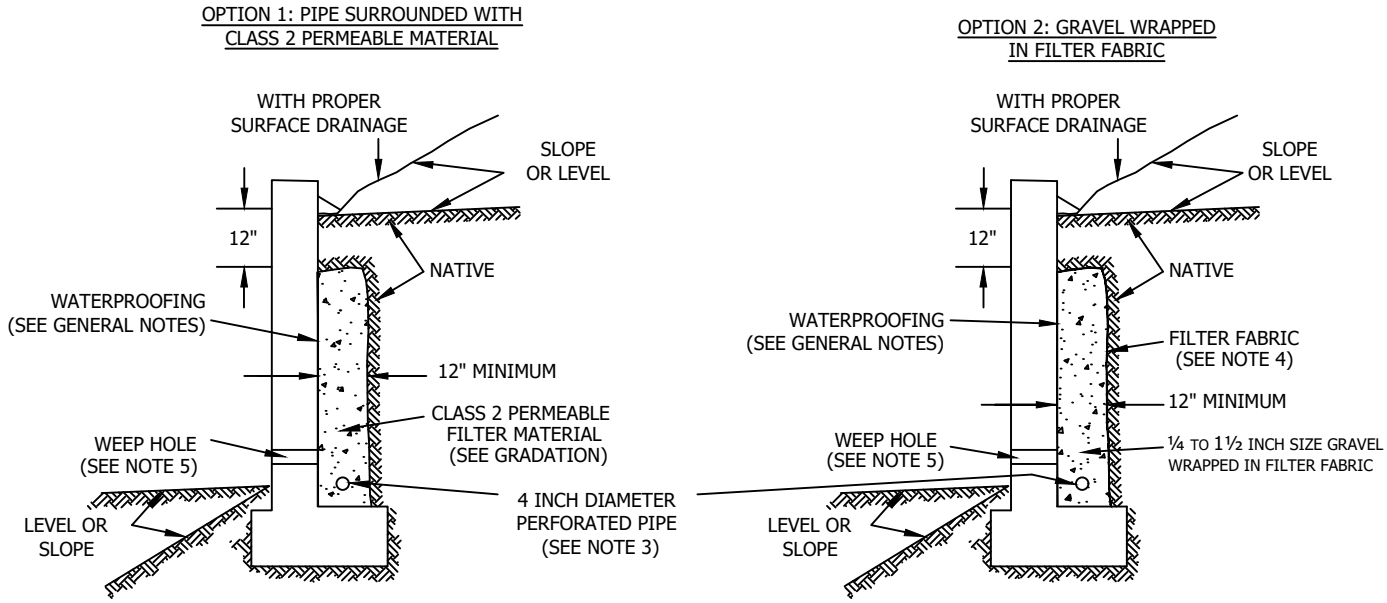
Proposed Euclid and
Walnut Mixed-Use Development
2502 and 2530 S. Euclid Avenue
Ontario, California

FIGURE 7

Leighton

Map Saved as J:\Drafting\13493\001\Maps\13493-001_F07_DIM_2022-04-19.mxd on 4/14/2022 2:17:09 PM Author: KVM (btran)

SUBDRAIN OPTIONS AND BACKFILL WHEN NATIVE MATERIAL HAS EXPANSION INDEX OF ≤50


OPTION 1: PIPE SURROUNDED WITH CLASS 2 PERMEABLE MATERIAL

OPTION 2: GRAVEL WRAPPED IN FILTER FABRIC

Class 2 Filter Permeable Material Gradation
Per Caltrans Specifications

Sieve Size	Percent Passing
1"	100
3/4"	90-100
3/8"	40-100
No. 4	25-40
No. 8	18-33
No. 30	5-15
No. 50	0-7
No. 200	0-3

GENERAL NOTES:

* Waterproofing should be provided where moisture nuisance problem through the wall is undesirable.
* Water proofing of the walls is not under purview of the geotechnical engineer
* All drains should have a gradient of 1 percent minimum
*Outlet portion of the subdrain should have a 4-inch diameter solid pipe discharged into a suitable disposal area designed by the project engineer. The subdrain pipe should be accessible for maintenance (rodding)
*Other subdrain backfill options are subject to the review by the geotechnical engineer and modification of design parameters.

Notes:
1) Sand should have a sand equivalent of 30 or greater and may be densified by water jetting.
2) 1 Cu. ft. per ft. of 1/4- to 1 1/2-inch size gravel wrapped in filter fabric
3) Pipe type should be ASTM D1527 Acrylonitrile Butadiene Styrene (ABS) SDR35 or ASTM D1785 Polyvinyl Chloride plastic (PVC), Schedule 40, Armco A2000 PVC, or approved equivalent. Pipe should be installed with perforations down. Perforations should be 3/8 inch in diameter placed at the ends of a 120-degree arc in two rows at 3-inch on center (staggered)
4) Filter fabric should be Mirafi 140NC or approved equivalent.
5) Weephole should be 3-inch minimum diameter and provided at 10-foot maximum intervals. If exposure is permitted, weepholes should be located 12 inches above finished grade. If exposure is not permitted such as for a wall adjacent to a sidewalk/curb, a pipe under the sidewalk to be discharged through the curb face or equivalent should be provided. For a basement-type wall, a proper subdrain outlet system should be provided.
6) Retaining wall plans should be reviewed and approved by the geotechnical engineer.
7) Walls over six feet in height are subject to a special review by the geotechnical engineer and modifications to the above requirements.

RETAINING WALL BACKFILL AND SUBDRAIN DETAIL FOR WALLS 6 FEET OR LESS IN HEIGHT

WHEN NATIVE MATERIAL HAS EXPANSION INDEX OF ≤50

Leighton

FIGURE 8

v:\ENGINEERING\TEMPLATES\STANDARD-FIGURES\ALL-STANDARD-FIGURES.DWG (08-02-21 9:07:35AM) Plotted by: btran

APPENDIX A

EXPLORATION LOGS

GEOTECHNICAL BORING LOG LB-1

Project No.	13493.001	**Date Drilled**	4-6-22
Project	Legacy-Collier, Proposed Residential Development	**Logged By**	BTM
Drilling Co.	Martini Drilling, Corp.	**Hole Diameter**	8"
Drilling Method	Hollow Stem Auger - 140lb - Autohammer - 30" Drop	**Ground Elevation**	805'
Location	See Figure 2 - *Geotechnical Map*	**Sampled By**	BTM

Elevation Feet	Depth Feet	Graphic Log (N / S)	Attitudes	Sample No.	Bulk / Driven	Blows Per 6 Inches	Dry Density pcf	Moisture Content, %	Soil Class. (U.S.C.S.)	SOIL DESCRIPTION	Type of Tests
										This Soil Description applies only to a location of the exploration at the time of sampling. Subsurface conditions may differ at other locations and may change with time. The description is a simplification of the actual conditions encountered. Transitions between soil types may be gradual.	
805	0									@Surface: 2.5 -inches Asphalt Concrete over 4.5 -inches Base	
				B-1					ML-SM	**Artificial Fill, undocumented (Afu)** @0.58': Sandy SILT, olive brown, moist, low plasticity, very fine to fine sand, slightly micaceous; grades to Silty SAND, medium brown, moist, very fine to fine sand, slightly micaceous @ ~4'	EI, RV
800	5			R-1		4 7 9			ML/CL	<Quaternary-Aged Young Alluvial Deposits (Qyf) **@5': Silty CLAY, stiff, olive brown, moist, low plasticity, iron oxidation staining, slightly micaceous, few fine sand** **PP=2.50 TSF)>>**	CN
				R-2		7 11 13	95	9	ML-SM	@7.5': Sandy SILT, very stiff, medium olive brown, moist, very fine sand, low plasticity, slightly micaceous, slightly laminated; grades to Clayey SILT with sand, grayish brown, moist, low plasticity, iron oxidation staining, slightly micaceous, few fine sand	
795	10			R-3		4 9 15	89	31	CL-ML	@10': Silty CLAY, very stiff, gray, moist, low to medium plasticity, iron oxidation staining/veins, few fine sand, trace subrounded gravel, slightly laminated PP>4.5 TSF	
790	15			R-4		4 8 12	112	16		@15': Silty CLAY, stiff, medium brown, moist, medium plasticity, iron oxidation staining, slightly micaceous; grades to Sandy CLAY, medium brown, moist, medium plasticity, very fine to fine sand, slightly micaceous, iron oxidation staining PP=4.25 TSF	
785	20			R-5		8 18 22	120	12	SC	@20': Clayey SAND, medium dense, mottled medium brown to orange, low plasticity, predominately fine sand, little medium sand, slightly micaceous, slightly laminated, trace fine subrounded gravel PP>4.50 TSF	
780	25			R-6		12 16 27			SP	@25': SAND with Silt, medium dense, yellowish brown, slightly moist, predominately fine sand, poorly-graded, little medium sand, slightly micaceous	CO
775	30										

SAMPLE TYPES:

- B BULK SAMPLE
- C CORE SAMPLE
- G GRAB SAMPLE
- R RING SAMPLE
- S SPLIT SPOON SAMPLE
- T TUBE SAMPLE

TYPE OF TESTS:

-200	% FINES PASSING	DS	DIRECT SHEAR	SA	SIEVE ANALYSIS
AL	ATTERBERG LIMITS	EI	EXPANSION INDEX	SE	SAND EQUIVALENT
CN	CONSOLIDATION	H	HYDROMETER	SG	SPECIFIC GRAVITY
CO	COLLAPSE	MD	MAXIMUM DENSITY	UC	UNCONFINED COMPRESSIVE STRENGTH
CR	CORROSION	PP	POCKET PENETROMETER		
CU	UNDRAINED TRIAXIAL	RV	R VALUE		

Leighton

*** * * This log is a part of a report by Leighton and should not be used as a stand-alone document. * * ***

GEOTECHNICAL BORING LOG LB-1

Project No.	13493.001	**Date Drilled**	4-6-22
Project	Legacy-Collier, Proposed Residential Development	**Logged By**	BTM
Drilling Co.	Martini Drilling, Corp.	**Hole Diameter**	8"
Drilling Method	Hollow Stem Auger - 140lb - Autohammer - 30" Drop	**Ground Elevation**	805'
Location	See Figure 2 - *Geotechnical Map*	**Sampled By**	BTM

Elevation Feet	Depth Feet	Graphic Log (N / S)	Attitudes	Sample No. (Bulk / Driven)	Blows Per 6 Inches	Dry Density pcf	Moisture Content, %	Soil Class. (U.S.C.S.)	SOIL DESCRIPTION	Type of Tests
775	30			S-7	9 12 14		4		@30': SAND with gravel, medium dense, orange brown, slightly moist, fine to coarse sand, few fine subrounded gravel, slightly micaceous	
770	35			R-8	11 24 50/4"				@35': SAND with Silt, Very dense, yellowish brown, predominately fine sand, little medium to coarse sand, poorly graded, few fine subangular to subrounded gravel	CO
765	40			S-9	8 12 19		4		@40': SAND, dense, medium brown, slightly moist, predominately fine sand, little medium to coarse sand, trace to few fine subangular to subrounded gravel, slightly micaceous	
760	45			R-10	47 50/3"	115	2		@45': Very dense, medium brown to orange brown, few fine subrounded gravel	
755	50			S-11	35 39 50/4"		3		@50': Very dense, little subrounded granitic gravel	
750	55								**Total Depth: 51.5' bgs** **No groundwater encountered during drilling** **Backfilled with soil cuttings** **Patched with cold-mix asphalt concrete**	
745	60									

This Soil Description applies only to a location of the exploration at the time of sampling. Subsurface conditions may differ at other locations and may change with time. The description is a simplification of the actual conditions encountered. Transitions between soil types may be gradual.

SAMPLE TYPES:
- B BULK SAMPLE
- C CORE SAMPLE
- G GRAB SAMPLE
- R RING SAMPLE
- S SPLIT SPOON SAMPLE
- T TUBE SAMPLE

TYPE OF TESTS:
- -200 % FINES PASSING
- AL ATTERBERG LIMITS
- CN CONSOLIDATION
- CO COLLAPSE
- CR CORROSION
- CU UNDRAINED TRIAXIAL
- DS DIRECT SHEAR
- EI EXPANSION INDEX
- H HYDROMETER
- MD MAXIMUM DENSITY
- PP POCKET PENETROMETER
- RV R VALUE
- SA SIEVE ANALYSIS
- SE SAND EQUIVALENT
- SG SPECIFIC GRAVITY
- UC UNCONFINED COMPRESSIVE STRENGTH

Leighton

*** This log is a part of a report by Leighton and should not be used as a stand-alone document. ***

GEOTECHNICAL BORING LOG LB-2

Project No.	13493.001	**Date Drilled**	4-6-22
Project	Legacy-Collier, Proposed Residential Development	**Logged By**	BTM
Drilling Co.	Martini Drilling, Corp.	**Hole Diameter**	8"
Drilling Method	Hollow Stem Auger - 140lb - Autohammer - 30" Drop	**Ground Elevation**	807'
Location	See Figure 2 - *Geotechnical Map*	**Sampled By**	BTM

Elevation Feet	Depth Feet	Graphic Log	Attitudes	Sample No.	Bulk / Driven	Blows Per 6 Inches	Dry Density pcf	Moisture Content, %	Soil Class. (U.S.C.S.)	SOIL DESCRIPTION	Type of Tests
		N S								*This Soil Description applies only to a location of the exploration at the time of sampling. Subsurface conditions may differ at other locations and may change with time. The description is a simplification of the actual conditions encountered. Transitions between soil types may be gradual.*	
	0									@Surface: 4 -inches Asphalt Concrete over 5 -inches Base	
805				B-1					ML-SM	**Artificial Fill, undocumented (Afu)** @0.75': Sandy SILT, olive brown, moist, low plasticity, very fine sand, slightly micaceous, some debris (asphalt)	DS, MD, SE
	5			R-1		3 8 16			ML-SM	<Quaternary-Aged Young Alluvial Deposits (Qyf) **@5': Clayey SAND, medium dense, olive gray, very moist, low plasticity, very fine to fine sand, slightly micaceous, pinhole pores; grades to Silty SAND with gravel, light to medium brown, predominately fine sand, few medium sand, fine subangular granitic gravel)>>**	CN
800				R-2		6 11 11	101	3	SP	@7.5': SAND, medium dense, grayish brown, moist, very fine to fine sand, slightly micaceous, little iron oxidation staining	
	10			R-3		4 8 12			CL/SM	@10': CLAY, stiff, olive gray, moist, lean, low plasticity, extensive iron oxidation staining, few very fine sand, slightly micaceous; grades to Silty SAND, light orange brown, very fine sand, slightly micaceous	CN, AL
795											
	15			R-4		10 10 11	103	4	SP-ML	@15': SAND with silt, medium dense, light gray, slightly moist, very fine to fine sand, micaceous; interbedded with Clayey SILT, medium brown, moist, low plasticity, laminated, iron oxidation staining	
790											
	20			R-5		7 11 17	112	16	ML-SM CL-SC	@20': Sandy SILT, very stiff, medium brown, moist, low plasticity, very fine sand, micaceous; grades to Sandy CLAY, medium brown, moist, low plasticity, very fine to fine sand, trace subrounded gravel	
785										PP = 3.50	
	25			R-6		10 15 24	108	10	SP	@25': Sandy CLAY, very stiff, medium brown, moist, low plasticity, very fine to fine sand, micaceous, some silt	
780										PP > 4.50 TSF @26': SAND with silt, orange brown, dry to slightly moist, very fine to fine sand, few medium sand, slightly micaceous	
	30									**Total Depth: 26.5' bgs** **No groundwater encountered during drilling** **Backfilled with soil cuttings**	

SAMPLE TYPES:

B	BULK SAMPLE
C	CORE SAMPLE
G	GRAB SAMPLE
R	RING SAMPLE
S	SPLIT SPOON SAMPLE
T	TUBE SAMPLE

TYPE OF TESTS:

-200	% FINES PASSING	DS	DIRECT SHEAR	SA	SIEVE ANALYSIS
AL	ATTERBERG LIMITS	EI	EXPANSION INDEX	SE	SAND EQUIVALENT
CN	CONSOLIDATION	H	HYDROMETER	SG	SPECIFIC GRAVITY
CO	COLLAPSE	MD	MAXIMUM DENSITY	UC	UNCONFINED COMPRESSIVE STRENGTH
CR	CORROSION	PP	POCKET PENETROMETER		
CU	UNDRAINED TRIAXIAL	RV	R VALUE		

Leighton

*** * * This log is a part of a report by Leighton and should not be used as a stand-alone document. * * ***

GEOTECHNICAL BORING LOG LB-2

Project No.	13493.001	**Date Drilled**	4-6-22
Project	Legacy-Collier, Proposed Residential Development	**Logged By**	BTM
Drilling Co.	Martini Drilling, Corp.	**Hole Diameter**	8"
Drilling Method	Hollow Stem Auger - 140lb - Autohammer - 30" Drop	**Ground Elevation**	807'
Location	See Figure 2 - *Geotechnical Map*	**Sampled By**	BTM

Elevation Feet	Depth Feet	Graphic Log (N / S)	Attitudes	Sample No. (Bulk / Driven)	Blows Per 6 Inches	Dry Density pcf	Moisture Content, %	Soil Class. (U.S.C.S.)	SOIL DESCRIPTION	Type of Tests
	30								**Patched with cold-mix asphalt concrete**	
775										
	35									
770										
	40									
765										
	45									
760										
	50									
755										
	55									
750										
	60									

This Soil Description applies only to a location of the exploration at the time of sampling. Subsurface conditions may differ at other locations and may change with time. The description is a simplification of the actual conditions encountered. Transitions between soil types may be gradual.

SAMPLE TYPES:

- B BULK SAMPLE
- C CORE SAMPLE
- G GRAB SAMPLE
- R RING SAMPLE
- S SPLIT SPOON SAMPLE
- T TUBE SAMPLE

TYPE OF TESTS:

- -200 % FINES PASSING
- AL ATTERBERG LIMITS
- CN CONSOLIDATION
- CO COLLAPSE
- CR CORROSION
- CU UNDRAINED TRIAXIAL
- DS DIRECT SHEAR
- EI EXPANSION INDEX
- H HYDROMETER
- MD MAXIMUM DENSITY
- PP POCKET PENETROMETER
- RV R VALUE
- SA SIEVE ANALYSIS
- SE SAND EQUIVALENT
- SG SPECIFIC GRAVITY
- UC UNCONFINED COMPRESSIVE STRENGTH

Leighton

*** This log is a part of a report by Leighton and should not be used as a stand-alone document. ***

GEOTECHNICAL BORING LOG LB-3

Project No.	13493.001	**Date Drilled**	4-6-22
Project	Legacy-Collier, Proposed Residential Development	**Logged By**	BTM
Drilling Co.	Martini Drilling, Corp.	**Hole Diameter**	8"
Drilling Method	Hollow Stem Auger - 140lb - Autohammer - 30" Drop	**Ground Elevation**	808'
Location	See Figure 2 - *Geotechnical Map*	**Sampled By**	BTM

Elevation Feet	Depth Feet	Graphic Log (N S)	Attitudes	Sample No.	Bulk / Driven	Blows Per 6 Inches	Dry Density pcf	Moisture Content, %	Soil Class. (U.S.C.S.)	SOIL DESCRIPTION	Type of Tests
	0									@Surface: 3.5 -inches Asphalt Concrete over 12 -inches Base	
805				B-1					SM	**Artificial Fill, undocumented (Afu)** @1.3': Silty SAND, olive brown, slightly moist, very fine to fine sand, few medium sand, trace coarse sand, non-plastic, few debris (asphalt)	CR, MD
	5			R-1		7 9 11	111	8	SM	<Quaternary-Aged Young Alluvial Deposits (Qyf) **@5': Silty SAND, medium dense, medium brown, moist, very fine to fine sand, slightly laminated, slightly micaceous)>>**	
800				R-2		7 12 15			CL-SC	@7.5': Silty SAND, medium dense, olive, slightly moist, fine sand, low plasticity, iron oxidation staining, carbonate veins; grades to SAND, yellowish brown, slightly moist, very fine to fine sand	DS
	10			R-3		10 16 26	90	26	CL	@10': Silty CLAY, very stiff, grayish brown, slightly moist, low to medium plasticity, trace very fine sand, iron oxidation staining PP > 4.50 TSF	
795											
	15			R-4		5 9 17	87	35		@15': Very stiff, slightly laminated PP = 4.25 TSF	
790											
	20			R-5		12 16 27	122	12	SC	@20': Clayey SAND, medium dense, orange brown, slightly moist, low plasticity, fine sand, trace medium to coarse sand, slightly laminated, iron oxidation staining PP = 4.50 TSF	
785											
	25			R-6		7 10 17	114	14		@25': Medium dense, higher sand content, pinhole pores PP > 4.50 TSF	
780										**Total Depth: 26.5' bgs** **No groundwater encountered during drilling** **Backfilled with soil cuttings** **Patched with cold-mix asphalt concrete**	
	30										

SAMPLE TYPES:

- B BULK SAMPLE
- C CORE SAMPLE
- G GRAB SAMPLE
- R RING SAMPLE
- S SPLIT SPOON SAMPLE
- T TUBE SAMPLE

TYPE OF TESTS:

- -200 % FINES PASSING
- AL ATTERBERG LIMITS
- CN CONSOLIDATION
- CO COLLAPSE
- CR CORROSION
- CU UNDRAINED TRIAXIAL
- DS DIRECT SHEAR
- EI EXPANSION INDEX
- H HYDROMETER
- MD MAXIMUM DENSITY
- PP POCKET PENETROMETER
- RV R VALUE
- SA SIEVE ANALYSIS
- SE SAND EQUIVALENT
- SG SPECIFIC GRAVITY
- UC UNCONFINED COMPRESSIVE STRENGTH

Leighton

*** * * This log is a part of a report by Leighton and should not be used as a stand-alone document. * * ***

GEOTECHNICAL BORING LOG LB-5

Project No.	13493.001	**Date Drilled**	4-6-22
Project	Legacy-Collier, Proposed Residential Development	**Logged By**	BTM
Drilling Co.	Martini Drilling, Corp.	**Hole Diameter**	8"
Drilling Method	Hollow Stem Auger - 140lb - Autohammer - 30" Drop	**Ground Elevation**	807'
Location	See Figure 2 - *Geotechnical Map*	**Sampled By**	BTM

Elevation Feet	Depth Feet	Graphic Log (N / S)	Attitudes	Sample No. (Bulk / Driven)	Blows Per 6 Inches	Dry Density pcf	Moisture Content, %	Soil Class. (U.S.C.S.)	SOIL DESCRIPTION	Type of Tests
									This Soil Description applies only to a location of the exploration at the time of sampling. Subsurface conditions may differ at other locations and may change with time. The description is a simplification of the actual conditions encountered. Transitions between soil types may be gradual.	
	0								@Surface: 5 -inches Asphalt Concrete over 3 -inches Base	
805				B-1				SM	**Artificial Fill, undocumented (Afu)** @0.67': Silty SAND, olive brown, slightly moist, very fine to fine sand, few medium sand, trace coarse sand, trace debris (asphalt)	SE
	5			R-1	5 7 9			SM-ML	<Quaternary-Aged Young Alluvial Deposits (Qyf) **@5': Silty SAND, medium dense, medium brown, slightly moist, very fine to fine sand, trace coarse sand, nonplastic, slightly micaceous; grades to Sandy SILT, yellowish brown, slightly moist, very fine sand, no to low plasticity, slightly micaceous)>>**	
800				R-2	9 16 16			ML-SM	@7.5': Sandy SILT, very stiff, grayish brown, slightly moist, very fine sand, low plasticity, iron oxidation staining; grades to Sandy SILT, yellowish brown	
	10			R-3	6 11 16			CL-ML	@10': Silty CLAY, very stiff, grayish brown to tan, moist, low plasticity, slightly laminated, trace very fine sand; grades to SAND, tan to yellowish brown, slightly moist, very fine to fine sand, slightly micaceous	
795										
	15			R-4	5 10 21				@15': Silty CLAY, very stiff, grayish brown, moist, low to medium plasticity, iron oxidation staining, some very fine to fine sand, slightly laminated	
790										
	20			R-5	6 9 19				@20': Very stiff, few to little very fine to fine sand, slightly laminated	
785										
	25			R-6	10 18 28			SC	@25': Clayey SAND, dense, olive brown, moist, predominately fine sand, trace to few medium to coarse sand, low plasticity, slightly micaceous; grades to orange, iron oxidation stained Clayey SAND, slightly laminated	
780									**Total Depth: 26.5' bgs** **No groundwater encountered during drilling** **Backfilled with soil cuttings** **Patched with cold-mix asphalt concrete**	
	30									

SAMPLE TYPES:

- B BULK SAMPLE
- C CORE SAMPLE
- G GRAB SAMPLE
- R RING SAMPLE
- S SPLIT SPOON SAMPLE
- T TUBE SAMPLE

TYPE OF TESTS:

- -200 % FINES PASSING
- AL ATTERBERG LIMITS
- CN CONSOLIDATION
- CO COLLAPSE
- CR CORROSION
- CU UNDRAINED TRIAXIAL
- DS DIRECT SHEAR
- EI EXPANSION INDEX
- H HYDROMETER
- MD MAXIMUM DENSITY
- PP POCKET PENETROMETER
- RV R VALUE
- SA SIEVE ANALYSIS
- SE SAND EQUIVALENT
- SG SPECIFIC GRAVITY
- UC UNCONFINED COMPRESSIVE STRENGTH

Leighton

*** * * This log is a part of a report by Leighton and should not be used as a stand-alone document. * * ***

GEOTECHNICAL BORING LOG LP-1

Project No.	13493.001	**Date Drilled**	4-6-22
Project	Legacy-Collier, Proposed Residential Development	**Logged By**	BTM
Drilling Co.	Martini Drilling, Corp.	**Hole Diameter**	8"
Drilling Method	Hollow Stem Auger - 140lb - Autohammer - 30" Drop	**Ground Elevation**	805'
Location	See Figure 2 - *Geotechnical Map*	**Sampled By**	BTM

Elevation Feet	Depth Feet	Graphic Log	Attitudes	Sample No.	Bulk Driven	Blows Per 6 Inches	Dry Density pcf	Moisture Content, %	Soil Class. (U.S.C.S.)	SOIL DESCRIPTION	Type of Tests
										This Soil Description applies only to a location of the exploration at the time of sampling. Subsurface conditions may differ at other locations and may change with time. The description is a simplification of the actual conditions encountered. Transitions between soil types may be gradual.	
805	0	N S								@Surface: 3 -inches Asphalt Concrete over 7 -inches Base	
				B-1					ML-SM	**Artificial Fill, undocumented (Afu)** @0.83': Sandy SILT, olive brown, moist, low plasticity, very fine sand, slightly micaceous; grades to Silty SAND, medium brown, moist, very fine to fine sand, trace medium sand, slightly micaceous @ ~4'	
800	5			S-1		2 2 2			SM-ML	**Quaternary-Aged Young Alluvial Deposits (Qyf)** @5': Silty SAND, very loose, medium brown, moist, very fine to fine sand, slightly micaceous, nonplastic	
795	10			S-2		2 3 4			ML-CL	@10': Clayey Sandy SILT, medium stiff, moist, low plasticity, very fine sand, slightly micaceous; grades to Silty CLAY with sand, gray, moist, low to medium plasticity, very fine sand, micaceous, extensive iron oxidation staining	
790	15			R-3		6 9 11	104	5	SP	@15': Silty SAND, medium dense, grayish brown, slightly moist, prodominately fine sand, some clay, trace medium to coarse sand, trace fine subrounded gravel, slightly micaceous	, SA
				R-4		8 13 21	119	12	SM	@18.5': Sandy SILT, very stiff, olive brown, slightly moist, low plasticity, very fine to fine sand, iron oxidation staining, slightly micaceous PP > 4.50 TSF	, SA
785	20			S-5		5 6 7			ML-SM	@23.5': Sandy CLAY, stiff to medium dense, orange mottled with brown, low plasticity, very fine to fine sand, slightly micaceous	SA
780	25									**Total Depth: 25' bgs** **No groundwater encountered during drilling** **Temporary percolation well installed; screened from 17 - 22' bgs** **Upon completion of percolation testing, boring was backfilled with soil cuttings and patched with cold-mix asphalt**	
775	30										

SAMPLE TYPES:

- B BULK SAMPLE
- C CORE SAMPLE
- G GRAB SAMPLE
- R RING SAMPLE
- S SPLIT SPOON SAMPLE
- T TUBE SAMPLE

TYPE OF TESTS:

- -200 % FINES PASSING
- AL ATTERBERG LIMITS
- CN CONSOLIDATION
- CO COLLAPSE
- CR CORROSION
- CU UNDRAINED TRIAXIAL
- DS DIRECT SHEAR
- EI EXPANSION INDEX
- H HYDROMETER
- MD MAXIMUM DENSITY
- PP POCKET PENETROMETER
- RV R VALUE
- SA SIEVE ANALYSIS
- SE SAND EQUIVALENT
- SG SPECIFIC GRAVITY
- UC UNCONFINED COMPRESSIVE STRENGTH

Leighton

*** * * This log is a part of a report by Leighton and should not be used as a stand-alone document. * * ***

GEOTECHNICAL BORING LOG LP-2

Project No.	13493.001	**Date Drilled**	4-6-22
Project	Legacy-Collier, Proposed Residential Development	**Logged By**	BTM
Drilling Co.	Martini Drilling, Corp.	**Hole Diameter**	8"
Drilling Method	Hollow Stem Auger - 140lb - Autohammer - 30" Drop	**Ground Elevation**	804'
Location	See Figure 2 - *Geotechnical Map*	**Sampled By**	BTM

Elevation Feet	Depth Feet	Graphic Log	Attitudes	Sample No.	Bulk / Driven	Blows Per 6 Inches	Dry Density pcf	Moisture Content, %	Soil Class. (U.S.C.S.)	SOIL DESCRIPTION	Type of Tests
		N S								*This Soil Description applies only to a location of the exploration at the time of sampling. Subsurface conditions may differ at other locations and may change with time. The description is a simplification of the actual conditions encountered. Transitions between soil types may be gradual.*	
	0									@Surface: 3.5 -inches Asphalt Concrete over 4 -inches Base	
				B-1					SM-ML	**Artificial Fill, undocumented (Afu)** @0.62': Silty SAND to Sandy SILT, olive brown, slightly moist, very fine to fine sand, low to no plasticity, slightly micaceous	
800											
	5			S-1		4 2 2			SM	<Quaternary-Aged Young Alluvial Deposits (Qyf) **@5': Silty SAND, very loose, medium to dark brown, moist, very fine to fine sand, trace coarse sand to fine subrounded gravel)>>**	
795											
	10			S-2		2 2 3			ML/CL	@10': Sandy SILT, medium stiff, mottled with gray and light brown, slightly moist, low plasticity, very fine sand, slightly micaceous; grades to Silty CLAY, grayish brown, moist, low to medium plasticity, iron oxidation staining, laminated	
790											
	15			R-3		4 6 9	91	25		@15': Silty CLAY, stiff, olive brown, moist, low plasticity, very fine sand, slightly micaceous, laminated, iron oxidation staining	, SA
785				R-4		12 16 26	115	7	SM	@18.5': Silty SAND, medium dense, olive brown, moist, very fine to fine sand, low to no plasticity, little iron oxidation staining, trace pinhole pores	, SA
	20										
										Total Depth: 20' bgs **No groundwater encountered during drilling** **Temporary percolation well installed; screened from 15 - 20' bgs** **Upon completion of percolation testing, boring was backfilled with soil cuttings and patched with cold-mix asphalt**	
780											
	25										
775											
	30										

SAMPLE TYPES:

B	BULK SAMPLE
C	CORE SAMPLE
G	GRAB SAMPLE
R	RING SAMPLE
S	SPLIT SPOON SAMPLE
T	TUBE SAMPLE

TYPE OF TESTS:

-200	% FINES PASSING	DS	DIRECT SHEAR	SA	SIEVE ANALYSIS
AL	ATTERBERG LIMITS	EI	EXPANSION INDEX	SE	SAND EQUIVALENT
CN	CONSOLIDATION	H	HYDROMETER	SG	SPECIFIC GRAVITY
CO	COLLAPSE	MD	MAXIMUM DENSITY	UC	UNCONFINED COMPRESSIVE STRENGTH
CR	CORROSION	PP	POCKET PENETROMETER		
CU	UNDRAINED TRIAXIAL	RV	R VALUE		

Leighton

*** * * This log is a part of a report by Leighton and should not be used as a stand-alone document. * * ***

SUMMARY

OF

CONE PENETRATION TEST DATA

Project:

Legacy-Ontario
2530 W. Walnut Street
Ontario, CA
April 7, 2022

Prepared for:

Mr. Eric Holliday
Leighton & Associates
17781 Cowan
Irvine, CA 92614-6009
Office (800) 253-4567 / Fax (949) 250-1114

Prepared by:

KEHOE TESTING & ENGINEERING
5415 Industrial Drive
Huntington Beach, CA 92649-1518
Office (714) 901-7270 / Fax (714) 901-7289
www.kehoetesting.com

TABLE OF CONTENTS

1. **INTRODUCTION**
2. **SUMMARY OF FIELD WORK**
3. **FIELD EQUIPMENT & PROCEDURES**
4. **CONE PENETRATION TEST DATA & INTERPRETATION**

APPENDIX

- CPT Plots
- CPT Classification/Soil Behavior Chart
- Summary of Shear Wave Velocities
- CPT Data Files (sent via email)

SUMMARY
OF
CONE PENETRATION TEST DATA

1. INTRODUCTION

This report presents the results of a Cone Penetration Test (CPT) program carried out for the Legacy-Ontario project located at 2530 W. Walnut Street in Ontario, California. The work was performed by Kehoe Testing & Engineering (KTE) on April 7, 2022. The scope of work was performed as directed by Leighton & Associates personnel.

2. SUMMARY OF FIELD WORK

The fieldwork consisted of performing CPT soundings at five locations to determine the soil lithology. A summary is provided in **TABLE 2.1**.

LOCATION	DEPTH OF CPT (ft)	COMMENTS/NOTES:
CPT-1	50	
CPT-2	50	
CPT-3	35	Refusal
CPT-3A	50	
LB-4	50	

TABLE 2.1 - Summary of CPT Soundings

3. FIELD EQUIPMENT & PROCEDURES

The CPT soundings were carried out by **KTE** using an integrated electronic cone system manufactured by Vertek. The CPT soundings were performed in accordance with ASTM standards (D5778). The cone penetrometers were pushed using a 30-ton CPT rig. The cone used during the program was a 15 cm^2 cone with a cone net area ratio of 0.83. The following parameters were recorded at approximately 2.5 cm depth intervals:

- Cone Resistance (qc)
- Sleeve Friction (fs)
- Dynamic Pore Pressure (u)
- Inclination
- Penetration Speed

At location CPT-1, shear wave measurements were obtained at approximately 5-foot intervals. The shear wave is generated using an air-actuated hammer, which is located inside the front jack of the CPT rig. The cone has a triaxial geophone, which recorded the shear wave signal generated by the air hammer.

The above parameters were recorded and viewed in real time using a laptop computer. Data is stored at the KTE office for up to 2 years for future analysis and reference. A complete set of baseline readings was taken prior to each sounding to determine temperature shifts and any zero load offsets. Monitoring base line readings ensures that the cone electronics are operating properly.

4. CONE PENETRATION TEST DATA & INTERPRETATION

The Cone Penetration Test data is presented in graphical form in the attached Appendix. These plots were generated using the CPeT-IT program. Penetration depths are referenced to ground surface. The soil behavior type on the CPT plots is derived from the attached CPT SBT plot (Robertson, "Interpretation of Cone Penetration Test…", 2009) and presents major soil lithologic changes. The stratigraphic interpretation is based on relationships between cone resistance (qc), sleeve friction (fs), and penetration pore pressure (u). The friction ratio (Rf), which is sleeve friction divided by cone resistance, is a calculated parameter that is used along with cone resistance to infer soil behavior type. Generally, cohesive soils (clays) have high friction ratios, low cone resistance and generate excess pore water pressures. Cohesionless soils (sands) have lower friction ratios, high cone bearing and generate little (or negative) excess pore water pressures.

The CPT data files have also been provided. These files can be imported in CPeT-IT (software by GeoLogismiki) and other programs to calculate various geotechnical parameters.

It should be noted that it is not always possible to clearly identify a soil type based on qc, fs and u. In these situations, experience, judgement and an assessment of the pore pressure data should be used to infer the soil behavior type.

If you have any questions regarding this information, please do not hesitate to call our office at (714) 901-7270.

Sincerely,

KEHOE TESTING & ENGINEERING

Steven P. Kehoe
President

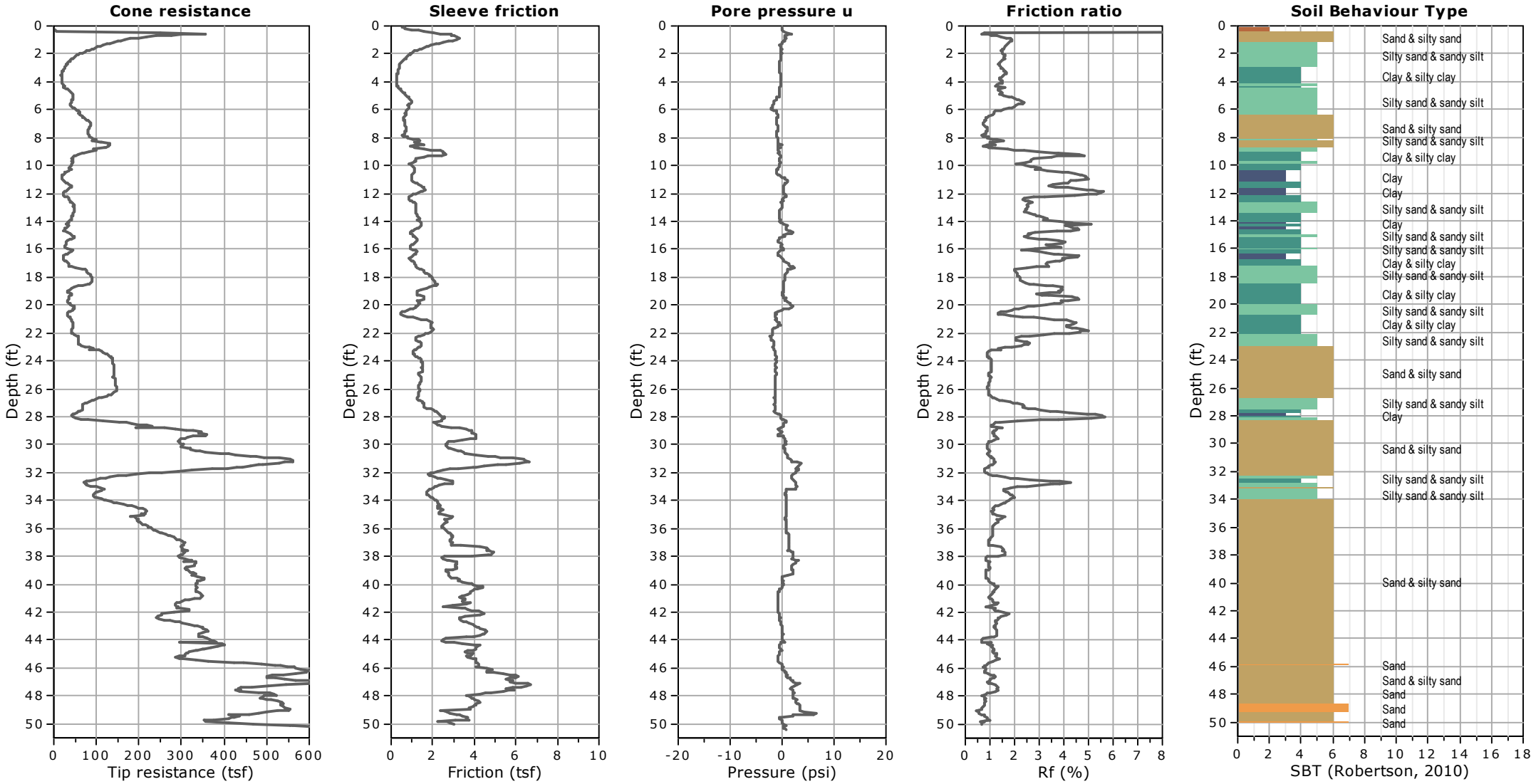
04/14/22-kd-4039

APPENDIX

Kehoe Testing and Engineering
714-901-7270
steve@kehoetesting.com
www.kehoetesting.com

Project: **Leighton & Associates / Legacy**
Location: **2530 W. Walnut St, Ontario, CA**

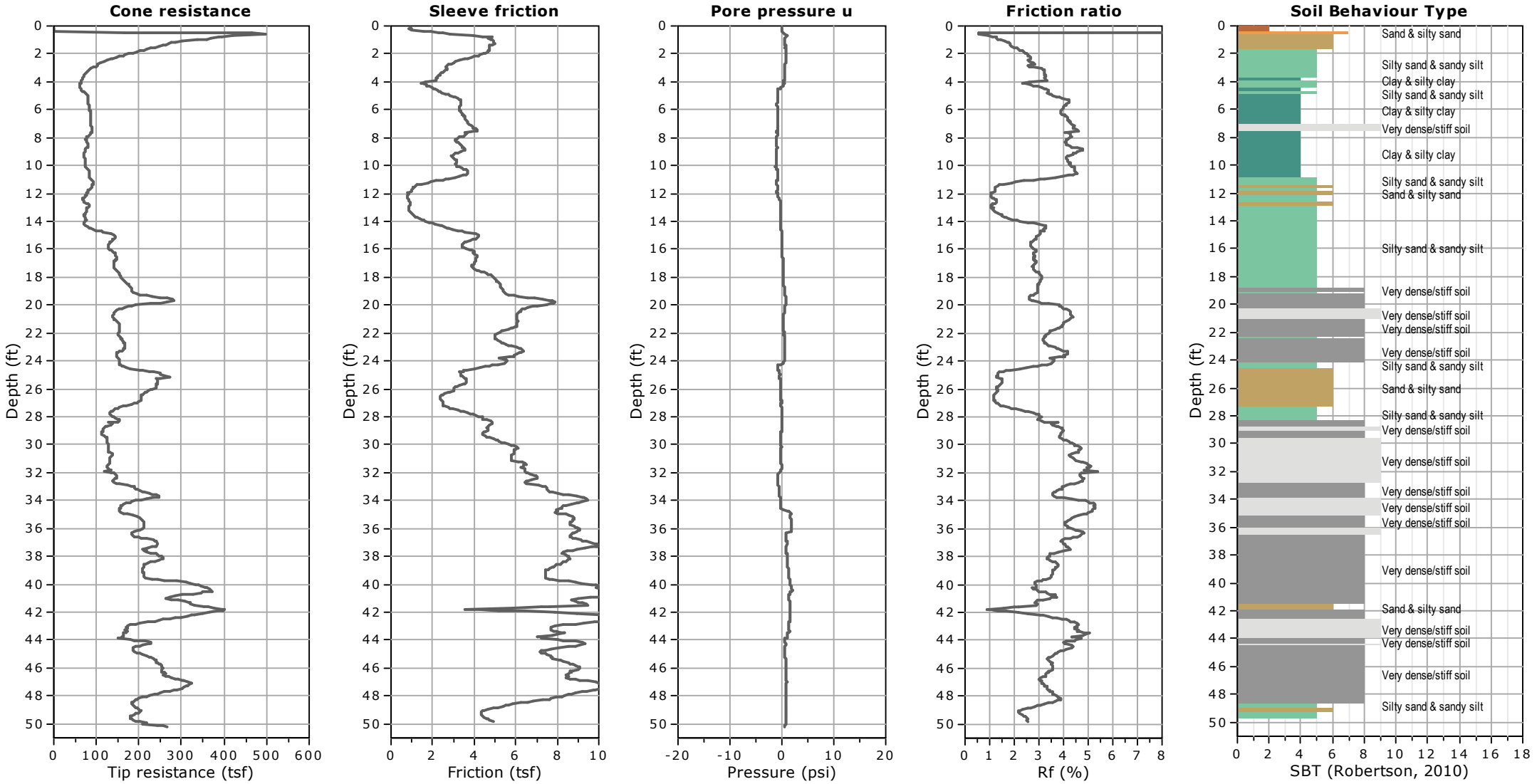
CPT-1
Total depth: 50.40 ft, Date: 4/7/2022



Kehoe Testing and Engineering
714-901-7270
steve@kehoetesting.com
www.kehoetesting.com

Project: **Leighton & Associates / Legacy**
Location: **2530 W. Walnut St, Ontario, CA**

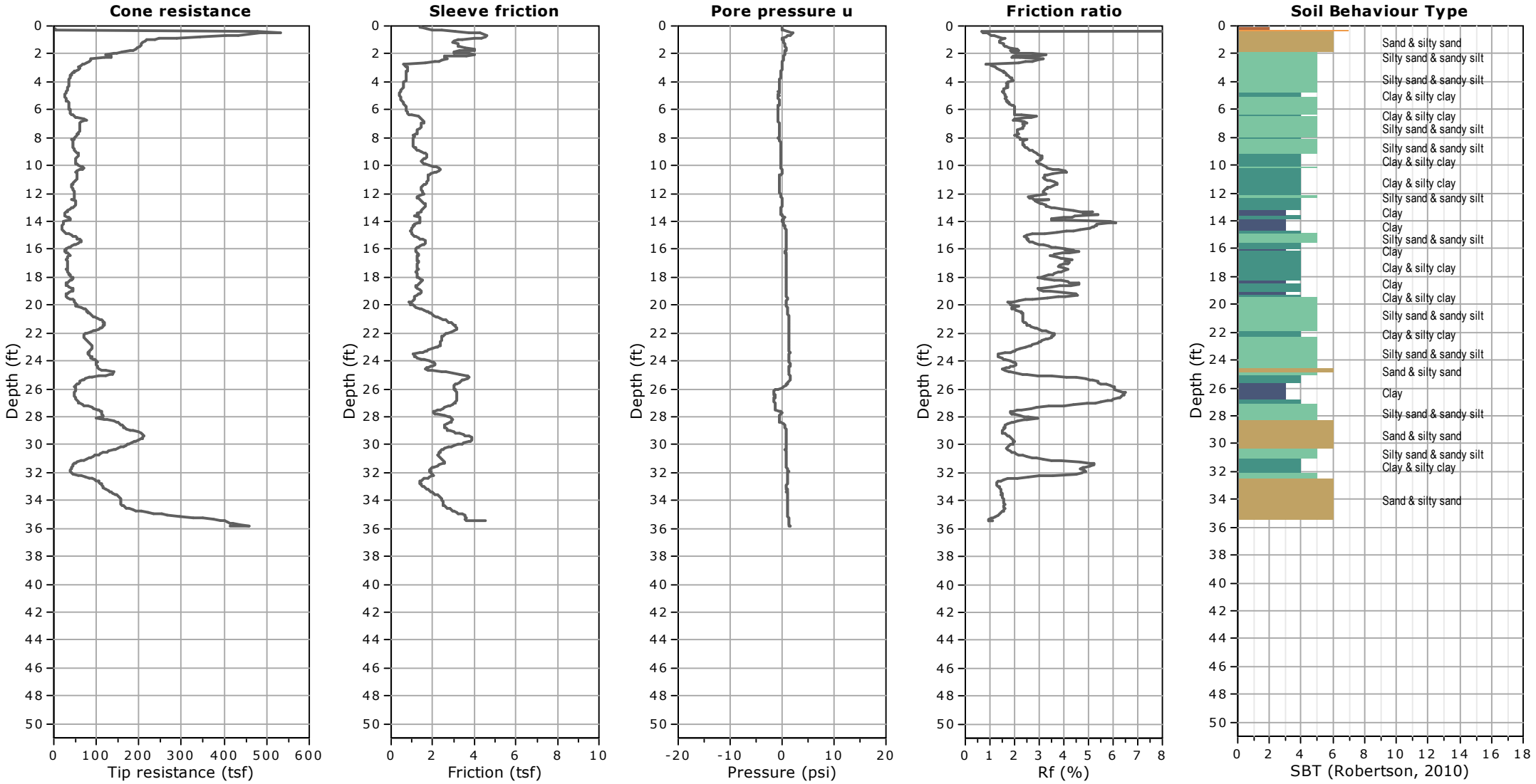
CPT-2
Total depth: 50.20 ft, Date: 4/7/2022



Kehoe Testing and Engineering
714-901-7270
steve@kehoetesting.com
www.kehoetesting.com

Project: **Leighton & Associates / Legacy**
Location: **2530 W. Walnut St, Ontario, CA**

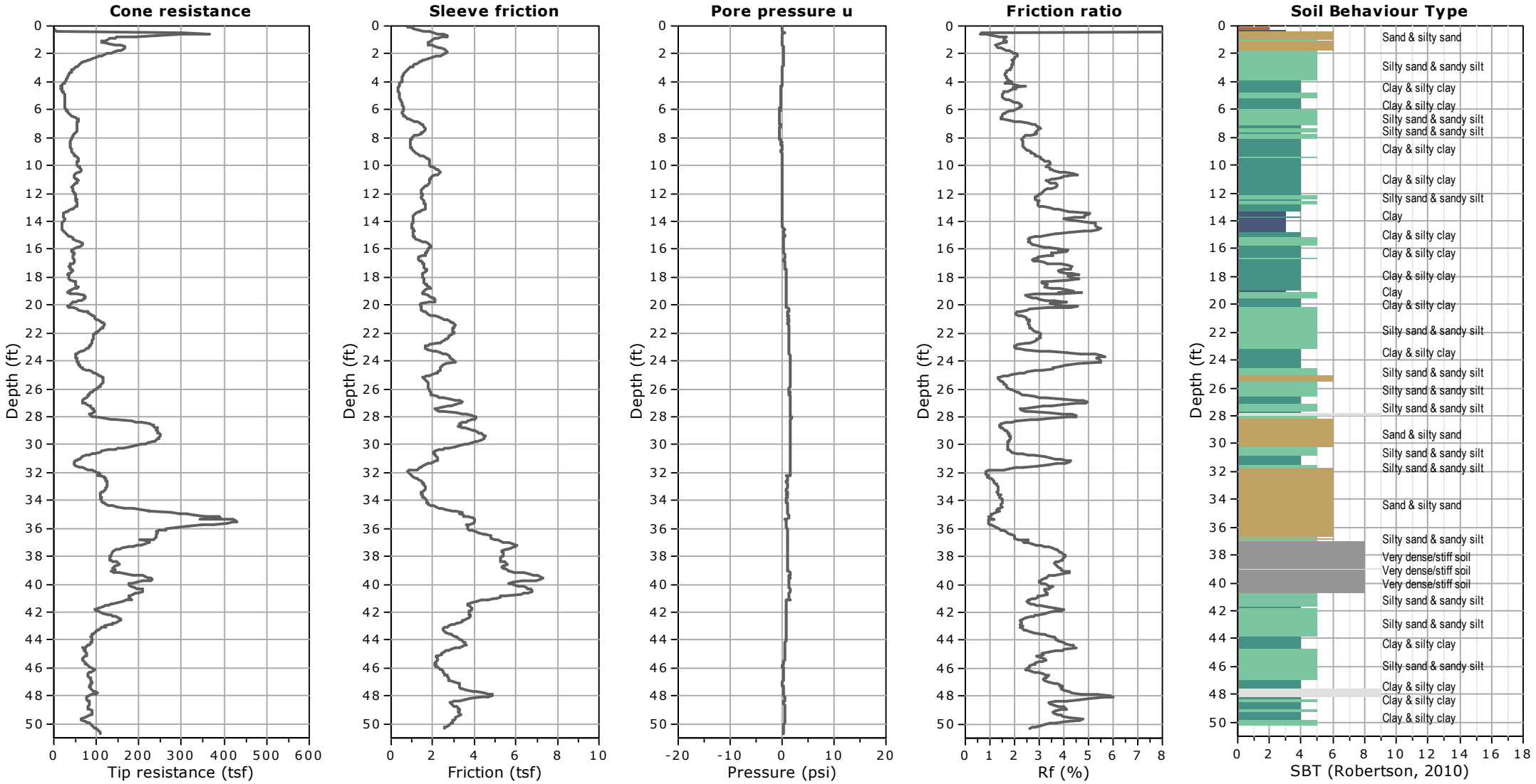
CPT-3
Total depth: 35.84 ft, Date: 4/7/2022



Kehoe Testing and Engineering
714-901-7270
steve@kehoetesting.com
www.kehoetesting.com

Project: **Leighton & Associates / Legacy**
Location: **2530 W. Walnut St, Ontario, CA**

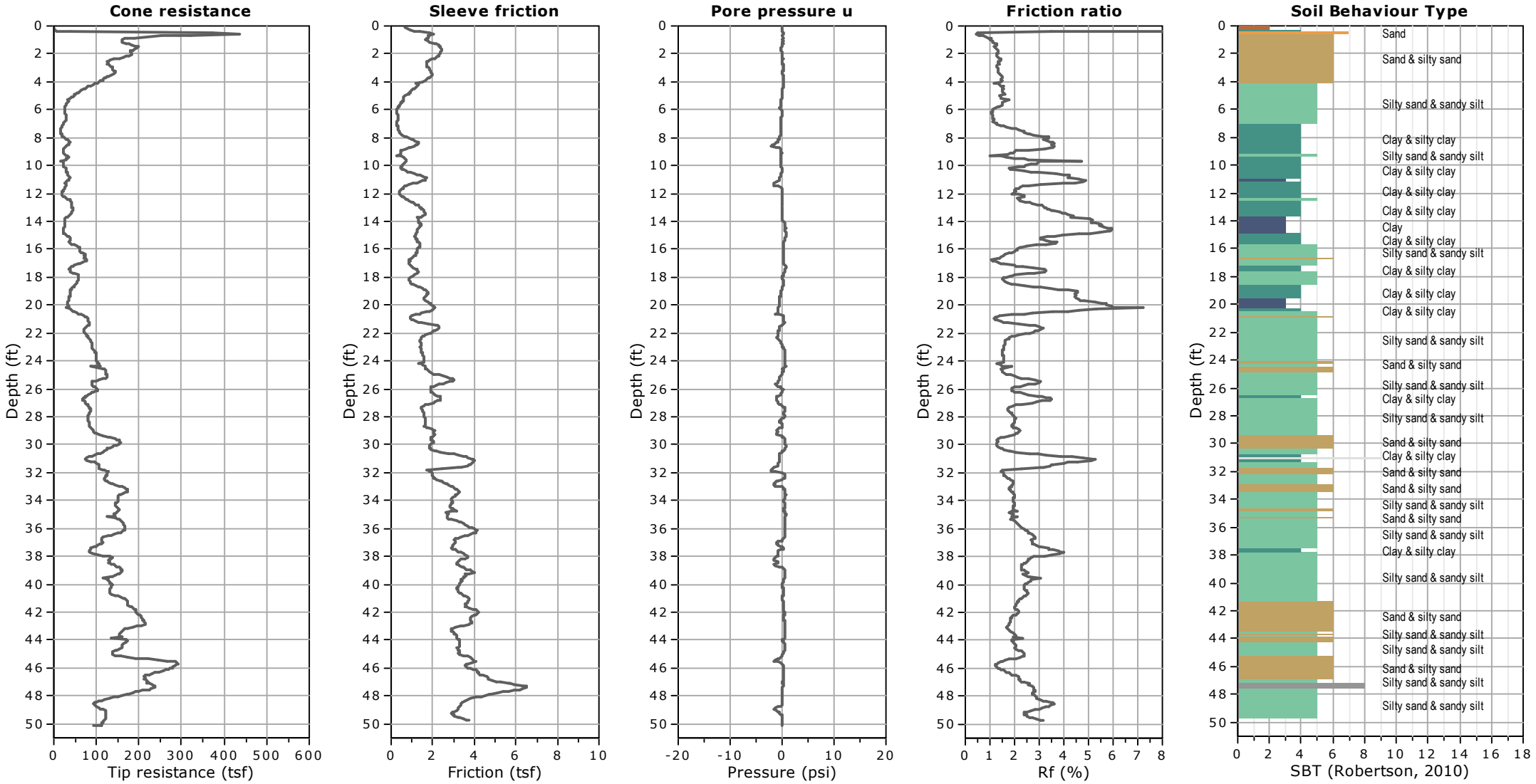
CPT-3A
Total depth: 50.66 ft, Date: 4/7/2022



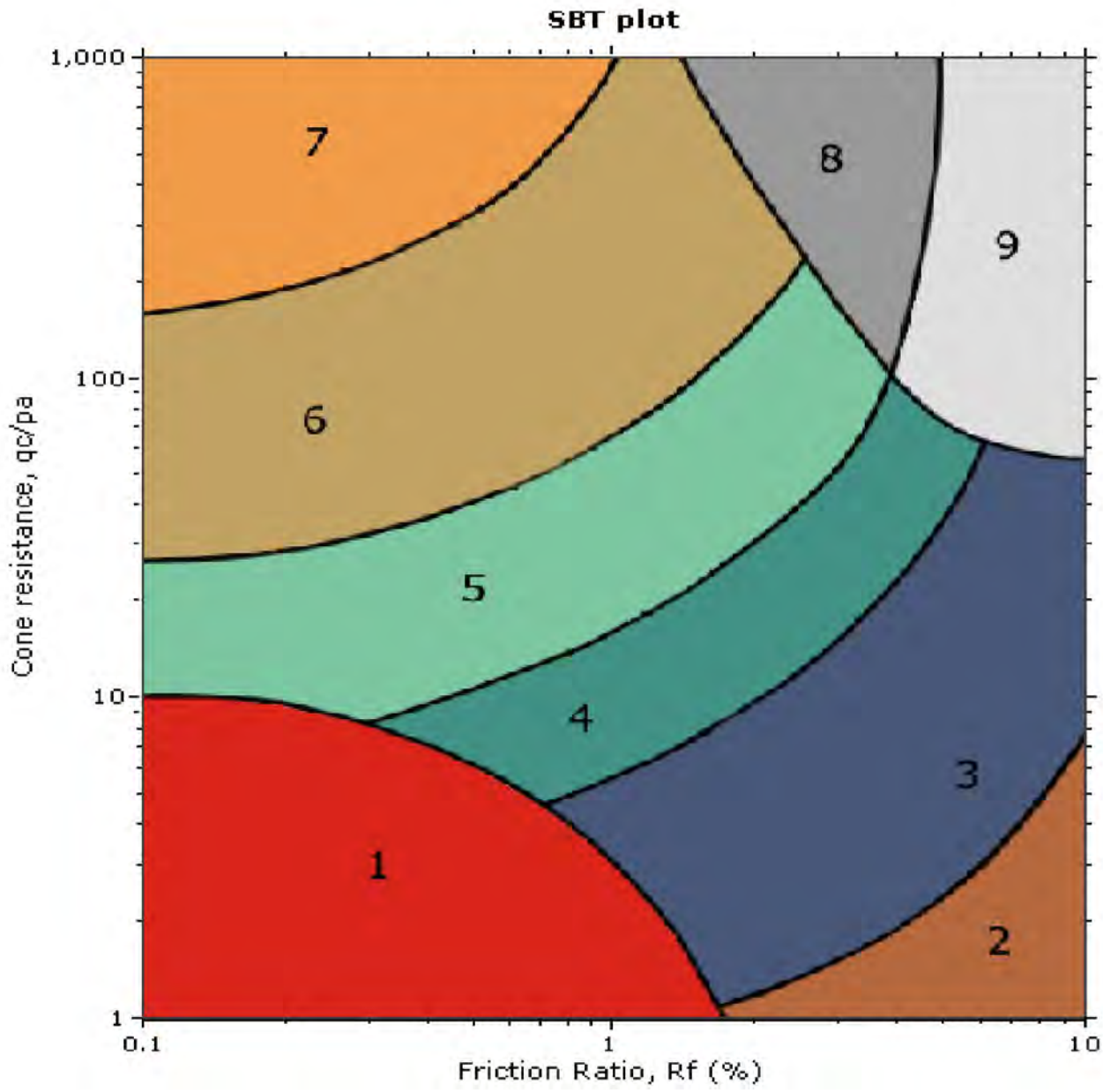
Kehoe Testing and Engineering
714-901-7270
steve@kehoetesting.com
www.kehoetesting.com

Project: **Leighton & Associates / Legacy**
Location: **2530 W. Walnut St, Ontario, CA**

LB-4
Total depth: 50.14 ft, Date: 4/7/2022



Kehoe Testing and Engineering
714-901-7270
rich@kehoetesting.com
www.kehoetesting.com



SBT legend

1. Sensitive fine grained
2. Organic material
3. Clay to silty clay
4. Clayey silt to silty clay
5. Silty sand to sandy silt
6. Clean sand to silty sand
7. Gravely sand to sand
8. Very stiff sand to clayey sand
9. Very stiff fine grained

Leighton & Associates
Legacy
Ontario, CA

CPT Shear Wave Measurements

Location	Tip Depth (ft)	Geophone Depth (ft)	Travel Distance (ft)	S-Wave Arrival (msec)	S-Wave Velocity from Surface (ft/sec)	Interval S-Wave Velocity (ft/sec)
CPT-1	5.09	4.09	4.55	4.80	949	
	10.14	9.14	9.36	10.26	912	880
	15.03	14.03	14.17	16.16	877	816
	20.01	19.01	19.11	21.42	892	940
	25.10	24.10	24.18	26.42	915	1014
	30.05	29.05	29.12	31.16	934	1041
	35.07	34.07	34.13	36.20	943	994
	40.03	39.03	39.08	40.12	974	1263
	45.14	44.14	44.19	44.64	990	1129
	50.03	49.03	49.07	48.80	1006	1174

Shear Wave Source Offset - 2 ft

S-Wave Velocity from Surface = Travel Distance/S-Wave Arrival
Interval S-Wave Velocity = (Travel Dist2-Travel Dist1)/(Time2-Time1)

APPENDIX B

PERCOLATION TEST DATA

Boring Percolation Test Data Sheet

Project Number:	13493.001	**Test Hole Number:**	LP-1	
Project Name:	Legacy - Collier	**Date Excavated:**	4/6/2022	
Earth Description:	Alluvium	**Date Tested:**	4/7/2022	
Liquid Description:	Tap water	**Depth of boring (ft):**	23.5	
Tested By:	LFO/KD	**Radius of boring (in):**	4	
Time Interval Standard		**Radius of casing (in):**	1	
Start Time for Pre-Soak:	8:34	**Length of slotted of casing (ft):**		5
Start Time for Standard:	9:31	**Depth to Initial Water Depth (ft):**		16.9
Standard Time Interval	25	**Porosity of Annulus Material, *n* :**		0.35
Between Readings, mins:	10	**Bentonite Plug at Bottom:** No		

Percolation Data

Reading	Time	Time Interval, Δt (min.)	Initial/Final Depth to Water (ft.)	Initial/Final Water Height, H_0/H_f (in.)	Total Water Drop, Δd (in.)	Percolation Rate (min./in.)	Infiltration Rate (in./hr.)
1	8:34	25	16.93	78.8	8.2	3.06	0.20
	8:59		17.61	70.7			
2	9:04	25	16.99	78.1	7.4	3.36	0.18
	9:29		17.61	70.7			
3	9:31	10	16.94	78.7	5.9	1.70	0.35
	9:41		17.43	72.8			
4	9:43	10	17.00	78.0	5.0	1.98	0.30
	9:53		17.42	73.0			
5	9:55	10	17.00	78.0	5.3	1.89	0.32
	10:05		17.44	72.7			
6	10:06	10	17.00	78.0	5.3	1.89	0.32
	10:16		17.44	72.7			
7	10:18	10	17.00	78.0	5.4	1.85	0.33
	10:28		17.45	72.6			
8	10:30	10	17.00	78.0	5.3	1.89	0.32
	10:40		17.44	72.7			

Infiltration Rate (I) = Discharge Volume/Surface Area of Test Section/Time Interval

Infiltration Rate, I (Last Reading) = **0.32** **in./hr.**

Boring Percolation Test Data Sheet

Project Number:	13493.001	**Test Hole Number:**	LP-2	
Project Name:	Legacy - Collier	**Date Excavated:**	4/6/2022	
Earth Description:	Alluvium	**Date Tested:**	4/7/2022	
Liquid Description:	Tap water	**Depth of boring (ft):**	20	
Tested By:	LFO/KD	**Radius of boring (in):**	4	
Time Interval Standard		**Radius of casing (in):**	1	
Start Time for Pre-Soak:	7:25	**Length of slotted of casing (ft):**		5
Start Time for Standard:	8:27	**Depth to Initial Water Depth (ft):**		15.05
Standard Time Interval	25	**Porosity of Annulus Material, *n* :**		0.35
Between Readings, mins:	10	**Bentonite Plug at Bottom:** No		

Percolation Data

Reading	Time	Time Interval, Δt (min.)	Initial/Final Depth to Water (ft.)	Initial/Final Water Height, H_0/H_f (in.)	Total Water Drop, Δd (in.)	Percolation Rate (min./in.)	Infiltration Rate (in./hr.)
1	7:25	25	15.05	59.4	0.1	208.33	0.00
	7:50		15.06	59.3			
2	7:55	25	15.20	57.6	16.2	1.54	0.59
	8:20		16.55	41.4			
3	8:27	10	15.08	59.0	8.0	1.24	0.66
	8:37		15.75	51.0			
4	8:39	10	15.05	59.4	8.8	1.14	0.72
	8:49		15.78	50.6			
5	8:56	10	15.08	59.0	8.0	1.24	0.66
	9:06		15.75	51.0			
6	9:08	10	15.08	59.0	5.0	1.98	0.40
	9:18		15.50	54.0			
7	9:21	10	15.08	59.0	8.4	1.19	0.69
	9:31		15.78	50.6			
8	9:34	10	15.08	59.0	8.4	1.19	0.69
	9:44		15.78	50.6			

Infiltration Rate (I) = Discharge Volume/Surface Area of Test Section/Time Interval

Infiltration Rate, I (Last Reading) = **0.69** **in./hr.**

APPENDIX C

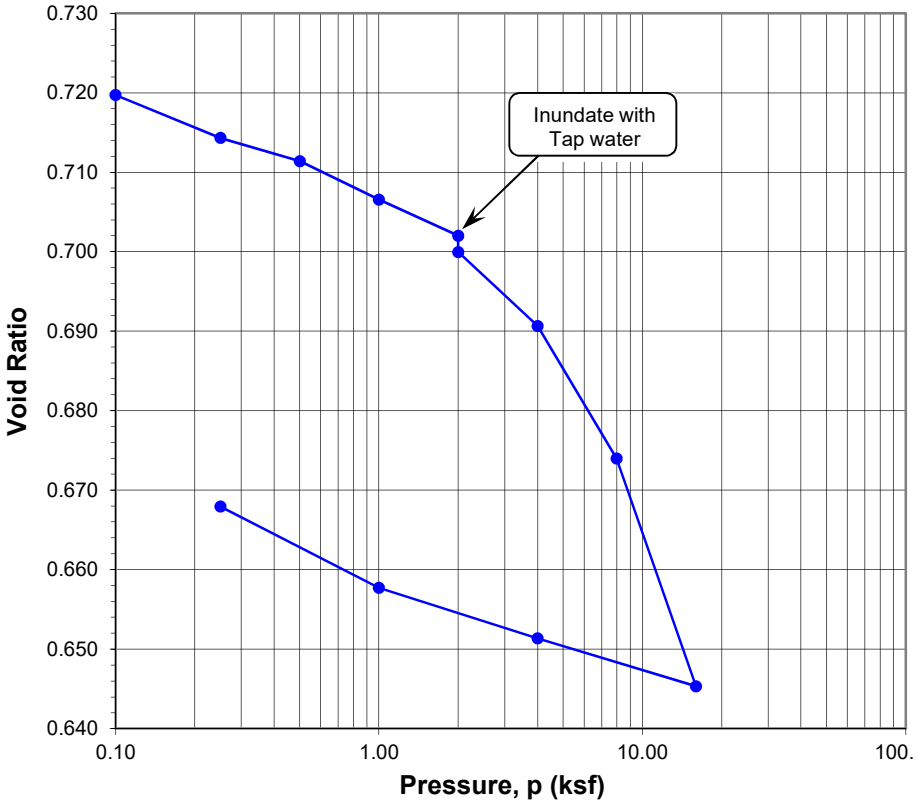
LABORATORY TEST RESULTS

ONE-DIMENSIONAL CONSOLIDATION PROPERTIES of SOILS

ASTM D 2435

Project Name:	Legacy-Collier, Proposed Euclid & Walnut Mixed-Use, Ontario CA	Tested By: GB/JD	Date: 04/13/22
Project No.:	13493.001	Checked By: A. Santos	Date: 04/26/22
Boring No.:	LB-1	Depth (ft.): 5.0	
Sample No.:	R-1	Sample Type: Ring	
Soil Identification:	Olive silty clay (CL-ML)		

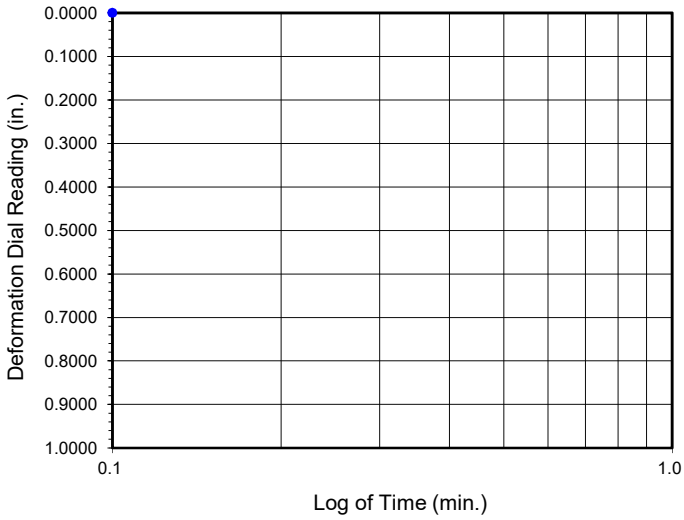
Sample Diameter (in.):	2.415
Sample Thickness (in.):	1.000
Weight of Sample + ring (g):	185.47
Weight of Ring (g):	45.70
Height after consol. (in.):	0.9695
Before Test	
Wt. of Wet Sample+Cont. (g):	169.15
Wt. of Dry Sample+Cont. (g):	153.14
Weight of Container (g):	65.19
Initial Moisture Content (%)	18.2
Initial Dry Density (pcf)	98.3
Initial Saturation (%):	68
Initial Vertical Reading (in.)	0.0773
After Test	
Wt. of Wet Sample+Cont. (g):	254.24
Wt. of Dry Sample+Cont. (g):	229.01
Weight of Container (g):	59.14
Final Moisture Content (%)	20.32
Final Dry Density (pcf):	106.5
Final Saturation (%):	94
Final Vertical Reading (in.)	0.1103
Specific Gravity (assumed):	2.71
Water Density (pcf):	62.43

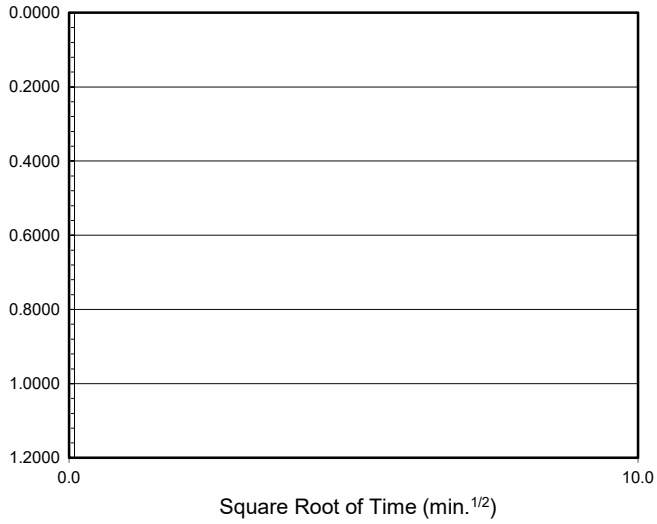


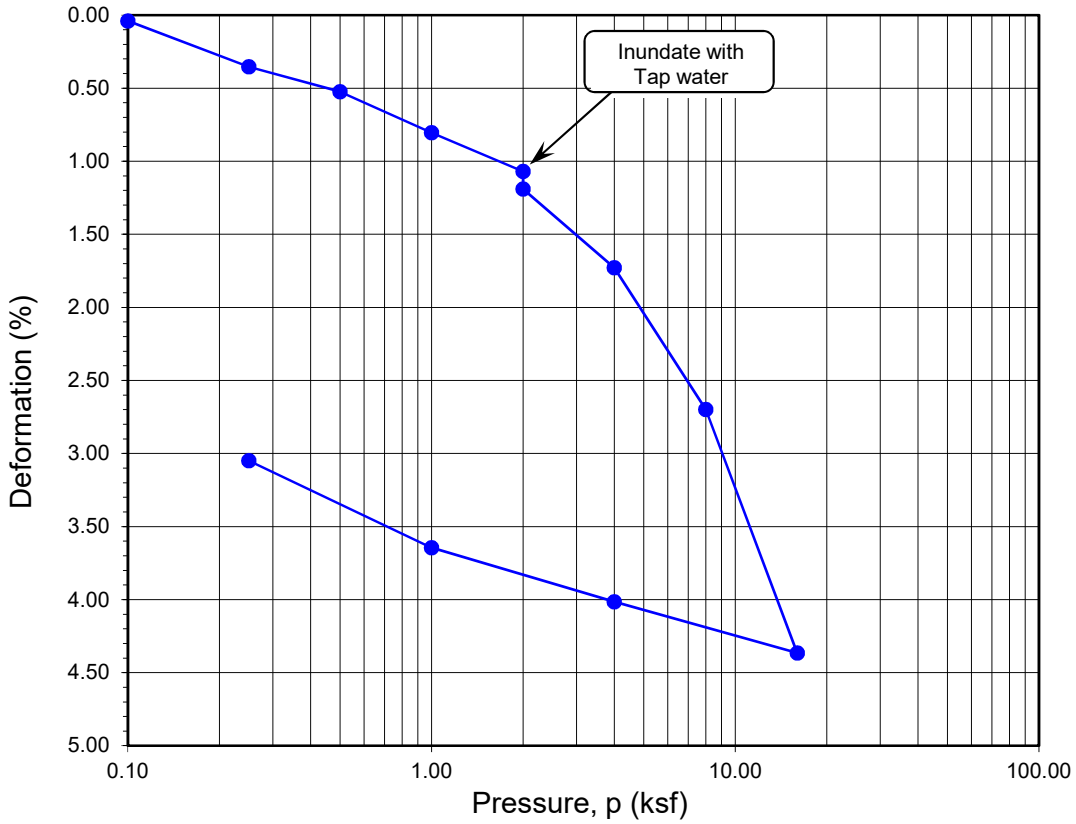
Pressure (p) (ksf)	Final Reading (in.)	Apparent Thickness (in.)	Load Compliance (%)	Deformation % of Sample Thickness	Void Ratio	Corrected Deformation (%)
0.10	0.0777	0.9996	0.00	0.04	0.720	0.04
0.25	0.0812	0.9962	0.03	0.39	0.714	0.36
0.50	0.0834	0.9940	0.08	0.61	0.711	0.53
1.00	0.0869	0.9905	0.15	0.95	0.707	0.80
2.00	0.0905	0.9868	0.25	1.32	0.702	1.07
2.00	0.0917	0.9856	0.25	1.44	0.700	1.19
4.00	0.0982	0.9791	0.36	2.09	0.691	1.73
8.00	0.1092	0.9681	0.49	3.19	0.674	2.70
16.00	0.1274	0.9500	0.64	5.01	0.645	4.37
4.00	0.1222	0.9552	0.47	4.49	0.651	4.02
1.00	0.1172	0.9602	0.34	3.99	0.658	3.65
0.25	0.1103	0.9670	0.25	3.30	0.668	3.05

Time Readings				
Date	Time	Elapsed Time (min)	Square Root of Time	Dial Rdgs. (in.)

Time Readings







Boring No.	Sample No.	Depth (ft.)	Moisture Content (%)		Dry Density (pcf)		Void Ratio		Degree of Saturation (%)	
			Initial	Final	Initial	Final	Initial	Final	Initial	Final
LB-1	**R-1**	**5**	**18.2**	**20.3**	**98.3**	**106.5**	**0.720**	**0.668**	**68**	**94**

Soil Identification: Olive silty clay (CL-ML)

Leighton

ONE-DIMENSIONAL CONSOLIDATION PROPERTIES of SOILS
ASTM D 2435

Project No.: 13493.001

Legacy-Collier, Proposed Euclid & Walnut Mixed-Use, Ontario CA

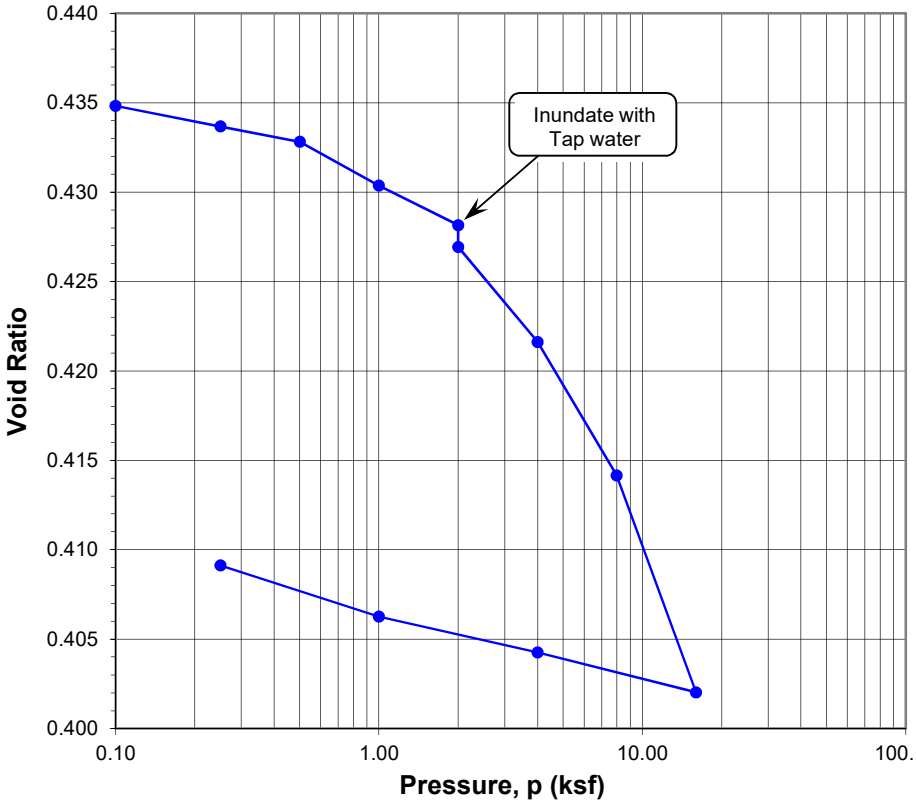
04-22

ONE-DIMENSIONAL CONSOLIDATION PROPERTIES of SOILS

ASTM D 2435

Project Name:	Legacy-Collier, Proposed Euclid & Walnut Mixed-Use, Ontario CA	Tested By: GB/JD	Date: 04/13/22
Project No.:	13493.001	Checked By: A. Santos	Date: 04/26/22
Boring No.:	LB-2	Depth (ft.): 5.0	
Sample No.:	R-1	Sample Type: Ring	
Soil Identification:	Olive gray silty, clayey sand (SC-SM)		

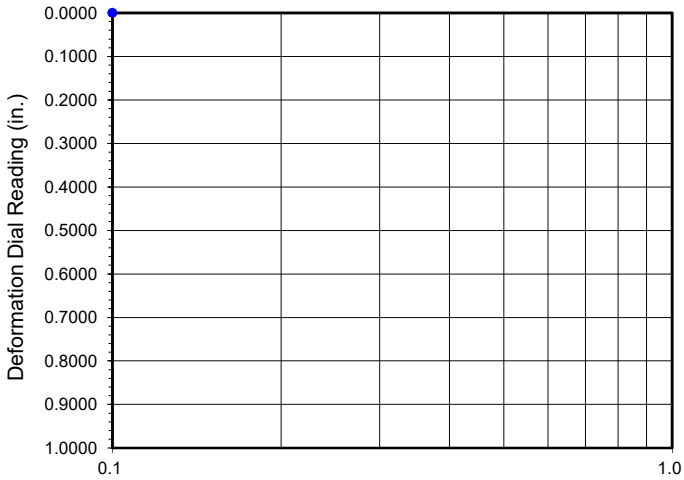
Sample Diameter (in.):	2.415
Sample Thickness (in.):	1.000
Weight of Sample + ring (g):	199.47
Weight of Ring (g):	44.89
Height after consol. (in.):	0.9819
Before Test	
Wt. of Wet Sample+Cont. (g):	189.19
Wt. of Dry Sample+Cont. (g):	178.43
Weight of Container (g):	59.52
Initial Moisture Content (%)	9.0
Initial Dry Density (pcf)	117.9
Initial Saturation (%):	56
Initial Vertical Reading (in.)	0.0958
After Test	
Wt. of Wet Sample+Cont. (g):	269.21
Wt. of Dry Sample+Cont. (g):	253.05
Weight of Container (g):	66.12
Final Moisture Content (%)	11.38
Final Dry Density (pcf):	120.3
Final Saturation (%):	76
Final Vertical Reading (in.)	0.1178
Specific Gravity (assumed):	2.71
Water Density (pcf):	62.43

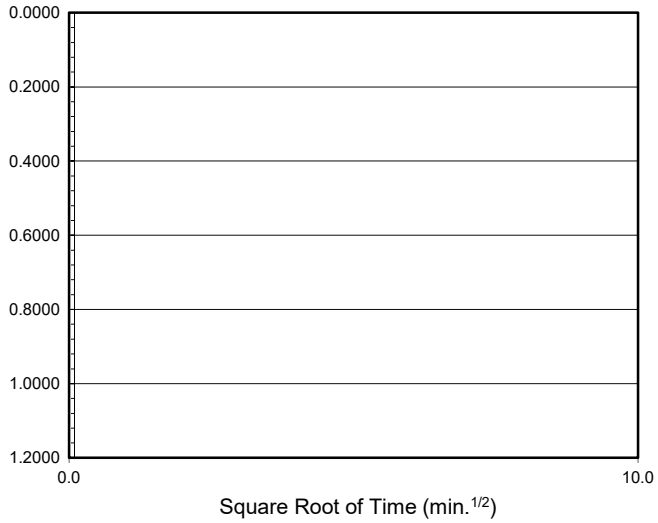


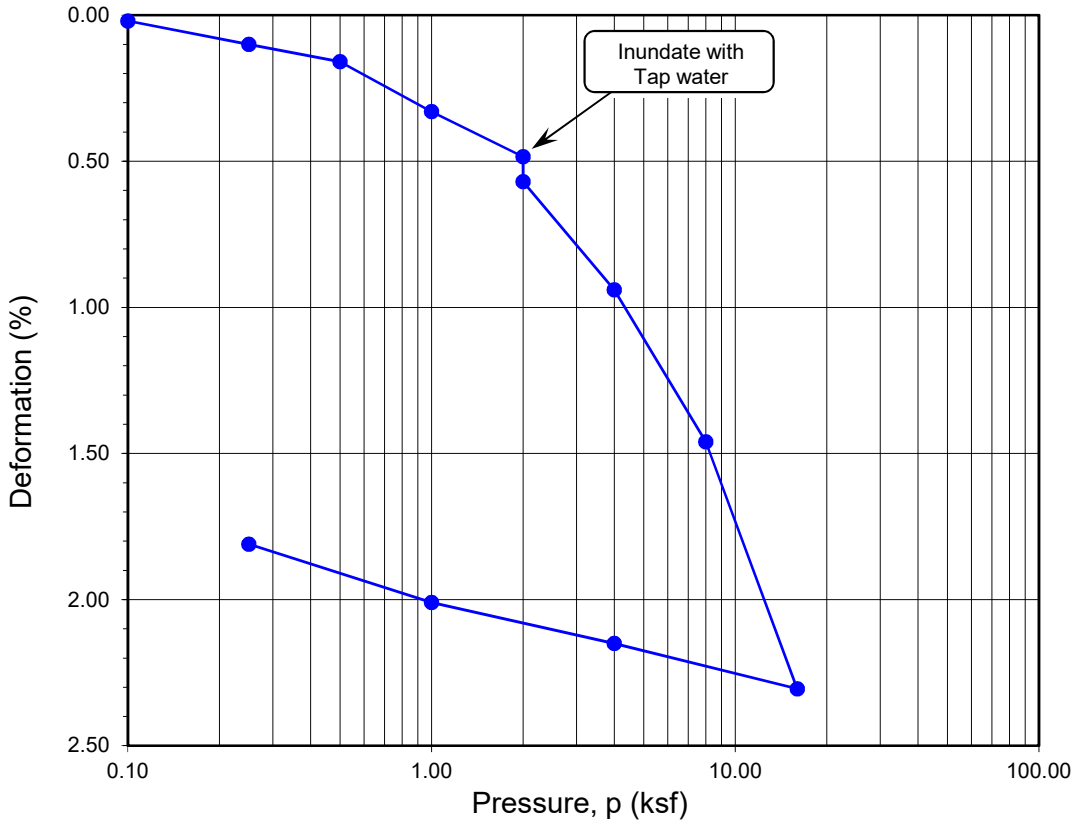
Pressure (p) (ksf)	Final Reading (in.)	Apparent Thickness (in.)	Load Compliance (%)	Deformation % of Sample Thickness	Void Ratio	Corrected Deformation (%)
0.10	0.0960	0.9998	0.00	0.02	0.435	0.02
0.25	0.0974	0.9984	0.06	0.16	0.434	0.10
0.50	0.0988	0.9970	0.14	0.30	0.433	0.16
1.00	0.1015	0.9943	0.24	0.57	0.430	0.33
2.00	0.1043	0.9916	0.36	0.84	0.428	0.48
2.00	0.1051	0.9907	0.36	0.93	0.427	0.57
4.00	0.1102	0.9856	0.50	1.44	0.422	0.94
8.00	0.1170	0.9788	0.66	2.12	0.414	1.46
16.00	0.1275	0.9684	0.86	3.17	0.402	2.31
4.00	0.1240	0.9718	0.67	2.82	0.404	2.15
1.00	0.1210	0.9748	0.51	2.52	0.406	2.01
0.25	0.1178	0.9780	0.39	2.20	0.409	1.81

Time Readings				
Date	Time	Elapsed Time (min)	Square Root of Time	Dial Rdgs. (in.)

Time Readings







Boring No.	Sample No.	Depth (ft.)	Moisture Content (%)		Dry Density (pcf)		Void Ratio		Degree of Saturation (%)	
			Initial	Final	Initial	Final	Initial	Final	Initial	Final
LB-2	**R-1**	**5**	**9.0**	**11.4**	**117.9**	**120.3**	**0.435**	**0.409**	**56**	**76**

Soil Identification: Olive gray silty, clayey sand (SC-SM)

Leighton

ONE-DIMENSIONAL CONSOLIDATION PROPERTIES of SOILS
ASTM D 2435

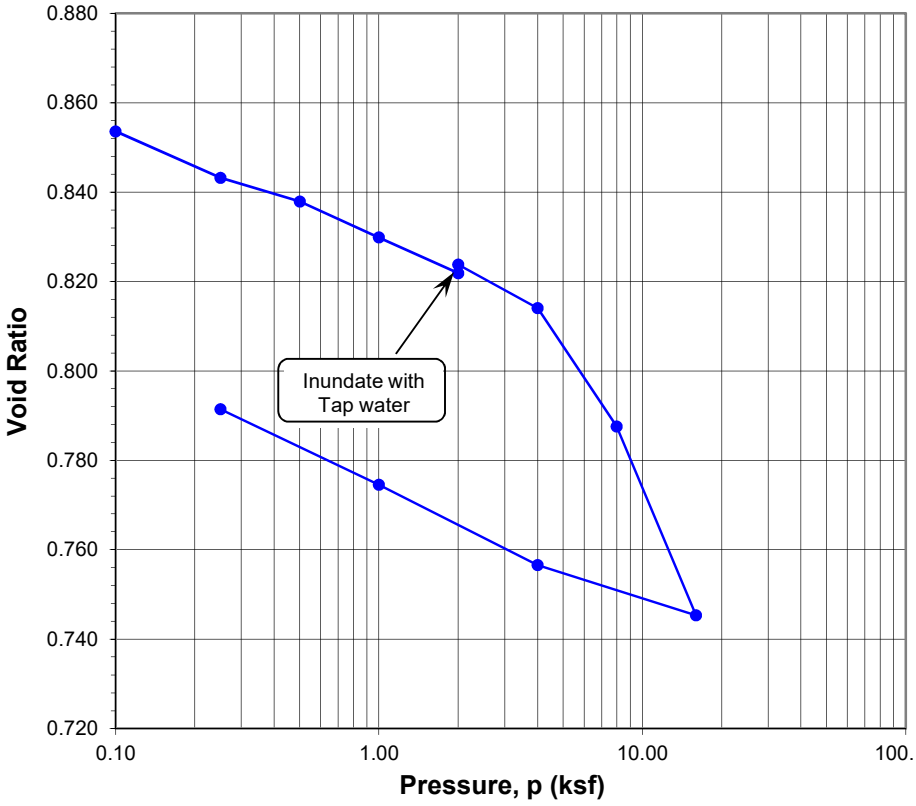
Project No.: 13493.001
Legacy-Collier, Proposed Euclid & Walnut Mixed-Use, Ontario CA
04-22

ONE-DIMENSIONAL CONSOLIDATION PROPERTIES of SOILS

ASTM D 2435

Project Name:	Legacy-Collier, Proposed Euclid & Walnut Mixed-Use, Ontario CA	Tested By: GB/JD	Date: 04/13/22
Project No.:	13493.001	Checked By: A. Santos	Date: 04/26/22
Boring No.:	LB-2	Depth (ft.): 10.0	
Sample No.:	R-3	Sample Type: Ring	
Soil Identification:	Olive gray lean clay (CL)		

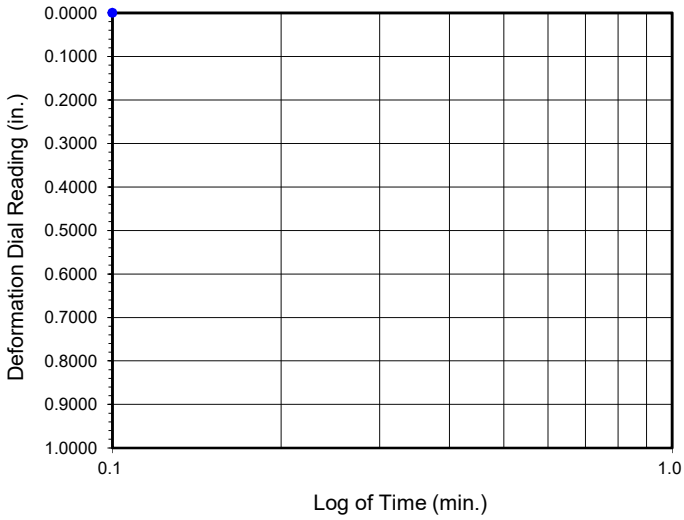
Sample Diameter (in.):	2.415
Sample Thickness (in.):	1.000
Weight of Sample + ring (g):	193.07
Weight of Ring (g):	45.55
Height after consol. (in.):	0.9656
Before Test	
Wt. of Wet Sample+Cont. (g):	263.34
Wt. of Dry Sample+Cont. (g):	214.46
Weight of Container (g):	55.13
Initial Moisture Content (%)	30.7
Initial Dry Density (pcf)	93.9
Initial Saturation (%):	100
Initial Vertical Reading (in.)	0.0902
After Test	
Wt. of Wet Sample+Cont. (g):	253.11
Wt. of Dry Sample+Cont. (g):	222.45
Weight of Container (g):	61.21
Final Moisture Content (%)	26.50
Final Dry Density (pcf):	99.6
Final Saturation (%):	99
Final Vertical Reading (in.)	0.1293
Specific Gravity (assumed):	2.79
Water Density (pcf):	62.43

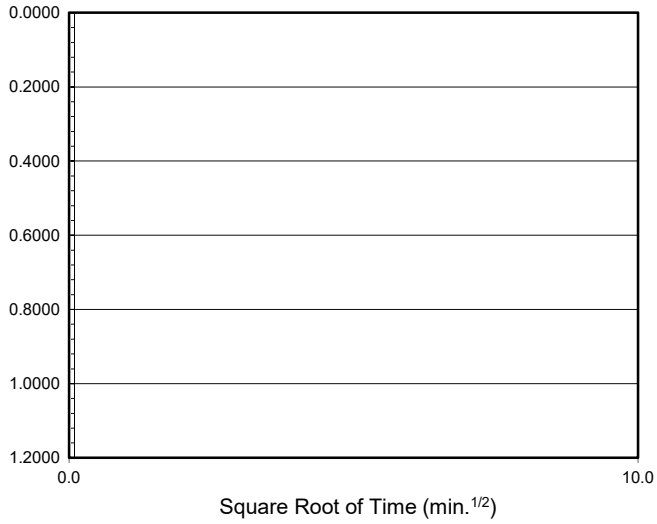


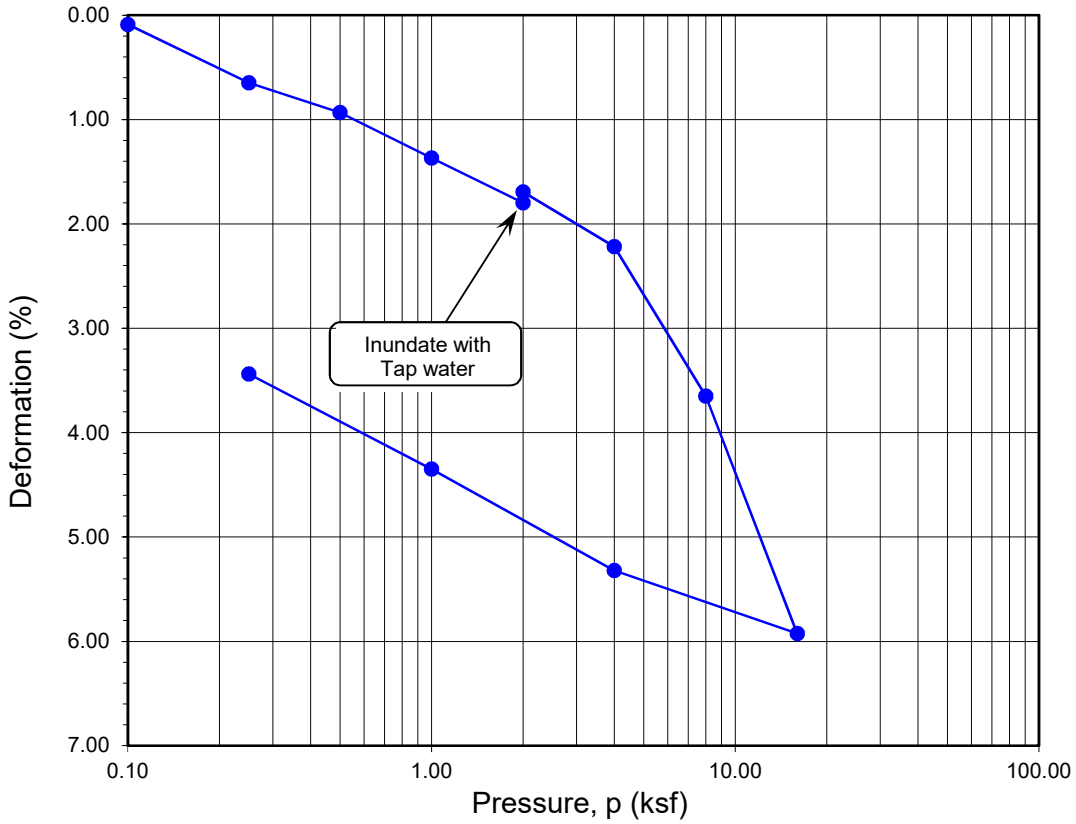
Pressure (p) (ksf)	Final Reading (in.)	Apparent Thickness (in.)	Load Compliance (%)	Deformation % of Sample Thickness	Void Ratio	Corrected Deforma-tion (%)
0.10	0.0911	0.9991	0.00	0.09	0.854	0.09
0.25	0.0978	0.9924	0.11	0.76	0.843	0.65
0.50	0.1021	0.9882	0.25	1.19	0.838	0.94
1.00	0.1082	0.9820	0.43	1.80	0.830	1.37
2.00	0.1140	0.9762	0.58	2.38	0.822	1.80
2.00	0.1130	0.9773	0.58	2.28	0.824	1.70
4.00	0.1196	0.9706	0.72	2.94	0.814	2.22
8.00	0.1355	0.9547	0.88	4.53	0.788	3.65
16.00	0.1602	0.9301	1.07	7.00	0.745	5.93
4.00	0.1523	0.9379	0.89	6.21	0.757	5.32
1.00	0.1409	0.9493	0.72	5.07	0.775	4.35
0.25	0.1293	0.9609	0.47	3.91	0.791	3.44

Time Readings				
Date	Time	Elapsed Time (min)	Square Root of Time	Dial Rdgs. (in.)

Time Readings







Boring No.	Sample No.	Depth (ft.)	Moisture Content (%)		Dry Density (pcf)		Void Ratio		Degree of Saturation (%)	
			Initial	Final	Initial	Final	Initial	Final	Initial	Final
LB-2	**R-3**	**10**	**30.7**	**26.5**	**93.9**	**99.6**	**0.855**	**0.791**	**100**	**99**

Soil Identification: Olive gray lean clay (CL)

Leighton

ONE-DIMENSIONAL CONSOLIDATION PROPERTIES of SOILS
ASTM D 2435

Project No.: 13493.001

Legacy-Collier, Proposed Euclid & Walnut Mixed-Use, Ontario CA

04-22

TESTS for SULFATE CONTENT
CHLORIDE CONTENT and pH of SOILS

Project Name: Legacy-Collier, Proposed Euclid & Walnut Mixed-Use, Ontario CA | Tested By : G. Berdy | Date: 04/13/22

Project No. : 13493.001 | Checked By: A. Santos | Date: 04/25/22

Boring No.	LB-3			
Sample No.	B-1			
Sample Depth (ft)	0-5			
Soil Identification:	Olive brown (SM)			
Wet Weight of Soil + Container (g)	168.20			
Dry Weight of Soil + Container (g)	168.07			
Weight of Container (g)	52.00			
Moisture Content (%)	0.11			
Weight of Soaked Soil (g)	100.19			

SULFATE CONTENT, DOT California Test 417, Part II

Beaker No.	8			
Crucible No.	3			
Furnace Temperature (°C)	860			
Time In / Time Out	7:15/8:00			
Duration of Combustion (min)	45			
Wt. of Crucible + Residue (g)	24.5192			
Wt. of Crucible (g)	24.5129			
Wt. of Residue (g) (A)	0.0063			
PPM of Sulfate (A) x 41150	259.25			
PPM of Sulfate, Dry Weight Basis	**260**			

CHLORIDE CONTENT, DOT California Test 422

ml of Extract For Titration (B)	15			
ml of AgNO3 Soln. Used in Titration (C)	0.4			
PPM of Chloride (C -0.2) * 100 * 30 / B	40			
PPM of Chloride, Dry Wt. Basis	**40**			

pH TEST, DOT California Test 643

pH Value	**7.92**			
Temperature °C	20.3			

SOIL RESISTIVITY TEST

DOT CA TEST 643

Project Name: Legacy-Collier, Proposed Euclid & Walnut Mixed-Use, Ontario C Tested By : G. Berdy Date: 04/19/22

Project No. : 13493.001 Checked By: A. Santos Date: 04/25/22

Boring No.: LB-3 Depth (ft.) : 0-5

Sample No. : B-1

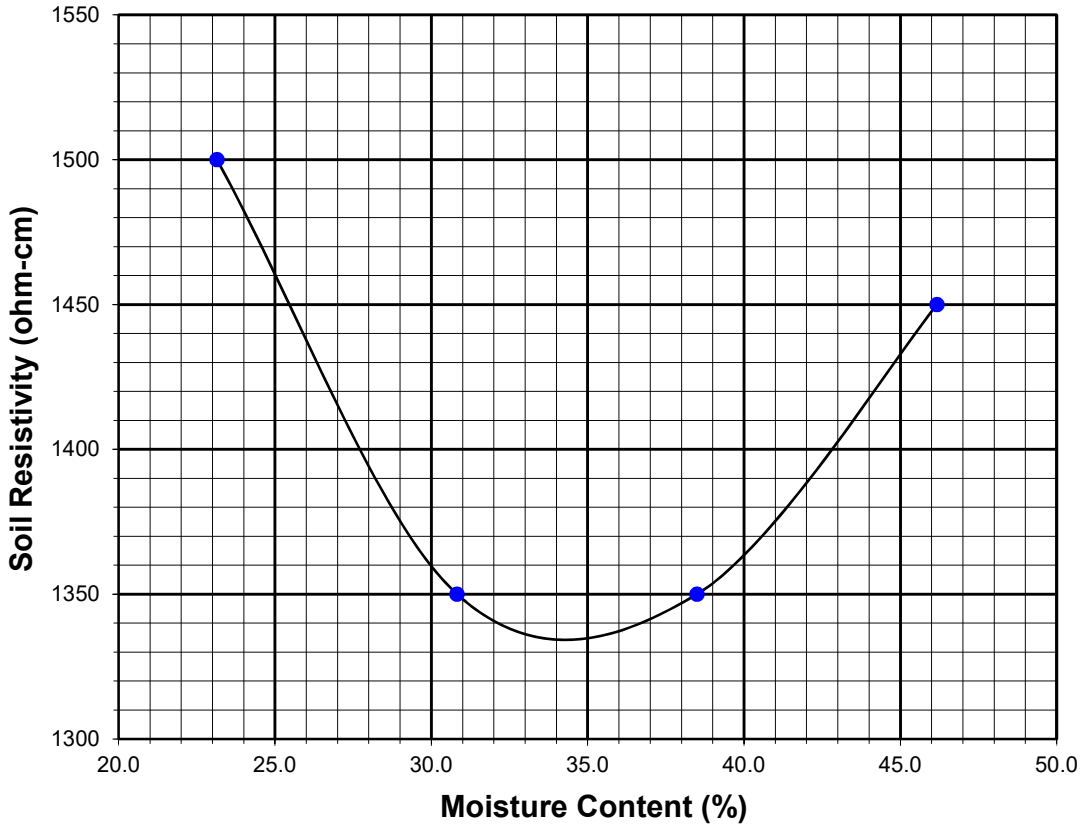
Soil Identification:* Olive brown (SM)

*California Test 643 requires soil specimens to consist only of portions of samples passing through the No. 8 US Standard Sieve before resistivity testing. Therefore, this test method may not be representative for coarser materials.

Specimen No.	Water Added (ml) (Wa)	Adjusted Moisture Content (MC)	Resistance Reading (ohm)	Soil Resistivity (ohm-cm)
1	30	23.14	1500	1500
2	40	30.82	1350	1350
3	50	38.50	1350	1350
4	60	46.18	1450	1450
5				

Moisture Content (%) (MCi)	0.11
Wet Wt. of Soil + Cont. (g)	168.20
Dry Wt. of Soil + Cont. (g)	168.07
Wt. of Container (g)	52.00
Container No.	
Initial Soil Wt. (g) (Wt)	130.40
Box Constant	1.000
MC =(((1+Mci/100)x(Wa/Wt+1))-1)x100	

Min. Resistivity (ohm-cm)	Moisture Content (%)	Sulfate Content (ppm)	Chloride Content (ppm)	Soil pH	
				pH	Temp. (°C)
DOT CA Test 643		DOT CA Test 417 Part II	DOT CA Test 422	DOT CA Test 643	
1335	**34.4**	**260**	**40**	**7.92**	**20.3**

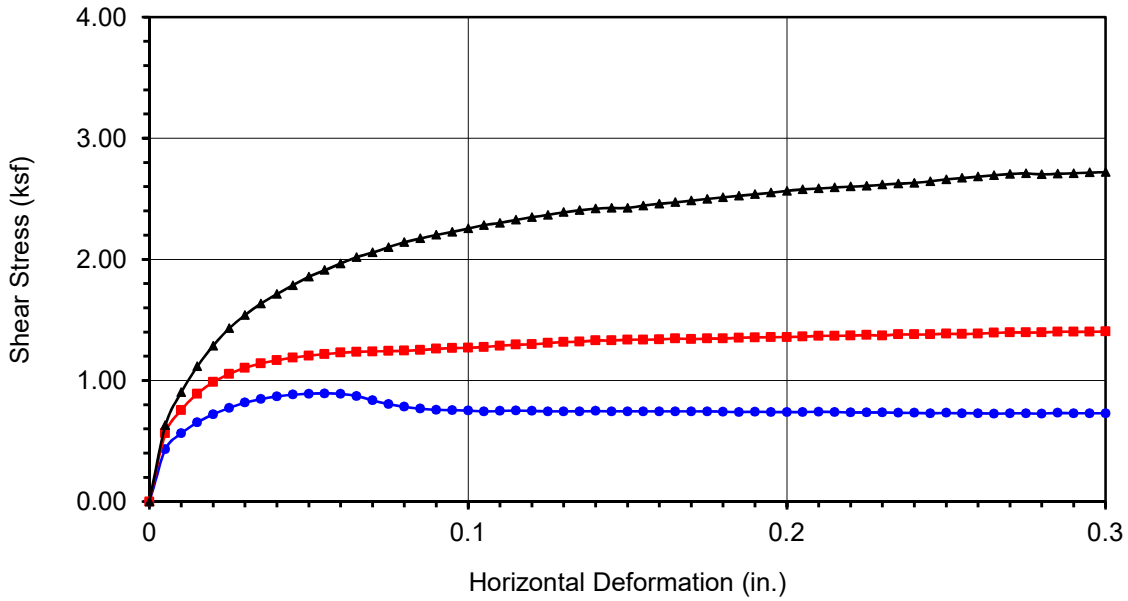


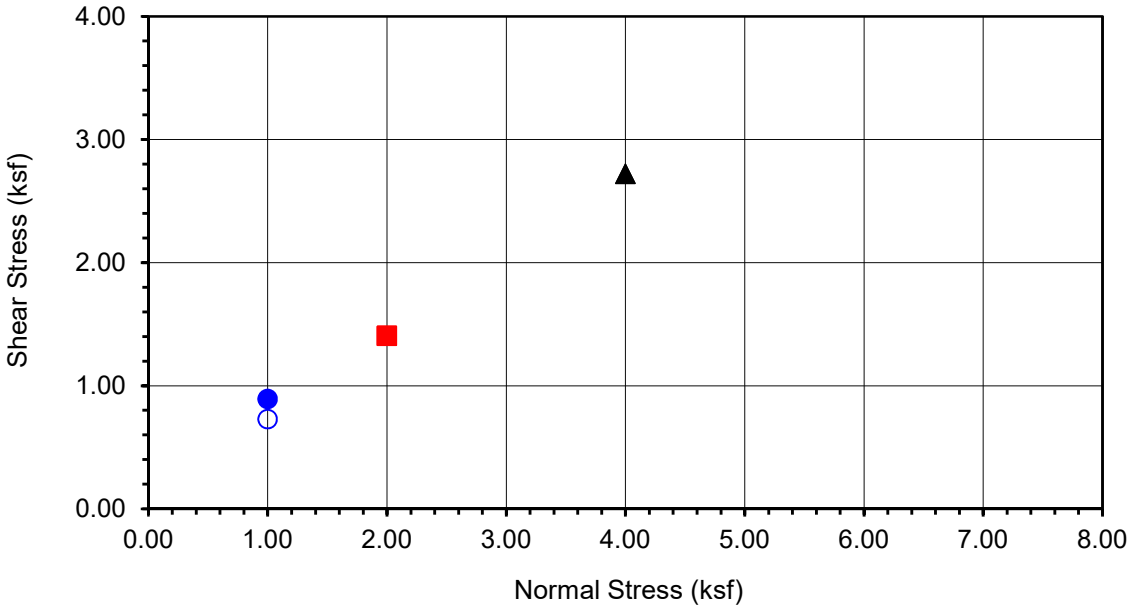
DIRECT SHEAR TEST

Consolidated Drained - ASTM D 3080

Project Name:	Legacy-Collier, Proposed Euclid & Walnut Mixed-Use, Ontario CA	Tested By:	G. Bathala	Date:	04/18/22
Project No.:	13493.001	Checked By:	A. Santos	Date:	04/25/22
Boring No.:	LB-2	Sample Type:	90% Remold		
Sample No.:	B-1	Depth (ft.):	0-5		
Soil Identification:	Olive brown sandy silt s(ML)				

Sample Diameter(in):	2.415	2.415	2.415
Sample Thickness(in.):	1.000	1.000	1.000
Weight of Sample + ring(gm):	197.98	198.21	198.62
Weight of Ring(gm):	45.38	45.43	45.60
Before Shearing			
Weight of Wet Sample+Cont.(gm):	169.35	169.35	169.35
Weight of Dry Sample+Cont.(gm):	155.92	155.92	155.92
Weight of Container(gm):	56.15	56.15	56.15
Vertical Rdg.(in): Initial	0.2545	0.2729	0.0000
Vertical Rdg.(in): Final	0.2651	0.2858	-0.0224
After Shearing			
Weight of Wet Sample+Cont.(gm):	211.09	212.06	191.55
Weight of Dry Sample+Cont.(gm):	190.82	191.76	171.67
Weight of Container(gm):	58.12	58.19	38.35
Specific Gravity (Assumed):	2.70	2.70	2.70
Water Density(pcf):	62.43	62.43	62.43





Boring No.	**LB-2**
Sample No.	**B-1**
Depth (ft)	**0-5**
Sample Type:	
90% Remold	
Soil Identification:	
Olive brown sandy silt s(ML)	

Normal Stress (kip/ft²)	1.000	2.000	4.000
Peak Shear Stress (kip/ft²)	● 0.893	■ 1.405	▲ 2.719
Shear Stress @ End of Test (ksf)	○ 0.729	□ 1.405	△ 2.719
Deformation Rate (in./min.)	0.0017	0.0017	0.0017
Initial Sample Height (in.)	1.000	1.000	1.000
Diameter (in.)	2.415	2.415	2.415
Initial Moisture Content (%)	13.46	13.46	13.46
Dry Density (pcf)	111.9	112.0	112.2
Saturation (%)	71.7	71.9	72.3
Soil Height Before Shearing (in.)	0.9894	0.9871	0.9776
Final Moisture Content (%)	15.3	15.2	14.9

Leighton

DIRECT SHEAR TEST RESULTS

Consolidated Drained - ASTM D 3080

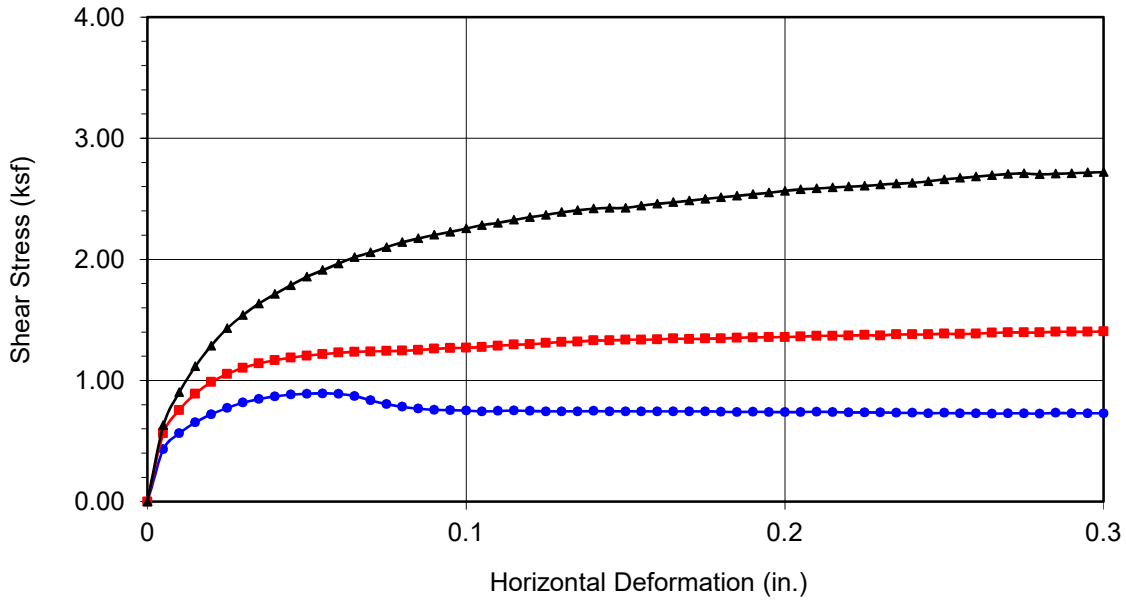
Project No.: 13493.001

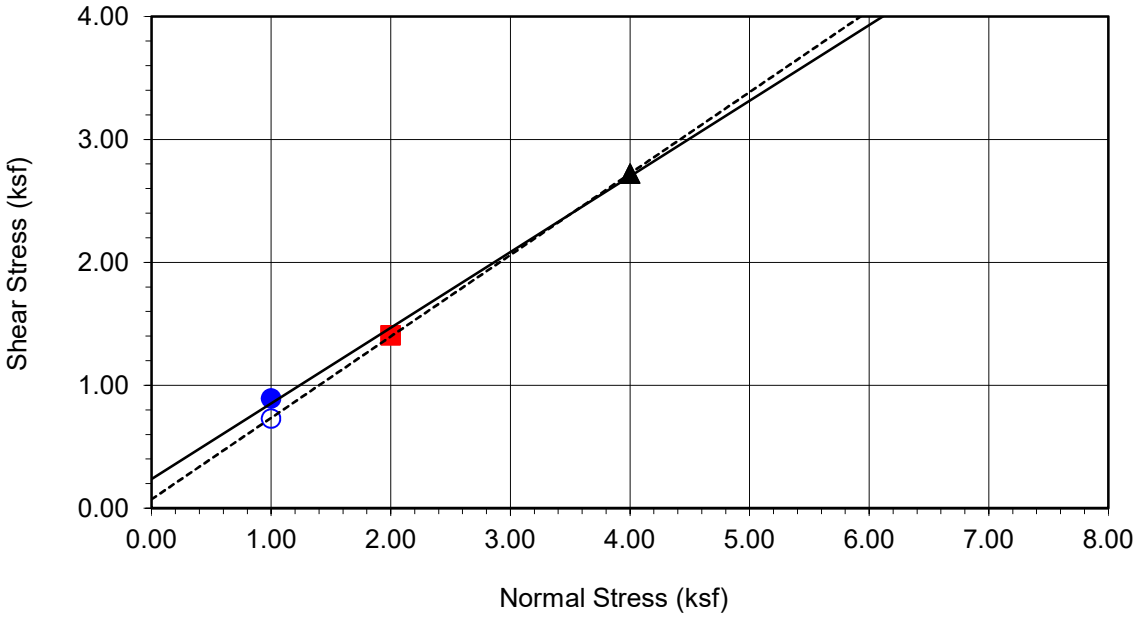
Legacy-Collier, Proposed Euclid & Walnut Mixed-Use, Ontario CA

04-22

1106

DS LB-2, B-1 @ 0-5





Boring No.	**LB-2**
Sample No.	**B-1**
Depth (ft)	**0-5**
Sample Type:	90% Remold
Soil Identification:	Olive brown sandy silt s(ML)

Strength Parameters

	C (psf)	ϕ (°)
Peak	236	32
Ultimate	72	34

Normal Stress (kip/ft²)	1.000	2.000	4.000
Peak Shear Stress (kip/ft²)	● 0.893	■ 1.405	▲ 2.719
Shear Stress @ End of Test (ksf)	○ 0.729	□ 1.405	△ 2.719
Deformation Rate (in./min.)	0.0017	0.0017	0.0017
Initial Sample Height (in.)	1.000	1.000	1.000
Diameter (in.)	2.415	2.415	2.415
Initial Moisture Content (%)	13.46	13.46	13.46
Dry Density (pcf)	111.9	112.0	112.2
Saturation (%)	71.7	71.9	72.3
Soil Height Before Shearing (in.)	0.9894	0.9871	0.9776
Final Moisture Content (%)	15.3	15.2	14.9

Leighton

DIRECT SHEAR TEST RESULTS

Consolidated Drained - ASTM D 3080

Project No.: 13493.001

Legacy-Collier, Proposed Euclid & Walnut Mixed-Use, Ontario CA

04-22

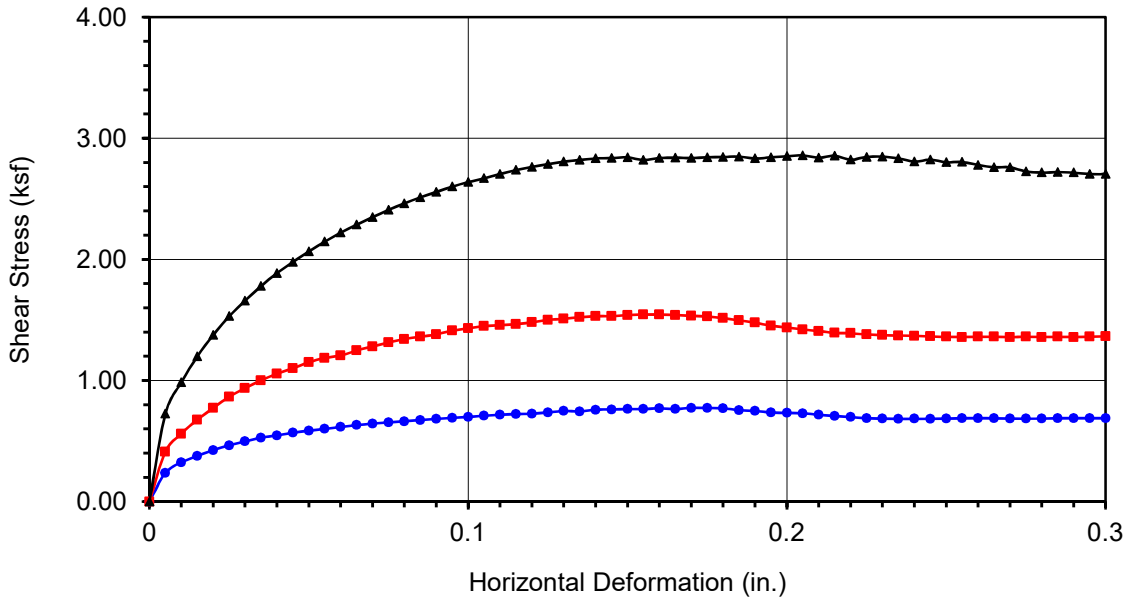
DS LB-2, B-1 @ 0-5

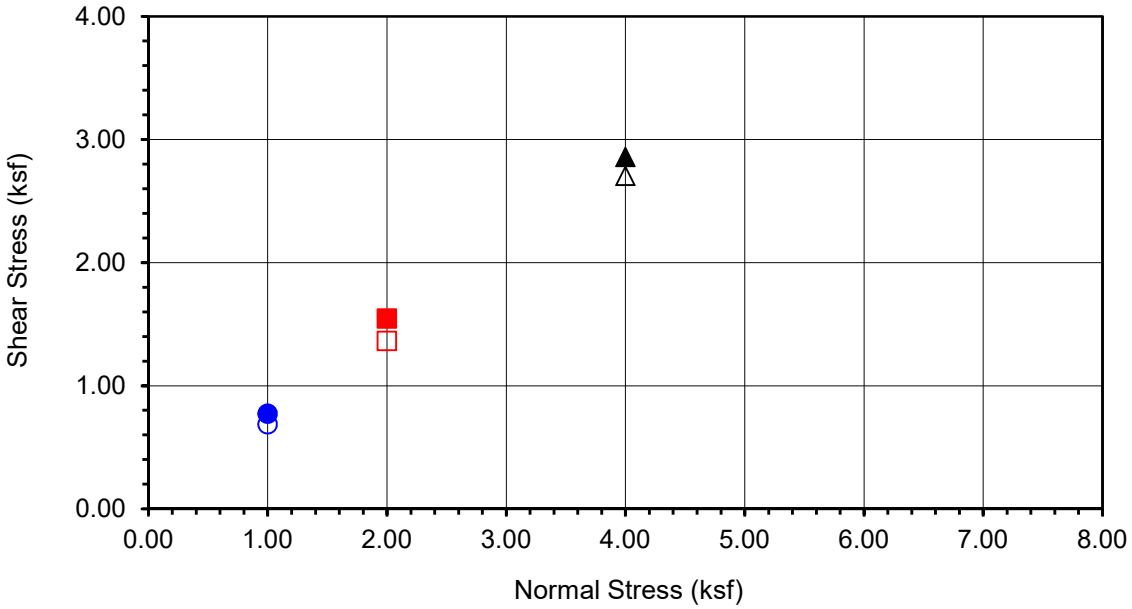
DIRECT SHEAR TEST

Consolidated Drained - ASTM D 3080

Project Name:	Legacy-Collier, Proposed Euclid & Walnut Mixed-Use, Ontario CA	Tested By:	G. Bathala	Date:	04/19/22
Project No.:	13493.001	Checked By:	A. Santos	Date:	04/25/22
Boring No.:	LB-3	Sample Type:	Ring		
Sample No.:	R-2	Depth (ft.):	7.5		
Soil Identification:	Olive silty sand (SM)				

Sample Diameter(in):	2.415	2.415	2.415
Sample Thickness(in.):	1.000	1.000	1.000
Weight of Sample + ring(gm):	177.41	181.99	182.19
Weight of Ring(gm):	43.72	45.58	45.95
Before Shearing			
Weight of Wet Sample+Cont.(gm):	182.62	182.62	182.62
Weight of Dry Sample+Cont.(gm):	178.05	178.05	178.05
Weight of Container(gm):	58.18	58.18	58.18
Vertical Rdg.(in): Initial	0.0000	0.2562	0.2637
Vertical Rdg.(in): Final	-0.0126	0.2707	0.2918
After Shearing			
Weight of Wet Sample+Cont.(gm):	208.16	204.29	212.34
Weight of Dry Sample+Cont.(gm):	188.26	184.44	192.59
Weight of Container(gm):	66.34	58.11	67.16
Specific Gravity (Assumed):	2.70	2.70	2.70
Water Density(pcf):	62.43	62.43	62.43





Boring No.	**LB-3**
Sample No.	**R-2**
Depth (ft)	**7.5**
Sample Type:	
Ring	
Soil Identification:	
Olive silty sand (SM)	

Normal Stress (kip/ft²)	1.000	2.000	4.000
Peak Shear Stress (kip/ft²)	● 0.773	■ 1.544	▲ 2.858
Shear Stress @ End of Test (ksf)	○ 0.688	□ 1.364	△ 2.704
Deformation Rate (in./min.)	0.0033	0.0033	0.0033
Initial Sample Height (in.)	1.000	1.000	1.000
Diameter (in.)	2.415	2.415	2.415
Initial Moisture Content (%)	3.81	3.81	3.81
Dry Density (pcf)	107.1	109.3	109.1
Saturation (%)	17.9	19.0	18.9
Soil Height Before Shearing (in.)	0.9874	0.9855	0.9719
Final Moisture Content (%)	16.3	15.7	15.7

Leighton

DIRECT SHEAR TEST RESULTS

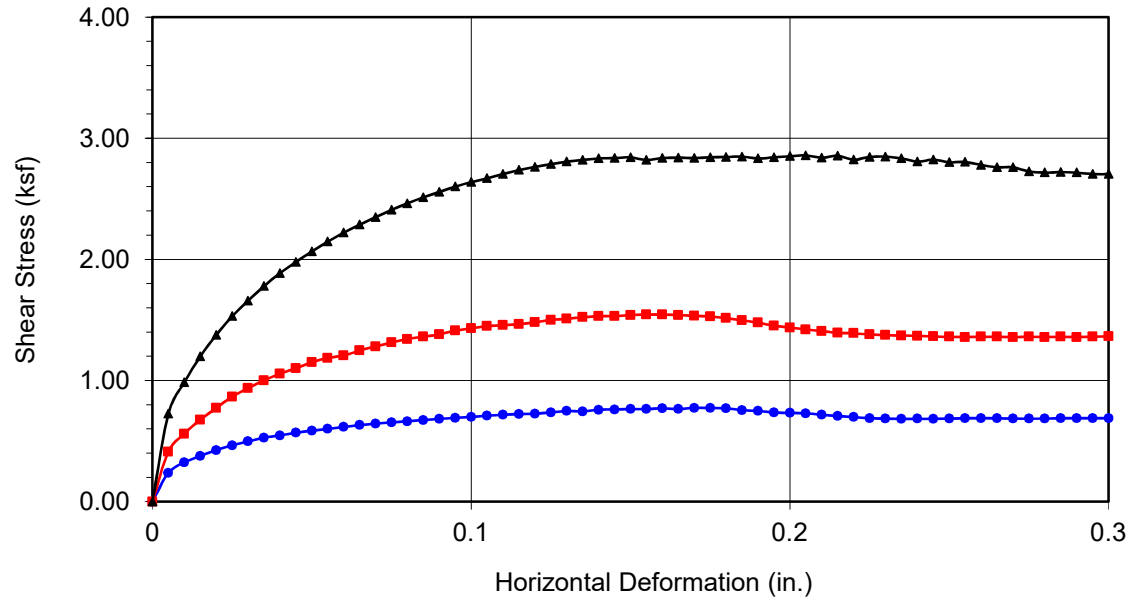
Consolidated Drained - ASTM D 3080

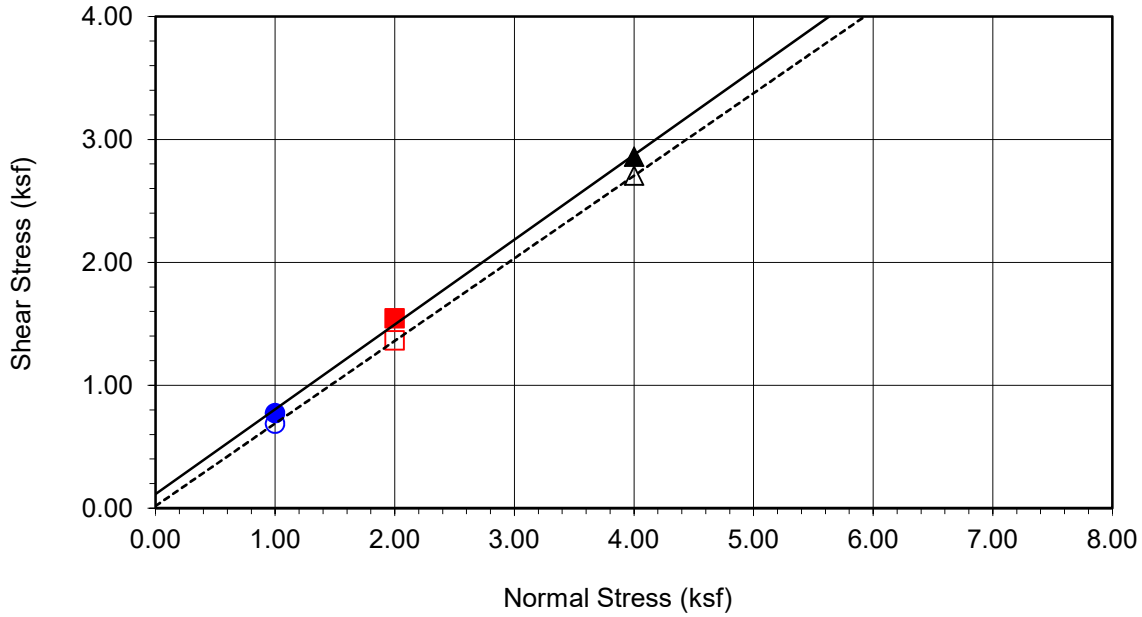
Project No.: 13493.001

Legacy-Collier, Proposed Euclid & Walnut Mixed-Use, Ontario CA

04-22

DS LB-3, R-2 @ 7.5





Boring No.	**LB-3**
Sample No.	**R-2**
Depth (ft)	**7.5**
Sample Type:	Ring
Soil Identification:	Olive silty sand (SM)

Strength Parameters

	C (psf)	ϕ (°)
Peak	116	35
Ultimate	18	34

Normal Stress (kip/ft²)	1.000	2.000	4.000
Peak Shear Stress (kip/ft²)	● 0.773	■ 1.544	▲ 2.858
Shear Stress @ End of Test (ksf)	○ 0.688	□ 1.364	△ 2.704
Deformation Rate (in./min.)	0.0033	0.0033	0.0033
Initial Sample Height (in.)	1.000	1.000	1.000
Diameter (in.)	2.415	2.415	2.415
Initial Moisture Content (%)	3.81	3.81	3.81
Dry Density (pcf)	107.1	109.3	109.1
Saturation (%)	17.9	19.0	18.9
Soil Height Before Shearing (in.)	0.9874	0.9855	0.9719
Final Moisture Content (%)	16.3	15.7	15.7

Leighton

DIRECT SHEAR TEST RESULTS

Consolidated Drained - ASTM D 3080

Project No.: 13493.001

Legacy-Collier, Proposed Euclid & Walnut Mixed-Use, Ontario CA

04-22

DS LB-3, R-2 @ 7.5

EXPANSION INDEX of SOILS
ASTM D 4829

Project Name:	Legacy-Collier, Proposed Euclid & Walnut Mixed-Use, Ontario CA	Tested By:	G. Berdy	Date:	04/13/22
Project No.:	13493.001	Checked By:	A. Santos	Date:	04/25/22
Boring No.:	LB-1	Depth (ft.):	0-5		
Sample No.:	B-1				
Soil Identification:	Olive brown sandy silt s(ML)				

Dry Wt. of Soil + Cont.	(g)	1000.00
Wt. of Container No.	(g)	0.00
Dry Wt. of Soil	(g)	1000.00
Weight Soil Retained on #4 Sieve		0.00
Percent Passing # 4		100.00

MOLDED SPECIMEN		Before Test	After Test
Specimen Diameter	(in.)	4.01	4.01
Specimen Height	(in.)	1.0000	1.0175
Wt. Comp. Soil + Mold	(g)	609.40	443.20
Wt. of Mold	(g)	202.10	0.00
Specific Gravity (Assumed)		2.70	2.70
Container No.		O	O
Wet Wt. of Soil + Cont.	(g)	819.60	645.30
Dry Wt. of Soil + Cont.	(g)	751.90	575.77
Wt. of Container	(g)	0.00	202.10
Moisture Content	(%)	9.00	18.61
Wet Density	(pcf)	122.9	131.4
Dry Density	(pcf)	112.7	110.8
Void Ratio		0.496	0.522
Total Porosity		0.331	0.343
Pore Volume	(cc)	68.6	72.2
Degree of Saturation (%) [S_{meas}]		**49.0**	96.3

SPECIMEN INUNDATION in distilled water for the period of 24 h or expansion rate < 0.0002 in./h

Date	Time	Pressure (psi)	Elapsed Time (min.)	Dial Readings (in.)
04/13/22	11:12	1.0	0	0.5855
04/13/22	11:22	1.0	10	0.5855
Add Distilled Water to the Specimen				
04/13/22	11:59	1.0	37	0.6000
04/14/22	5:42	1.0	1100	0.6030
04/14/22	9:53	1.0	1351	0.6030

Expansion Index (EI_{meas}) = ((Final Rdg - Initial Rdg) / Initial Thick.) x 1000	**18**

Borehole	Depth	Liquid Limit	Plastic Limit	Plasticity Index	Maximum Size (mm)	%<#200 Sieve	Class-ification	Water Content (%)	Dry Density (pcf)	Satur-ation (%)	Void Ratio
LB-1	7.5							9.3	94.6		
LB-1	10.0							31.0	88.6		
LB-1	15.0							15.7	111.5		
LB-1	20.0							12.2	120.1		
LB-1	30.0							3.6			
LB-1	40.0							4.4			
LB-1	45.0							2.0	114.9		
LB-1	50.0							3.2			
LB-2	7.5							3.0	101.4		
LB-2	15.0							4.0	102.8		
LB-2	20.0							15.7	111.9		
LB-2	25.0							10.4	108.4		
LB-3	5.0							7.7	110.6		
LB-3	10.0							26.3	90.1		
LB-3	15.0							35.1	87.0		
LB-3	20.0							12.5	121.7		
LB-3	25.0							13.9	113.8		
LP-1	15.0							5.0	104.3		
LP-1	18.5							12.4	119.3		
LP-2	15.0							25.4	91.0		
LP-2	18.5							7.3	115.0		



Summary of Laboratory Results

Project Name: Legacy-Collier, Proposed Residential Development

Project Number: 13493.001

Date: 5/4/2022 11:49:57 AM

Figure No. 1

MODIFIED PROCTOR COMPACTION TEST

ASTM D 1557

Project Name:	Legacy-Collier, Proposed Euclid & Walnut Mixed-Use, Ontario CA	Tested By:	J. Gonzalez	Date:	04/12/22
Project No.:	13493.001	Checked By:	A. Santos	Date:	04/13/22
Boring No.:	LB-2	Depth (ft.):	0-5		
Sample No.:	B-1				
Soil Identification:	Olive brown sandy silt s(ML)				

Preparation Method: [X] Moist [ ] Dry

[X] Mechanical Ram [ ] Manual Ram

Mold Volume (ft³) 0.03330 *Ram Weight = 10 lb.; Drop = 18 in.*

TEST NO.	1	2	3	4	5	6
Wt. Compacted Soil + Mold (g)	3861	3920	3880			
Weight of Mold (g)	1826	1826	1826			
Net Weight of Soil (g)	2035	2094	2054			
Wet Weight of Soil + Cont. (g)	462.6	478.9	498.0			
Dry Weight of Soil + Cont. (g)	423.8	429.5	437.3			
Weight of Container (g)	37.9	36.3	39.6			
Moisture Content (%)	10.05	12.56	15.26			
Wet Density (pcf)	134.7	138.6	136.0			
Dry Density (pcf)	122.4	123.2	118.0			

Maximum Dry Density (pcf) **123.5** **Optimum Moisture Content (%)** **11.5**

PROCEDURE USED

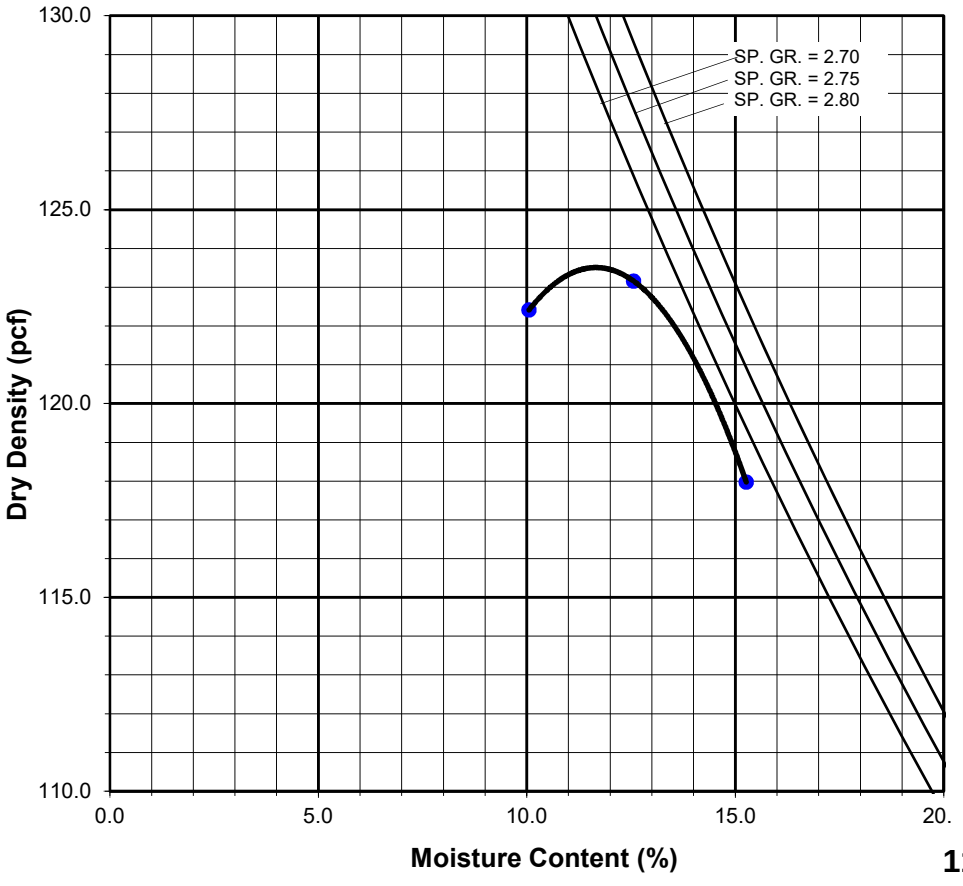
[X] **Procedure A**
Soil Passing No. 4 (4.75 mm) Sieve
Mold : 4 in. (101.6 mm) diameter
Layers : 5 (Five)
Blows per layer : 25 (twenty-five)
May be used if +#4 is 20% or less

[ ] **Procedure B**
Soil Passing 3/8 in. (9.5 mm) Sieve
Mold : 4 in. (101.6 mm) diameter
Layers : 5 (Five)
Blows per layer : 25 (twenty-five)
Use if +#4 is >20% and +3/8 in. is 20% or less

[ ] **Procedure C**
Soil Passing 3/4 in. (19.0 mm) Sieve
Mold : 6 in. (152.4 mm) diameter
Layers : 5 (Five)
Blows per layer : 56 (fifty-six)
Use if +3/8 in. is >20% and +¾ in. is <30%

Particle-Size Distribution:
GR:SA:FI

Atterberg Limits:
LL,PL,PI



MX LB-2, B-1 @ 0-5

MODIFIED PROCTOR COMPACTION TEST

ASTM D 1557

Project Name:	Legacy-Collier, Proposed Euclid & Walnut Mixed-Use, Ontario CA	Tested By:	J. Gonzalez	Date:	04/13/22
Project No.:	13493.001	Checked By:	A. Santos	Date:	04/25/22
Boring No.:	LB-3	Depth (ft.):	0-5		
Sample No.:	B-1				
Soil Identification:	Olive brown silty sand (SM)				

Preparation Method: [X] Moist [ ] Dry

[X] Mechanical Ram [ ] Manual Ram

Mold Volume (ft³) 0.03330 *Ram Weight = 10 lb.; Drop = 18 in.*

TEST NO.	1	2	3	4	5	6
Wt. Compacted Soil + Mold (g)	3839	3913	3850			
Weight of Mold (g)	1826	1826	1826			
Net Weight of Soil (g)	2013	2087	2024			
Wet Weight of Soil + Cont. (g)	499.8	520.0	518.3			
Dry Weight of Soil + Cont. (g)	469.3	477.3	466.0			
Weight of Container (g)	41.0	39.1	37.8			
Moisture Content (%)	7.12	9.74	12.21			
Wet Density (pcf)	133.3	138.2	134.0			
Dry Density (pcf)	124.4	125.9	119.4			

Maximum Dry Density (pcf) **126.4** **Optimum Moisture Content (%)** **9.0**

PROCEDURE USED

[X] **Procedure A**
Soil Passing No. 4 (4.75 mm) Sieve
Mold : 4 in. (101.6 mm) diameter
Layers : 5 (Five)
Blows per layer : 25 (twenty-five)
May be used if +#4 is 20% or less

[ ] **Procedure B**
Soil Passing 3/8 in. (9.5 mm) Sieve
Mold : 4 in. (101.6 mm) diameter
Layers : 5 (Five)
Blows per layer : 25 (twenty-five)
Use if +#4 is >20% and +3/8 in. is 20% or less

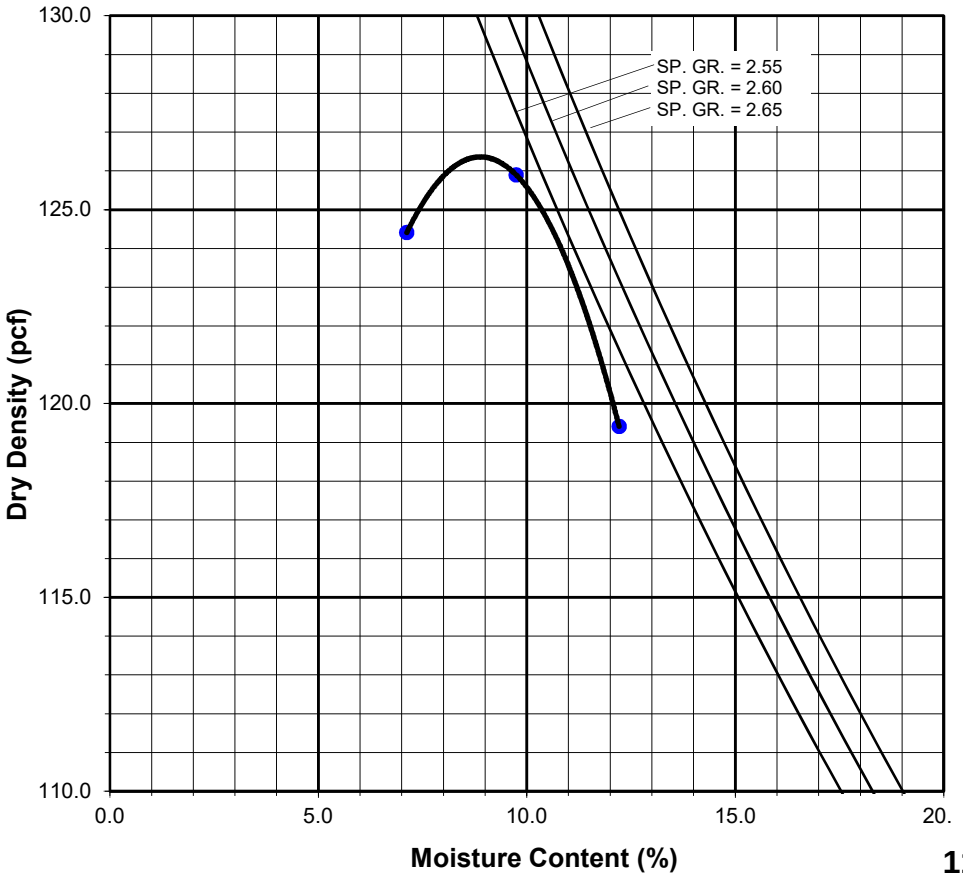
[ ] **Procedure C**
Soil Passing 3/4 in. (19.0 mm) Sieve
Mold : 6 in. (152.4 mm) diameter
Layers : 5 (Five)
Blows per layer : 56 (fifty-six)
Use if +3/8 in. is >20% and +¾ in. is <30%

Particle-Size Distribution:

GR:SA:FI

Atterberg Limits:

LL,PL,PI



MX LB-3, B-1 @ 0-5

ATTERBERG LIMITS

ASTM D 4318

Project Name:	Legacy-Collier, Proposed Euclid & Walnut Mixed-Use, Onratio CA	Tested By:	J. Domingo	Date:	04/22/22
Project No. :	13493.001	Input By:	G. Bathala	Date:	04/25/22
Boring No.:	LB-2	Checked By:	A. Santos		
Sample No.:	R-3	Depth (ft.)	10.0		
Soil Identification:	Olive gray lean clay (CL)				

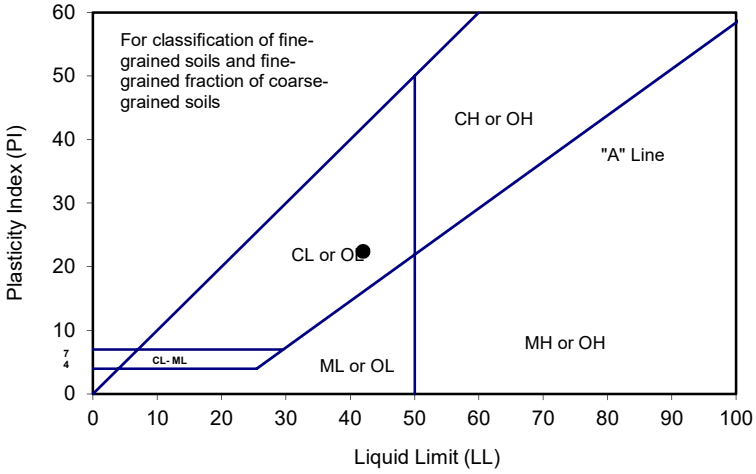
TEST	PLASTIC LIMIT		LIQUID LIMIT			
NO.	1	2	1	2	3	4
Number of Blows [N]			26	21	16	
Wet Wt. of Soil + Cont. (g)	8.64	8.87	20.09	21.49	20.68	
Dry Wt. of Soil + Cont. (g)	7.38	7.61	14.48	15.38	14.70	
Wt. of Container (g)	1.06	1.07	1.11	1.03	1.00	
Moisture Content (%) [Wn]	19.94	19.27	41.96	42.58	43.65	

Liquid Limit	**42**
Plastic Limit	**20**
Plasticity Index	**22**
Classification	**CL**

PI at "A" - Line = 0.73(LL-20) 16.06

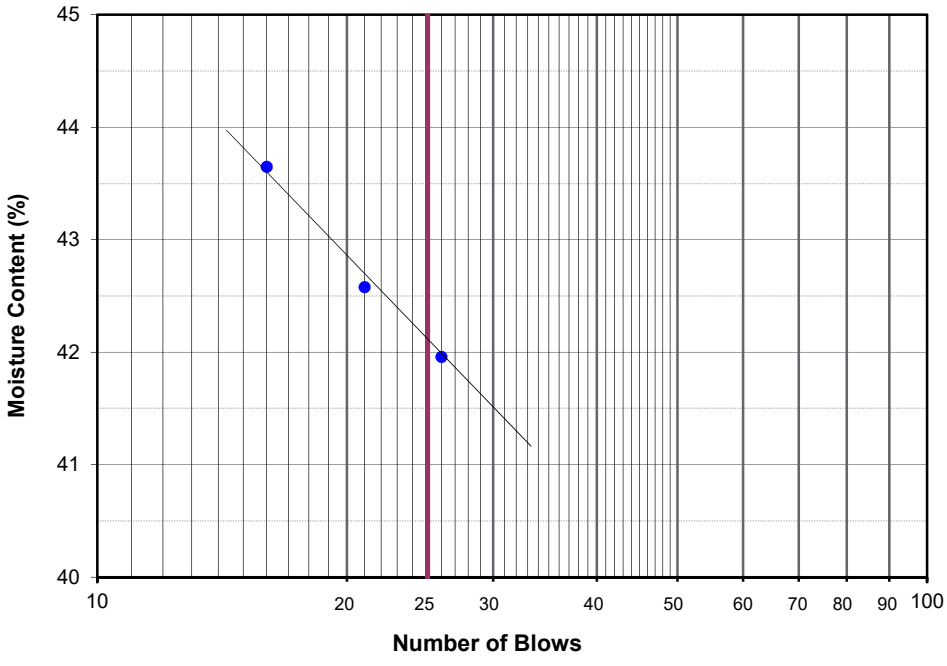
One - Point Liquid Limit Calculation

$LL = Wn(N/25)^{0.121}$



PROCEDURES USED

	Wet Preparation
	Multipoint - Wet
X	Dry Preparation
	Multipoint - Dry
X	Procedure A
	Multipoint Test
	Procedure B
	One-point Test



Project Name: Legacy-Collier, Proposed Euclid & Walnut Mixed-Use, Ontario CA
Project No.: 13493.001

Summary of Pocket Penetrometer Test Results

Tested by:	S. Felter	Date:	04/19/22
Prepared by:	G. Bathala	Date:	04/22/22

Boring No.	Sample No.	Depth (ft.)	Readings	Remarks
LB-1	R-2	7.5	2.50	
	R-3	10	>4.50	
	R-4	15	4.25	
	R-5	20	>4.50	
	R-10	45	3.50	
LB-2	R-2	7.5	1.75	
	R-4	15	3.75	
	R-5	20	3.50	
	R-6	25	>4.50	
LB-3	R-1	5	>4.50	
	R-3	10	>4.50	
	R-4	15	4.25	
	R-5	20	4.50	
	R-6	25	>4.50	
LP-1	R-3	15	2.75	
	R-4	18.5	>4.50	
LP-2	R-3	15	>4.50	
	R-4	18.5	>4.50	

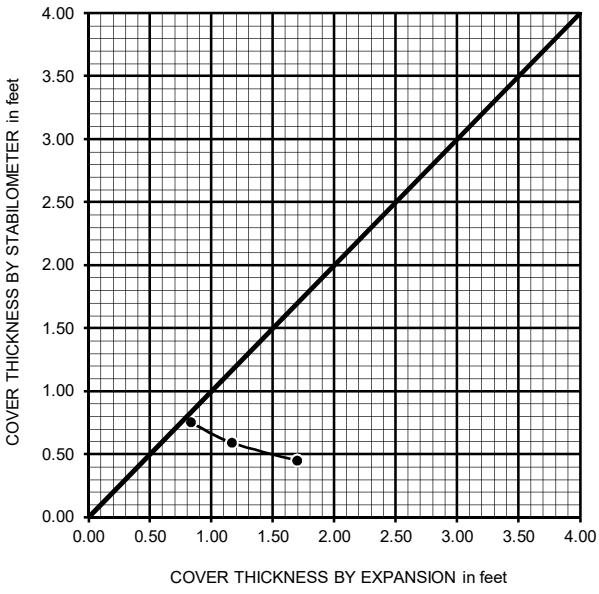
R-VALUE TEST RESULTS
DOT CA Test 301

PROJECT NAME:	Legacy-Collier, Proposed Euclid & Walnut Mixed-Use Ontario CA	PROJECT NUMBER:	13493.001
BORING NUMBER:	LB-1	DEPTH (FT.):	0-5
SAMPLE NUMBER:	B-1	TECHNICIAN:	O. Figueroa
SAMPLE DESCRIPTION:	Olive brown sandy silt s(ML)	DATE COMPLETED:	4/13/2022

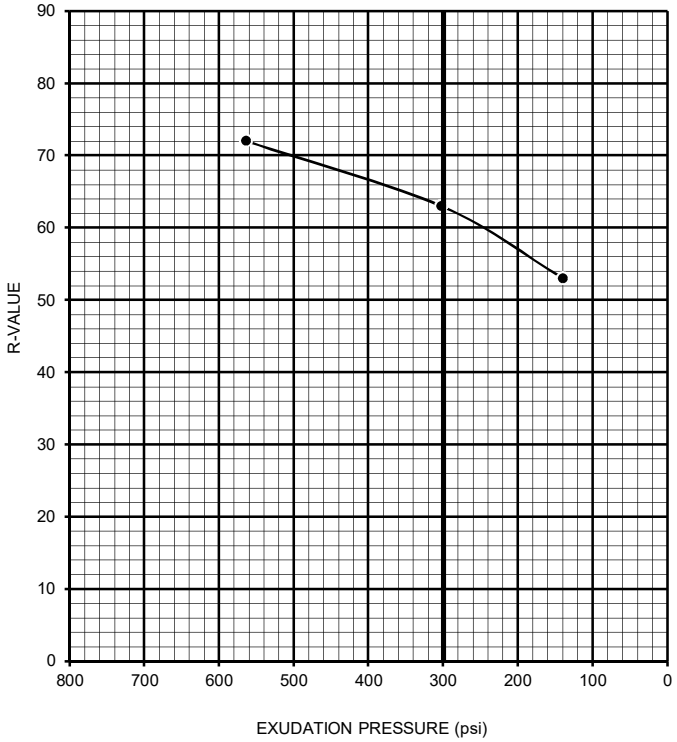
TEST SPECIMEN	a	b	c
MOISTURE AT COMPACTION %	12.7	13.7	14.6
HEIGHT OF SAMPLE, Inches	2.45	2.50	2.53
DRY DENSITY, pcf	120.2	118.7	116.2
COMPACTOR PRESSURE, psi	325	250	150
EXUDATION PRESSURE, psi	564	302	139
EXPANSION, Inches x 10exp-4	51	35	25
STABILITY Ph 2,000 lbs (160 psi)	28	36	46
TURNS DISPLACEMENT	4.60	5.13	5.45
R-VALUE UNCORRECTED	72	63	53
R-VALUE CORRECTED	72	63	53

DESIGN CALCULATION DATA	a	b	c
GRAVEL EQUIVALENT FACTOR	1.0	1.0	1.0
TRAFFIC INDEX	5.0	5.0	5.0
STABILOMETER THICKNESS, ft.	0.45	0.59	0.75
EXPANSION PRESSURE THICKNESS, ft.	1.70	1.17	0.83

EXPANSION PRESSURE CHART



EXUDATION PRESSURE CHART



R-VALUE BY EXPANSION:	50
R-VALUE BY EXUDATION:	63
EQUILIBRIUM R-VALUE:	50

SAND EQUIVALENT TEST

DOT CA Test 217

Project Name: Legacy-Collier, Proposed Euclid & Walnut Mixed-Use, Ontario CA Tested By: A Santos Date: 04/25/22

Project No. : 13493.001 Input By: J. Ward Date: 04/25/22

Boring No.	Sample No.	Depth (ft.)	Soil Type	T1	T2	T3	T4	R1	R2	SE	Average SE
LB-2	B-1	0-5	Olive brown sandy silt s(ML)	11:20	11:30	11:33	11:53	13.5	1.2	9	**9**
				11:24	11:34	11:37	11:57	13.4	1.1	9	
				11:28	11:38	11:41	12:01	13.5	1.1	9	
LB-5	B-1	0-5	Olive brown silty sand (SM)	13:40	13:50	13:53	14:13	12.6	1.4	12	**12**
				13:44	13:54	13:57	14:17	12.6	1.4	12	
				13:48	13:58	14:01	14:21	12.7	1.3	11	

T1 = Starting Time

T2 = (T1 + 10 min) Begin Agitation

(131 cycles in 45 sec)

T3 = Settlement Starting Time

T4 = (T3 + 20 min) Take Clay Reading (R1)

and Sand Reading (R2)

Sand Equivalent = R2 / R1 * 100

Record SE as Next Higher Integer

1118

PARTICLE-SIZE DISTRIBUTION (GRADATION) of SOILS USING SIEVE ANALYSIS

ASTM D 6913

Project Name:	Legacy-Collier, Proposed Euclid & Walnut Mixed-Use, Ontario CA	Tested By:	S. Felter	Date:	04/20/22
Project No.:	13493.001	Checked By:	A. Santos	Date:	04/25/22
Boring No.:	LP-1	Depth (feet):	15.0		
Sample No.:	R-3				
Soil Identification:	Grayish brown silty sand (SM)				

		Moisture Content of Total Air - Dry Soil	
Container No.:	2	Wt. of Air-Dry Soil + Cont. (g)	0.0
Wt. of Air-Dried Soil + Cont.(g)	712.3	Wt. of Dry Soil + Cont. (g)	0.0
Wt. of Container (g)	110.0	Wt. of Container No._____ (g)	1.0
Dry Wt. of Soil (g)	602.3	Moisture Content (%)	0.0

After Wet Sieve	Container No.	2
	Wt. of Dry Soil + Container (g)	582.3
	Wt. of Container (g)	110.0
	Dry Wt. of Soil Retained on # 200 Sieve (g)	472.3

U. S. Sieve Size (in.)	U. S. Sieve Size (mm.)	Cumulative Weight Dry Soil Retained (g)	Percent Passing (%)
1 1/2"	37.5		
1"	25.0		
3/4"	19.0		
1/2"	12.5		
3/8"	9.5	0.0	100.0
#4	4.75	1.2	99.8
#8	2.36	3.6	99.4
#16	1.18	17.0	97.2
#30	0.600	54.5	91.0
#50	0.300	166.8	72.3
#100	0.150	343.0	43.1
#200	0.075	464.2	22.9
PAN			

GRAVEL: **0 %**

SAND: **77 %**

FINES: **23 %**

GROUP SYMBOL: **SM**

Cu = D60/D10 = _____

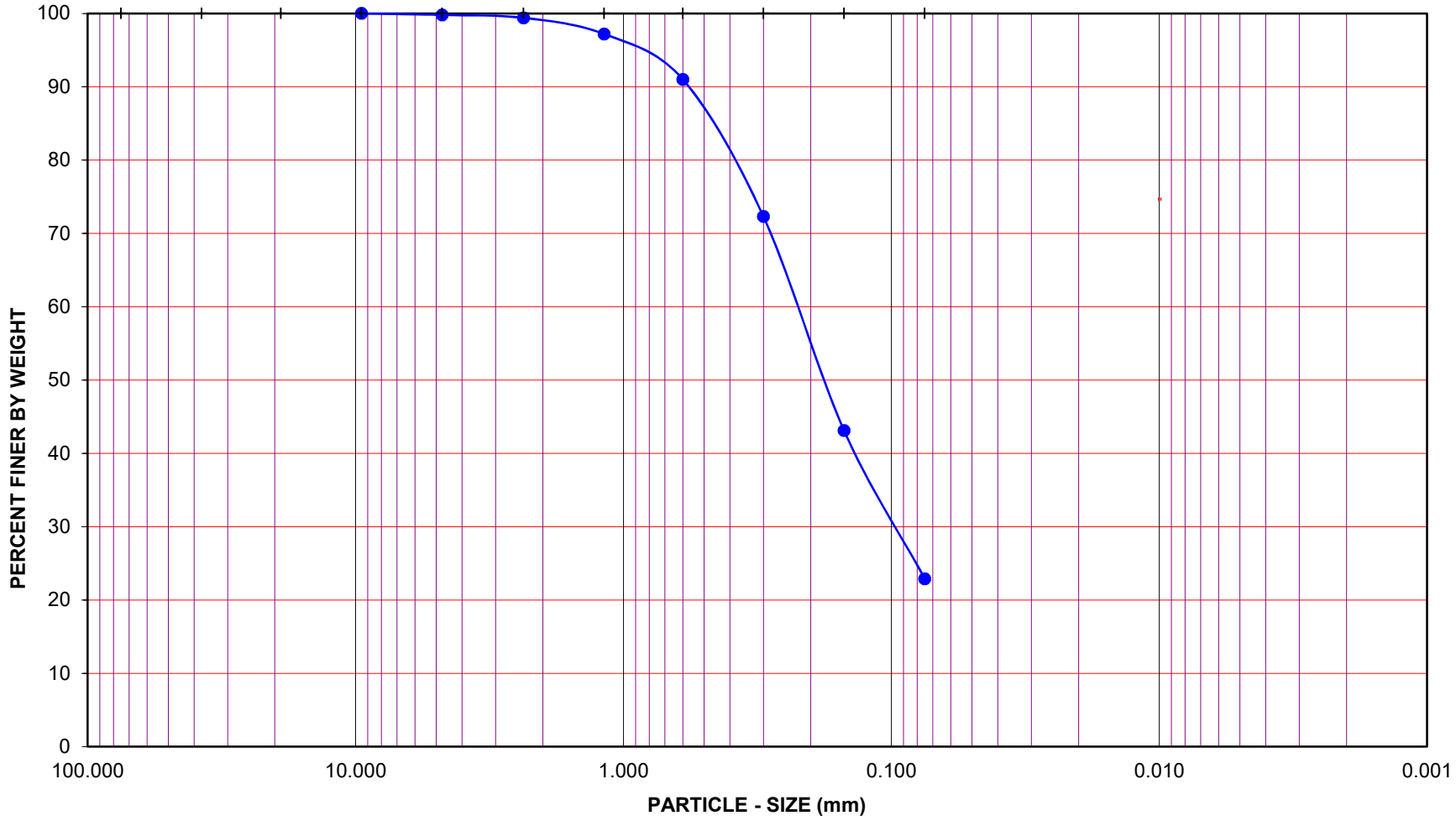
Cc = $(D30)^2/(D60*D10)$ = _____

Remarks: _____

GRAVEL		SAND			FINES	
COARSE	FINE	COARSE	MEDIUM	FINE	SILT	CLAY

U.S. STANDARD SIEVE OPENING — U.S. STANDARD SIEVE NUMBER — HYDROMETER

3.0" 1 1/2" 3/4" 3/8" #4 #8 #16 #30 #50 #100 #200



Project Name: Legacy-Collier, Proposed Euclid & Walnut Mixed-Use, Ontario CA

Project No.: 13493.001

Boring No.: LP-1 Sample No.: R-3

Depth (feet): 15.0 Soil Type : SM

Soil Identification: Grayish brown silty sand (SM)

GR:SA:FI : (%) 0 : 77 : 23

Leighton

PARTICLE - SIZE DISTRIBUTION ASTM D 6913

1120

Sieve LP-1, R-3 @ 15

PARTICLE-SIZE DISTRIBUTION (GRADATION) of SOILS USING SIEVE ANALYSIS

ASTM D 6913

Project Name:	Legacy-Collier, Proposed Euclid & Walnut Mixed Use, Ontario CA	Tested By:	S. Felter	Date:	04/20/22
Project No.:	13493.001	Checked By:	A. Santos	Date:	04/25/22
Boring No.:	LP-1	Depth (feet):	18.5		
Sample No.:	R-4				
Soil Identification:	Olive brown sandy silt s(ML)				

		Moisture Content of Total Air - Dry Soil	
Container No.:	9545	Wt. of Air-Dry Soil + Cont. (g)	0.0
Wt. of Air-Dried Soil + Cont.(g)	774.5	Wt. of Dry Soil + Cont. (g)	0.0
Wt. of Container (g)	106.2	Wt. of Container No._____ (g)	1.0
Dry Wt. of Soil (g)	668.3	Moisture Content (%)	0.0

After Wet Sieve	Container No.	9545
	Wt. of Dry Soil + Container (g)	426.4
	Wt. of Container (g)	106.2
	Dry Wt. of Soil Retained on # 200 Sieve (g)	320.2

U. S. Sieve Size (in.)	U. S. Sieve Size (mm.)	Cumulative Weight Dry Soil Retained (g)	Percent Passing (%)
1 1/2"	37.5		
1"	25.0		
3/4"	19.0		
1/2"	12.5		
3/8"	9.5	0.0	100.0
#4	4.75	2.9	99.6
#8	2.36	8.0	98.8
#16	1.18	15.3	97.7
#30	0.600	41.7	93.8
#50	0.300	106.5	84.1
#100	0.150	206.4	69.1
#200	0.075	315.8	52.7
PAN			

GRAVEL: **0 %**

SAND: **47 %**

FINES: **53 %**

GROUP SYMBOL: **s(ML)**

Cu = D60/D10 = _____

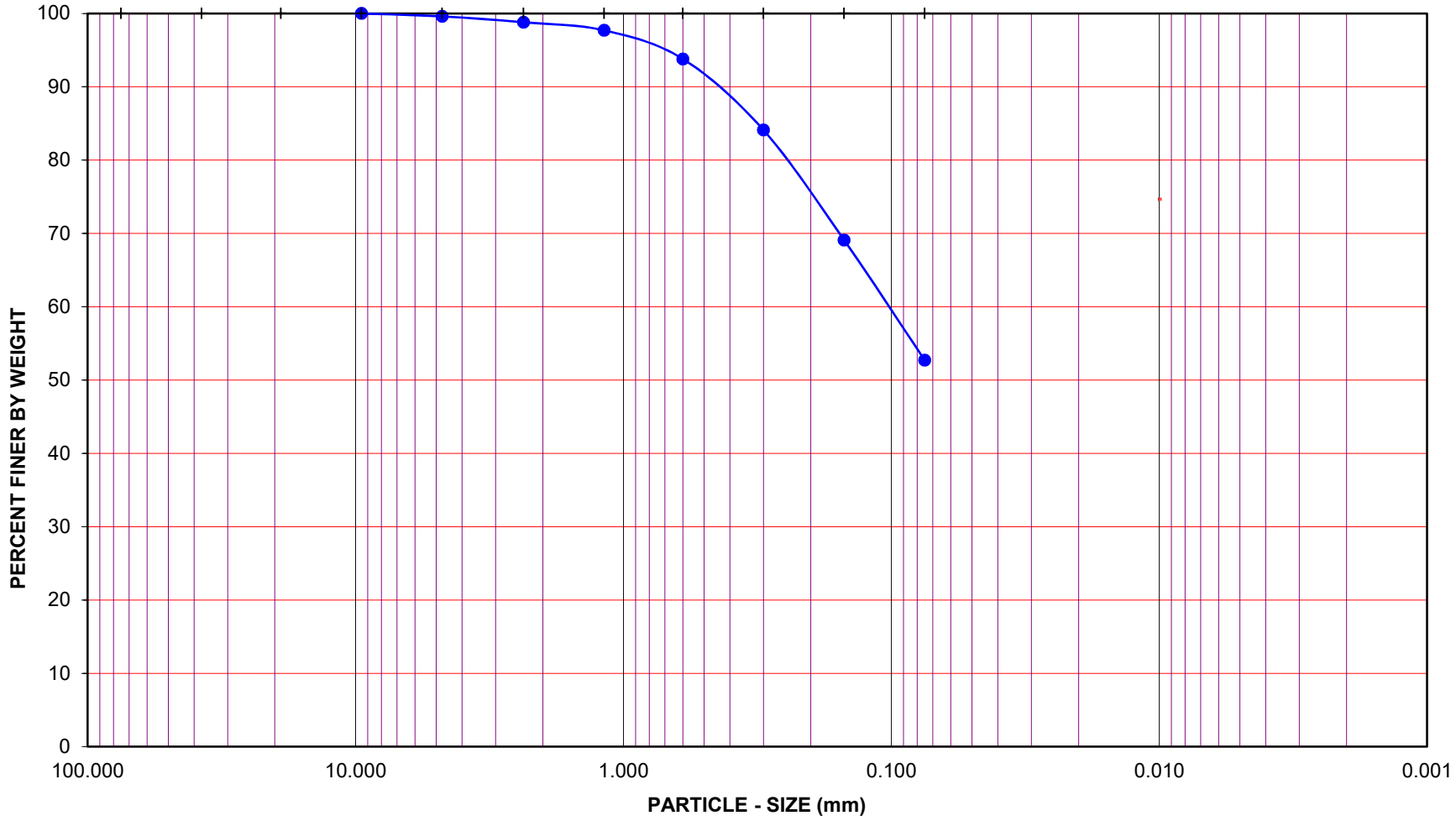
Cc = $(D30)^2/(D60*D10)$ = _____

Remarks: _____

GRAVEL		SAND			FINES	
COARSE	FINE	COARSE	MEDIUM	FINE	SILT	CLAY

U.S. STANDARD SIEVE OPENING — U.S. STANDARD SIEVE NUMBER — HYDROMETER

3.0" 1 1/2" 3/4" 3/8" #4 #8 #16 #30 #50 #100 #200



Project Name: Legacy-Collier, Proposed Euclid & Walnut Mixed Use, Ontario CA

Project No.: 13493.001

Boring No.: LP-1 Sample No.: R-4

Depth (feet): 18.5 Soil Type : s(ML)

Soil Identification: Olive brown sandy silt s(ML)

GR:SA:FI : (%) 0 : 47 : 53

Leighton

PARTICLE - SIZE DISTRIBUTION ASTM D 6913

1122

Sieve LP-1, R-4 @ 18.5

PARTICLE-SIZE DISTRIBUTION (GRADATION) of SOILS USING SIEVE ANALYSIS

ASTM D 6913

Project Name:	Legacy-Collier, Proposed Euclid & Walnut Mixed-Use, Ontario CA	Tested By:	S. Felter	Date:	04/19/22
Project No.:	13493.001	Checked By:	A. Santos	Date:	04/25/22
Boring No.:	LP-1	Depth (feet):	23.5		
Sample No.:	S-5				
Soil Identification:	Brown sandy lean clay s(CL)				

		Moisture Content of Total Air - Dry Soil	
Container No.:	969	Wt. of Air-Dry Soil + Cont. (g)	0.0
Wt. of Air-Dried Soil + Cont.(g)	538.7	Wt. of Dry Soil + Cont. (g)	0.0
Wt. of Container (g)	109.4	Wt. of Container No._____ (g)	1.0
Dry Wt. of Soil (g)	429.3	Moisture Content (%)	0.0

After Wet Sieve	Container No.	969
	Wt. of Dry Soil + Container (g)	344.3
	Wt. of Container (g)	109.4
	Dry Wt. of Soil Retained on # 200 Sieve (g)	234.9

U. S. Sieve Size (in.)	U. S. Sieve Size (mm.)	Cumulative Weight Dry Soil Retained (g)	Percent Passing (%)
1 1/2"	37.5		
1"	25.0		
3/4"	19.0		
1/2"	12.5		
3/8"	9.5	0.0	100.0
#4	4.75	1.1	99.7
#8	2.36	4.2	99.0
#16	1.18	12.8	97.0
#30	0.600	36.0	91.6
#50	0.300	83.7	80.5
#100	0.150	148.7	65.4
#200	0.075	220.7	48.6
PAN			

GRAVEL: **0 %**

SAND: **51 %**

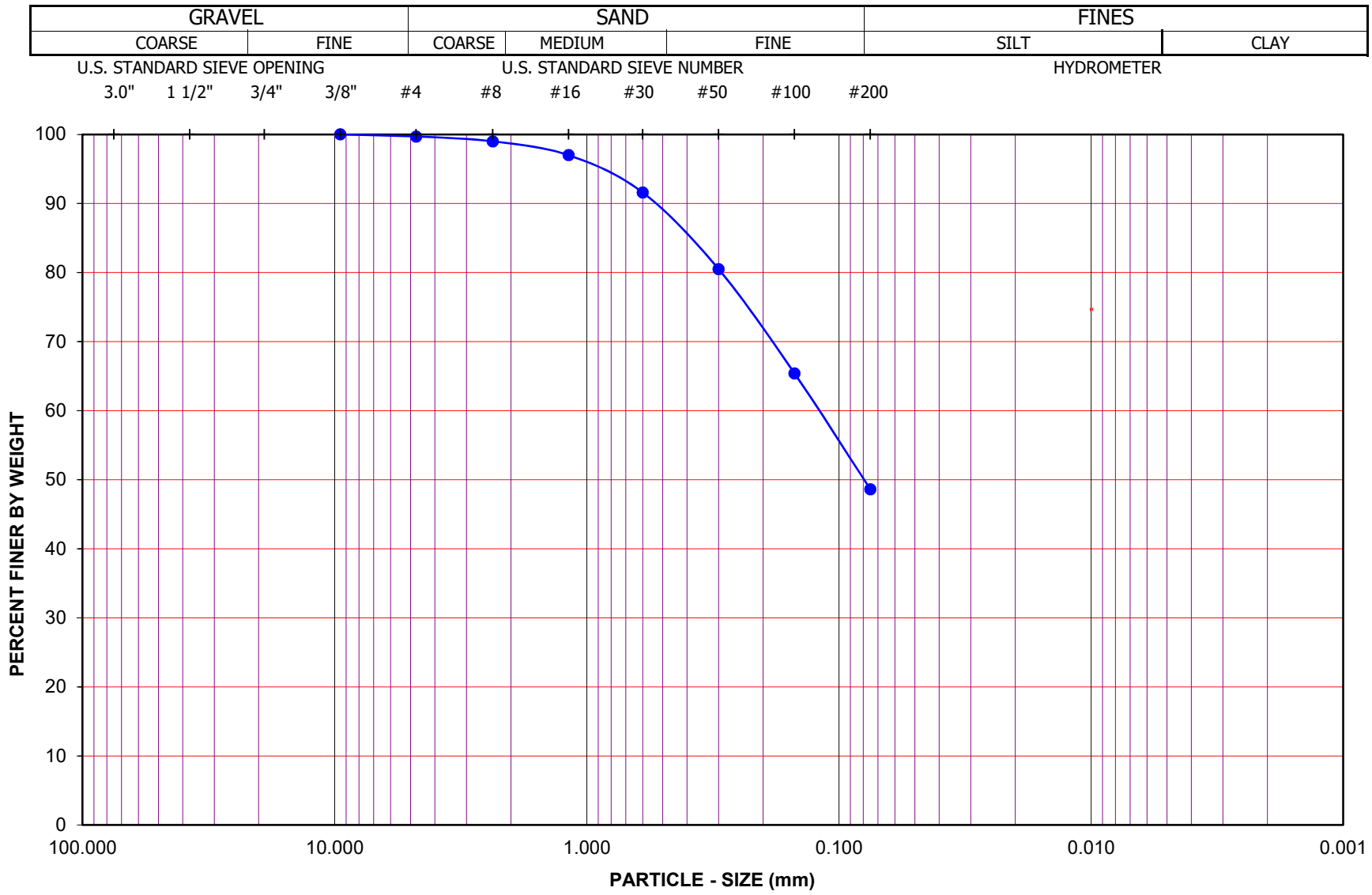
FINES: **49 %**

GROUP SYMBOL: **s(CL)**

Cu = D60/D10 = _____

Cc = $(D30)^2/(D60*D10)$ = _____

Remarks: _____



Project Name: Legacy-Collier, Proposed Euclid & Walnut Mixed-Use, Ontario CA

Project No.: 13493.001

Boring No.: LP-1 Sample No.: S-5

Depth (feet): 23.5 Soil Type : s(CL)

Soil Identification: Brown sandy lean clay s(CL)

GR:SA:FI : (%) 0 : 51 : 49

Leighton

PARTICLE - SIZE DISTRIBUTION ASTM D 6913

1124

Sieve LP-1, S-5 @ 23.5

PARTICLE-SIZE DISTRIBUTION (GRADATION) of SOILS USING SIEVE ANALYSIS

ASTM D 6913

Project Name:	Legacy-Collier, Proposed Euclid & Walnut Mixed-Use, Ontario CA	Tested By:	S. Felter	Date:	04/19/22
Project No.:	13493.001	Checked By:	A. Santos	Date:	04/25/22
Boring No.:	LP-2	Depth (feet):	15.0		
Sample No.:	R-3				
Soil Identification:	Olive brown silty clay (CL-ML)				

		Moisture Content of Total Air - Dry Soil	
Container No.:	V-1	Wt. of Air-Dry Soil + Cont. (g)	0.0
Wt. of Air-Dried Soil + Cont.(g)	635.6	Wt. of Dry Soil + Cont. (g)	0.0
Wt. of Container (g)	108.7	Wt. of Container No._____ (g)	1.0
Dry Wt. of Soil (g)	526.9	Moisture Content (%)	0.0

After Wet Sieve	Container No.	V-1
	Wt. of Dry Soil + Container (g)	139.2
	Wt. of Container (g)	108.7
	Dry Wt. of Soil Retained on # 200 Sieve (g)	30.5

U. S. Sieve Size (in.)	U. S. Sieve Size (mm.)	Cumulative Weight Dry Soil Retained (g)	Percent Passing (%)
1 1/2"	37.5		
1"	25.0		
3/4"	19.0		
1/2"	12.5		
3/8"	9.5		
#4	4.75		
#8	2.36		
#16	1.18	0.0	100.0
#30	0.600	0.4	99.9
#50	0.300	4.4	99.2
#100	0.150	12.6	97.6
#200	0.075	28.4	94.6
PAN			

GRAVEL: **0 %**

SAND: **5 %**

FINES: **95 %**

GROUP SYMBOL: **CL-ML**

Cu = D60/D10 = _____

Cc = $(D30)^2/(D60*D10)$ = _____

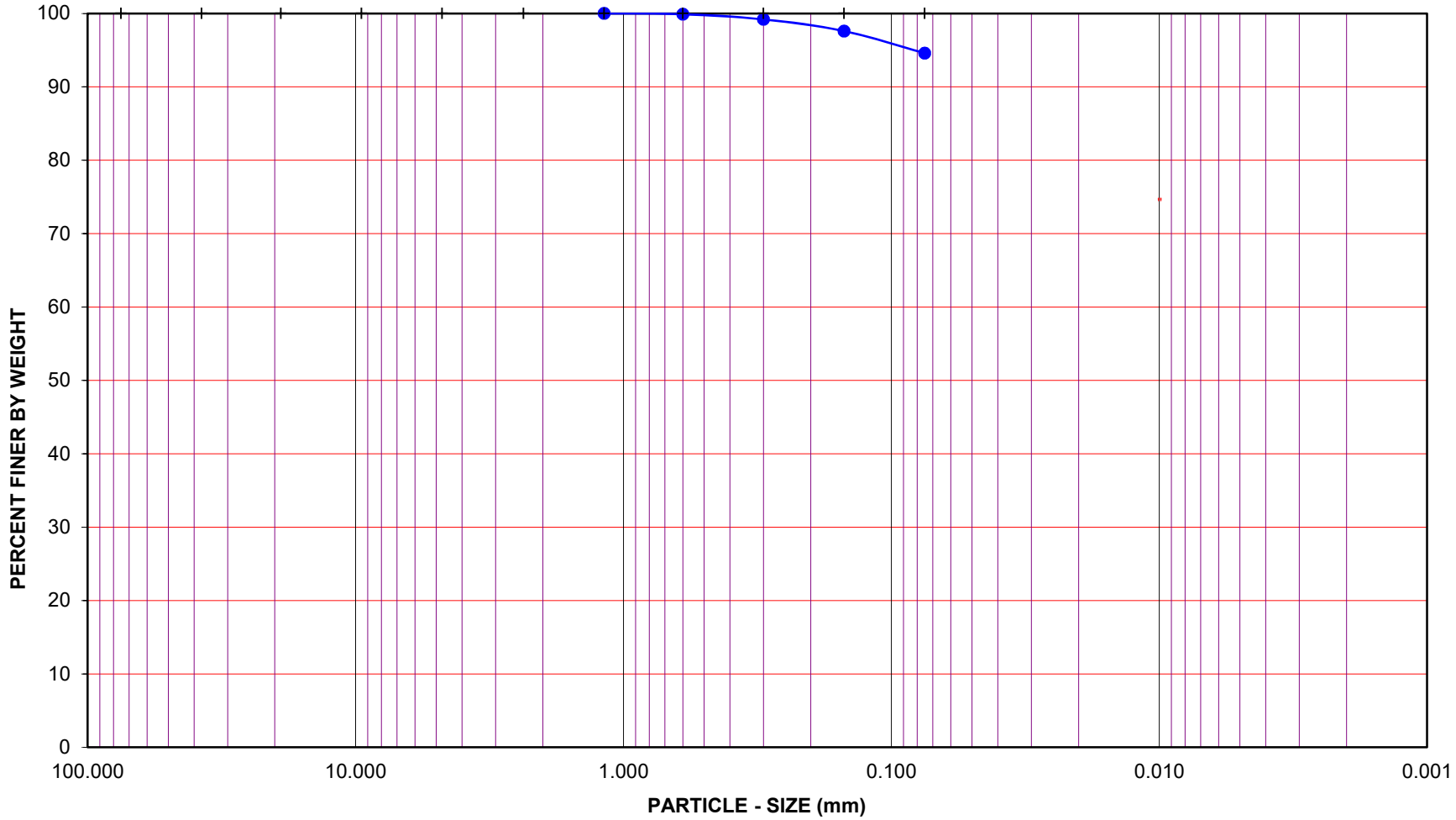
Remarks: _____

GRAVEL		SAND			FINES	
COARSE	FINE	COARSE	MEDIUM	FINE	SILT	CLAY

U.S. STANDARD SIEVE OPENING: 3.0" 1 1/2" 3/4" 3/8"

U.S. STANDARD SIEVE NUMBER: #4 #8 #16 #30 #50 #100 #200

HYDROMETER



Project Name: Legacy-Collier, Proposed Euclid & Walnut Mixed-Use, Ontario CA

Project No.: 13493.001

Boring No.: LP-2 Sample No.: R-3

Depth (feet): 15.0 Soil Type : CL-ML

Soil Identification: Olive brown silty clay (CL-ML)

GR:SA:FI : (%) 0 : 5 : 95

Leighton

PARTICLE - SIZE DISTRIBUTION ASTM D 6913

1126

Sieve LP-2, R-3 @ 15

PARTICLE-SIZE DISTRIBUTION (GRADATION) of SOILS USING SIEVE ANALYSIS

ASTM D 6913

Project Name:	Legacy-Collier, Proposed Euclid & Walnut Mixed Use, Ontario CA	Tested By:	S. Felter	Date:	04/20/22
Project No.:	13493.001	Checked By:	A. Santos	Date:	04/25/22
Boring No.:	LP-2	Depth (feet):	18.5		
Sample No.:	R-4				
Soil Identification:	Olive brown silty sand (SM)				

		Moisture Content of Total Air - Dry Soil	
Container No.:	R-2	Wt. of Air-Dry Soil + Cont. (g)	0.0
Wt. of Air-Dried Soil + Cont.(g)	799.6	Wt. of Dry Soil + Cont. (g)	0.0
Wt. of Container (g)	107.7	Wt. of Container No._____ (g)	1.0
Dry Wt. of Soil (g)	691.9	Moisture Content (%)	0.0

After Wet Sieve	Container No.	R-2
	Wt. of Dry Soil + Container (g)	576.0
	Wt. of Container (g)	107.7
	Dry Wt. of Soil Retained on # 200 Sieve (g)	468.3

U. S. Sieve Size (in.)	U. S. Sieve Size (mm.)	Cumulative Weight Dry Soil Retained (g)	Percent Passing (%)
1 1/2"	37.5		
1"	25.0		
3/4"	19.0		
1/2"	12.5		
3/8"	9.5	0.0	100.0
#4	4.75	0.9	99.9
#8	2.36	3.8	99.5
#16	1.18	13.1	98.1
#30	0.600	43.5	93.7
#50	0.300	150.5	78.2
#100	0.150	340.6	50.8
#200	0.075	464.3	32.9
PAN			

GRAVEL: **0 %**

SAND: **67 %**

FINES: **33 %**

GROUP SYMBOL: **SM**

Cu = D60/D10 = _____

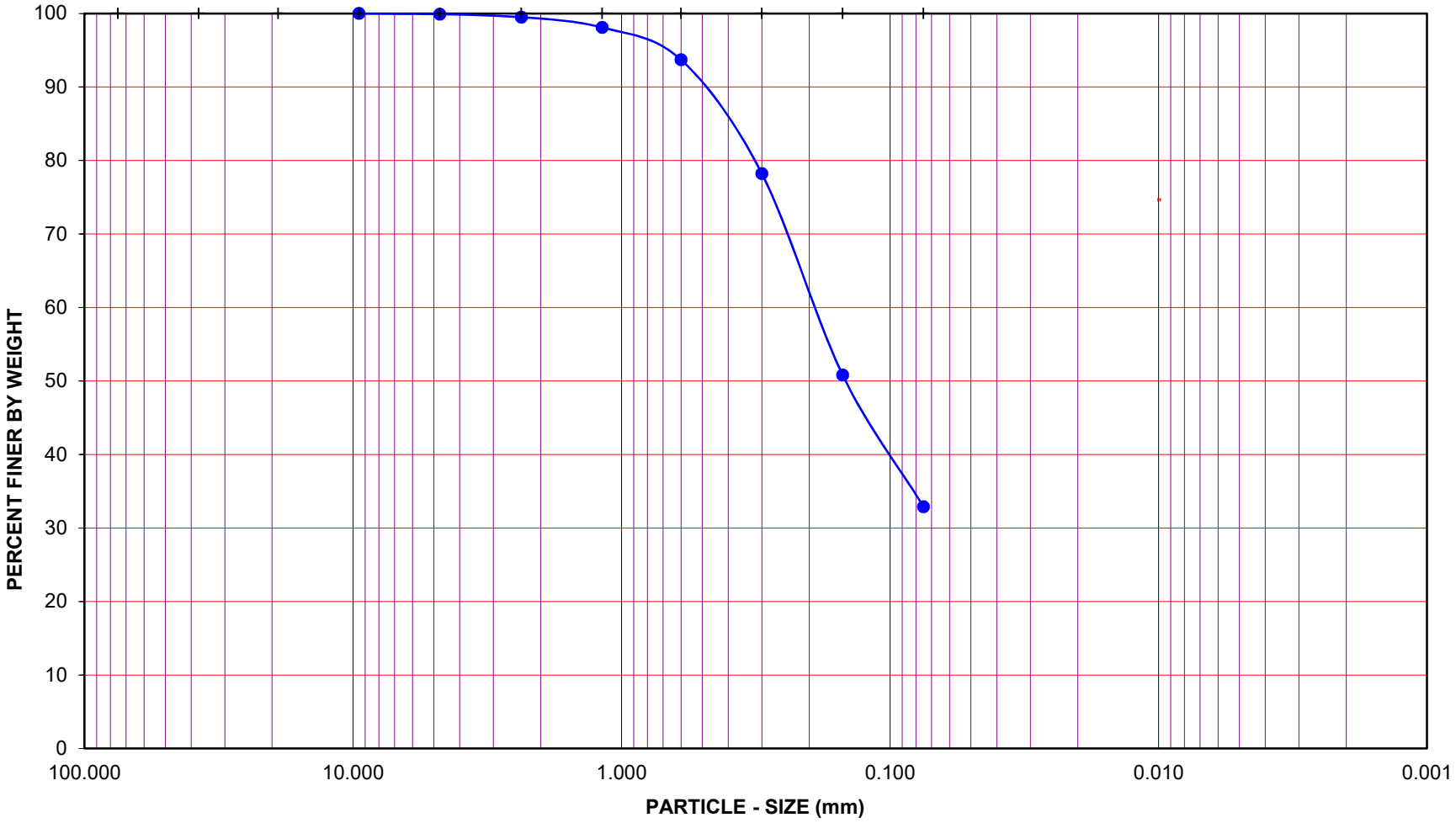
Cc = $(D30)^2/(D60*D10)$ = _____

Remarks: _____

GRAVEL		SAND			FINES	
COARSE	FINE	COARSE	MEDIUM	FINE	SILT	CLAY

U.S. STANDARD SIEVE OPENING — U.S. STANDARD SIEVE NUMBER — HYDROMETER

3.0" 1 1/2" 3/4" 3/8" #4 #8 #16 #30 #50 #100 #200



Project Name: Legacy-Collier, Proposed Euclid & Walnut Mixed Use, Ontario CA

Project No.: 13493.001

Boring No.: LP-2 Sample No.: R-4

Depth (feet): 18.5 Soil Type : SM

Soil Identification: Olive brown silty sand (SM)

GR:SA:FI : (%) 0 : 67 : 33

Leighton

PARTICLE - SIZE DISTRIBUTION ASTM D 6913

1128

Sieve LP-2, R-4 @ 18.5

ONE-DIMENSIONAL SWELL OR SETTLEMENT POTENTIAL OF COHESIVE SOILS

ASTM D 4546

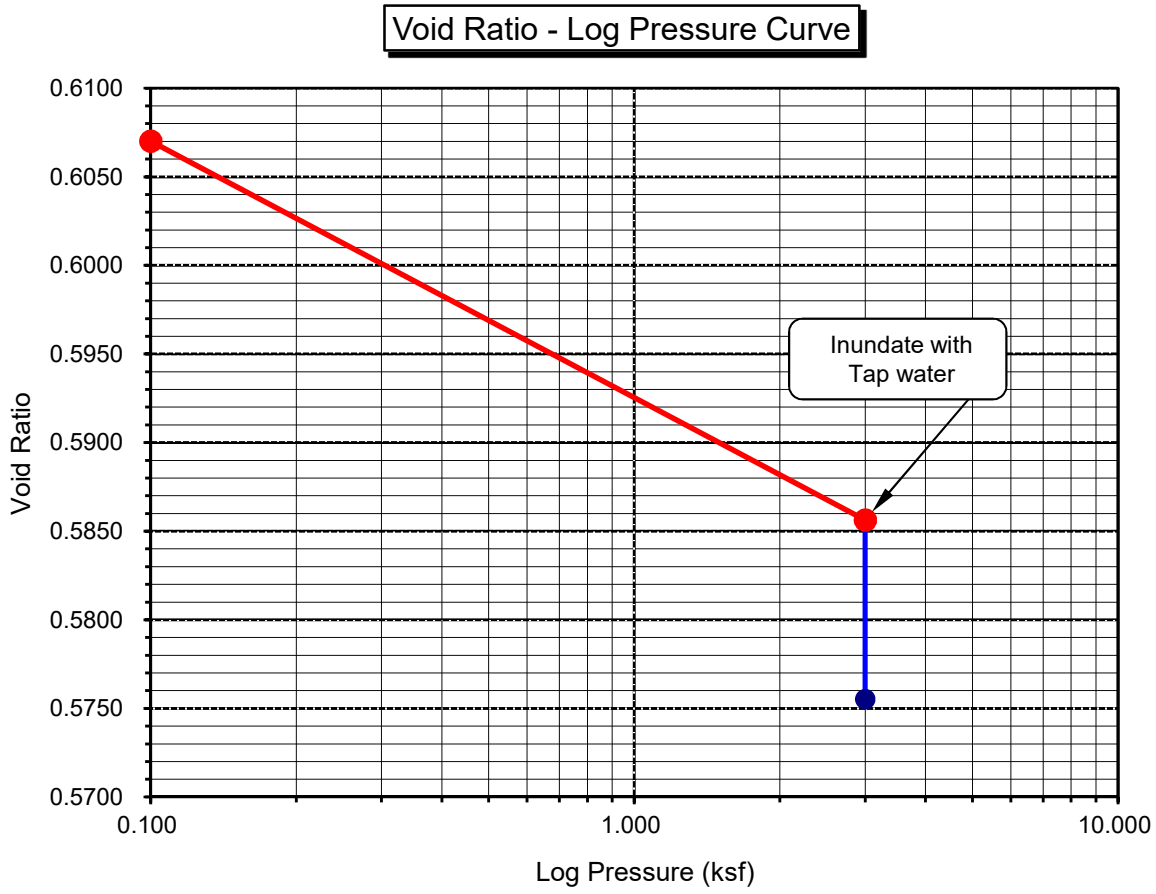
Project Name:	Legacy-Collier, Proposed Euclid & Walnut Mixed-Use, Ontario CA	Tested By:	G. Bathala	Date:	04/18/22
Project No.:	13493.001	Checked By:	A. Santos	Date:	04/26/22
Boring No.:	LB-1	Sample Type:	Ring		
Sample No.:	R-6	Depth (ft.)	25.0		
Sample Description:	Yellowish brown poorly-graded sand with silt (SP-SM)				

Initial Dry Density (pcf):	104.9
Initial Moisture (%):	3.61
Initial Length (in.):	1.0000
Initial Dial Reading:	0.3076
Diameter(in):	2.415

Final Dry Density (pcf):	107.0
Final Moisture (%) :	18.2
Initial Void Ratio:	0.6072
Specific Gravity(assumed):	2.70
Initial Saturation (%)	16.0

Pressure (p) (ksf)	Final Reading (in)	Apparent Thickness (in)	Load Compliance (%)	Swell (+) Settlement (-) % of Sample Thickness	Void Ratio	Corrected Deformation (%)
0.100	0.3075	0.9999	0.00	-0.01	0.6070	-0.01
3.000	0.2890	0.9814	0.52	-1.86	0.5856	-1.34
H2O	0.2827	0.9751	0.52	-2.49	0.5755	-1.97

Percent Swell (+) / Settlement (-) After Inundation = -0.64



ONE-DIMENSIONAL SWELL OR SETTLEMENT POTENTIAL OF COHESIVE SOILS

ASTM D 4546

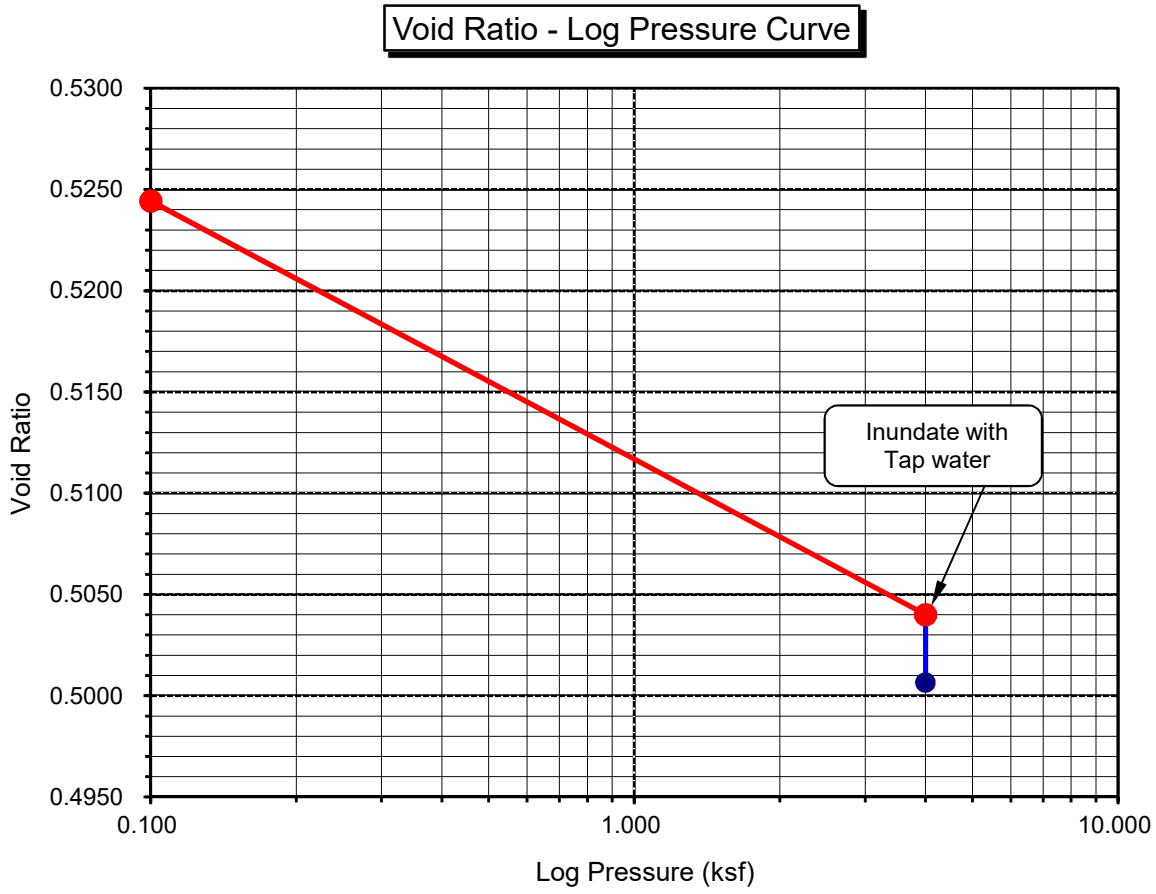
Project Name:	Legacy-Collier, Proposed Euclid & Walnut Mixed-Use, Ontario CA	Tested By:	G. Bathala	Date:	04/18/22
Project No.:	13493.001	Checked By:	A. Santos	Date:	04/26/22
Boring No.:	LB-1	Sample Type:	Ring		
Sample No.:	R-8	Depth (ft.)	35.0		
Sample Description:	Yellowish brown poorly-graded sand with silt (SP-SM)				

Initial Dry Density (pcf):	110.6
Initial Moisture (%):	3.30
Initial Length (in.):	1.0000
Initial Dial Reading:	0.3373
Diameter(in):	2.415

Final Dry Density (pcf):	112.3
Final Moisture (%) :	15.9
Initial Void Ratio:	0.5246
Specific Gravity(assumed):	2.70
Initial Saturation (%)	17.0

Pressure (p) (ksf)	Final Reading (in)	Apparent Thickness (in)	Load Compliance (%)	Swell (+) Settlement (-) % of Sample Thickness	Void Ratio	Corrected Deformation (%)
0.100	0.3372	0.9999	0.00	-0.01	0.5244	-0.01
4.000	0.3220	0.9847	0.18	-1.53	0.5040	-1.35
H2O	0.3198	0.9825	0.18	-1.75	0.5007	-1.57

Percent Swell (+) / Settlement (-) After Inundation = -0.22



APPENDIX D

GENERAL EARTHWORKS AND GRADING RECOMMENDATIONS

APPENDIX D
LEIGHTON AND ASSOCIATES, INC.
GENERAL EARTHWORK AND GRADING SPECIFICATIONS FOR ROUGH GRADING

TABLE OF CONTENTS

Section			Appendix D Page
1.0	GENERAL		1
	1.1	Intent	1
	1.2	The Geotechnical Consultant of Record	1
	1.3	The Earthwork Contractor	2
2.0	PREPARATION OF AREAS TO BE FILLED		2
	2.1	Clearing and Grubbing	2
	2.2	Processing	3
	2.3	Overexcavation	3
	2.4	Benching	3
	2.5	Evaluation/Acceptance of Fill Areas	4
3.0	FILL MATERIAL		4
	3.1	General	4
	3.2	Oversize	4
	3.3	Import	4
4.0	FILL PLACEMENT AND COMPACTION		5
	4.1	Fill Layers	5
	4.2	Fill Moisture Conditioning	5
	4.3	Compaction of Fill	5
	4.4	Compaction of Fill Slopes	5
	4.5	Compaction Testing	5
	4.6	Frequency of Compaction Testing	6
	4.7	Compaction Test Locations	6
5.0	SUBDRAIN INSTALLATION		6
6.0	EXCAVATION		6
7.0	TRENCH BACKFILLS		7
	7.1	Safety	7
	7.2	Bedding and Backfill	7
	7.3	Lift Thickness	7
	7.4	Observation and Testing	7

TABLE OF CONTENTS (CONT'D)

ATTACHMENTS

Standard Details

A - Keying and Benching	Rear of Text
B - Oversize Rock Disposal	Rear of Text
C - Canyon Subdrains	Rear of Text
D - Buttress or Replacement Fill Subdrains	Rear of Text
E - Transition Lot Fills and Side Hill Fills	Rear of Text

1.0 GENERAL

1.1 Intent

These General Earthwork and Grading Specifications are for the grading and earthwork shown on the approved grading plan(s) and/or indicated in the geotechnical report(s). These Specifications are a part of the recommendations contained in the geotechnical report(s). In case of conflict, the specific recommendations in the geotechnical report shall supersede these more general Specifications. Observations of the earthwork by the project Geotechnical Consultant during the course of grading may result in new or revised recommendations that could supersede these specifications or the recommendations in the geotechnical report(s).

1.2 The Geotechnical Consultant of Record

Prior to commencement of work, the owner shall employ the Geotechnical Consultant of Record (Geotechnical Consultant). The Geotechnical Consultants shall be responsible for reviewing the approved geotechnical report(s) and accepting the adequacy of the preliminary geotechnical findings, conclusions, and recommendations prior to the commencement of the grading.

Prior to commencement of grading, the Geotechnical Consultant shall review the "work plan" prepared by the Earthwork Contractor (Contractor) and schedule sufficient personnel to perform the appropriate level of observation, mapping, and compaction testing.

During the grading and earthwork operations, the Geotechnical Consultant shall observe, map, and document the subsurface exposures to verify the geotechnical design assumptions. If the observed conditions are found to be significantly different than the interpreted assumptions during the design phase, the Geotechnical Consultant shall inform the owner, recommend appropriate changes in design to accommodate the observed conditions, and notify the review agency where required. Subsurface areas to be geotechnically observed, mapped, elevations recorded, and/or tested include natural ground after it has been cleared for receiving fill but before fill is placed, bottoms of all "remedial removal" areas, all key bottoms, and benches made on sloping ground to receive fill.

The Geotechnical Consultant shall observe the moisture-conditioning and processing of the subgrade and fill materials and perform relative compaction testing of fill to determine the attained level of compaction.

The Geotechnical Consultant shall provide the test results to the owner and the Contractor on a routine and frequent basis.

1.3 The Earthwork Contractor

The Earthwork Contractor (Contractor) shall be qualified, experienced, and knowledgeable in earthwork logistics, preparation and processing of ground to receive fill, moisture-conditioning and processing of fill, and compacting fill. The Contractor shall review and accept the plans, geotechnical report(s), and these Specifications prior to commencement of grading. The Contractor shall be solely responsible for performing the grading in accordance with the plans and specifications.

The Contractor shall prepare and submit to the owner and the Geotechnical Consultant a work plan that indicates the sequence of earthwork grading, the number of "spreads" of work and the estimated quantities of daily earthwork contemplated for the site prior to commencement of grading. The Contractor shall inform the owner and the Geotechnical Consultant of changes in work schedules and updates to the work plan at least 24 hours in advance of such changes so that appropriate observations and tests can be planned and accomplished. The Contractor shall not assume that the Geotechnical Consultant is aware of all grading operations.

The Contractor shall have the sole responsibility to provide adequate equipment and methods to accomplish the earthwork in accordance with the applicable grading codes and agency ordinances, these Specifications, and the recommendations in the approved geotechnical report(s) and grading plan(s). If, in the opinion of the Geotechnical Consultant, unsatisfactory conditions, such as unsuitable soil, improper moisture condition, inadequate compaction, insufficient buttress key size, adverse weather, etc., are resulting in a quality of work less than required in these specifications, the Geotechnical Consultant shall reject the work and may recommend to the owner that construction be stopped until the conditions are rectified.

2.0 PREPARATION OF AREAS TO BE FILLED

2.1 Clearing and Grubbing

Vegetation, such as brush, grass, roots, and other deleterious material shall be sufficiently removed and properly disposed of in a method acceptable to the owner, governing agencies, and the Geotechnical Consultant.

The Geotechnical Consultant shall evaluate the extent of these removals depending on specific site conditions. Earth fill material shall not contain more than 1 percent of organic materials (by volume). No fill lift shall contain more than 5 percent of organic matter. Nesting of the organic materials shall not be allowed.

If potentially hazardous materials are encountered, the Contractor shall stop work in the affected area, and a hazardous material specialist shall be informed immediately for proper evaluation and handling of these materials prior to continuing to work in that area.

As presently defined by the State of California, most refined petroleum products (gasoline, diesel fuel, motor oil, grease, coolant, etc.) have chemical constituents that are considered to be hazardous waste. As such, the indiscriminate dumping or spillage of these fluids onto the ground may constitute a misdemeanor, punishable by fines and/or imprisonment, and shall not be allowed.

2.2 Processing

Existing ground that has been declared satisfactory for support of fill by the Geotechnical Consultant shall be scarified to a minimum depth of 6 inches. Existing ground that is not satisfactory shall be overexcavated as specified in the following section. Scarification shall continue until soils are broken down and free of large clay lumps or clods and the working surface is reasonably uniform, flat, and free of uneven features that would inhibit uniform compaction.

2.3 Overexcavation

In addition to removals and overexcavations recommended in the approved geotechnical report(s) and the grading plan, soft, loose, dry, saturated, spongy, organic-rich, highly fractured or otherwise unsuitable ground shall be overexcavated to competent ground as evaluated by the Geotechnical Consultant during grading.

2.4 Benching

Where fills are to be placed on ground with slopes steeper than 5:1 (horizontal to vertical units), the ground shall be stepped or benched. Please see the Standard Details for a graphic illustration. The lowest bench or key shall be a minimum of 15 feet wide and at least 2 feet deep, into competent material as evaluated by the Geotechnical Consultant. Other benches shall be excavated a minimum height of 4 feet into competent material or as otherwise recommended by the Geotechnical

Consultant. Fill placed on ground sloping flatter than 5:1 shall also be benched or otherwise overexcavated to provide a flat subgrade for the fill.

2.5 Evaluation/Acceptance of Fill Areas

All areas to receive fill, including removal and processed areas, key bottoms, and benches, shall be observed, mapped, elevations recorded, and/or tested prior to being accepted by the Geotechnical Consultant as suitable to receive fill. The Contractor shall obtain a written acceptance from the Geotechnical Consultant prior to fill placement. A licensed surveyor shall provide the survey control for determining elevations of processed areas, keys, and benches.

3.0 FILL MATERIAL

3.1 General

Material to be used as fill shall be essentially free of organic matter and other deleterious substances evaluated and accepted by the Geotechnical Consultant prior to placement. Soils of poor quality, such as those with unacceptable gradation, high expansion potential, or low strength shall be placed in areas acceptable to the Geotechnical Consultant or mixed with other soils to achieve satisfactory fill material.

3.2 Oversize

Oversize material defined as rock, or other irreducible material with a maximum dimension greater than 8 inches, shall not be buried or placed in fill unless location, materials, and placement methods are specifically accepted by the Geotechnical Consultant. Placement operations shall be such that nesting of oversized material does not occur and such that oversize material is completely surrounded by compacted or densified fill. Oversize material shall not be placed within 10 vertical feet of finish grade or within 2 feet of future utilities or underground construction.

3.3 Import

If importing of fill material is required for grading, proposed import material shall meet the requirements of Section 3.1. The potential import source shall be given to the Geotechnical Consultant at least 48 hours (2 working days) before importing begins so that its suitability can be determined and appropriate tests performed.

4.0 FILL PLACEMENT AND COMPACTION

4.1 Fill Layers

Approved fill material shall be placed in areas prepared to receive fill (per Section 3.0) in near-horizontal layers not exceeding 8 inches in loose thickness. The Geotechnical Consultant may accept thicker layers if testing indicates the grading procedures can adequately compact the thicker layers. Each layer shall be spread evenly and mixed thoroughly to attain relative uniformity of material and moisture throughout.

4.2 Fill Moisture Conditioning

Fill soils shall be watered, dried back, blended, and/or mixed, as necessary to attain a relatively uniform moisture content at or slightly over optimum. Maximum density and optimum soil moisture content tests shall be performed in accordance with the American Society of Testing and Materials (ASTM Test Method D1557).

4.3 Compaction of Fill

After each layer has been moisture-conditioned, mixed, and evenly spread, it shall be uniformly compacted to not less than 90 percent of maximum dry density (ASTM Test Method D1557). Compaction equipment shall be adequately sized and be either specifically designed for soil compaction or of proven reliability to efficiently achieve the specified level of compaction with uniformity.

4.4 Compaction of Fill Slopes

In addition to normal compaction procedures specified above, compaction of slopes shall be accomplished by backrolling of slopes with sheepsfoot rollers at increments of 3 to 4 feet in fill elevation, or by other methods producing satisfactory results acceptable to the Geotechnical Consultant. Upon completion of grading, relative compaction of the fill, out to the slope face, shall be at least 90 percent of maximum density per ASTM Test Method D1557.

4.5 Compaction Testing

Field-tests for moisture content and relative compaction of the fill soils shall be performed by the Geotechnical Consultant. Location and frequency of tests shall be at the Consultant's discretion based on field conditions encountered. Compaction test locations will not necessarily be selected on a random basis. Test locations shall be selected to verify

adequacy of compaction levels in areas that are judged to be prone to inadequate compaction (such as close to slope faces and at the fill/bedrock benches).

4.6 Frequency of Compaction Testing

Tests shall be taken at intervals not exceeding 2 feet in vertical rise and/or 1,000 cubic yards of compacted fill soils embankment. In addition, as a guideline, at least one test shall be taken on slope faces for each 5,000 square feet of slope face and/or each 10 feet of vertical height of slope. The Contractor shall assure that fill construction is such that the testing schedule can be accomplished by the Geotechnical Consultant. The Contractor shall stop or slow down the earthwork construction if these minimum standards are not met.

4.7 Compaction Test Locations

The Geotechnical Consultant shall document the approximate elevation and horizontal coordinates of each test location. The Contractor shall coordinate with the project surveyor to assure that sufficient grade stakes are established so that the Geotechnical Consultant can determine the test locations with sufficient accuracy. At a minimum, two grade stakes within a horizontal distance of 100 feet and vertically less than 5 feet apart from potential test locations shall be provided.

5.0 SUBDRAIN INSTALLATION

Subdrain systems shall be installed in accordance with the approved geotechnical report(s), the grading plan, and the Standard Details. The Geotechnical Consultant may recommend additional subdrains and/or changes in subdrain extent, location, grade, or material depending on conditions encountered during grading. All subdrains shall be surveyed by a land surveyor/civil engineer for line and grade after installation and prior to burial. Sufficient time should be allowed by the Contractor for these surveys.

6.0 EXCAVATION

Excavations, as well as over-excavation for remedial purposes, shall be evaluated by the Geotechnical Consultant during grading. Remedial removal depths shown on geotechnical plans are estimates only. The actual extent of removal shall be determined by the Geotechnical Consultant based on the field evaluation of exposed conditions during grading. Where fill-over-cut slopes are to be graded, the cut portion of the slope shall be made, evaluated, and accepted by the Geotechnical Consultant prior to placement of materials for construction of

the fill portion of the slope, unless otherwise recommended by the Geotechnical Consultant.

7.0 TRENCH BACKFILLS

7.1 Safety

The Contractor shall follow all OSHA and Cal/OSHA requirements for safety of trench excavations.

7.2 Bedding and Backfill

All bedding and backfill of utility trenches shall be performed in accordance with the applicable provisions of Standard Specifications of Public Works Construction. Bedding material shall have a Sand Equivalent greater than 30 (SE>30). The bedding shall be placed to 1 foot over the top of the conduit and densified by jetting. Backfill shall be placed and densified to a minimum of 90 percent of relative compaction from 1 foot above the top of the conduit to the surface.

The Geotechnical Consultant shall test the trench backfill for relative compaction. At least one test should be made for every 300 feet of trench and 2 feet of fill.

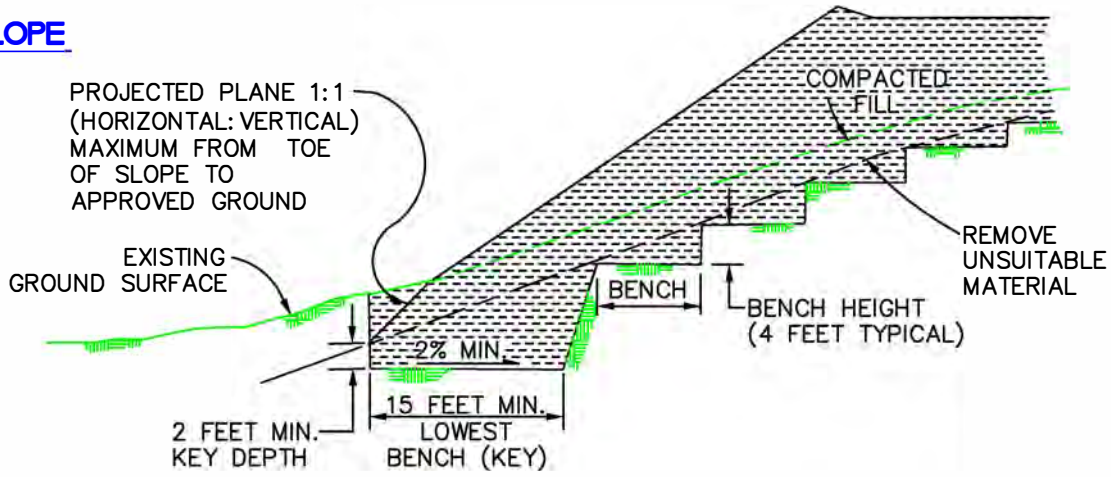
7.3 Lift Thickness

Lift thickness of trench backfill shall not exceed those allowed in the Standard Specifications of Public Works Construction unless the Contractor can demonstrate to the Geotechnical Consultant that the fill lift can be compacted to the minimum relative compaction by his alternative equipment and method.

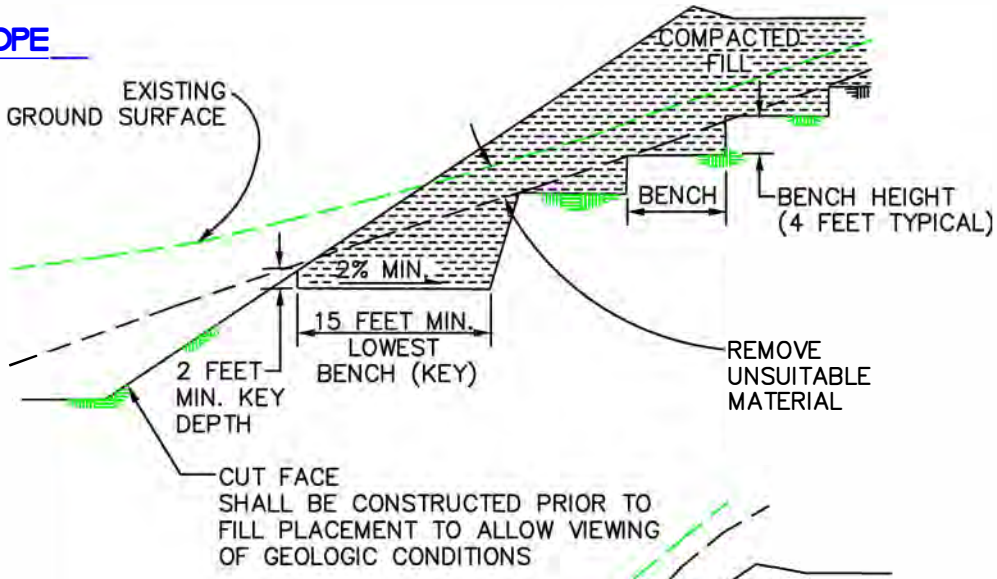
7.4 Observation and Testing

The jetting of the bedding around the conduits shall be observed by the Geotechnical Consultant.

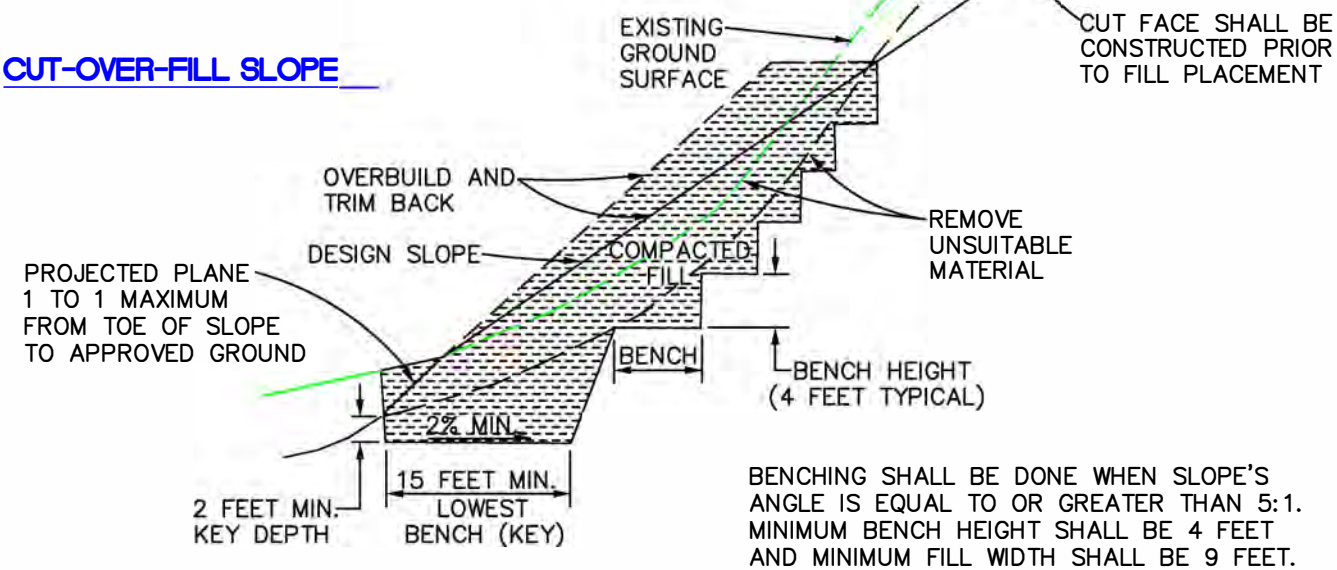
FILL SLOPE



FILL-OVER-CUT SLOPE

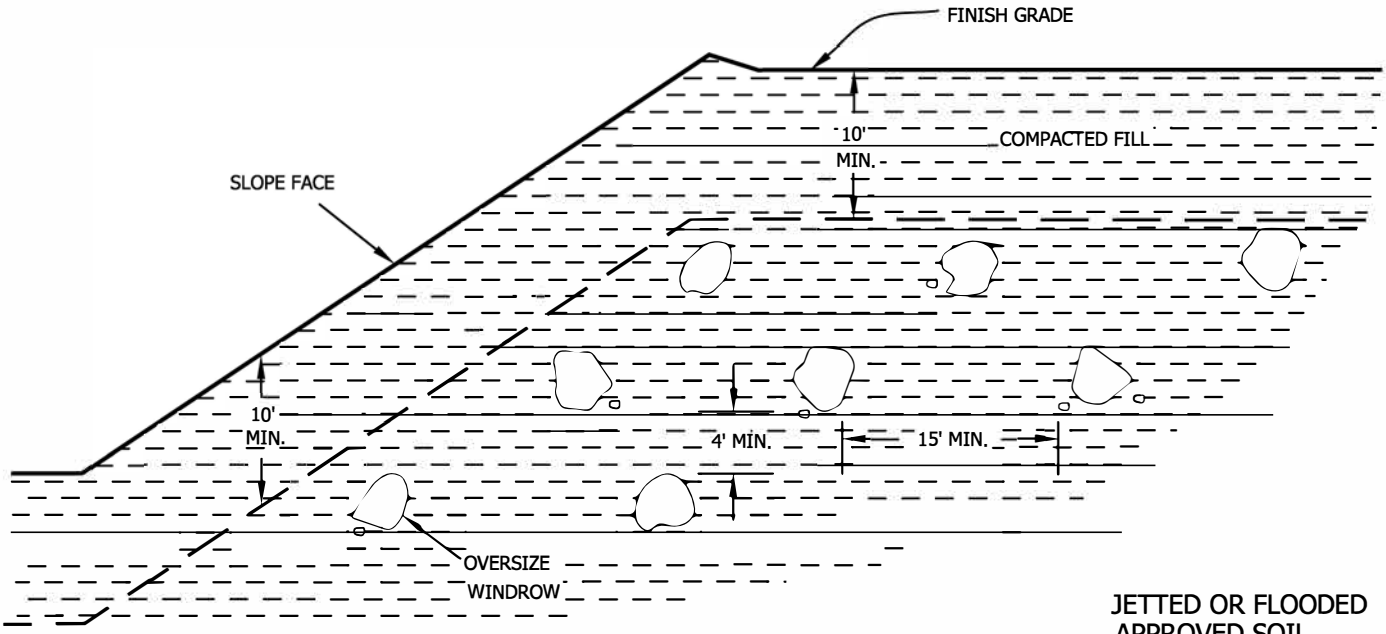


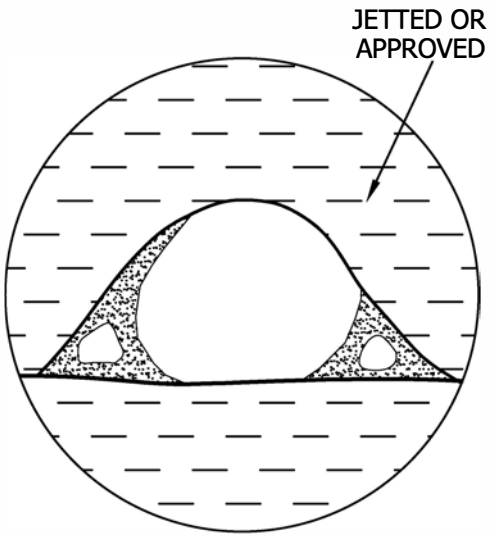
CUT-OVER-FILL SLOPE



BENCHING SHALL BE DONE WHEN SLOPE'S ANGLE IS EQUAL TO OR GREATER THAN 5:1. MINIMUM BENCH HEIGHT SHALL BE 4 FEET AND MINIMUM FILL WIDTH SHALL BE 9 FEET.

KEYING AND BENCHING	GENERAL EARTHWORK AND GRADING SPECIFICATIONS STANDARD DETAILS A	Leighton

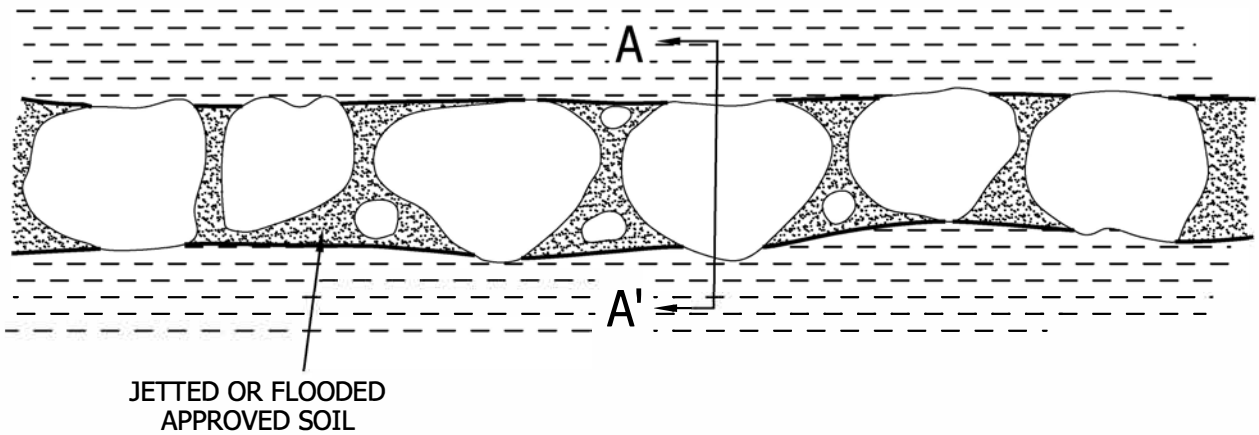




SECTION A-A'

- Oversize rock is larger than 8 inches in largest dimension.
- Backfill with approved soil jetted or flooded in place to fill all the voids.
- Do not bury rock within 10 feet of finish grade.
- Windrow of buried rock shall be parallel to the finished slope face.

PROFILE ALONG WINDROW

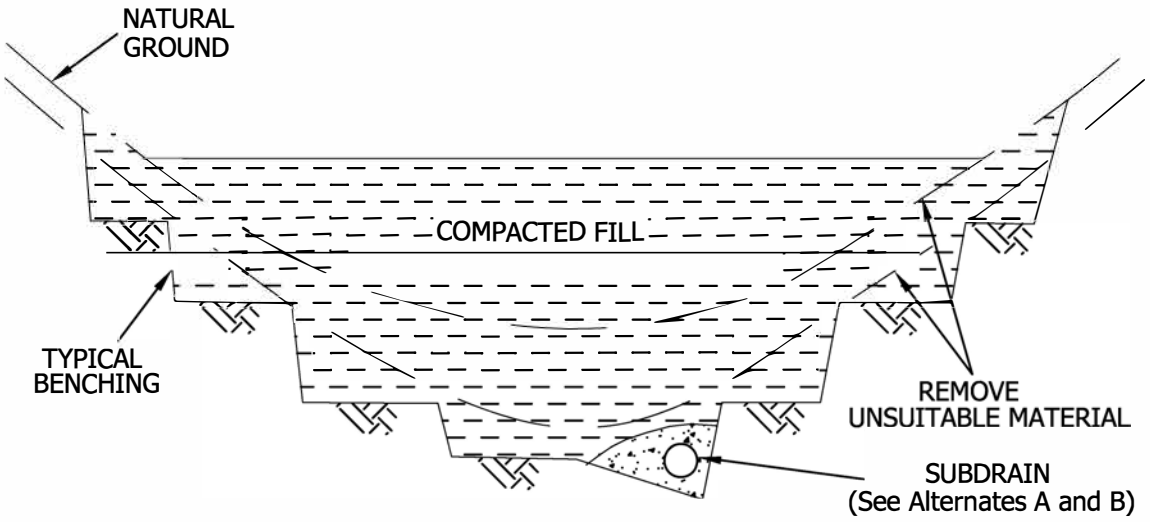


OVERSIZE ROCK DISPOSAL

GENERAL EARTHWORK AND GRADING SPECIFICATIONS
STANDARD DETAILS B

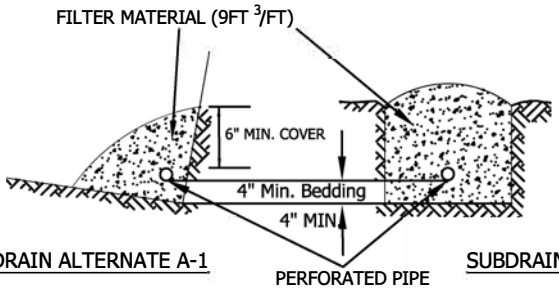
Leighton

P:\Drafting\templates\details\over-rock-disp.dwg (7/00)



SUBDRAIN ALTERNATE A

PERFORATED PIPE SURROUNDED WITH FILTER MATERIAL



SUBDRAIN ALTERNATE A-1 SUBDRAIN ALTERNATE A-2

FILTER MATERIAL

FILTER MATERIAL SHALL BE CLASS 2 PERMEABLE MATERIAL PER STATE OF CALIFORNIA STANDARD SPECIFICATION, OR APPROVED ALTERNATE. CLASS 2 GRADING AS FOLLOWS:

Sieve Size	Percent Passing
1"	100
3/4"	90-100
3/8"	40-100
No. 4	25-40
No. 8	18-33
No. 30	5-15
No. 50	0-7
No. 200	0-3

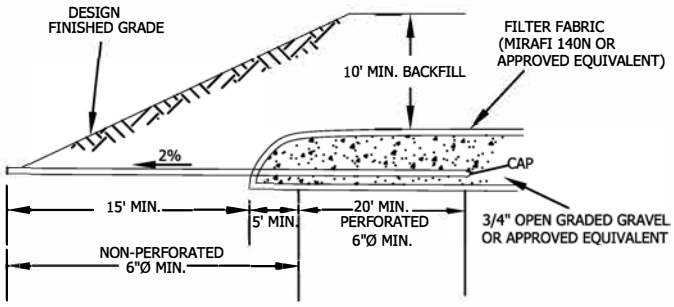
SUBDRAIN ALTERNATE B



ALTERNATE B-1 ALTERNATE B-2

○ PERFORATED PIPE IS OPTIONAL PER GOVERNING AGENCY'S REQUIREMENTS

DETAIL OF CANYON SUBDRAIN TERMINAL

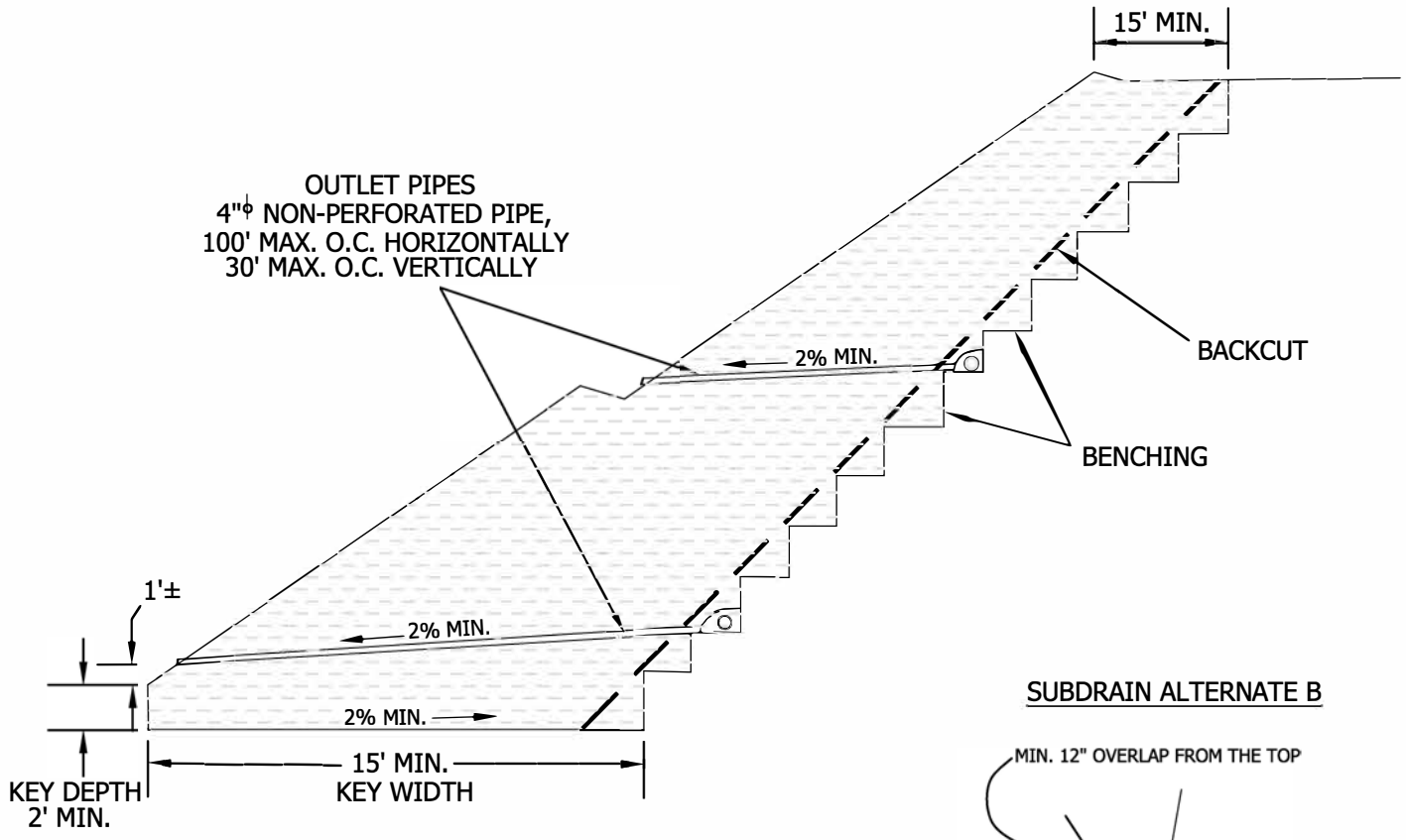


CANYON SUBDRAIN

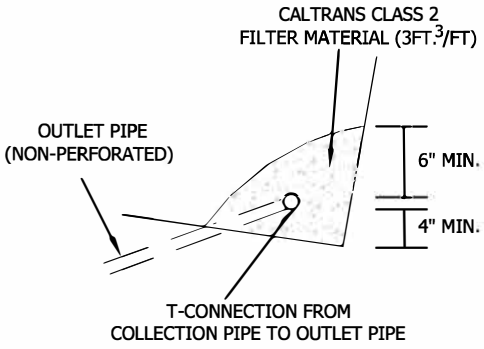
GENERAL EARTHWORK AND GRADING SPECIFICATIONS STANDARD DETAILS C

Leighton

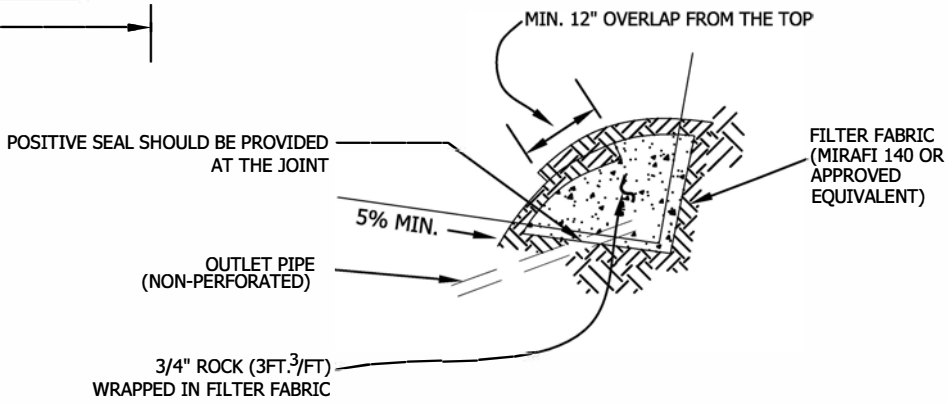
Drafting\templates\details\canyon_drains.dwg (7/00)



SUBDRAIN ALTERNATE A



SUBDRAIN ALTERNATE B

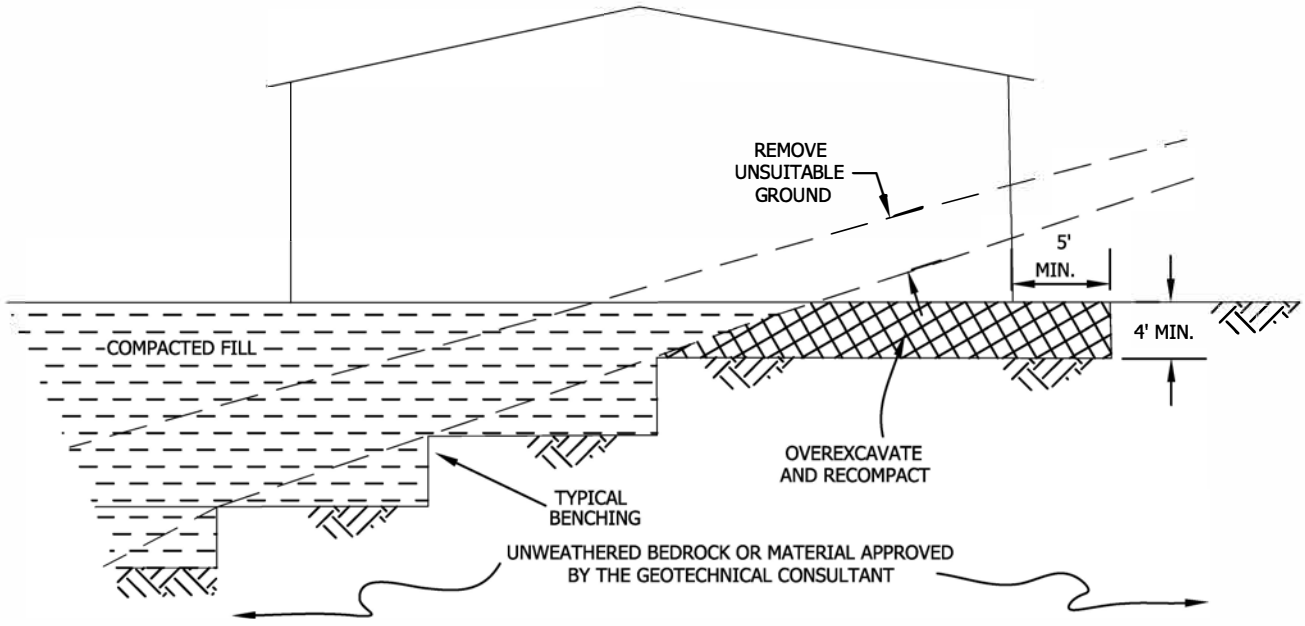


- SUBDRAIN INSTALLATION - Subdrain collector pipe shall be installed with perforations down or, unless otherwise designated by the geotechnical consultant. Outlet pipes shall be non-perforated pipe. The subdrain pipe shall have at least 8 perforations uniformly spaced per foot. Perforation shall be 1/4" to 1/2" if drilled holes are used. All subdrain pipes shall have a gradient at least 2% towards the outlet.
- SUBDRAIN PIPE - Subdrain pipe shall be ASTM D2751, ASTM D1527 (Schedule 40) or SDR 23.5 ABS pipe or ASTM D3034 (Schedule 40) or SDR 23.5 PVC pipe.
- All outlet pipe shall be placed in a trench and, after fill is placed above it, rodded to verify integrity.

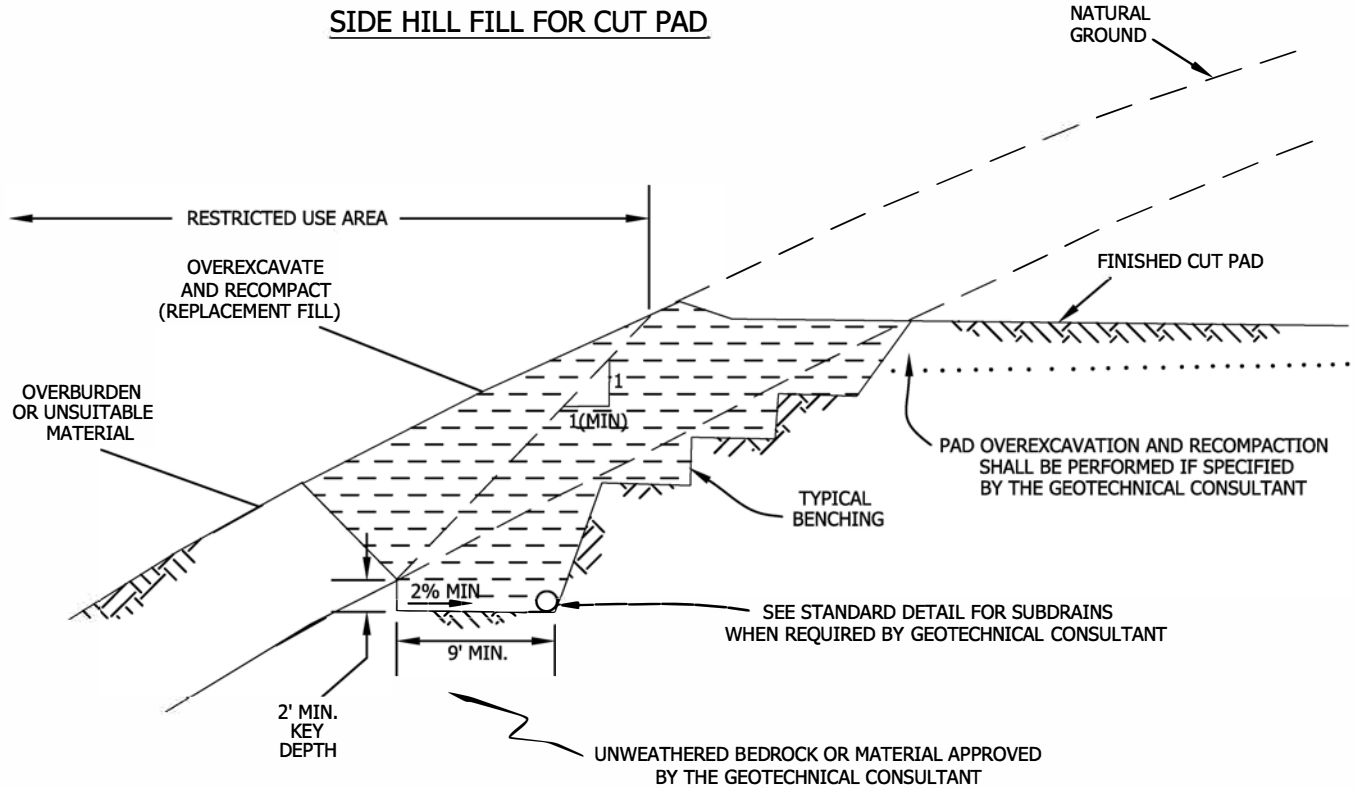
BUTTRESS OR REPLACEMENT FILL SUBDRAINS	GENERAL EARTHWORK AND GRADING SPECIFICATIONS STANDARD DETAILS D	Leighton

P:Drafting\templates\details\buttress_repl_sub.dwg (7/00)

CUT-FILL TRANSITION LOT OVEREXCAVATION



SIDE HILL FILL FOR CUT PAD



TRANSITION LOT FILLS AND SIDE HILL FILLS

GENERAL EARTHWORK AND GRADING SPECIFICATIONS
STANDARD DETAILS E

Leighton

P:\Drawing\templates\details\transition_fills.dwg (7/00)

November 29, 2022

Project No. 13493.002

Legacy/Collier Residential, LLC
5154 California Avenue
Irvine, California 92617

Attention: Mr. David Pinto

Subject: **Addendum to Geotechnical Exploration Report**
Infiltration Testing
Proposed "Euclid and Walnut Mixed Use" Development
112 Walnut Street, 2502 and 2530 Euclid Avenue
Ontario, San Bernardino County, California

Reference: Leighton and Associates, Inc., 2022, *Geotechnical Exploration Report, Proposed "Euclid and Walnut Mixed Use" Development, 112 Walnut Street, 2502 and 2530 Euclid Avenue, Ontario, California*, Project No. 13493.001, dated May 13, 2022.

Introduction

Per your request, Leighton and Associates, Inc. (Leighton) performed supplemental infiltration testing for the subject mixed use development. Additional field infiltration testing was performed in coordination with Mr. Steve Ellis of Fuscoe Engineering, Inc. (project civil engineer) to target the locations and depths planned for infiltration. While official infiltration plans were not available, we understand that stormwater infiltration is intended to be achieved utilizing a drywell system to be located in the southern portion of the site extending to approximate depths of no greater than 45 feet below ground surface (bgs).

Purpose and Scope

Purpose of our exploration was to perform field infiltration tests at the proposed device locations and invert depths. The test locations and depths were selected by the project civil engineer. Our Scope of Work included the following:

- ***Pre-Field Exploration Activities*** – Site reconnaissance performed by a professional geologist to mark the proposed infiltration test locations. Underground Service Alert

(USA) was notified to locate and mark existing underground utilities prior to our subsurface exploration.

- ***Field Exploration*** – Our supplemental subsurface exploration was performed on August 24, 2022 and included drilling, logging, and sampling of two (2) hollow-stem auger borings (designated LP-3 and LP-4) to depths ranging from approximately 40 to 45 feet below the existing ground surface. The approximate locations of these explorations are shown on Figure 1, *Geotechnical Map*. The corresponding boring logs are presented in Appendix A, *Exploration Logs.*

  During drilling of the hollow-stem auger borings drive samples were obtained from the borings for geotechnical laboratory testing. Sample collection was performed by conducting the Standard Penetration Test (SPT) within the borings in accordance with ASTM Test Method D 1586. Samples were collected within the proposed test infiltration zone at 5-foot intervals. During sampling, the sampler was driven below the bottom of the borehole by a 140-pound weight (hammer) free-falling 30 inches. The drilling rig was equipped with an automatic hammer to provide greater consistency in the drop height and striking frequency. The number of blows to drive the sampler the final 12 inches of the 18-inch drive interval is termed the “blowcount” or SPT N-value. N-values provide a measure of relative density in granular (non-cohesive) soils and comparative consistency in cohesive soils. Number of blows per 6 inches of penetration was recorded on the boring logs included in Appendix A.

  The borings were logged in the field by a geologist from our firm. Each soil sample collected was reviewed and described in accordance with the Unified Soil Classification System (USCS). The samples were sealed and packaged for transportation to our laboratory for testing. After completion of drilling, the borings were converted to percolation wells for subsequent testing.

- ***Percolation Testing*** – Borings LP-3 and LP-4 (Figure 1) were converted to temporary percolation test wells upon completion of drilling and sampling. The test wells consisted of 2-inch diameter slotted (0.020-inch) PVC well casing screened within the proposed test zone. In-situ percolation testing was performed in general accordance with the County of San Bernardino guidelines Upon completion of the percolation testing, the well casing was removed from each boring and the borings were backfilled with soil cuttings and patched at the surface to match existing site conditions.

- ***Laboratory Testing*** – Selected soil samples obtained from our hollow-stem-auger borings were tested at our in-house geotechnical laboratory. This laboratory testing

program was designed to evaluate the fines content of the soils within the tested zone (i.e. soil particles finer than the No. 200 sieve). . Results are included in Appendix C.

- ***Report Preparation*** – This report presents our findings, conclusions, and recommendations for the proposed infiltration devices.

Infiltration Testing

Percolation testing was performed in temporary wells installed within borings LP-3 and LP-4 located in the southern region of the site with test zone at depths of 25 to 45 feet bgs and 25 to 40 feet bgs, respectively. The percolation tests were conducted in general accordance with the *San Bernardino County Technical Guidance Document (TGD) for Water Quality Management Plans* (2013). Results of the percolation testing are presented in Appendix B. The test locations and tested depth intervals are shown on Plate 1.

A boring percolation test is useful for field measurements of the infiltration rate of soils, and is suited for testing when the design depth of the infiltration device is deeper than current existing grades, especially in areas where it is difficult to dig test pits, or where the depths of these test pits would be considerably deep. At the subject site, testing consisted of advancing the borings to the anticipated depth for the invert of the proposed infiltration devices.

The *Percolation Test Procedure* (falling-head test method) as outlined in the County Guidelines was implemented at each percolation test well location. The infiltration rate was calculated by dividing the rate of discharge by the infiltration surface area, or flow area. The volume of discharge was calculated by adding the total volume of water that dropped within the PVC pipe and within the annulus, and incorporating a porosity reduction factor to account for the porosity of the annulus material. The flow area was based on the average water height within the test well.

Detailed results of the field testing data and measured infiltration rate for the test well are presented in Appendix B. The test results are summarized in the table below:

Table 1 – Measured (Unfactored) Infiltration Rate

Test Well Designation	Approximate Depth of Test Zone (feet bgs)	Measured Infiltration Rate (inches per hour)
LB-3	25 to 45	0.14
LP-4	25 to 40	0.47

Based on the results of our field percolation testing that was performed at the site, the measured (unfactored) infiltration rates for the two (2) tests performed were 0.14 inches per hour (LP-3) and 0.47 inches per hour (LP-2), respectively. According to the *San Bernardino County Technical Guidance Document (TGD) for Water Quality Management Plans* (2013), the measured infiltration rate at the LP-4 well location technically exceeds the minimum feasibility criteria of 0.3 inch per hour. However, implementation of a minimum factor of safety of 2.0 as required for the design infiltration rate indicates the depth and location tested for both wells are considered infeasible for infiltration.

Closure

We appreciate the opportunity to work with you on this project. If you have any questions regarding this report, please contact us directly at the phone extensions and/or e-mail addresses listed below.





Respectfully submitted,

LEIGHTON AND ASSOCIATES, INC.

Eric M. Holliday, PG, 9219
Senior Project Geologist
Ext 4252, eholliday@leightongroup.com

John E. Haertle, PE, GE 2352
Principal Engineer
Ext: 4268, jhaertle@leightongroup.com

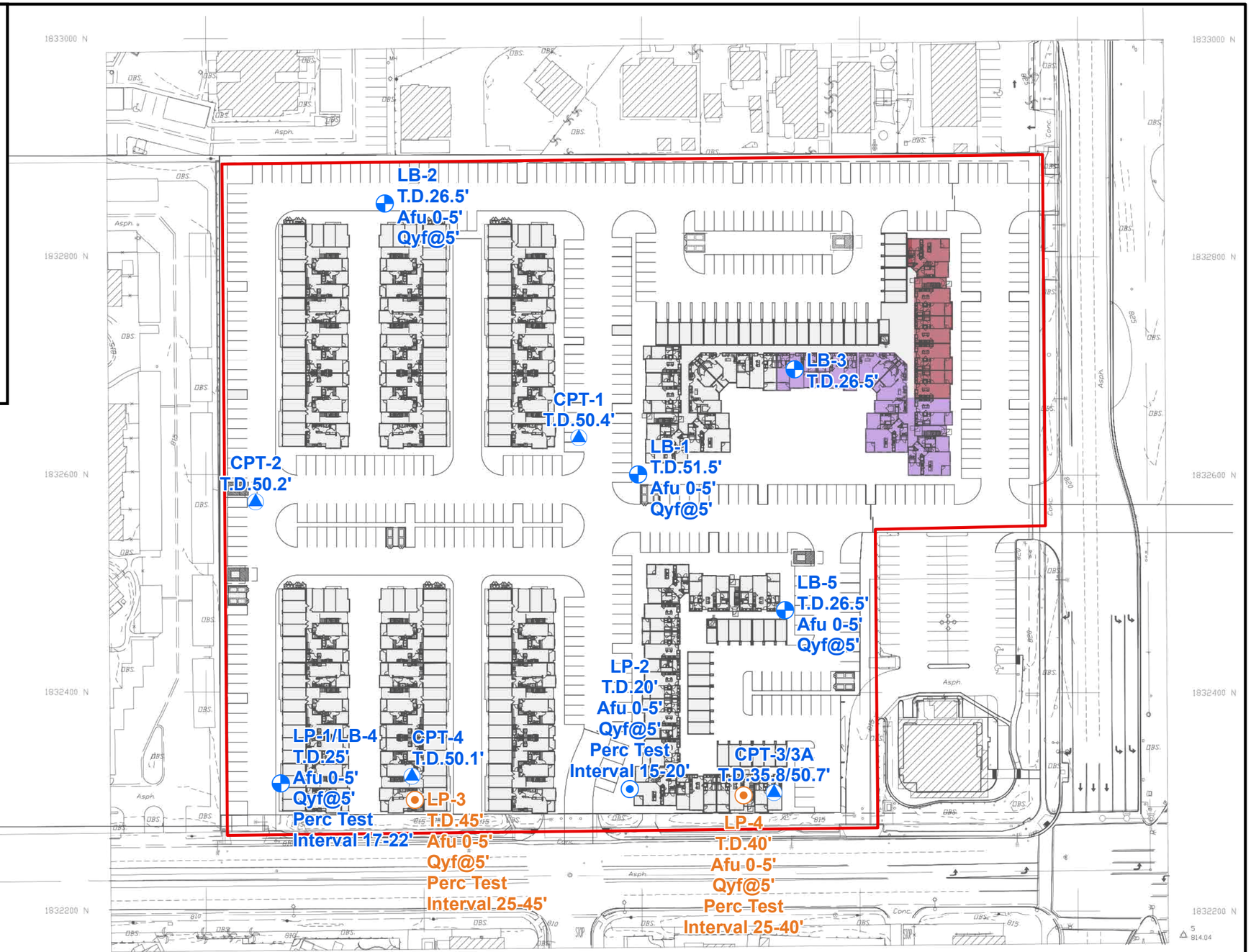
EMH/JEH/lr

Attachments: Figure 1 – *Geotechnical Map*
Appendix A - *Exploration Logs*
Appendix B - *Percolation Test Data*
Appendix C - *Geotechnical Laboratory Testing*

Distribution: (1) Addressee

LEGEND

Afu	Artificial Fill
Qyf	Quaternary Young Alluvial Fan Deposits
LP-4	Approximate location of current percolation test well showing percolation test interval in feet below ground surface.
LB-5	Approximate location of previous hollow-stem auger boring showing total depth (T.D.) and depth to earth units in feet below ground surface. (Leighton, 2022)
LP-2	Approximate location of previous percolation test well showing percolation test interval in feet below ground surface. (Leighton, 2022)
CPT-4	Approximate location of previous cone penetrometer test sounding showing total depth (T.D.) in feet below ground surface (Leighton, 2022)
	Approximate Site Boundary



N

0 100 200

Feet

Project: 13493.002	Eng/Geol: JEH/EMH
Scale: 1 " = 100 '	Date: November 2022

Base Map: Option A Site Plan, Euclid and Walnut Mixed Use
Sheet 01, Dated: 03/10/2022
by AO Architecture Design Relationships

GEOTECHNICAL MAP

Proposed Euclid and Walnut Mixed-Use Development
2502 and 2530 S. Euclid Avenue
Ontario, California

FIGURE 1

Leighton

Map Saved as J:\Drafting\13493\002\Maps\13493-002_F01_GM_2022-11-18.mxd on 11/18/2022 10:57:40 AM Author: KVM (btran)

APPENDIX A
Exploration Logs

GEOTECHNICAL BORING LOG LP-3

Project No.	13493.002	**Date Drilled**	8-24-22
Project	Proposed Euclid and Walnut Mixed-Use Development	**Logged By**	BTM
Drilling Co.	Martini Drilling, Corp.	**Hole Diameter**	8"
Drilling Method	Hollow Stem Auger - 140lb - Autohammer - 30" Drop	**Ground Elevation**	'
Location	See Figure 1 - *Geotechnical Map*	**Sampled By**	BTM

Elevation Feet	Depth Feet	Graphic Log	Attitudes	Sample No.	Bulk / Driven	Blows Per 6 Inches	Dry Density pcf	Moisture Content, %	Soil Class. (U.S.C.S.)	SOIL DESCRIPTION	Type of Tests
	0	N S								*This Soil Description applies only to a location of the exploration at the time of sampling. Subsurface conditions may differ at other locations and may change with time. The description is a simplification of the actual conditions encountered. Transitions between soil types may be gradual.*	
										@Surface: 3 -inches Asphalt Concrete over 6 -inches Base	
									SM	**Artificial Fill, undocumented (Afu)** @0.75': Silty SAND, brown, slightly moist, very fine sand, trace medium to coarse sand and fine subrounded gravel	
	5									**Quaternary-Aged Young Alluvial Valley Deposits (Qyf)**	
	10										
	15										
	20			S-1		3 7 11			SM-ML	@20': Clayey Sandy SILT to Clayey Silty SAND, medium dense/very stiff, olive brown, slightly moist, very fine sand, low plasticity, slightly micaceous, friable, pockets of higher clay content	
	25			S-2		4 8 9			SM	@25': Silty SAND, medium dense, mottled reddish brown and grayish brown, slightly moist, very fine sand, nonplastic, slightly micaceous, friable, grading slightly finer toward bottom	-200
	30										

SAMPLE TYPES:

B	BULK SAMPLE
C	CORE SAMPLE
G	GRAB SAMPLE
R	RING SAMPLE
S	SPLIT SPOON SAMPLE
T	TUBE SAMPLE

TYPE OF TESTS:

-200	% FINES PASSING	DS	DIRECT SHEAR	SA	SIEVE ANALYSIS
AL	ATTERBERG LIMITS	EI	EXPANSION INDEX	SE	SAND EQUIVALENT
CN	CONSOLIDATION	H	HYDROMETER	SG	SPECIFIC GRAVITY
CO	COLLAPSE	MD	MAXIMUM DENSITY	UC	UNCONFINED COMPRESSIVE STRENGTH
CR	CORROSION	PP	POCKET PENETROMETER		
CU	UNDRAINED TRIAXIAL	RV	R VALUE		

Leighton

*** This log is a part of a report by Leighton and should not be used as a stand-alone document. ***

GEOTECHNICAL BORING LOG LP-3

Project No.	13493.002	**Date Drilled**	8-24-22
Project	Proposed Euclid and Walnut Mixed-Use Development	**Logged By**	BTM
Drilling Co.	Martini Drilling, Corp.	**Hole Diameter**	8"
Drilling Method	Hollow Stem Auger - 140lb - Autohammer - 30" Drop	**Ground Elevation**	'
Location	See Figure 1 - *Geotechnical Map*	**Sampled By**	BTM

Elevation Feet	Depth Feet	Graphic Log (N / S)	Attitudes	Sample No. (Bulk / Driven)	Blows Per 6 Inches	Dry Density pcf	Moisture Content, %	Soil Class. (U.S.C.S.)	SOIL DESCRIPTION	Type of Tests
	30			S-3	9 11 11			ML	@30': Sandy SILT, very stiff, mottled orange brown and grayish brown, slightly moist, very fine sand, trace coarse sand, nonplastic, friable, slightly micaceous	
	35			S-4	7 11 14			SM	@35': Silty SAND, medium dense, olive brown, moist, very fine sand, micaceous, friable	-200
				S-5	10 11 11			ML	@38.5': Sandy SILT, medium dense, brown, moist, very fine sand, nonplastic, micaceous, friable, trace medium sand	
	40									
				S-6	7 14 37			SM-ML	@43.5': Interbedded Clayey Sandy SILT and Silty SAND; Clayey Sandy SILT, hard, brown, slightly moist, fine to medium sand, low plasticity, slightly micaceous	
	45								Silty SAND, very dense, yellowish brown, slightly moist, very fine to fine sand, micaceous, nonplastic, friable	
									Total Depth: 45' bgs No groundwater encountered during drilling Temporary percolation well installed; screened from 25-45' Upon completion of percolation testing, boring backfilled with soil cuttings and patched with asphalt concrete.	
	50									
	55									
	60									

This Soil Description applies only to a location of the exploration at the time of sampling. Subsurface conditions may differ at other locations and may change with time. The description is a simplification of the actual conditions encountered. Transitions between soil types may be gradual.

SAMPLE TYPES:

B	BULK SAMPLE
C	CORE SAMPLE
G	GRAB SAMPLE
R	RING SAMPLE
S	SPLIT SPOON SAMPLE
T	TUBE SAMPLE

TYPE OF TESTS:

-200	% FINES PASSING	DS	DIRECT SHEAR	SA	SIEVE ANALYSIS
AL	ATTERBERG LIMITS	EI	EXPANSION INDEX	SE	SAND EQUIVALENT
CN	CONSOLIDATION	H	HYDROMETER	SG	SPECIFIC GRAVITY
CO	COLLAPSE	MD	MAXIMUM DENSITY	UC	UNCONFINED COMPRESSIVE STRENGTH
CR	CORROSION	PP	POCKET PENETROMETER		
CU	UNDRAINED TRIAXIAL	RV	R VALUE		

Leighton

*** This log is a part of a report by Leighton and should not be used as a stand-alone document. ***

GEOTECHNICAL BORING LOG LP-4

Project No.	13493.002	**Date Drilled**	8-24-22
Project	Proposed Euclid and Walnut Mixed-Use Development	**Logged By**	BTM
Drilling Co.	Martini Drilling, Corp.	**Hole Diameter**	8"
Drilling Method	Hollow Stem Auger - 140lb - Autohammer - 30" Drop	**Ground Elevation**	'
Location	See Figure 1 - *Geotechnical Map*	**Sampled By**	BTM

Elevation Feet	Depth Feet	Graphic Log	Attitudes	Sample No.	Bulk / Driven	Blows Per 6 Inches	Dry Density pcf	Moisture Content, %	Soil Class. (U.S.C.S.)	SOIL DESCRIPTION	Type of Tests
		N S								*This Soil Description applies only to a location of the exploration at the time of sampling. Subsurface conditions may differ at other locations and may change with time. The description is a simplification of the actual conditions encountered. Transitions between soil types may be gradual.*	
	0									@Surface: 4 -inches Asphalt Concrete over 5 -inches Base	
									SM	**Artificial Fill, undocumented (Afu)** @0.75': Silty SAND, brown, slightly moist, very fine sand, trace medium to coarse sand and fine subrounded gravel	
	5									**Quaternary-Aged Young Alluvial Valley Deposits (Qyf)**	
	10										
	15										
	20			S-1		4 5 5			CL/SM	@20': Silty CLAY, stiff, gray-brown, slightly moist, medium plasticity, few very fine sand; grading to Silty SAND, loose, brown, slightly moist, very fine sand, some silt, nonplastic, trace fine subangular gravel	-200
	25			S-2		5 7 8			SM-SC	@25': Silty SAND, medium dense, grayish brown to yellowish brown, slightly moist, very fine to fine sand, slightly micaceous, some silt; grading to Sandy CLAY/Clayey SAND, medium dense/stiff, reddish brown, slightly moist, very fine to fine sand, low plasticity, slightly micaceous	
	30										

SAMPLE TYPES:

- B BULK SAMPLE
- C CORE SAMPLE
- G GRAB SAMPLE
- R RING SAMPLE
- S SPLIT SPOON SAMPLE
- T TUBE SAMPLE

TYPE OF TESTS:

- -200 % FINES PASSING
- AL ATTERBERG LIMITS
- CN CONSOLIDATION
- CO COLLAPSE
- CR CORROSION
- CU UNDRAINED TRIAXIAL
- DS DIRECT SHEAR
- EI EXPANSION INDEX
- H HYDROMETER
- MD MAXIMUM DENSITY
- PP POCKET PENETROMETER
- RV R VALUE
- SA SIEVE ANALYSIS
- SE SAND EQUIVALENT
- SG SPECIFIC GRAVITY
- UC UNCONFINED COMPRESSIVE STRENGTH

Leighton

*** This log is a part of a report by Leighton and should not be used as a stand-alone document. ***

GEOTECHNICAL BORING LOG LP-4

Project No.	13493.002	**Date Drilled**	8-24-22
Project	Proposed Euclid and Walnut Mixed-Use Development	**Logged By**	BTM
Drilling Co.	Martini Drilling, Corp.	**Hole Diameter**	8"
Drilling Method	Hollow Stem Auger - 140lb - Autohammer - 30" Drop	**Ground Elevation**	'
Location	See Figure 1 - *Geotechnical Map*	**Sampled By**	BTM

Elevation Feet	Depth Feet	Graphic Log (N / S)	Attitudes	Sample No. (Bulk / Driven)	Blows Per 6 Inches	Dry Density pcf	Moisture Content, %	Soil Class. (U.S.C.S.)	SOIL DESCRIPTION	Type of Tests
	30			S-3	8 9 12			SM	@30': Silty SAND, medium dense, orange brown, slightly moist, very fine sand, slightly micaceous, nonplastic, friable	
	35			S-4	8 38 50/5"			SP	@35': Grading to Silty Gravelly SAND, very dense, whitish tan, slightly moist, fine to coarse sand, some fine subangular to subrounded gravel (granitic)	-200
				S-5	15 21 25			SM	@38.5': Silty SAND, dense, brown, slightly moist, very fine to fine sand, some silt, nonplastic, slightly micaceous, friable	
	40								Total Depth: 40' bgs No groundwater encountered during drilling Temporary percolation well installed; screened from 25-40' Upon completion of percolation testing, boring backfilled with soil cuttings and patched with asphalt concrete.	
	45									
	50									
	55									
	60									

SAMPLE TYPES:

- B BULK SAMPLE
- C CORE SAMPLE
- G GRAB SAMPLE
- R RING SAMPLE
- S SPLIT SPOON SAMPLE
- T TUBE SAMPLE

TYPE OF TESTS:

- -200 % FINES PASSING
- AL ATTERBERG LIMITS
- CN CONSOLIDATION
- CO COLLAPSE
- CR CORROSION
- CU UNDRAINED TRIAXIAL
- DS DIRECT SHEAR
- EI EXPANSION INDEX
- H HYDROMETER
- MD MAXIMUM DENSITY
- PP POCKET PENETROMETER
- RV R VALUE
- SA SIEVE ANALYSIS
- SE SAND EQUIVALENT
- SG SPECIFIC GRAVITY
- UC UNCONFINED COMPRESSIVE STRENGTH

Leighton

*** This log is a part of a report by Leighton and should not be used as a stand-alone document. ***

APPENDIX B

Percolation Test Data

Boring Percolation Test Data Sheet

Project Number:	13493.002	**Test Hole Number:**	LP-3	
Project Name:	Legacy - Collier	**Date Excavated:**	8/24/2022	
Earth Description:	Alluvium	**Date Tested:**	8/24/2022	
Liquid Description:	Tap water	**Depth of boring (ft):**	45	
Tested By:	BTM	**Radius of boring (in):**	4	
Time Interval Standard		**Radius of casing (in):**	1	
Start Time for Pre-Soak:	11:25	**Length of slotted of casing (ft):**		20
Start Time for Standard:	12:21	**Depth to Initial Water Depth (ft):**		25.05
Standard Time Interval		**Porosity of Annulus Material, *n* :**		1
Between Readings, mins:	10	**Bentonite Plug at Bottom:** No		

Percolation Data

Reading	Time	Time Interval, Δt (min.)	Initial/Final Depth to Water (ft.)	Initial/Final Water Height, H_0/H_f (in.)	Total Water Drop, Δd (in.)	Percolation Rate (min./in.)	Infiltration Rate (in./hr.)
1	11:25	25	25.05	239.4	17.5	1.43	0.36
	11:50		26.51	221.9			
2	11:54	25	25.00	240.0	15.4	1.63	0.31
	12:19		26.28	224.6			
3	12:21	10	25.00	240.0	6.4	1.57	0.32
	12:31		25.53	233.6			
4	12:33	10	25.00	240.0	5.4	1.85	0.27
	12:43		25.45	234.6			
5	12:44	10	25.00	240.0	4.6	2.19	0.23
	12:54		25.38	235.4			
6	12:58	10	25.00	240.0	4.2	2.38	0.21
	13:08		25.35	235.8			
7	13:17	10	25.00	240.0	3.1	3.21	0.16
	13:27		25.26	236.9			
8	13:29	10	25.00	240.0	2.9	3.47	0.14
	13:39		25.24	237.1			

Infiltration Rate (I) = Discharge Volume/Surface Area of Test Section/Time Interval

Infiltration Rate, I (Last Reading) = **0.14** **in./hr.**

Boring Percolation Test Data Sheet

Project Number:	13493.002	**Test Hole Number:**	LP-4	
Project Name:	Legacy - Collier	**Date Excavated:**	8/24/2022	
Earth Description:	Alluvium	**Date Tested:**	8/24/2022	
Liquid Description:	Tap water	**Depth of boring (ft):**	40	
Tested By:	BTM	**Radius of boring (in):**	4	
Time Interval Standard		**Radius of casing (in):**	1	
Start Time for Pre-Soak:	10:21	**Length of slotted of casing (ft):**		15
Start Time for Standard:	11:20	**Depth to Initial Water Depth (ft):**		25.00
Standard Time Interval		**Porosity of Annulus Material, *n* :**		1
Between Readings, mins:	10	**Bentonite Plug at Bottom:** No		

Percolation Data

Reading	Time	Time Interval, Δt (min.)	Initial/Final Depth to Water (ft.)	Initial/Final Water Height, H_0/H_f (in.)	Total Water Drop, Δd (in.)	Percolation Rate (min./in.)	Infiltration Rate (in./hr.)
1	10:21	25	25.00	180.0	38.6	0.65	1.14
	10:46		28.22	141.4			
2	10:51	25	25.02	179.8	32.5	0.77	0.94
	11:16		27.73	147.2			
3	11:20	10	25.00	180.0	12.6	0.79	0.86
	11:30		26.05	167.4			
4	11:32	10	25.00	180.0	10.8	0.93	0.73
	11:42		25.90	169.2			
5	11:46	10	25.00	180.0	10.2	0.98	0.69
	11:56		25.85	169.8			
6	12:00	10	25.00	180.0	8.5	1.17	0.58
	12:10		25.71	171.5			
7	12:13	10	25.00	180.0	8.4	1.19	0.57
	12:23		25.70	171.6			
8	12:27	10	25.00	180.0	7.0	1.44	0.47
	12:37		25.58	173.0			
9	12:38	10	25.02	179.8	6.8	1.46	0.46
	12:48		25.59	172.9			
10	12:50	10	25.00	180.0	7.0	1.44	0.47
	13:00		25.58	173.0			

Infiltration Rate (I) = Discharge Volume/Surface Area of Test Section/Time Interval

Infiltration Rate, I (Last Reading) = **0.47** **in./hr.**

APPENDIX C

Geotechnical Laboratory Testing

Boring No.	LP-3	LP-3	LP-4	LP-4				
Sample No.	S-2	S-4	S-1	S-4				
Depth (ft.)	25.0	35.0	20.0	35.0				
Sample Type	SPT	SPT	SPT	SPT				
Soil Identification	Yellowish brown silty sand (SM)	Light olive brown silty sand (SM)	Light olive brown sandy silt s(ML)	Light olive brown silty sand with gravel (SM)g				
Moisture Correction								
Wet Weight of Soil + Container (g)	0.00	0.00	0.00	0.00				
Dry Weight of Soil + Container (g)	0.00	0.00	0.00	0.00				
Weight of Container (g)	1.00	1.00	1.00	1.00				
Moisture Content (%)	0.00	0.00	0.00	0.00				
Sample Dry Weight Determination								
Weight of Sample + Container (g)	616.90	794.40	588.90	847.80				
Weight of Container (g)	108.60	108.50	107.30	108.00				
Weight of Dry Sample (g)	508.30	685.90	481.60	739.80				
Container No.:	V-1	927	936	957				
After Wash								
Method (A or B)	A	A	A	A				
Dry Weight of Sample + Cont. (g)	411.10	609.70	340.00	732.50				
Weight of Container (g)	108.60	108.50	107.30	108.00				
Dry Weight of Sample (g)	302.50	501.20	232.70	624.50				
% Passing No. 200 Sieve	**40.5**	**26.9**	**51.7**	**15.6**				
% Retained No. 200 Sieve	59.5	73.1	48.3	84.4				

Leighton

PERCENT PASSING
No. 200 SIEVE
ASTM D 1140

Project Name: Legacy - Ontario
Project No.: 13493.002

Tested By: J. Domingo Date: 09/12/22

1160

Passing #200 LP-3 and LP-4

Preliminary Water Quality Management Plan (PWQMP)

For compliance with Santa Ana Regional Water Quality Control Board
Order Number R8-2010-0036 (NPDES Permit No. CAS618036)

Project Name: EUCLID AND WALNUT MIXED USE

Ontario Project #: PDEV22-027

Applicant Name: LEGACY PARTNERS, CONTACT: DAVID PINTO

Applicant Address: 5141 CALIFORNIA AVE., STE 100, IRVINE, CA 92617

Project Address: NW CORNER OF E. EUCLID AND WALNUT STREET

Project Size (acres): 9.82 ACRES

Project Description: Redevelopment of existing commercial site to residential development

Submittal Date: June 27, 2023

Preliminary Water Quality Management Plan (PWQMP)

1. Introduction

The Preliminary Water Quality Management Plan (PWQMP) is a planning tool to improve integration of required water quality elements, stormwater management, water conservation, rainwater harvesting and re-use, and flood management in land use planning and the City's development process. The Preliminary WQMP will assist project applicants and planners in properly designing and laying out project sites so that water quality may be incorporated in the most effective manner and at the lowest cost for the developer.

The San Bernardino County Municipal Separate Storm Sewer System Permit (MS4 Permit) requires project-specific Water Quality Management plans (WQMP) to be prepared for all priority new development and significant redevelopment projects listed in Section 2 of this document. The MS4 Permit stipulates that the City of Ontario require priority project applicants to submit a Preliminary project-specific WQMP, as early as possible, during the environmental review or planning phase of a development project and that the Preliminary WQMP be approved prior to the issuance of land use entitlement.

2. Priority Projects (requiring a Preliminary WQMP)

Land Use entitlement shall not be issued for any of the listed projects, below, until a Preliminary WQMP has been approved by the City's Engineering Department. For construction projects not going through entitlement, a Preliminary and Final project specific WQMP shall be approved, prior to the issuance of construction permits:

Check the appropriate project category below, for this project:

Check below	**Project Categories**
✓	1. All significant re-development projects. Significant re-development is defined as the addition or replacement of 5,000 or more square feet of impervious surface on an already developed site subject to discretionary approval of the Permittee. Redevelopment does not include routine maintenance activities that are conducted to maintain original line and grade, hydraulic capacity, original purpose of the facility, or emergency redevelopment activity required to protect public health and safety. Where redevelopment results in an increase of less than fifty percent of the impervious surfaces of a previously existing developed site, and the existing development was not subject to WQMP requirements, the numeric sizing criteria discussed below applies only to the addition or replacement, and not to the entire developed site. Where redevelopment results in an increase of fifty percent or more of the impervious surfaces of a previously existing developed site, the numeric sizing criteria applies to the entire development (new and existing).
	2. New development projects that create 10,000 square feet or more of impervious surface (collectively over the entire project site) including commercial, industrial, residential housing subdivisions (i.e., detached single family home subdivisions, multi-family attached subdivisions or townhomes, condominiums, apartments, etc.), mixed-use, and public projects. This category includes development projects on public and private land, which fall under the planning and building authority of the permitting agency.

Check below	Project Categories
	3. Automotive repair shops (with SIC codes 5013, 5014, 5541, 7532- 7534, 7536-7539).
✓	4. Restaurants and Food Service Establishments where the land area of development is 5,000 square feet or more.
	5. Developments of 2,500 square feet of impervious surface or more adjacent to (within 200 feet) or discharging directly into environmentally sensitive areas (ESA's) such as areas designated in the Ocean Plan as areas of special biological significance or waterbodies listed on the CWA Section 303(d) list of impaired waters.
✓	6. Parking lots of 5,000 square feet or more exposed to storm water. Parking lot is defined as land area or facility for the temporary storage of motor vehicles.
	7. Retail Gasoline Outlets (RGOs) that are either 5,000 sq ft or more or have a projected average daily traffic of 100 or more vehicles per day.
	8. *This project is not covered under any of the categories listed above.

* If the development is not covered under any of the project categories listed in Section 2, the project is not required to design and install Site Design/LID BMPs or Treatment Control BMPs to treat the design storm event (Design Capture Volume) described in Section 4.

3. Preliminary WQMP Objectives

Through a combination of Site Design/LID BMPs (where feasible), Source Control, and/or Treatment Control BMPs, project-specific WQMPs shall address all identified pollutants and hydrologic conditions of concern from new development and significant re-development projects for the categories of projects (priority projects) listed in Section 2. Under each type of BMP, listed below, please indicate which BMPs are planned to be implemented and included in the Final WQMP for the project:

A. Site Design/LID (Low Impact Design) for Reducing Stormwater Runoff:

The MS4 Permit requires each priority development project to infiltrate, harvest and use, evapotranspire, or bio-treat the runoff from a 2-yr, 24-hour storm event (Design Capture Volume). If site conditions do not permit infiltration, harvest and use, evapotranspiration, and/or bio-treatment of the entire Design Capture Volume, at the project site, Site Design/LID techniques are required to be implemented to the Maximum Extent Practicable, at the project site, and the remainder of the DCV shall be infiltrated, harvested, bio-treated or treated by alternative measures. Project applicants shall submit a Preliminary WQMP that documents the LID/Site Design BMPs, proposed for the project. Please indicate, in the table below, which Site Design/LID BMPs will be utilized on this project to accomplish this requirement:

Site Design/LID Practice	Planned	Not Planned
Provide at least the minimum effective area required for LID BMPs, to comply with the WQMP (see Table 3-1 below).		✓
Grade parking lot areas/drive aisles/roof drains to sheet flow runoff into landscaped swales, via curb cuts or zero-face curbs or otherwise disconnect direct drainage from MS4.		✓
Design landscaped areas as swales and grade to accept runoff from building roofs, parking lots and project roadways.		✓
Install surface retention basins or infiltration trenches to receive impervious area runoff.		✓
Install pervious pavement in parking stalls, alleys, driveways, gutters, walkways, trails or patios.		✓
Install underground stormwater retention chambers where downstream landscaped areas are limited.		✓
Install approved Stormwater Drywells in detention areas.		✓
Construct streets, sidewalks, and parking lot stalls to the minimum widths necessary.	✓	
Install on-site Biotreatment basins/trenches with underdrains, where soil type is poorly draining.	✓	
Install “Engineered Soil” to increase uptake/soil storage capacity and/or evapotranspiration.		✓
Install Rainwater Harvesting/Use Equipment.		✓
Regional LID BMP facilities are installed, off-site, with the capacity and conveyances to accept post-development storm water runoff from this project and reserved capacity allocation credits have been assigned to the project, in a Certificate or other legally binding document, attached herein		✓

Table 3-1 Minimum Effective Area[1] Required for LID BMPs (surface + subsurface facilities) for Project WQMP to Demonstrate Infeasibility[2] (% of site)

Project Type	New Development	Re-Development
SF/MF Residential < 7 du/ac	10%	5%
SF/MF Residential < 7 - 18 du/ac	7%	3.5%
SF/MF Residential > 18 du/ac	5%	2.5%
Mixed Use, Commercial/Industrial w/FAR< 1.0	10%	5%
Mixed Use, Commercial/Industrial w/FAR 1.0-2.0	7%	3.5%
Mixed Use, Commercial/Industrial w/FAR> 2.0	5%	2.5%
Podium (parking under > 75% of project)	3%	1.5%
Zoning allowing development to property lines	2%	1%
Transit Oriented Development[3]	5%	2.5%
Parking	5%	2.5%

[1] "Effective area" is defined as land area which 1) is suitable for a retention/infiltration BMP (based on infeasibility criteria) and 2) is located down-gradient from building roof or paved areas, so that it may receive gravity flow runoff.
[2] Criteria only required if the project WQMP seeks to demonstrate that the full DCV cannot be feasibly managed on-site.
[3] Transit oriented development is defined as a project with development center within one half mile of a mass transit center.
Key: du/ac = dwelling units/acre, FAR = Floor Area Ratio = ratio of gross floor area of building to gross lot area, MF = Multi Family, SF = Single Family

B. Source Control BMPs – The following BMPs are designed to control stormwater pollutants and runoff water at the location where it is generated. Please indicate which of the listed BMPs are planned to be implemented for the project:

Source Control BMPs	Planned	Not Planned
Minimize non-stormwater site runoff through efficient irrigation system design and controllers.	✓	
Minimize trash and debris in storm runoff through a regular parking lot, storage yard and roadway sweeping program.	✓	
Provide proper covers/roofs and secondary containment for outside material storage & work areas.		✓
Provide solid roofs over all trash enclosures.	✓	
Site Owner(s)/Property Manager/HOA or POA will be familiar with the project WQMP and stormwater BMPs.	✓	
Owner or HOA or POA to provide Education/Training of site occupants and employees on stormwater BMPs.	✓	
Install stormwater placards/stenciled messages with a "No Dumping" message on all on-site/off-site storm drain inlets.	✓	
Provide contained equipment/vehicle wash rack areas that discharge to sanitary sewer.		✓

C. Treatment Control BMPs – The following BMPs are designed to control stormwater pollutants where it is not feasible to install on-site or off-site Site Design/LID BMPs, with the requisite capacity to treat the Design Capture Volume for identified Pollutants of Concern or where pretreatment of stormwater runoff is required, ahead of infiltration BMPs. Please indicate which of the listed BMPs are planned to be implemented for the project:

Treatment Control BMP	Planned	Not Planned
Gravity Separator devices for pretreatment of sediment, trash/litter or Oil & Grease		✓
Proprietary Biofiltration vaults/devices	✓	
Media Cartridge Filtration Vaults		✓
Proprietary Filter Inserts for on-site storm drain inlets or retention basin/trench overflow drains		✓

4. Volume-based calculation (approximate) for sizing on-site or off-site Stormwater Retention/Infiltration, Harvest & Re-Use or Biotreatment facilities

1) After calculating the "Watershed Imperviousness Ratio", i, which is equal to the percent of impervious area in each Drainage Management Area, divided by 100, calculate the composite runoff coefficient C_{BMP} for the Drainage Area above using the following equation:

$$\mathbf{C_{BMP} = 0.858i^3 - 0.78i^2 + 0.774i + 0.04}$$

where: $\mathbf{C_{BMP}}$ = composite runoff coefficient; and,

i = watershed imperviousness ratio.

3) Determine the area-averaged "6-hour Mean Storm Rainfall", P_6, for the Drainage Area. This is calculated by multiplying the area averaged 2-year 1-hour value (0.5"-0.6") by the appropriate regression coefficient (1.4807). The 2-yr, 1-hr value for southern Ontario is approximately to 0.5" (P_6 = 0.5*1.4807 = 0.74 and northern Ontario is approximately 0.6" in/hr (P_6 = 0.6*1.4807 = 0.89).

4) Determine the appropriate drawdown time. Use the regression constant a = 1.582 for 24 hours and a = 1.963 for 48 hours. *Note: Regression constants are provided for both 24 hour and 48-hour drawdown times; however, 48-hour drawdown times should be used in most areas of California. Drawdown times in excess of 48 hours should be used with caution as vector breeding can be a problem after water has stood in excess of 72 hours. (Use of the 24-hour drawdown time should be limited to drainage areas with coarse soils (Class 'A' soils that readily drain.)*

5) Calculate the "Maximized Detention Volume", P_0, using the following equation:

$$\mathbf{P_0 = a \cdot C_{BMP} \cdot P_6}$$

where: $\mathbf{P_0}$ = Maximized Detention Volume, in inches

a = 1.582 for 24 hour and a = 1.963 for 48-hour drawdown,

$\mathbf{C_{BMP}}$ = composite runoff coefficient; and,

$\mathbf{P_6}$ = 6-hour Mean Storm Rainfall, in inches

6) Calculate the "Target Capture Volume", V_0, using the following equation:

$$\mathbf{V_0 = (P_0 \cdot A) / 12}$$

where: $\mathbf{V_0}$ = Target Capture Volume, in acre-feet

$\mathbf{P_0}$ = Maximized Detention Volume, in inches; and,

A = BMP Drainage Area, in acres

Project Volume-based calculation (approximate) for planned on-site or off-site Stormwater Retention/Infiltration, Harvest & Re-Use or Biotreatment facilities: N/A

Variable	Factor/Formula	DA1, DMA A	DA2 DMA B	DA3 DMA C	DA4 DMA D	DA5 DMA E
Impervious surface/total surface, ratio	(i)					
C_{BMP}= runoff coefficient	$0.858i^3 - 0.78i^2 + 0.774i + 0.04$					
P_6	**P_6 = 2-yr,1-hr depth*1.4807 =					
Detention Volume (acre inches)	$P_0 = a * C_{BMP} * P_6$ =					
Drawdown rate of basin/trench (a)	1.963 for 48-hr drawdown =					
Project Total Area (acre)	(A)					
Design Capture Volume in cu. ft.	$V_0 = [(P_0 * A)/12] *43560$ =					
Runoff Volume infiltrated in first 3 hours of storm (*not applicable for underground systems*)	Vol= in/hr/12 x ft^2 of infiltration area x 3 hrs					
Retention Volume provided in cubic feet.	Retention capacity of basins, trenches, underground storage or biotreatment basin					

**For P_6 value, use site coordinates and NOAA website to determine project's average 2-yr, 1-hr rainfall depth, at: http://hdsc.nws.noaa.gov/hdsc/pfds/sa/sca_pfds.html .

5. Flow-Based calculation (approximate) for sizing on-site or off-site Biotreatment facilities and proprietary treatment technology BMPs:

1) After calculating the "Watershed Imperviousness Ratio", i, which is equal to the percent of impervious area in each Drainage Management Area divided by 100, calculate the composite runoff coefficient C_{BMP} for the Drainage Area above using the following equation:

$$\mathbf{C_{BMP} = 0.858i^3 - 0.78i^2 + 0.774i + 0.04}$$

where: $\mathbf{C_{BMP}}$ = composite runoff coefficient; and,

i = watershed imperviousness ratio.

2) Determine BMP design rainfall intensity, I_{BMP}, using the project site geo-coordinates and the NOAA website to determine project's average 2-yr, 1-hr rainfall intensity, at: http://hdsc.nws.noaa.gov/hdsc/pfds/sa/sca_pfds.html .Multiply this value by 0.2787 (regression coefficient for Ontario) and a minimum safety factor of 2.

4) Calculate the target BMP flowrate, Q, using the following formula (for each DMA <50 acres*):

$$Q = C_{BMP} \cdot I_{BMP} \cdot A$$

Where: **Q** = flow in cfs (Cubic feet per second)
I_{BMP} = BMP design rainfall intensity, in/hr
A = Drainage Area in acres

*For DMAs >50 acres, with C_{BMP} <0.5, the project applicant shall use the unit hydrograph method specified in the San Bernardino County Hydrology Manual, using the design storm pattern with rainfall return frequency such that the peak 1-hr rainfall intensity equals the 85th percentile 1-hr rainfall, multiplied by 2.

Project Flow-based calculation (approximate) for planned on-site or off-site flow-based Biotreatment facilities or Stormwater Treatment BMPs:

Variable	Factor/Formula	DA1 DMA A	DA2 DMA B	DA3 DMA C	DA4 DMA D	DA5 DMA E
Impervious surface/ total surface, ratio	(i)	0.89	0.89	0.89	0.89	0.89
C_{BMP}= composite runoff coefficient	$0.858i^3+0.78i^2+0.774i+0.04$	0.712	0.712	0.712	0.712	0.712
I_{BMP}	I_{BMP} = 2-yr,1-hr storm intensity*0.2787*safety factor	0.333	0.333	0.333	0.333	0.333
Drainage area (ac)	A = DMA sq ft/43,560	1.77	1.46	1.50	1.32	1.90
Target BMP flowrate	Q = C_{BPM}* I_{BMP} * A	0.423	0.348	0.357	0.316	0.453

Please see next sheet for additional DRAINAGE AREA Treatment BMPs

Project Flow-based calculation (approximate) for planned on-site or off-site flow-based Biotreatment facilities or Stormwater Treatment BMPs: (Continued)

Variable	Factor/Formula	DA6 DMA A	DA7 DMA B	DA8 DMA C	DA9 DMA D	DA10 DMA E
Impervious surface/ total surface, ratio	(i)	0.89	0.89			
C_{BMP}= composite runoff coefficient	$0.858i^3+0.78i^2+0.774i+0.04$	0.712	0.712			
I_{BMP}	I_{BMP} = 2-yr,1-hr storm intensity*0.2787*safety factor	0.333	0.333			
Drainage area (ac)	A = DMA sq ft/43,560	0.69	0.97			
Target BMP flowrate	Q = C_{BPM}* I_{BMP} * A	0.165	0.232			

6. Hydrologic Conditions of Concern (HCOC) and use of the on-line San Bernardino County HCOC Map for determining necessary mitigation steps necessary if there are HCOCs downstream of a project:

Project applicants may access the on-line HCOC Map at: http://permitrack.sbcounty.gov/WAP/. The map will indicate any hydrology concerns with downstream waterways that are hydraulically connected to the project and will indicate if there are any approved regional projects downstream that could be utilized for off-site mitigation of HCOCs. Please indicate here if the project will or will not be able to retain/infilter, harvest and use or biotreat and detain the DCV, on-site, as calculated in Section 4 and if there are HCOCs identified downstream of the project:

Retain or Harvest/Use the DCV on site?	Yes		No	✓
Biotreat the DCV but not infilter the runoff?	Yes	✓	No	
HCOCs identified downstream of site?	Yes		No	✓

If the entire DCV will not be retained on site, the DCV is biotreated but not infiltered or additional detention capacity is needed to address identified HCOCs, downstream of the site, please list here, what additional mitigation measures will be utilized (on-site or off-site) to address HCOCs (see Section 4.2.1-4.2.3 of the SB County WQMP Technical Guidance):

NO HCOC EXISTS FOR THIS SITE

7. Site Plan and Conceptual Grading/Drainage Plan requirements for submission with the Preliminary WQMP:

Provide a Site Plan and Conceptual Grading/Drainage Plan along with this Preliminary WQMP, which conceptually shows the proposed locations of buildings, homes, parking lots, parks, new paved roadways, landscaped areas, drainage patterns and drainage sub-areas, methods of conveyance, proposed retention/infiltration, harvest & use or biotreatment facilities that are planned for installation. Where it is determined to be infeasible to capture and detain design storm runoff volumes, on-site, please include other design features, as described in Section 3, above. Include numbered or lettered notes on the Site Plan with a legend detailing other BMPs, as described in Section 3.

8. BMP Maintenance and Funding Mechanism & Description:

BMP Maintenance and funding will be the responsibility of the owner/lessee.

9. Acknowledgment:

As the property owner or developer, I understand that this project is required to install and implement permanent LID Storm Water Best Management Practices pursuant to the requirements of the San Bernardino County MS4 Permit and to document those BMPs in the submittal of a Water Quality Management Plan, which is binding on any current or successive owners of this property.

Yes	✓	No	

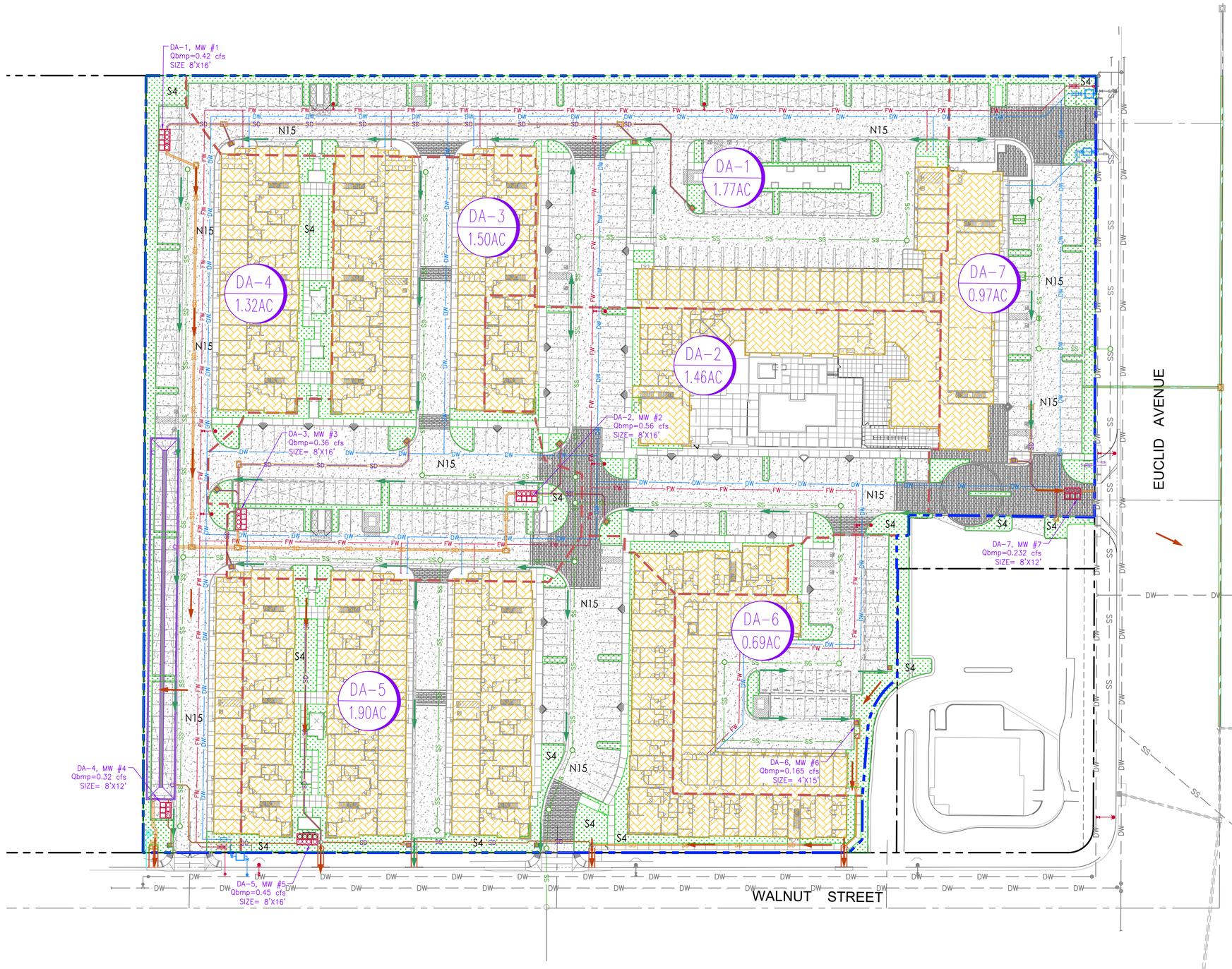
10. Exemption Signature:

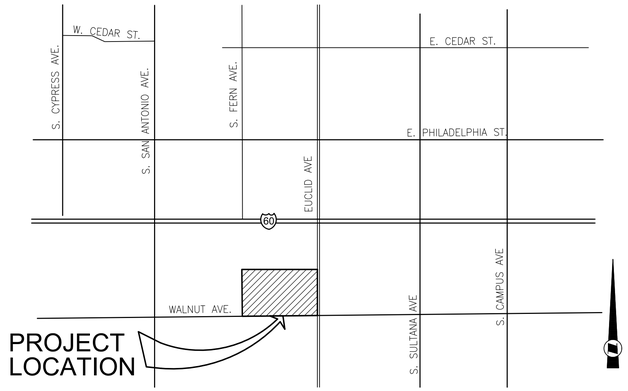
As the property owner or developer, I understand that this project is not required by the San Bernardino County MS4 Permit to install and implement permanent LID Storm Water Best Management Practices and will not be required to submit a Water Quality Management Plan.

Signature of Owner or Developer Date

WQMP PLAN AND DRAINAGE PLAN

- Vicinity Map
- Site Plan, Drainage Flow and LID BMP Plan
- Conceptual Grading Plan (For reference only)





VICINITY MAP
NOT TO SCALE

LEGEND

- PROJECT BOUNDARY
- DRAINAGE AREA BOUNDARY
- FLOW DIRECTION (SURFACE)
- FLOW DIRECTION (PIPE)
- PROPOSED STORM DRAIN LINE (PUBLIC)
- SD — PROPOSED STORM DRAIN LINE (PRIVATE)
- CATCH BASIN STENCILING AND COMMON AREA CATCH BASIN INSPECTION
- N15 — STREET VACUUMING AND CLEANING
- S4 — EFFICIENT IRRIGATION
- LANDSCAPE AREA
- ROOF
- PAVEMENT/HARDSCAPE
- DA-X X AC — DRAINAGE AREA ID AND ACREAGE
- UNDERGROUND RETENTION/INFILTRATION CHAMBERS
- MODULAR WETLAND BY CONTECH (PROPRIETARY BIO RETENTION BASIN)
- SD — PROPOSED STORM DRAIN DRAINING TO MODULAR WETLAND

FUSCOE ENGINEERING
FULL CIRCLE THINKING

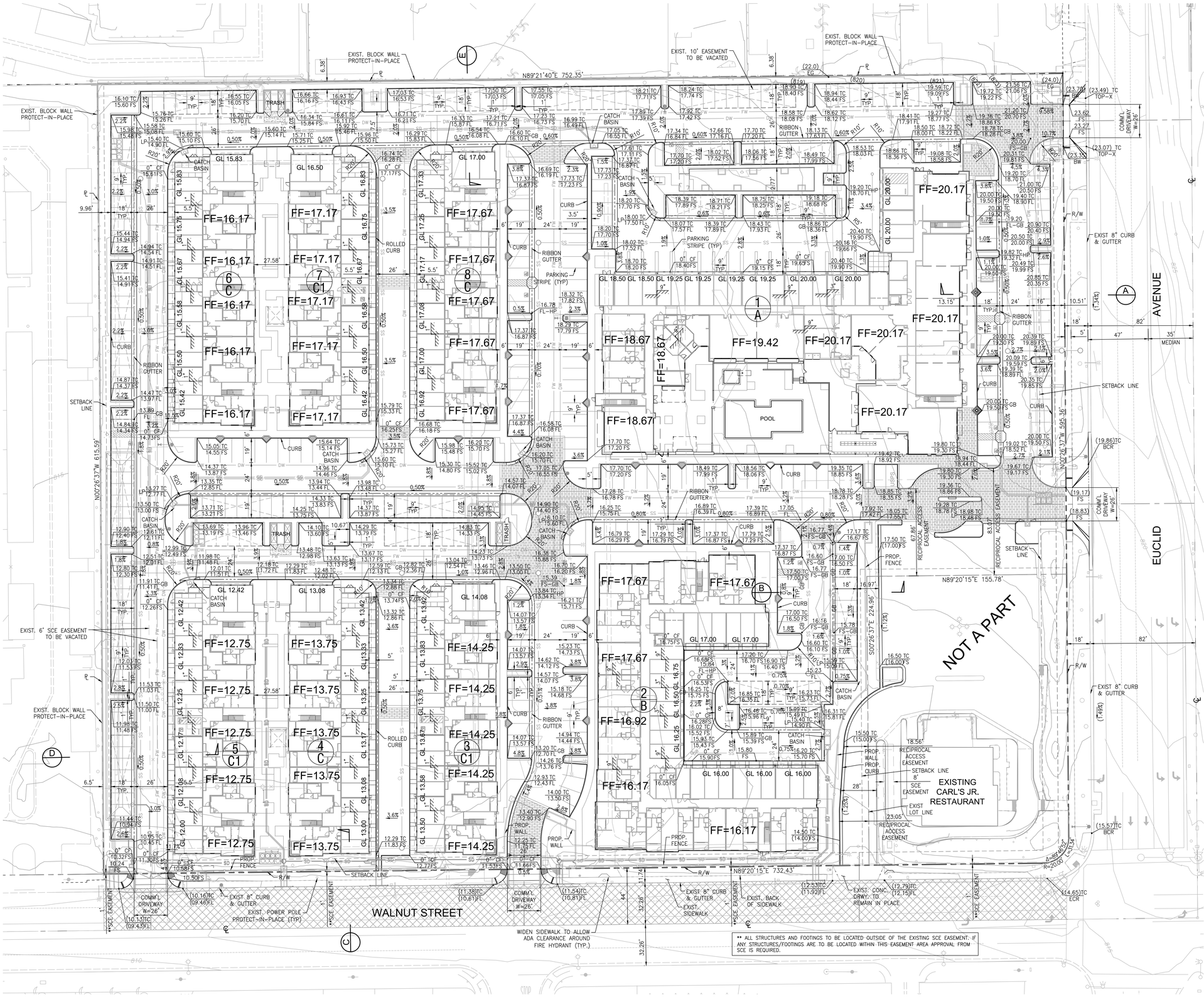
N

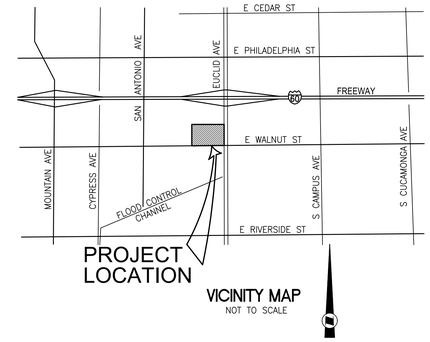
Scale: 1" = 40'
Exhibit Date: 06.27.23

PWQMP EXHIBIT-OPTION 2
EUCLID AND WALNUT MIXED USE
NW CORNER OF E. EUCLID
AND WALNUT STREET
ONTARIO, CA

CONCEPTUAL GRADING PLAN FOR ONTARIO APARTMENTS

IN THE CITY OF ONTARIO, COUNTY OF SAN BERNARDINO
STATE OF CALIFORNIA





VICINITY MAP
NOT TO SCALE

OWNER:

LEGACY PARTNERS
ATTN: DAVID PINTO
5141 CALIFORNIA AVENUE, SUITE 100
IRVINE, CA 92617
PHONE: (949) 930-7712
DPINTO@LEGACYPARTNERS.COM

ARCHITECT:

ARCHITECTS ORANGE
ATTN: SERAFIN MARANAN
144 NORTH ORANGE STREET
ORANGE, CA 92866
PHONE: (714) 639-9860

LEGEND

- CARPORTS
- TREE WELLS
- GRIND AND OVERLAY
- DECORATIVE PAVERS

NOTE:

- EUCLID AVENUE IS MAINTAINED BY CALTRANS. DRIVEWAY APPROACH TYPE AND SIZE AND LOCATION, SIDEWALK AND CURB & GUTTER IMPROVEMENTS TO BE COORDINATED WITH CALTRANS.
- COMPACTION TO BE NO GREATER THAN 85% IN LANDSCAPE AREAS. ALL FINISHED GRADES AT 1 ½" BELOW FINISHED SURFACES. SLOPE TO BE MAXIMUM 3:1.
- LANDSCAPE AREAS WHERE COMPACTION HAS OCCURRED DUE TO GRADING ACTIVITIES AND WHERE TREES OR STORMWATER INFILTRATION AREAS ARE LOCATED SHALL BE LOOSENED BY SOIL FRACTURING. FOR TREES, A 12'X12'X18" DEEP AREA; FOR STORMWATER INFILTRATION, THE ENTIRE AREA SHALL BE LOOSENED. ADD THE FOLLOWING INFORMATION ON THE PLANS: THE BACKHOE METHOD OF SOIL FRACTURING SHALL BE USED TO BREAK UP COMPACTION. A 4" LAYER OF COMPOST IS SPREAD OVER THE SOIL SURFACE BEFORE FRACTURING IS BEGUN. THE BACKHOE SHALL DIG INTO THE SOIL LIFTING AND THE DROP THE SOIL IMMEDIATELY BACK INTO THE HOLE. THE BUCKET THEN MOVES TO THE ADJACENT SOIL AND REPEATS. THE COMPOST FALLS INTO THE SPACES BETWEEN THE SOIL CHUNKS CREATED. FRACTURING SHALL LEAVE THE SOIL SURFACE QUITE ROUGH WITH LARGE SOIL CLODS. THESE MUST BE BROKEN BY ADDITIONAL TILLING. TILLING IN MORE COMPOST TO THE SURFACE AFTER FRACTURING PER THE SOIL REPORT WILL HELP CREATE AN A HORIZON SOIL. IMPORTED OR REUSED TOPSOIL CAN BE ADDED ON TOP OF THE FRACTURED SOIL AS NEEDED FOR GRADING. THE LANDSCAPE ARCHITECT SHALL BE PRESENT DURING THIS PROCESS AND PROVIDE CERTIFICATION OF THE SOIL FRACTURING. FOR ADDITIONAL REFERENCE, SEE URBAN TREE FOUNDATION–PLANTING SOIL SPECIFICATION.

EARTHWORK QUANTITY ESTIMATE

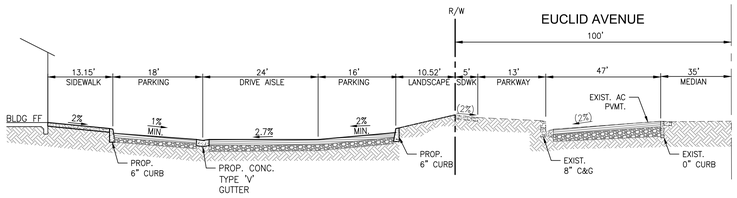
	CUT (C.Y.)	FILL (C.Y.)
RAW VOLUME	13,314	2,853
SHRINKAGE (15%)	0	1,997
SUBSIDENCE (427,972 SF. X 0.1'/27)	0	1580
BLDG OVER–EX	14,570	14,570
OVER–EX SHRINKAGE (15%)	0	2186
TOTAL	27,884	23,186
NET (EXPORT)	4,698	

NOTE:
QUANTITIES SHOWN HEREON ARE FOR BUDGETARY PURPOSES ONLY AND SHALL NOT BE USED FOR BIDDING. CONTRACTOR SHALL DETERMINE HIS OWN QUANTITIES AND BID A COMPLETE JOB.

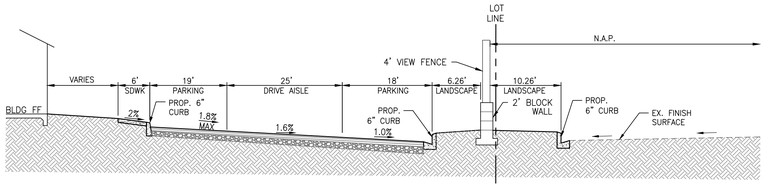
SCALE: 1" = 30'

PREPARED BY:
FUSCOE ENGINEERING
2850 Inland Empire Blvd. Suite B
Ontario, California 91764
Phone (909) 581-0676
FAX (909) 581-0696
Civil Engineers Land Surveyors
Job Number: 424-027 Date: May, 2023

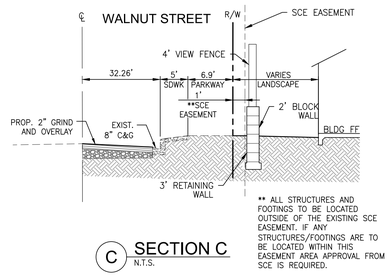
F:\PROJECTS\424\027\PLANS\ENTITLEMENTS\CONCEPTUAL GRADING PLAN\424-027 CGP.DWG [05-27-23 8:19:01AM] Plotted by: cpeavey



A SECTION A
N.T.S.

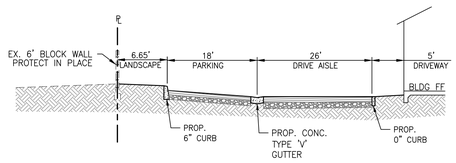


B SECTION B
N.T.S.

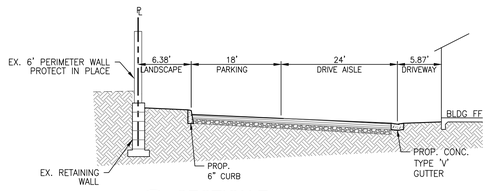


C SECTION C
N.T.S.

** ALL STRUCTURES AND FOOTINGS TO BE LOCATED OUTSIDE OF THE EXISTING SCE EASEMENT. IF ANY STRUCTURES/FOOTINGS ARE TO BE LOCATED WITHIN THIS EASEMENT AREA APPROVAL FROM SCE IS REQUIRED.



D SECTION D
N.T.S.



E SECTION E
N.T.S.

PREPARED BY:
FUSCOE ENGINEERING
2850 Inland Empire Blvd. Suite B
Ontario, California 91764
Phone (909) 581-0076
FAX (909) 581-0696
Civil Engineers Land Surveyors
Job Number: 424-027 Date: May, 2023

F:\PROJECTS\424\027-PLANS\EXHIBITS\EMENTS\CONCEPTUAL GRADING PLAN\424-027 CGP.DWG (06-27-23, 8:19:39AM) Plotted by: cgonzalez

BMP SIZING CALCULATIONS

- Precipitation Data

- Treatment control BMP sizing calculations (Proposed Modular Wetland by Contech) for DA-1 through DA-7

NOAA Atlas 14, Volume 6, Version 2
Location name: Ontario, California, USA*
Latitude: 34.0275°, Longitude: -117.6526°
Elevation: m/ft**
* source: ESRI Maps
** source: USGS

POINT PRECIPITATION FREQUENCY ESTIMATES

Sanja Perica, Sarah Dietz, Sarah Heim, Lillian Hiner, Kazungu Maitaria, Deborah Martin, Sandra Pavlovic, Ishani Roy, Carl Trypaluk, Dale Unruh, Fenglin Yan, Michael Yekta, Tan Zhao, Geoffrey Bonnin, Daniel Brewer, Li-Chuan Chen, Tye Parzybok, John Yarchoan

NOAA, National Weather Service, Silver Spring, Maryland

PF_tabular | PF_graphical | Maps_&_aerials

PF tabular

PDS-based point precipitation frequency estimates with 90% confidence intervals (in inches)[1]

Duration	Average recurrence interval (years)									
	1	2	5	10	25	50	100	200	500	1000
5-min	0.116 (0.097-0.141)	0.153 (0.127-0.185)	0.199 (0.166-0.242)	0.237 (0.196-0.291)	0.289 (0.230-0.366)	0.328 (0.255-0.425)	0.367 (0.279-0.489)	0.408 (0.301-0.559)	0.463 (0.327-0.663)	0.506 (0.345-0.751)
10-min	0.167 (0.139-0.202)	0.219 (0.182-0.265)	0.286 (0.238-0.347)	0.340 (0.280-0.417)	0.414 (0.329-0.525)	0.470 (0.366-0.609)	0.526 (0.400-0.701)	0.585 (0.431-0.802)	0.664 (0.469-0.950)	0.726 (0.494-1.08)
15-min	0.202 (0.168-0.244)	0.264 (0.220-0.320)	0.346 (0.287-0.420)	0.411 (0.339-0.504)	0.500 (0.398-0.635)	0.568 (0.442-0.737)	0.637 (0.483-0.847)	0.707 (0.521-0.969)	0.803 (0.567-1.15)	0.878 (0.598-1.30)
30-min	0.305 (0.255-0.370)	0.401 (0.334-0.485)	0.524 (0.435-0.636)	0.623 (0.514-0.764)	0.758 (0.603-0.961)	0.860 (0.670-1.12)	0.964 (0.732-1.28)	1.07 (0.790-1.47)	1.22 (0.859-1.74)	1.33 (0.905-1.97)
60-min	0.456 (0.381-0.552)	0.598 (0.498-0.724)	0.782 (0.650-0.950)	0.930 (0.767-1.14)	1.13 (0.900-1.44)	1.28 (1.00-1.67)	1.44 (1.09-1.92)	1.60 (1.18-2.19)	1.82 (1.28-2.60)	1.98 (1.35-2.94)
2-hr	0.682 (0.570-0.826)	0.894 (0.745-1.08)	1.16 (0.965-1.41)	1.37 (1.13-1.68)	1.65 (1.31-2.09)	1.85 (1.44-2.40)	2.06 (1.56-2.74)	2.26 (1.66-3.09)	2.52 (1.78-3.61)	2.72 (1.86-4.04)
3-hr	0.858 (0.716-1.04)	1.12 (0.936-1.36)	1.45 (1.21-1.77)	1.71 (1.41-2.10)	2.05 (1.63-2.60)	2.30 (1.79-2.98)	2.54 (1.93-3.38)	2.78 (2.05-3.81)	3.10 (2.19-4.43)	3.33 (2.27-4.94)
6-hr	1.19 (0.996-1.44)	1.56 (1.30-1.89)	2.01 (1.67-2.45)	2.37 (1.95-2.90)	2.83 (2.25-3.59)	3.16 (2.46-4.10)	3.49 (2.65-4.64)	3.82 (2.81-5.23)	4.24 (2.99-6.06)	4.55 (3.10-6.75)
12-hr	1.55 (1.29-1.88)	2.03 (1.69-2.45)	2.63 (2.18-3.19)	3.10 (2.55-3.79)	3.71 (2.95-4.71)	4.17 (3.24-5.40)	4.61 (3.50-6.14)	5.06 (3.73-6.94)	5.64 (3.98-8.08)	6.08 (4.14-9.02)
24-hr	2.02 (1.79-2.33)	2.65 (2.35-3.06)	3.47 (3.06-4.02)	4.13 (3.61-4.82)	5.00 (4.23-6.03)	5.66 (4.69-6.96)	6.32 (5.12-7.96)	6.98 (5.50-9.05)	7.88 (5.96-10.6)	8.56 (6.26-11.9)
2-day	2.41 (2.13-2.78)	3.23 (2.85-3.73)	4.31 (3.80-4.99)	5.19 (4.54-6.06)	6.40 (5.42-7.72)	7.34 (6.08-9.03)	8.29 (6.71-10.4)	9.28 (7.31-12.0)	10.6 (8.05-14.3)	11.7 (8.55-16.3)
3-day	2.58 (2.28-2.97)	3.50 (3.10-4.04)	4.73 (4.17-5.48)	5.75 (5.03-6.71)	7.16 (6.06-8.63)	8.27 (6.86-10.2)	9.40 (7.62-11.9)	10.6 (8.35-13.7)	12.3 (9.27-16.5)	13.6 (9.92-18.9)
4-day	2.77 (2.45-3.20)	3.80 (3.36-4.38)	5.16 (4.55-5.98)	6.30 (5.51-7.35)	7.86 (6.66-9.48)	9.09 (7.54-11.2)	10.4 (8.39-13.1)	11.7 (9.21-15.1)	13.5 (10.2-18.3)	15.0 (11.0-20.9)
7-day	3.22 (2.85-3.71)	4.43 (3.91-5.11)	6.03 (5.32-6.98)	7.35 (6.43-8.58)	9.17 (7.76-11.1)	10.6 (8.78-13.0)	12.0 (9.75-15.2)	13.6 (10.7-17.6)	15.6 (11.8-21.1)	17.3 (12.6-24.1)
10-day	3.51 (3.11-4.05)	4.85 (4.28-5.59)	6.61 (5.83-7.65)	8.06 (7.05-9.41)	10.1 (8.51-12.1)	11.6 (9.62-14.3)	13.2 (10.7-16.6)	14.8 (11.7-19.2)	17.1 (12.9-23.0)	18.8 (13.8-26.3)
20-day	4.26 (3.77-4.91)	5.94 (5.25-6.86)	8.19 (7.22-9.48)	10.0 (8.79-11.7)	12.6 (10.7-15.2)	14.6 (12.1-18.0)	16.7 (13.5-21.0)	18.8 (14.9-24.4)	21.8 (16.5-29.4)	24.2 (17.7-33.7)
30-day	5.00 (4.43-5.77)	7.01 (6.19-8.09)	9.72 (8.57-11.2)	12.0 (10.5-14.0)	15.2 (12.8-18.3)	17.7 (14.6-21.7)	20.3 (16.4-25.5)	23.0 (18.1-29.8)	26.8 (20.3-36.2)	29.9 (21.9-41.7)
45-day	5.97 (5.29-6.89)	8.35 (7.38-9.64)	11.6 (10.2-13.4)	14.4 (12.6-16.8)	18.3 (15.5-22.1)	21.5 (17.8-26.5)	24.9 (20.1-31.3)	28.4 (22.4-36.8)	33.5 (25.4-45.2)	37.6 (27.5-52.5)
60-day	6.94 (6.14-8.00)	9.62 (8.50-11.1)	13.4 (11.8-15.5)	16.6 (14.5-19.3)	21.2 (18.0-25.6)	25.1 (20.8-30.8)	29.1 (23.6-36.7)	33.6 (26.4-43.5)	39.9 (30.2-53.8)	45.2 (33.0-63.0)

[1] Precipitation frequency (PF) estimates in this table are based on frequency analysis of partial duration series (PDS).

Numbers in parenthesis are PF estimates at lower and upper bounds of the 90% confidence interval. The probability that precipitation frequency estimates (for a given duration and average recurrence interval) will be greater than the upper bound (or less than the lower bound) is 5%. Estimates at upper bounds are not checked against probable maximum precipitation (PMP) estimates and may be higher than currently valid PMP values.

Please refer to NOAA Atlas 14 document for more information.

Back to Top

PF graphical

MODULAR WETLAND #1			
Tributary Area DA-1	77121	sf	Step 1
Pervious area	8483	sf	Site condition
Impervious area	68638	sf	Site condition
Percent Imperviousness	89%		Site condition
Runoff coefficient=	0.716		Step 3
P2yr-1hr=	0.598		Step 4 (See Attached)
C1 Valley =	1.4807		Step 5
P6 =	0.885		Step 5
Drawdown Time =	48	hour	Step 6
C2 (For 48 hour)=	1.963		Step 7
DCV =	**7997**	cft	Step 7
P0=	1.244		

Qbmp Euclid and Walnut, ONTARIO (PWQMP)

Biotreatment (Modular Wetland) Sizing Calculation			
Area =	1.77	AC	
Ibmp=	0.167		
FS=	2		
Required Ibmp=	0.333		
Qbmp =	0.423	cfs	Flow control BMP
Modular Wetland MW-1	8X16	ftXft	Proposed Size
Proposed treatment Capacity	0.462	cfs	> Required flow rate

MODULAR WETLAND #2			
Tributary Area DA-2	63501	sf	Step 1
Pervious area	6985	sf	Site condition
Impervious area	56516	sf	Site condition
Percent Imperviousness	89%		Site condition
Runoff coefficient=	0.716		Step 3
P2yr-1hr=	0.598		Step 4 (See Attached)
C1 Valley =	1.4807		Step 5
P6 =	0.885		Step 5
Drawdown Time =	48	hour	Step 6
C2 (For 48 hour)=	1.963		Step 7
DCV =	**6585**	cft	Step 7
P0=	1.244		

Qbmp Euclid and Walnut, ONTARIO (PWQMP)

Biotreatment (Modular Wetland) Sizing Calculation			
Area =	1.46	AC	
Ibmp=	0.167		
FS=	2		
Required Ibmp=	0.333		
Qbmp =	0.348	cfs	Flow control BMP
Modular Wetland MW-2	8X16	ftXft	Proposed Size
Proposed treatment Capacity	0.462	cfs	> Required flow rate

MODULAR WETLAND #3			
Tributary Area DA-3	65174	sf	Step 1
Pervious area	7169	sf	Site condition
Impervious area	58005	sf	Site condition
Percent Imperviousness	89%		Site condition
Runoff coefficient=	0.716		Step 3
P2yr-1hr=	0.598		Step 4 (See Attached)
C1 Valley =	1.4807		Step 5
P6 =	0.885		Step 5
Drawdown Time =	48	hour	Step 6
C2 (For 48 hour)=	1.963		Step 7
DCV =	**6758**	cft	Step 7
P0=	1.244		

Qbmp Euclid and Walnut, ONTARIO (PWQMP)

Biotreatment (Modular Wetland) Sizing Calculation			
Area =	1.50	AC	
Ibmp=	0.167		
FS=	2		
Required Ibmp=	0.333		
Qbmp =	0.357	cfs	Flow control BMP
Modular Wetland MW-3	8X16	ftXft	Proposed Size
Proposed treatment Capacity	0.462	cfs	> Required flow rate

MODULAR WETLAND #4			
Tributary Area DA-4	57596	sf	Step 1
Pervious area	6336	sf	Site condition
Impervious area	51260	sf	Site condition
Percent Imperviousness	89%		Site condition
Runoff coefficient=	0.716		Step 3
P2yr-1hr=	0.598		Step 4 (See Attached)
C1 Valley =	1.4807		Step 5
P6 =	0.885		Step 5
Drawdown Time =	48	hour	Step 6
C2 (For 48 hour)=	1.963		Step 7
DCV =	**5972**	cft	Step 7
P0=	1.244		

Qbmp Euclid and Walnut, ONTARIO (PWQMP)

Biotreatment (Modular Wetland) Sizing Calculation			
Area =	1.32	AC	
Ibmp=	0.167		
FS=	2		
Required Ibmp=	0.333		
Qbmp =	0.316	cfs	Flow control BMP
Modular Wetland MW-4	8X12	ftXft	Proposed Size
Proposed treatment Capacity	0.346	cfs	> Required flow rate

MODULAR WETLAND #5			
Tributary Area DA-5	82585	sf	Step 1
Pervious area	9084	sf	Site condition
Impervious area	73501	sf	Site condition
Percent Imperviousness	89%		Site condition
Runoff coefficient=	0.716		Step 3
P2yr-1hr=	0.598		Step 4 (See Attached)
C1 Valley =	1.4807		Step 5
P6 =	0.885		Step 5
Drawdown Time =	48	hour	Step 6
C2 (For 48 hour)=	1.963		Step 7
DCV =	**8564**	cft	Step 7
P0=	1.244		

Qbmp Euclid and Walnut, ONTARIO (PWQMP)

Biotreatment (Modular Wetland) Sizing Calculation			
Area =	1.90	AC	
Ibmp=	0.167		
FS=	2		
Required Ibmp=	0.333		
Qbmp =	0.453	cfs	Flow control BMP
Modular Wetland MW-5	8X16	ftXft	Proposed Size
Proposed treatment Capacity	0.462	cfs	> Required flow rate

MODULAR WETLAND #6			
Tributary Area DA-6	30034	sf	Step 1
Pervious area	3304	sf	Site condition
Impervious area	26730	sf	Site condition
Percent Imperviousness	89%		Site condition
Runoff coefficient=	0.716		Step 3
P2yr-1hr=	0.598		Step 4 (See Attached)
C1 Valley =	1.4807		Step 5
P6 =	0.885		Step 5
Drawdown Time =	48	hour	Step 6
C2 (For 48 hour)=	1.963		Step 7
DCV =	**3114**	cft	Step 7
P0=	1.244		

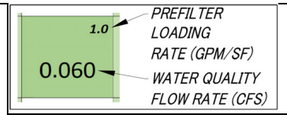
Qbmp Euclid and Walnut, ONTARIO (PWQMP)

Biotreatment (Modular Wetland) Sizing Calculation			
Area =	0.69	AC	
Ibmp=	0.167		
FS=	2		
Required Ibmp=	0.333		
Qbmp =	0.165	cfs	Flow control BMP
Modular Wetland MW-6	8X8	ftXft	Proposed Size
Proposed treatment Capacity	0.231	cfs	> Required flow rate

MODULAR WETLAND #7			
Tributary Area DA-7	42385	sf	Step 1
Pervious area	4662	sf	Site condition
Impervious area	37723	sf	Site condition
Percent Imperviousness	89%		Site condition
Runoff coefficient=	0.716		Step 3
P2yr-1hr=	0.598		Step 4 (See Attached)
C1 Valley =	1.4807		Step 5
P6 =	0.885		Step 5
Drawdown Time =	48	hour	Step 6
C2 (For 48 hour)=	1.963		Step 7
DCV =	**4395**	cft	Step 7
P0=	1.244		

Qbmp Euclid and Walnut, ONTARIO (PWQMP)

Biotreatment (Modular Wetland) Sizing Calculation			
Area =	0.97	AC	
Ibmp=	0.167		
FS=	2		
Required Ibmp=	0.333		
Qbmp =	0.232	cfs	Flow control BMP
Modular Wetland MW-6	8X12	ftXft	Proposed Size
Proposed treatment Capacity	0.346	cfs	> Required flow rate



MWS LINEAR 2.0 HGL SIZING MATRIX - 2.1 GPM/SF PREFILTER

HIGH DENSITY PROJECTS

REGULAR PREFILTER CARTRIDGE
HIGH CAPACITY PREFILTER CARTRIDGE
~~SIZE NOT AVAILABLE~~

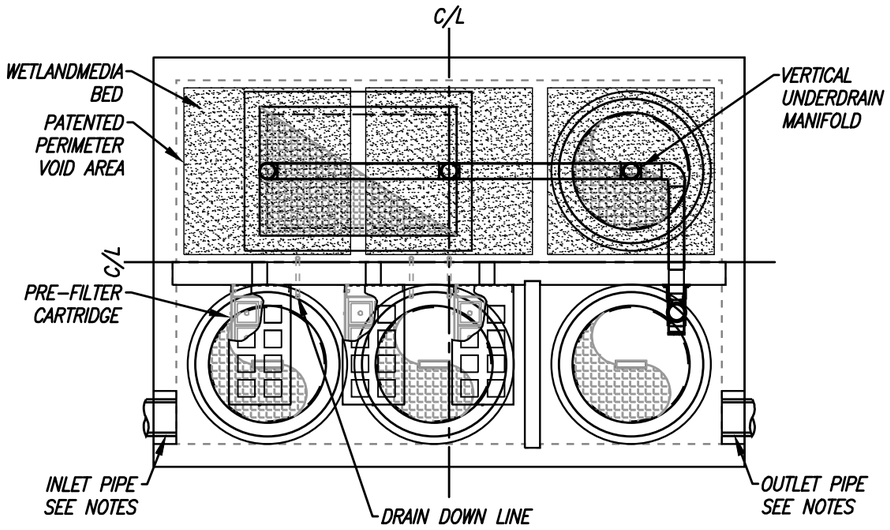
	MWS MODEL SIZE	WETLAND PERIMETER LENGTH	LOADING RATE GPM/SF	HGL HEIGHT																						
				SHALLOW MODELS										STANDARD HEIGHT MODEL	HIGH CAPACITY MODELS											
				1.4	1.6	1.8	2.0	2.2	2.4	2.6	2.8	3.0	3.2	3.4	3.6	3.8	4.0	4.2	4.4	4.6	4.8	5.0	5.2	5.4	5.6	5.8	6.0
SIDE BY SIDE UNITS	MWS-L-4-4	6.70	1.0	0.8 0.022	0.9 0.025	1.0 0.028	1.1 0.031	1.2 0.034	1.3 0.037	1.4 0.040	1.5 0.043	1.6 0.046	1.7 0.049	1.8 **0.052**	1.9 0.055	2.0 0.058	~~2.2~~ 0.062	~~2.2~~ 0.065	~~2.4~~ 0.068	~~2.5~~ 0.071	~~2.6~~ 0.074	~~2.7~~ 0.077	~~2.8~~ 0.080	~~2.9~~ 0.083	~~3.0~~ 0.086	~~2.1~~ 0.089	~~2.2~~ 0.092
	MWS-L-4-6	9.30	1.0	1.0 0.030	1.2 0.034	1.3 0.038	1.5 0.043	1.6 0.047	1.8 0.051	1.9 0.055	2.1 0.060	~~2.2~~ 0.064	~~2.4~~ 0.068	~~1.8~~ **0.073**	~~2.7~~ 0.077	~~2.8~~ 0.081	~~3.0~~ 0.085	~~3.1~~ 0.090	~~3.2~~ 0.094	~~3.4~~ 0.098	~~3.6~~ 0.102	~~3.7~~ 0.107	~~3.9~~ 0.111	~~4.0~~ 0.115	~~4.2~~ 0.120	~~4.2~~ 0.124	~~4.5~~ 0.128
	MWS-L-4-6.33	9.30	1.0	0.5 0.030	0.6 0.034	0.7 0.038	0.7 0.043	0.8 0.047	0.9 0.051	1.0 0.055	1.0 0.060	1.1 0.064	1.2 0.068	1.3 **0.073**	1.3 0.077	1.4 0.081	1.5 0.085	1.6 0.090	1.6 0.094	1.7 0.098	1.8 0.102	1.9 0.107	1.9 0.111	2.0 0.115	2.1 0.120	1.4 0.124	1.5 0.128
	MWS-L-4-8	14.80	1.0	0.8 0.048	1.0 0.054	1.1 0.061	1.2 0.068	1.3 0.075	1.4 0.082	1.5 0.088	1.7 0.095	1.8 0.102	1.9 0.109	2.0 **0.115**	2.1 0.122	1.5 0.129	1.6 0.136	1.7 0.143	1.7 0.149	1.8 0.156	1.9 0.163	2.0 0.170	2.1 0.177	2.1 0.183	~~2.2~~ 0.190	~~2.3~~ 0.197	~~2.4~~ 0.204
END TO END UNITS	MWS-L-4-13	18.40	1.0	0.5 0.059	0.6 0.068	0.7 0.076	0.7 0.084	0.8 0.093	0.9 0.101	1.0 0.110	1.0 0.118	1.1 0.127	1.2 0.135	1.3 **0.144**	1.3 0.152	1.4 0.160	1.5 0.169	1.6 0.177	1.6 0.186	1.7 0.194	1.8 0.203	1.9 0.211	1.9 0.220	2.0 0.228	2.1 0.236	1.4 0.245	1.5 0.253
	MWS-L-4-15	22.40	1.0	0.6 0.072	0.7 0.082	0.8 0.093	0.9 0.103	1.0 0.113	1.1 0.123	1.2 0.134	1.3 0.144	1.4 0.154	1.4 0.165	1.5 **0.175**	1.6 0.185	1.7 0.195	1.8 0.206	1.9 0.216	2.0 0.226	2.1 0.236	1.4 0.247	1.5 0.257	1.6 0.267	1.6 0.278	1.7 0.288	1.7 0.298	1.8 0.308
	MWS-L-4-17	26.40	1.0	0.7 0.085	0.8 0.097	1.0 0.109	1.1 0.121	1.2 0.133	1.3 0.145	1.4 0.158	1.5 0.170	1.6 0.182	1.7 0.194	1.8 **0.206**	1.9 0.218	2.0 0.230	2.1 0.242	1.5 0.254	1.6 0.267	1.6 0.279	1.7 0.291	1.8 0.303	1.8 0.315	1.9 0.327	2.0 0.339	2.1 0.351	2.1 0.364
	MWS-L-4-19	30.40	1.0	0.9 0.098	1.0 0.112	1.1 0.126	1.2 0.140	1.3 0.153	1.5 0.167	1.6 0.181	1.7 0.195	1.8 0.209	2.0 0.223	2.1 **0.237**	1.5 0.251	1.5 0.265	1.6 0.279	1.7 0.293	1.8 0.307	1.9 0.321	2.0 0.335	2.0 0.349	2.1 0.363	~~2.2~~ 0.377	~~2.2~~ 0.391	~~2.4~~ 0.405	~~2.4~~ 0.419
	MWS-L-4-21	34.40	1.0	1.0 0.111	1.1 0.126	1.2 0.142	1.4 0.158	1.5 0.174	1.7 0.189	1.8 0.205	1.9 0.221	2.1 0.237	1.5 0.253	1.6 **0.268**	1.7 0.284	1.8 0.300	1.8 0.316	1.9 0.332	2.0 0.347	2.1 0.363	~~2.2~~ 0.379	~~2.3~~ 0.395	~~2.4~~ 0.411	~~2.5~~ 0.426	~~2.6~~ 0.442	~~2.7~~ 0.458	~~2.8~~ 0.474
SIDE BY SIDE UNITS	MWS-L-6-8	18.80	1.0	0.7 0.060	0.8 0.069	0.9 0.078	1.0 0.086	1.1 0.095	1.2 0.104	1.3 0.112	1.4 0.121	1.5 0.129	1.6 0.138	1.7 **0.147**	1.8 0.155	1.9 0.164	2.0 0.173	2.1 0.181	1.1 0.190	1.2 0.198	1.2 0.207	1.3 0.216	1.3 0.224	1.4 0.233	1.4 0.242	1.5 0.250	1.5 0.259
	MWS-L-8-8	29.60	1.0	0.8 0.095	1.0 0.109	1.1 0.122	1.2 0.136	1.3 0.149	1.4 0.163	1.5 0.177	1.7 0.190	1.8 0.204	1.9 0.217	2.0 **0.231**	2.1 0.245	1.5 0.258	1.6 0.272	1.7 0.285	1.7 0.299	1.8 0.312	1.9 0.326	2.0 0.340	2.1 0.353	2.1 0.367	~~2.2~~ 0.380	~~2.3~~ 0.394	~~2.4~~ 0.408
	MWS-L-8-12	44.40	1.0	0.8 0.143	1.0 0.163	1.1 0.183	1.2 0.204	1.3 0.224	1.4 0.245	1.5 0.265	1.7 0.285	1.8 0.306	1.9 0.326	2.0 **0.346**	2.1 0.367	1.5 0.387	1.6 0.408	1.7 0.428	1.7 0.448	1.8 0.469	1.9 0.489	2.0 0.509	2.1 0.530	2.1 0.550	~~2.2~~ 0.571	~~2.3~~ 0.591	~~2.4~~ 0.611
	MWS-L-8-16	59.20	1.0	0.8 0.190	1.0 0.217	1.1 0.245	1.2 0.272	1.3 0.299	1.4 0.326	1.5 0.353	1.7 0.380	1.8 0.408	1.9 0.435	2.0 **0.462**	2.1 0.489	1.5 0.516	1.6 0.543	1.7 0.571	1.7 0.598	1.8 0.625	1.9 0.652	2.0 0.679	2.1 0.706	2.1 0.734	~~2.2~~ 0.761	~~2.3~~ 0.788	~~2.4~~ 0.815
	MWS-L-8-20	74.00	1.0	0.8 0.238	1.0 0.272	1.1 0.306	1.2 0.340	1.3 0.374	1.4 0.408	1.5 0.442	1.7 0.476	1.8 0.509	1.9 0.543	2.0 **0.577**	2.1 0.611	1.5 0.645	1.6 0.679	1.7 0.713	1.7 0.747	1.8 0.781	1.9 0.815	2.0 0.849	2.1 0.883	2.1 0.917	~~2.2~~ 0.951	~~2.3~~ 0.985	~~2.4~~ 1.019
	MWS-L-8-24	88.80	1.0	0.8 0.285	1.0 0.326	1.1 0.367	1.2 0.408	1.3 0.448	1.4 0.489	1.5 0.530	1.7 0.571	1.8 0.611	1.9 0.652	2.0 **0.693**	2.1 0.734	1.5 0.774	1.6 0.815	1.7 0.856	1.7 0.897	1.8 0.937	1.9 0.978	2.0 1.019	2.1 1.060	2.1 1.101	~~2.2~~ 1.141	~~2.3~~ 1.182	~~2.4~~ 1.223

BMP DETAIL

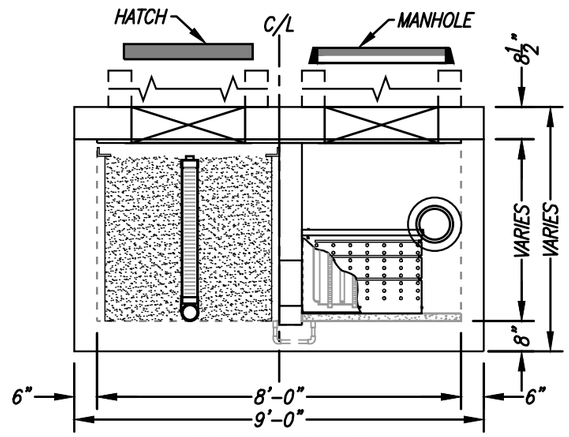
- Modular Wetland by Bio-Clean Environmental (Contech)
- List of Certified Trash Full Capture Systems by Water Resources Control Board

SITE SPECIFIC DATA			
PROJECT NUMBER			
PROJECT NAME			
PROJECT LOCATION			
STRUCTURE ID			
TREATMENT REQUIRED			
FLOW BASED (CFS)			
0.346			
PEAK BYPASS REQUIRED (CFS) – IF APPLICABLE			OFFLINE
PIPE DATA	I.E.	MATERIAL	DIAMETER
INLET PIPE 1			
INLET PIPE 2	N/A	N/A	N/A
OUTLET PIPE			
	PRETREATMENT	BIOFILTRATION	DISCHARGE
RIM ELEVATION			
SURFACE LOAD	DIRECT TRAFFIC		
NOTES:			

* PRELIMINARY NOT FOR CONSTRUCTION



PLAN VIEW



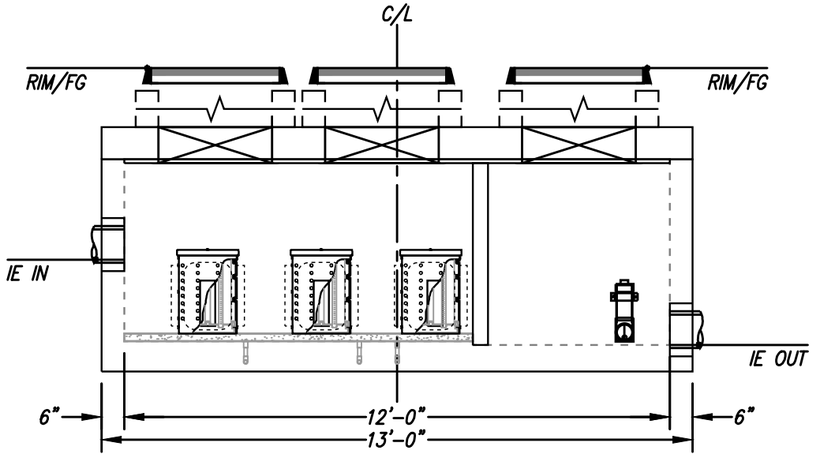
LEFT END VIEW

INSTALLATION NOTES

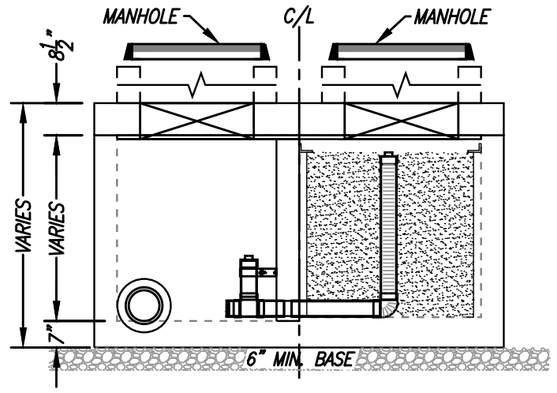
1. CONTRACTOR TO PROVIDE ALL LABOR, EQUIPMENT, MATERIALS AND INCIDENTALS REQUIRED TO OFFLOAD AND INSTALL THE SYSTEM AND APPURTENANCES IN ACCORDANCE WITH THIS DRAWING AND THE MANUFACTURERS' SPECIFICATIONS, UNLESS OTHERWISE STATED IN MANUFACTURER'S CONTRACT.
2. UNIT MUST BE INSTALLED ON LEVEL BASE. MANUFACTURER RECOMMENDS A MINIMUM 6" LEVEL ROCK BASE UNLESS SPECIFIED BY THE PROJECT ENGINEER. CONTRACTOR IS RESPONSIBLE FOR VERIFYING PROJECT ENGINEER'S RECOMMENDED BASE SPECIFICATIONS.
4. CONTRACTOR TO SUPPLY AND INSTALL ALL EXTERNAL CONNECTING PIPES. ALL PIPES MUST BE FLUSH WITH INSIDE SURFACE OF CONCRETE (PIPES CANNOT INTRUDE BEYOND FLUSH). INVERT OF OUTFLOW PIPE MUST BE FLUSH WITH DISCHARGE CHAMBER FLOOR. ALL PIPES SHALL BE SEALED WATERTIGHT PER MANUFACTURER'S STANDARD CONNECTION DETAIL.
5. CONTRACTOR RESPONSIBLE FOR INSTALLATION OF ALL PIPES, RISERS, MANHOLES, AND HATCHES. CONTRACTOR TO USE GROUT AND/OR BRICKS TO MATCH COVERS WITH FINISHED SURFACE UNLESS SPECIFIED OTHERWISE.
6. VEGETATION SUPPLIED AND INSTALLED BY OTHERS. ALL UNITS WITH VEGETATION MUST HAVE DRIP OR SPRAY IRRIGATION SUPPLIED AND INSTALLED BY OTHERS.
7. CONTRACTOR RESPONSIBLE FOR CONTACTING CONTECH FOR ACTIVATION OF UNIT. MANUFACTURER'S WARRANTY IS VOID WITHOUT PROPER ACTIVATION BY A CONTECH REPRESENTATIVE.

GENERAL NOTES

1. MANUFACTURER TO PROVIDE ALL MATERIALS UNLESS OTHERWISE NOTED.
2. ALL DIMENSIONS, ELEVATIONS, SPECIFICATIONS AND CAPACITIES ARE SUBJECT TO CHANGE. FOR PROJECT SPECIFIC DRAWINGS DETAILING EXACT DIMENSIONS, WEIGHTS AND ACCESSORIES PLEASE CONTACT CONTECH.



ELEVATION VIEW



RIGHT END VIEW

TREATMENT FLOW (CFS)	0.346
OPERATING HEAD (FT)	3.4
PRETREATMENT LOADING RATE (GPM/SF)	2.0
WETLAND MEDIA LOADING RATE (GPM/SF)	1.0

MODULAR WETLANDS
FOR PATENT INFORMATION, GO TO www.ContechES.com/IP

CONTECH ENGINEERED SOLUTIONS LLC
www.ContechES.com

MWS-L-8-12-V-UG
STORMWATER BIOFILTRATION SYSTEM STANDARD DETAIL

State Water Resources Control Board

Certified Trash Full Capture Systems Available to the Public
(Updated October 13, 2022)

Trash Provisions

To qualify as a trash full capture system (System) as described below and satisfy the requirements of the Trash Provisions,[1] a System installed after December 2, 2015, must be certified, prior to installation, by the State Water Resources Control Board (State Water Board) Executive Director, or designee, that meets the full capture system definition. The Trash Provisions define a full capture system as a treatment control, or series of treatment controls, including but not limited to, a multi-benefit project or a low impact development control that traps all particles that are 5-millimeter or greater, and has a design treatment capacity that is either:

1. Of not less than the peak flow rate resulting from a one-year, one-hour storm event (design storm) in the subdrainage area, or

2. Appropriately sized and designed to carry at least the same flows as the corresponding storm drain.

Consistent with these requirements, the Systems shall not bypass trash below the design storm under maximum operational loading conditions and shall not have a diversion structure present upstream such that a portion of the peak flow is not treated to trap all particles 5-millimeter or greater.

Vector Control Accessibility

According to the California Health and Safety Code,[2] California landowners are legally responsible to abate (eliminate the source of) a public nuisance arising from their property, including mosquitoes. Mosquito vector control districts have substantial authority to access public and private property, inspect known or suspected sources of

[1] Amendment to the Water Quality Control Plan for Ocean Waters of California to Control Trash and Part 1 Trash Provisions of the Water Quality Control Plan for Inland Surface Waters, Enclosed Bays, and Estuaries of California adopted by the State Water Board.

[2] Health & Safety Code sections 2001-2002, 2060-2067, 100170, and 131075.

mosquitoes, abate mosquito sources, and charge the landowner for work performed and/or charge fees if a landowner is unwilling or unable to address a mosquito source arising from their property.

If not designed properly, a System may impede the mosquito vector control district's ability to (1) visually inspect the System and/or storm vault for mosquito breeding, and (2) apply the appropriate chemical treatment. Moreover, some Systems may create a habitat for mosquitoes.

All the Systems in the tables below have been reviewed and approved by the Mosquito Vector Control Association of California for vector control accessibility. However, prior to installation of any Systems, the local mosquito vector control district should be contacted to ensure the installation conforms to the local district's visual inspection, treatment, and vector breeding minimizing guidelines. The Mosquito Vector Control Association of California may also be contacted via email at Trashtreatment@mvcac.org.

Certified Trash Full Capture System Tables

The Systems included in the tables below are: 1) new Systems certified by the State Water Board Executive Director after adoption of the Trash Provisions, and 2) legacy Systems that were certified pursuant to the Trash Provisions include those full capture systems that were listed in Appendix I of the Bay Area-wide Trash Capture Demonstration Project, Final Project Report (May 8, 2014). All Systems remain certified unless and until they are decertified by the State Water Board's Executive Director or designee. Legacy Systems' descriptions are included in "fact sheets" that have been updated to address the application requirements for new Systems.

The tables do not include the Department of Transportation's Systems as its Systems are not available to the public. Multi-benefit trash treatment systems are listed separately on the State Water Board's Trash Implementation webpage at: https://www.waterboards.ca.gov/water_issues/programs/stormwater/trash_implementation.html.

Systems are either identified by their application number or, for legacy Systems, by a fact sheet alpha numeric designation.

Please note: Only Systems originally manufactured or distributed by the listed applicants are certified full capture systems.

The alphabetical tables of System applicants are divided into two categories:

- *Catch Basin Inserts and Other Insert Systems.* These Systems typically are inserted into existing stormwater infrastructure; and

- *High Flow Capacity Trash Full Capture Systems*. These Systems are generally self-contained units that typically are not inserted into existing stormwater infrastructure and that are designed to treat trash from large drainage areas.

How to Access Certified System Applications and Legacy System Fact Sheets

Other than those applications pertaining to the Department of Transportation's certified Systems, all certified System applications and legacy System fact sheets may be obtained from the California Stormwater Quality Association's trash webpage at: https://www.casqa.org/resources/trash/certified-full-capture-system-trash-treatment-control-devices. To obtain the Department of Transportation's certified applications, please contact Leo Cosentini (contact information below).

All questions concerning the Trash Provisions and the tables below should be directed to Leo Cosentini by email at Leo.Cosentini@waterboards.ca.gov or by phone at (916) 341-5524.

TABLE 2. High Flow Capacity Trash Full Capture Systems

Applicant/Owner	Full Capture System Name	Date of Application Certification and Update (if applicable), or Fact Sheet Update	Date of Vector Control Accessibility Approval
Advanced Drainage Systems, Inc.	Barracuda Hydrodynamic Separator	Application 21 06/26/19 Updated 05/21/21	03/15/19
AquaShield, Inc.	Aqua-Swirl® Stormwater Treatment System	Application 1 08/04/17 Updated 11/06/20	12/03/20
Bio Clean® Environmental Services, Inc.	Debris Separating Baffle Box	Application 6 03/15/18	07/28/20
Bio Clean® Environmental Services, Inc.	Bio Clean® Deflective Screening Device	Application 20 06/26/19	07/28/20
Bio Clean® Environmental Services, Inc.	Modular Wetland System®	Application 15 07/10/18	03/15/19
Coanda Inc.	Coanda Trash Screen and Debris Fence	Fact Sheet COA-1 12/02/15 Updated 09/10/21	09/07/21

INFILTRATION TESTING RESULTS

GEOTECHNICAL EXPLORATION REPORT
PROPOSED EUCLID AND WALNUT MIXED-USE DEVELOPMENT
112 WALNUT STREET, 2502 AND 2530 EUCLID AVENUE ONTARIO, CALIFORNIA

Prepared For

LEGACY/COLLIER RESIDENTIAL, LLC
5154 CALIFORNIA AVENUE
IRVINE, CALIFORNIA 92617

Prepared By

LEIGHTON AND ASSOCIATES, INC.
17781 COWAN
IRVINE, CALIFORNIA 92614

Project No. 13493.001

May 13, 2022

May 13, 2022

Project No. 13493.001

Legacy/Collier Residential, LLC
5154 California Avenue
Irvine, California 92617

Attention: Mr. David Pinto

Subject: Geotechnical Exploration Report
Proposed "Euclid and Walnut Mixed Use" Development
112 Walnut Street, 2502 and 2530 Euclid Avenue
Ontario, San Bernardino County, California

In accordance with our March 30, 2022 proposal, Leighton and Associates, Inc. submits this geotechnical engineering report for the proposed Euclid and Walnut Mixed-Use Development located at 112 Walnut Street, 2502 and 2530 Euclid Avenue in the City of Ontario, California. The purpose of our study was to evaluate the subsurface soil and groundwater conditions at the site to provide geotechnical recommendations for the design and construction of the proposed concept as currently planned. The results of our exploration, findings, conclusions and recommendations are presented in this report.

The recommendations presented in this report are considered to be preliminary and subject to revision based upon the limited information regarding the proposed development. Upon review of project design concept plans, revision to the recommendations may be considered necessary. In addition, revision to design recommendations may be necessary upon review by the local building official or their designated, third party technical reviewer.

We sincerely appreciate the opportunity to be of service to you. If you have any questions or if we can be of further service, please contact us at ***(866) LEIGHTON***; directly at the phone extensions or e-mail as listed below.

Respectfully submitted,

LEIGHTON AND ASSOCIATES, INC.

PROFESSIONAL GEOLOGIST
ERIC M. HOLLIDAY
No. 9219
STATE OF CALIFORNIA

REGISTERED PROFESSIONAL ENGINEER
JOHN E. HAERTLE
No. 2352
GEOTECHNICAL
STATE OF CALIFORNIA

Eric M. Holliday, PG, 9219
Senior Project Geologist
Ext 4252, eholliday@leightongroup.com

John E. Haertle, PE, GE 2352
Principal Engineer
Ext: 4268, jhaertle@leightongroup.com

EMH/JEH/ lr

TABLE OF CONTENTS

Section **Page**

1.0 INTRODUCTION 1

1.1 Site Description 1
1.2 Proposed Development 1

1.2.1 Structural Loads 2
1.2.2 Finish Floor Elevations 2
1.2.3 Pavement 2
1.2.4 Ancillary Improvements 3

1.3 Purpose and Scope 3

2.0 GEOTECHNICAL FINDINGS 6

2.1 Regional Geologic Setting 6
2.2 Surficial Geology 6
2.3 Subsurface Soil Conditions 6

2.3.1 Undocumented Artificial Fill (Afu) 7
2.3.2 Quaternary-Aged Young Alluvial Fan Deposits (Qyf) 7

2.4 Engineering Properties 7

2.4.1 Expansive Soil Characteristics 7
2.4.2 Soil Corrosivity 8
2.4.3 Soil Compressibility 8
2.4.4 Shear Strength 9
2.4.5 Excavation Characteristics 9

2.5 Groundwater Conditions 9
2.6 Infiltration 10

3.0 SEISMIC AND GEOLOGIC HAZARDS 12

3.1 Surface Fault Rupture 12
3.2 Regional Faulting 12
3.3 Strong Ground Shaking 12
3.4 Liquefaction Potential 14
3.5 Seismically-Induced Settlement 14
3.6 Lateral Spreading 15
3.7 Earthquake-Induced Landsliding 16
3.8 Flooding 16
3.9 Seiches and Tsunamis 16
3.10 Methane 17

4.0 FINDINGS AND CONCLUSIONS 18

5.0 GEOTECHNICAL DESIGN RECOMMENDATIONS 19

5.1 Earthwork 19
5.1.1 Site Preparation 20
5.1.2 Removals and Overexcavations 20
5.1.3 Subgrade Preparation 21
5.1.4 Fill Placement and Compaction 22
5.1.5 Shrinkage and Bulking 22
5.1.6 Reuse of Concrete and Asphalt Rubble 23
5.2 Foundation Design 24
5.2.1 Vertical Load Bearing Capacity 24
5.2.2 Lateral Load Resistance 25
5.2.3 Settlement Estimate 26
5.3 Slab-on-Grade Floors 26
5.4 Temporary Excavations 27
5.5 Trench Backfill 28
5.6 Soil Corrosivity 29
5.7 Cement Type 30
5.8 Elevator Pit Wall Design 31
5.9 Pavements 31
5.9.1 Pavement Subgrades 31
5.9.2 Hot Mix Asphalt (HMA) Pavement Sections 31
5.9.3 Portland Cement Concrete (PCC) Pavements 33
5.10 Concrete Flatwork and Exterior Slabs 33
Surface 34
5.11 Drainage 34
5.12 Additional Geotechnical Services 35
6.0 LIMITATIONS 36
7.0 REFERENCES 38

Tables

Table 1 – Measured (Unfactored) Infiltration Rate 10
Table 2 – 2019 CBC Based Ground Motion Parameters (Mapped Values) 13
Table 3 – Seismically-Induced Settlement - MCE_G Seismic Event 15
Table 4 – Soil Corrosivity as a Function of Resistivity 29
Table 5 – Summary of Corrosivity Testing 30
Table 6 – Asphalt Pavement Sections 32

Attachments

Important Information About Your Geotechnical Engineering Report Rear of Text

Figure 1 – Site Location Map Rear of Text
Figure 2 – Geotechnical Map Rear of Text
Figure 3 – Regional Geology Map Rear of Text
Figure 4 – Regional Fault Map and Historical Seismicity Map Rear of Text
Figure 5 – Flood Hazard Zone Map Rear of Text
Figure 6 – Dam Inundation Map Rear of Text
Figure 7 – Retaining Wall Backfill and Subdrain Detail (EI≤50) Rear of Text

Appendix A – Exploration Logs
Appendix B – Percolation Test Data
Appendix C – Laboratory Test Results
Appendix D – General Earthworks and Grading Recommendations

1.0 INTRODUCTION

1.1 Site Description

The project site is a rectangular parcel of land, approximately 10.6-acres in size, located at the northwest corner of Walnut Street and Euclid Avenue in the city of Ontario, California. The site consists of the properties located at the street addresses of 112 W. Walnut Street, and 2502 and 2530 S. Euclid Avenue. The site is bordered by Euclid Avenue on the east, Walnut Street to the south, and residential development on the west and north. The southeastern region of the property is occupied by an existing Carl's Jr. restaurant. The site location (latitude 34.0275°, longitude -117.6524°) and immediate vicinity are shown on Figure 1, *Site Location Map.*

Based on visual site reconnaissance and review of the *Alta/NSPS Land Title Survey* prepared by Hillwig-Goodrow Inc., the site is currently occupied by a large rectangular-shaped structure formerly used as a K-Mart store located in the western portion of the site, and a strip mall retail development in the northeast region. The remainder of the site was generally paved with asphalt concrete and served as the parking lot for the development. The property is relatively flat, generally level with the adjacent roadways with site elevations (EL.) ranging from approximately EL. +823 feet above mean sea level (msl) in the northeastern region to approximately EL. +812 feet msl in the southwest region.

Based on review of historic aerial photographs (NETR, 2021), the project site appears to have a similar configuration dating back to at least 1985. The strip mall located in the northeast corner of the site was constructed between 1980 and 1985 and the K-Mart and Carl's Jr. structures were constructed at some point between 1966 and 1980. Prior to at least 1966, the site seems to have been used for agricultural purposes.

1.2 Proposed Development

Our understanding of the proposed development is based on review of the *Euclid and Walnut Mixed Use Site Plan* Options A and B, Scale 1" = 100', dated March 10, 2022, prepared by AO Architects (AOA, 2022). The development conceptually consists of two options for a proposed mixed-use development with 3- to 4-story residential and commercial structures:

- Option A includes a total of 346 residential units in 8 structures with 5,000 square feet of commercial development. In the Option A development scheme it appears the existing Carl's Jr. restaurant in the southeast corner of the site will remain.
- Option B consists of full-site development with 376 residential units in 10 structures with 11,400 square feet of commercial development.

We understand the current preferred option for development is Option A and, therefore, is the development scheme that serves as the basis for the geotechnical recommendations presented in this report. Ancillary improvements will include pavement for vehicle access and parking, landscaping, utility infrastructure, and flatwork.

1.2.1 Structural Loads

Information regarding total building height, finish floor elevations, and proposed loading conditions were not readily available at the time of this report. However, we understand that subterranean levels are not currently planned. Based upon the type of development planned for project site and our experience with similar developments, the buildings have been assumed to consist of wood frame structures supported by load bearing wall and isolated columns. Structural loads have been assumed to be a maximum of 3 kips per lineal foot for bearing walls and 40 kips for columns, Should additional design information become available, it should be provided to Leighton for review.

1.2.2 Finish Floor Elevations

The finish first floor elevations of the proposed structures have been assumed to be within 1 to 2 feet of existing grade with floor elevations established or minimize cut and fill required on site. The actual quantity of cut and fill will be dependent upon the actual floor elevations determined by the project civil engineer and the quantity of overexcavation required to prepare building pad areas.

1.2.3 Pavement

Pavements proposed for the development are expected to be primarily subjected to automobiles and occasional heavy truck traffic. Pavement

recommendations have been based upon a Traffic Index of 4.0 for automobile parking stalls; 5.0 for general purpose drive aisles; and 6.0 for areas subject to heavy trucks. Pavement recommendations have been based upon a twenty-year design life.

1.2.4 Ancillary Improvements

Based on email correspondence with Mr. Steve Ellis with Fuscoe Engineering, Inc., we understand preliminary infiltration system design is considering an invert depth of 15 feet below ground surface (bgs) along the southern property line.

1.3 Purpose and Scope

The purpose of our geotechnical exploration was to evaluate the subsurface conditions at the site relative to the proposed development concept and provide geotechnical recommendations to aid in the design and construction for the project as currently planned. The scope of this geotechnical exploration included the following tasks:

- *Background Review* – We reviewed readily available in-house geotechnical reports, literature, aerial photographs, and maps relevant to the site. We evaluated geological hazards and potential geotechnical issues that may significantly impact the site. The documents reviewed are listed in Section 7.0.

- *Pre-Field Exploration Activities* – A site visit was performed by a member of our technical staff to mark the proposed exploration locations. Underground Service Alert (USA) was notified to identify and mark the locations of existing underground utilities prior to our subsurface exploration.

- *Field Exploration* – Our subsurface exploration was performed on April 6, 2022 and included drilling, logging, and sampling of five (5) hollow-stem auger borings (designated LB-1 through LB-5) to approximate depths ranging from 25 to 51½ feet below the existing ground surface (bgs). One (1) additional boring (designated LP-2) was drilled to an approximate depth of 20 feet bgs for subsequent percolation testing. To supplement the hollow-stem auger borings, four (4) Cone Penetrometer Test (CPT) soundings (designated CPT-1 through CPT-4) were advanced to depths of approximately 50 feet bgs. The approximate locations of the explorations are shown on Figure 2, *Geotechnical Map.* The boring and CPT logs are presented in Appendix A, *Exploration Logs.*

During drilling of the hollow-stem auger borings both bulk and drive samples were obtained from the borings for geotechnical laboratory testing. Driven ring samples were collected from the borings using a Modified California ring-lined sampler conducted in accordance with ASTM Test Method D 3550. Representative samples were also collected by conducting the Standard Penetration Test (SPT) within the borings in accordance with ASTM Test Method D 1586. Samples were collected at 5-foot intervals throughout the depth of exploration. In both test methods, the sampler is driven below the bottom of the borehole by a 140-pound weight (hammer) free-falling 30 inches. The drilling rig was equipped with an automatic hammer to provide greater consistency in the drop height and striking frequency. The number of blows to drive the sampler the final 12-inches of the 18-inch drive interval is termed the "blowcount" or SPT N-value. The N-values provide a measure of relative density in granular (non-cohesive) soils and comparative consistency in cohesive soils. The number of blows per 6 inches of penetration was recorded on the boring logs included in Appendix A, *Exploration Logs*.

The borings were logged in the field by a geologist from our firm. Each soil sample collected was reviewed and described in accordance with the Unified Soil Classification System (USCS). The samples were sealed and packaged for transportation to our laboratory. After completion of drilling, the borings were backfilled with soil cuttings and patched with cold-mix asphalt concrete at the surface.

- *Percolation Testing* – Boring LB-4 /LP-1 and LP-2 were converted to temporary percolation test wells upon completion of drilling and sampling. The test wells consisted of 2-inch diameter slotted (0.020") PVC well casing surrounded by #3 Monterey Sand placed in the annulus of the borehole within the test zone. In-situ percolation testing was performed in general accordance with the County of San Bernardino guidelines. The results of the percolation testing are presented in Appendix B, *Percolation Test Data*. Additional details regarding the field percolation tests and results are presented in Section 2.4.1, *Infiltration*. Upon completion of the percolation testing, the well casing was removed from each boring and the borings were backfilled with soil cuttings and patched at the surface with cold-mix asphalt concrete to match existing site conditions.

- *Laboratory Testing* – Laboratory tests were performed on selected soil samples obtained from the borings during our field exploration. The laboratory testing

program was designed to evaluate the physical and engineering characteristics of the onsite soil. Tests performed during this exploration included:

- In- situ Moisture Content and Dry Density (ASTM D2216 and ASTM D2937);
- Atterberg Limits (ASTM D 4318)
- Direct Shear (ASTM D 3080)
- Consolidation (ASTM D 2435);
- One Dimensional Swell or Settlement (ASTM D 4546)
- Maximum Dry Density (ASTM D 1557);
- Particle Size Distribution (ASTM D 6913);
- Expansion Index (ASTM D 4829);
- R-value (DOT CA Test 301)
- Sand Equivalent Test (DOT CA Test 217); and
- Corrosivity Suite – pH, Sulfate, Chloride, and Resistivity (California Test Methods 417, 422, and 532/643).

Results of the in-situ moisture content and dry density testing are presented on the boring logs in Appendix A. Other laboratory test results are presented in Appendix C, *Laboratory Test Results*

- *Engineering Analysis* – The data obtained from our background review and field exploration were evaluated and analyzed to develop recommendations for the proposed development.
- *Report Preparation* – This report presents our findings, conclusions, and recommendations for the proposed development.

2.0 GEOTECHNICAL FINDINGS

2.1 Regional Geologic Setting

The project site is located in the Chino Basin in the northern portion of the Peninsular Ranges geomorphic province of California. Major structural features surround this region, including the Cucamonga fault and the San Gabriel Mountains to the north, the Chino fault and Puente/Chino Hills to the west, and the San Jacinto fault to the east. This is an area of large-scale crustal disturbance as the relatively northwestward moving Peninsular Ranges province collides with the Transverse Ranges province (San Gabriel Mountains) to the north. Several active and potentially active faults have been mapped in the region and are believed to accommodate compression associated with this collision. The Sierra Madre fault, a major structural feature along the southern flank of the San Gabriel Mountains, is located approximately 8.3 miles north of the site. This fault, as well as other faults in the region, has the potential for generating strong ground motions at the project site. Further discussion of faulting relative to the site is provided in Section 3.0, Seismic and Geologic Hazards.

The site is located in an area underlain by thick accumulations of alluvial sand, silt, gravel, cobbles, and boulders eroded from the mountains and deposited in the site vicinity by the Santa Ana River and smaller tributaries such as the San Antonio Creek and Cucamonga Creek (Morton and Miller, 2006; Dibblee, 2002).

2.2 Surficial Geology

The Quaternary age deposits that cover the floor and margins of the Chino Basin are composed primarily of unconsolidated recent (Holocene) young alluvial fan deposits consisting predominately of sands and gravels derived from the surrounding mountains and hills with finer clays and silts deposited into the basin over the broad floodplain. The surficial geologic units mapped in the vicinity of the project site are shown on Figure 3, *Regional Geology Map*.

2.3 Subsurface Soil Conditions

Based on our subsurface explorations, the site is underlain by a relatively thin mantle of undocumented artificial fill materials (Afu) overlying Quaternary-aged (Holocene) young alluvial fan deposits (Qyf).

A general description of the encountered soils is presented as follows:

2.3.1 Undocumented Artificial Fill (Afu)

The artificial fill encountered in our borings extended to a depth of approximately 5 feet below grade and likely associated with the existing site improvements. In general, the encountered fill soils consist primarily of sandy silt and silty sand. Localized thicker accumulations of fill materials may be present between explored locations, particularly beneath the existing buildings.

2.3.2 Quaternary-Aged Young Alluvial Fan Deposits (Qyf)

Below the mantle of artificial fill material, Quaternary-aged young alluvial fan deposits were encountered in the borings to the maximum depth explored (approximately 51½ feet). As encountered, this younger alluvial unit consists of stiff to very stiff sandy silt, silty clay, and clay; interbedded with medium dense to dense silty sand, sand with silt, and sand with gravel. Although relatively variable across the site, in general, fine-grained material is more prevalent in the upper 15 to 25 feet with coarser grained material becoming more frequent at depths of 25 feet or greater.

Detailed descriptions of the subsurface soils encountered in the borings are presented on the logs included in Appendix A. The locations of the borings are shown on Figure 2, *Geotechnical Location Map.*

2.4 Engineering Properties

The results of laboratory testing are presented in Appendix C of this report. Discussion regarding select engineering properties of these soils are described in the following sections based upon the results of the laboratory testing program.

2.4.1 Expansive Soil Characteristics

Expansive soils contain significant amounts of clay particles that swell considerably when wetted and which shrink when dried. Foundations constructed on these soils are subject to uplifting forces caused by the swelling. Without proper mitigation measures, heaving and cracking of both building foundations and slabs-on-grade could result.

One (1) near-surface bulk soil sample collected from Boring LB-1 was tested for expansion potential. The test results indicate an Expansion Index (EI) value of 18, corresponding to a "Very Low" expansion potential. The Expansion Index laboratory test results are included in Appendix C of this report.

Variance in expansion potential of onsite soil is anticipated; therefore, additional testing is recommended upon completion of site grading and excavation to confirm the expansion potential presented in this report. For purposes of this report and based upon visual characterization of alluvial materials at approximate foundation depth, low expansion potential of site materials may be considered to support design and verified upon completion of earthwork grading.

2.4.2 Soil Corrosivity

One (1) near-surface bulk soil sample collected from Boring LB-3 was tested for corrosivity to assess corrosion potential to buried concrete. The chemical analysis test results for the onsite soil from our geotechnical exploration are included in Appendix C of this report.

The test results indicate a soluble sulfate concentration of 266 parts per million (ppm), chloride content of 40 ppm, pH 7.92, and a minimum resistivity value of 1,335 ohm-cm.

The results of the resistivity tests indicate the underlying soil is severely corrosive to buried ferrous metals per ASTM STP 1013. Based on the measured water-soluble sulfate contents from the soil samples, concrete in contact with the soil is expected to have negligible exposure to sulfate attack per ACI 318 (ACI, 2014). The samples tested for water-soluble chloride content indicate a low potential for corrosion of steel in concrete due to the chloride content of the soil.

2.4.3 Soil Compressibility

Three (3) samples of the onsite soils recovered from the borings were subjected to consolidation testing to evaluate the compressibility of these materials under assumed loads representative of anticipated structural bearing stresses. The results of testing indicate these soils exhibit a low

compressibility potential. The results of testing are presented in Appendix C.

2.4.4 Shear Strength

Evaluation of the shear strength characteristics of the soils included laboratory direct shear testing. The results of testing are included in Appendix C that provide values of angle of internal friction (ø) and cohesion (c) for use in geotechnical analysis.

2.4.5 Excavation Characteristics

Based on our subsurface explorations performed at the site and our experience from grading jobs in the vicinity of the site, we anticipate the onsite artificial fill and alluvial materials can generally be excavated using conventional excavation equipment in good operating condition.

The soils within the planned excavation depths are variable, and locally consist of layers that contain granular, unconsolidated soils with little or no cementation and few fines. These materials are prone to cave in or collapse in unshored excavations. See Section 5.4, *Temporary Excavations* for additional information on soil type and excavation characteristics.

2.5 Groundwater Conditions

Groundwater was not encountered during our subsurface exploration to the maximum depth of 51.5 feet bgs. Based on review of the *Chino Basin Optimum Basin Management Plan 2008 State of the Basin Report* (Wildermuth, 2009), groundwater depth at the site is anticipated to be on the order of approximately 225 feet bgs. Review of available information from the California Department of Water Resources (DWR, 2022) for a nearby groundwater monitoring well located approximately 1.8 miles northwest of the project site (State Well # 01S07W29A001S) indicates the shallowest groundwater level measured for a monitoring period between October 1959 and September 2021 was approximately 214 feet bgs in 1959; with the most recent groundwater levels documented to be on the order of 250 feet bgs.

Based on these findings, groundwater is not expected to pose a constraint during or after construction. Fluctuations of the groundwater level, localized zones of perched water, and an increase in soil moisture, should be anticipated during and

following the rainy seasons or periods of locally intense rainfall or storm water runoff, or from stormwater infiltration.

2.6 Infiltration

Percolation testing was performed in temporary wells installed within borings LB-4/LP-1 and LP-2 located in the southern region of the site with test zone at depths of 17 to 22 feet bgs and 15 to 20 feet bgs, respectively. The percolation tests were conducted in general accordance with the *San Bernardino County Technical Guidance Document (TGD) for Water Quality Management Plans* (2013). Results of the percolation testing are presented in Appendix B. The test locations and tested depth intervals are shown on Figure 2.

A boring percolation test is useful for field measurements of the infiltration rate of soils, and is suited for testing when the design depth of the infiltration device is deeper than current existing grades, especially in areas where it is difficult to dig test pits, or where the depths of these test pits would be considerably deep. At the subject site, testing consisted of advancing the borings to the anticipated depth for the invert of the proposed infiltration devices.

The *Percolation Test Procedure* (falling-head test method) as outlined in the County Guidelines was implemented at each percolation test well location. The infiltration rate was calculated by dividing the rate of discharge by the infiltration surface area, or flow area. The volume of discharge was calculated by adding the total volume of water that dropped within the PVC pipe and within the annulus, and incorporating a porosity reduction factor to account for the porosity of the annulus material. The flow area was based on the average water height within the test well.

Detailed results of the field testing data and measured infiltration rate for the test well are presented in Appendix B. The test results are summarized in the table below:

Table 1 – Measured (Unfactored) Infiltration Rate

Test Well Designation	Approximate Depth of Test Zone (feet bgs)	Measured Infiltration Rate (inches per hour)
LB-4/LP-1	17 to 22	0.32
LP-2	15 to 20	0.69

Based on the results of our field percolation testing that was performed at the site, the measured (unfactored) infiltration rates for the two (2) tests performed were 0.32 inches per hour (LB-4/LP-1) and 0.69 inches per hour (LP-2), respectively. According to the *San Bernardino County Technical Guidance Document (TGD) for Water Quality Management Plans* (2013), the measured infiltration rate at both test well locations technically exceeds the minimum feasibility criteria of 0.3 inch per hour. However, implementation of a minimum factor of safety of 2.0 as required for the design infiltration rate indicates the depth and location tested for LB-4/LP-1 is considered infeasible for infiltration.

In consideration of the general greater prevalence of coarse-grained material at the site below depths of 25 feet or deeper, a more feasible infiltration rate may be achieved in percolation testing performed at depths greater than those tested during this exploration.

3.0 SEISMIC AND GEOLOGIC HAZARDS

Depending upon the geographic location and geologic setting of a particular site in southern California, seismic-related hazards can include surface fault rupture; strong ground shaking; seismically-induced landslides; liquefaction and associated effects such as settlement and/or lateral spreading; and seiches, tsunamis and/or flooding depending upon the proximity of bodies of water. The following sections discuss each of these hazards and potential effect upon this site.

3.1 Surface Fault Rupture

Known surface faults in the region are mapped on Figure 4, *Regional Surface Fault and Historical Seismicity Map*. Review of available literature indicates that no known active faults have been mapped across the site, and the site is **not** located within a currently established *Alquist-Priolo Earthquake Fault Zone* (Bryant and Hart, 2007). Therefore, a surface fault rupture hazard evaluation is not mandated for this site. Given an absence of known faults, potential risk for surface fault rupture at this site is low.

3.2 Regional Faulting

The location of the closest active faults to the site was evaluated using the United States Geological Survey (USGS) Earthquake Hazards Program National Seismic Hazard Maps (USGS, 2008b). The closest active faults to the site with the potential for surface fault rupture are the Chino fault, San Jose fault, Cucamonga fault and Sierra Madre fault, located approximately 4.7 miles, 6.0 miles, 7.9 miles and 8.3 miles from the site, respectively. The San Andreas fault, which is the largest active fault in California, is approximately 20.3 miles northeast of the site on the north side of the San Gabriel Mountains. As discussed, major regional faults with surface expression in proximity to the site are shown on Figure 4, *Regional Fault and Historic Seismicity Map*.

3.3 Strong Ground Shaking

The principal seismic hazard to the site is ground shaking resulting from an earthquake occurring along any of several major active and potentially active faults in southern California (Figure 4). The intensity of ground shaking at a given location depends primarily upon the earthquake magnitude, the distance from the source, and the site response characteristics. Accordingly, design of the project should be performed in accordance with all applicable current codes and standards

utilizing the appropriate seismic design parameters to reduce seismic risk as defined by California Geological Survey (CGS) Chapter 2 of Special Publication 117A (CGS, 2008). The 2019 edition of the California Building Code (CBC) is the current edition of the code. Through compliance with these regulatory requirements and the utilization of appropriate seismic design parameters selected by the design professionals, potential effects relating to seismic shaking can be reduced.

The following code-based seismic parameters should be considered for design under the 2019 CBC:

Table 2 – 2019 CBC Based Ground Motion Parameters (Mapped Values)

Categorization/Coefficient	Code-Based
Site Latitude	34.0275°
Site Longitude	-117.6523°
Site Class	D
Mapped Spectral Response Acceleration at Short Period (0.2 sec), S_S	1.5 g
Mapped Spectral Response Acceleration at Long Period (1 sec), S_1	0.579 g
Short Period (0.2 sec) Site Coefficient, F_a	1.0
Long Period (1 sec) Site Coefficient, F_v	1.72*
Adjusted Spectral Response Acceleration at Short Period (0.2 sec), S_{MS}	1.5 g
Adjusted Spectral Response Acceleration at Long Period (1 sec), S_{M1}	0.996*
Design Spectral Response Acceleration at Short Period (0.2 sec), S_{DS}	1.0 g
Design Spectral Response Acceleration at Long Period (1 sec), S_{D1}	0.664*
Site Coefficient for Peak Ground Acceleration, F_{PGA}	1.1
Peak Ground Acceleration adjusted for Site Class effects, PGA_M	0.644 g

1. All were derived from the ASCE 7 Hazard Tool web page: https://asce7hazardtool.online/
2. All coefficients in units of g (spectral acceleration)
3. *Requires C_s calculation, see *Note* below.

Based on Table 1613.2.3(2) of the 2019 CBC, the long period site coefficient (F_v) should be determined in accordance with Section 11.4.8 of ASCE 7-16 since the mapped spectral response acceleration at 1 second is greater than 0.2g for Site Class D. In accordance with Section 11.4.8 of ASCE 7-16, a site-specific seismic analysis is required; however, the values provided herein may be utilized if design

is performed in accordance with exception (2) in Section 11.4.8 of ASCE 7-16, with special requirements for the seismic response coefficient (Cs) as noted below. The project structural engineer should review the seismic parameters.

Note: Long period coefficient (Fv) of 1.7 may be utilized for calculation of Ts, provided that the value of the Seismic Response Coefficient (Cs) is determined by Equation 12.8-2 for values of the fundamental period of the building (T) less than or equal to 1.5Ts, and taken as 1.5 times the value computed in accordance with either equation 12.8-3 for T greater than 1.5 Ts and less than or equal to T_L or equation 12.8-4 for T greater than T_L.

3.4 Liquefaction Potential

The term liquefaction is generally referenced to loss of strength and stiffness in soils due to build-up of pore water pressure when subject to cyclic or monotonic loading. Both sandy and clayey soils are susceptible to loss of strength and stiffness. Because of the difference in strength characteristic and methods for evaluating strength loss potential for granular and clayey soils, the term liquefaction is used for granular soils while cyclic softening is used for fine-grained soils (i.e. clays and plastic silts).

In general, adverse effects of liquefaction or cyclic softening include excessive ground settlement, loss of bearing support for structural foundations, and seismically-induced lateral ground deformations such as lateral spreading. Depending upon the relative thickness of the liquefied strata with respect to overlying non-liquefiable soils, other potentially adverse effects such as ground oscillation and ground fissuring may occur.

As regionally mapped on the California Geological Survey *Earthquake Zones of Required Investigation (EZRIM) for the Ontario Quadrangle* (CGS, 200) and shown on Figure 4, *Seismic Hazard Zone Map*, the site is **not** within an area potentially susceptible to liquefaction. In addition, review of the San Bernardino County *Geologic Hazard Overlays* map FH27C (2010), the project site is not located within a County liquefaction susceptibility zone. The historically shallowest groundwater level recorded by DWR near the site is 214 feet bgs and the recent recorded depth to groundwater is greater than 200 feet bgs. Based on these findings, liquefaction is not considered a hazard at the site.

3.5 Seismically-Induced Settlement

Seismically-induced settlement consists of dynamic settlement of unsaturated soil (above groundwater) and liquefaction-induced settlement (below groundwater).

These settlements occur primarily within low density sandy soil due to reduction in volume during and shortly after an earthquake event.

As previously discussed, the site is not considered susceptible to the occurrence of liquefaction. Therefore, seismically-induced settlement will consist solely of densification of non-saturated soils upon exposure to strong ground shaking. Evaluation of the potential for such seismically-induced settlements to occur was performed for the Geomean Maximum Considered Event (MCE_G) and the associated ground motion that corresponds to a 2,475 year average return period (ARP) for the CPT soundings that were advanced to a depth of 50 feet below grade. The results of the analysis are presented below:

Table 3 – Seismically-Induced Settlement - MCE_G Seismic Event

Design Scenario		CPT I.D.	Settlement (inches)		
PGA	M_W		Liquefaction[1]	Non-Liquefaction[2]	Total
0.64	6.78	CPT-1	No Liquefaction	0.23	0.23
		CPT-2	No Liquefaction	0.09	0.09
		CPT-3A	No Liquefaction	0.16	0.16
		CPT-4	No Liquefaction	0.45	0.45

Notes: (1) Liquefaction-induced settlement; Design Groundwater below depth of 50 feet

(2) Non-liquefaction induced ("dry sand") settlement

The results of the analysis indicated the magnitude of seismically-induced settlement under the MCE_G scenario will be less than ½ to 1 inch. Based on the general consistency in soil conditions as depicted by the test borings conducted at the site, the differential settlement is estimated to be approximately ½ inch over a distance of at least 40 feet, which results in an angular distortion less than 0.0021 in./in., which is anticipated to be within tolerable levels for structural design.

3.6 Lateral Spreading

Liquefaction may also cause lateral spreading. For lateral spreading to occur, the liquefiable zone must be continuous, unconstrained laterally, and free to move along gently sloping ground toward an unconfined area. Since the site is relatively flat and constrained laterally and liquefaction is not considered a hazard at the site, earthquake-induced lateral spreading is also not considered a hazard at the site.

3.7 Earthquake-Induced Landsliding

As regionally mapped on the California Geological Survey *Earthquake Zones of Required Investigation for the Torrance Quadrangle* (CGS, March 25, 1999) and shown on Figure 4, *Seismic Hazard Zone Map*, the site is **not** located within an area potentially susceptible to liquefaction (CGS, 2000a). Review of the San Bernardino County *Geologic Hazard Overlays* map FH27C (2010) indicates the project site is not located within a County landslide susceptibility zone. The project site is relatively flat with no significant slopes on or immediately adjacent. It is our opinion that seismically-induced landsliding is not considered a hazard at the site.

3.8 Flooding

According to a Federal Emergency Management Agency (FEMA) flood insurance rate map (FEMA, 2015), the project site is located within a flood hazard area identified as “Zone X”, which is defined as an area of minimal flood hazard. Regionally, storm runoff flow is generally directed to the southwest. As shown on Figure 5, *Flood Hazard Zone Map*, the site is **not** located within a 100-year or 500-year flood hazard zone.

Earthquake-induced flooding can be caused by failure of dams or other water-retaining structures as a result of earthquakes. As shown on Figure 6, *Dam Inundation Map*, the site **is** mapped within an inundation zone associated with San Antonio Dam. Catastrophic failure of this dam is expected to be a very unlikely event in that dam safety regulations exist and are enforced by the DOSD, Army Corps of Engineers and Department of Water Resources. Inspectors may require dam owners to perform work, maintenance or implement controls if issues are found with the safety of the dam. Due to the location and distance of the site from San Antonio Dam, along with the unlikely failure of the dam, the potential for earthquake-induced flooding to occur due to a failure of this dam is considered low.

3.9 Seiches and Tsunamis

Seiches are large waves generated in enclosed bodies of water in response to ground shaking. Tsunamis are waves generated in large bodies of water by fault displacement or major ground movement. Based on the absence of an enclosed water body near the site and the inland location of the site, seiche and tsunami risks at the site are considered negligible.

3.10 Methane

Based on review of State of California Geologic Energy Management Division (CalGEM) records, the project site is not located within an oil field boundary (CalGEM, 2021). The nearest documented oil well to the site is located approximately 0.6 miles southwest of the site (API# 0407100083; Donald B. Lamont, Donald B. Lamont Lease, Well No. 1) and is reported as a plugged dry hole (CalGEM, 2021). Based on these findings, the potential for methane hazard at the site is low.

4.0 FINDINGS AND CONCLUSIONS

No evidence of adverse geological or geotechnical hazards was noted at the site that will preclude the development of the project as currently planned. Presented below is a summary of findings based upon the results of our geotechnical exploration of the site. Geotechnical recommendations for design and construction are presented in Section 4.0 of this report.

- The potential for surface fault rupture is considered to be low since the site is not located in a designated Alquist-Priolo Earthquake Fault Zone.

- The site may be subjected to strong ground shaking during the design life of the proposed development due to the proximity of several active faults in the vicinity of the site. The Chino fault, located approximately 4.7 miles southwest of the site is the nearest active fault to the site with a potential for surface rupture and generation of strong ground shaking. However, strong ground shaking may occur at the site due to seismic activity on one of a number of faults in the area.

- The site is **not** located within an area shown as susceptible to liquefaction according to the CGS *Earthquake Zones of Required Investigation Map* for the Ontario Quadrangle or the San Bernardino County *Geologic Hazard Overlays* map FH27C. Given the lack of shallow groundwater underlying the site, the potential for liquefaction is considered low.

- Groundwater was not encountered to the maximum depth explored of 51½ feet bgs. Recent nearby groundwater levels as documented by the California Department of Water Resources indicate the depth to groundwater is likely on the order of greater than 200 feet bgs. Groundwater is not anticipated to be a constraint to site grading or construction.

- At a minimum, development of the site for support of the proposed mixed-use development should include overexcavation and recompaction of the existing artificial fill materials as well as a portion of the underlying native soils to develop a layer of structural compacted fill to provide foundation support.

- The results of the infiltration testing performed at the site indicate stormwater infiltration is marginally feasible based on the tested locations and depths.

- The proposed structures may be supported by a shallow foundation system supported on structural compacted fill underlain by suitable bearing native soils.

5.0 GEOTECHNICAL DESIGN RECOMMENDATIONS

Based upon this study, we conclude that the proposed development for the subject site is feasible from a geotechnical standpoint, provided that the recommendations presented in this report are properly incorporated in design and construction. Geotechnical recommendations for the proposed development are presented in the following sections and are intended to provide sufficient geotechnical information to develop the project plans in accordance with 2019 CBC requirements. The following recommendations may be superseded by more restrictive requirements of the architect, structural engineer, and/or local building official.

The recommendations below are based upon the exhibited geotechnical engineering properties of the soils and their anticipated response both during and after construction. The recommendations are also based upon proper field observation and testing during construction. The project geotechnical engineer should be notified of suspected variances in field conditions to determine the effect upon the recommendations subsequently presented. These recommendations are considered minimal and may be superseded by more restrictive requirements of the civil and structural engineers, the City of Ontario, the County of San Bernardino and other governing agencies.

Leighton should review the grading plans, foundation plans and project specifications as they become available to verify that the recommendations presented in this report have been incorporated into the plans for this project.

5.1 Earthwork

All site grading should be performed in accordance with the project specifications that are prepared by the appropriate design professional. The guide specifications presented in Appendix D, General Earthwork and Grading Recommendations may be used as a guideline in developing the project specifications.

Earthwork and grading operations are recommended to be observed and appropriate testing be performed by representatives of the geotechnical engineer to verify that the site is properly prepared, the selected fill materials are satisfactory, and that placement and compaction of fills has been performed in accordance with our recommendations and the project specifications.

5.1.1 Site Preparation

Initial preparation of the site should include demolition and removal of the existing facility from the project site including all foundations, slabs and underground structures. Existing utilities not planned for reuse with the proposed development should be either removed in their entirety, properly abandoned in-place, or rerouted around the development area to preserve their function. Disposal of all debris and remnants of the existing development should be performed in accordance with the type of material and local regulations.

The existing development includes a relatively large paved parking lot that consists of asphalt concrete. Based upon the conditions encountered at the test boring locations, the thickness of the existing asphalt concrete ranged from 2½ to 5 inches underlain by base course that ranged from 3 to 12 inches in thickness. Reuse of the pavement with the proposed development will require consideration of proposed finish grades and the need to construct an asphalt overlay to prolong the service life of the pavement. Recommendations for reuse of the pavement can be provided upon request. However, for purposes of this report, the existing pavement is assumed to not be salvaged for reuse and will be removed from the site. If properly processed during demolition and removal, the pavement may be reused as the base course for construction of new pavement.

Upon completion of demolition and site clearing activities, the soils should be carefully observed for the removal of all unsuitable deposits. All undocumented fill or man-made debris, unsuitable native soils and former foundation remnants should be excavated and removed from the proposed building/structure footprint prior to fill placement.

5.1.2 Removals and Overexcavations

The recommended depths of overexcavation presented below have been based upon the assumed structural loads and the recommended allowable bearing pressure. The actual depth recommended for preparation of foundation areas may be revised depending upon the actual footing sizes that result from structural design of the foundations. Consequently, the recommendations for building pad preparation/overexcavation should be reviewed by the geotechnical engineer as foundation design proceeds.

To provide uniform foundation support and reduce the potential for excessive static settlement, all existing undocumented fill and any unsuitable soil, as deemed by the geotechnical engineer, should be removed to expose suitable native soils and replaced as engineered fill below the proposed building and other structural improvements. Based on our field explorations, we estimate removals of existing undocumented fill will be approximately 5 feet below existing grade across most of the site. Localized areas are anticipated to require deeper removals, in particular beneath the existing buildings and in areas of existing utilities.

Removals should be performed such that all undocumented fill is removed and replaced as engineered fill. In addition, overexcavations should be performed such that a minimum of 4 feet of engineered fill is established below the proposed building foundation elements and the at-grade slabs of the buildings. The lateral extent of overexcavation beyond foundations should be equal to the depth of overexcavation below the proposed foundations as measured at the excavation subgrade.

The depth of overexcavation in non-structural areas planned for new pavement construction is recommended to be 2 feet below the current grade or planned subgrade elevation to develop a suitable bearing subgrade for pavement support. Deeper overexcavations in localized areas may be recommended during grading by a representative of the geotechnical engineer depending on observed subsurface conditions.

5.1.3 Subgrade Preparation

All excavation bottoms or removal bottoms should be observed by a representative of the geotechnical engineer prior to placement of fill or other improvements to determine that geotechnically suitable soil is exposed. Excavation bottoms observed to be suitable for fill placement or other improvements should be scarified to a depth of at least 8 inches, moisture-conditioned as necessary to achieve a moisture content of at least 2 percentage points above the optimum moisture content, and then compacted to a minimum of 90 percent of the maximum dry density as determined by ASTM Test Method D 1557 (Modified Proctor).

5.1.4 Fill Placement and Compaction

The onsite soil, free of organic material, cobbles, boulders, rubble, and rock less than 3 inches in largest dimension, is suitable to be used as structural fill. All fill soil should be placed in loose lifts no greater than 8 inches in thickness, moisture-conditioned as necessary to a moisture content 1 to 2 percentage points above optimum moisture content and compacted using proper equipment to the minimum standard as noted below, unless stated otherwise in the specific sections.

- Fill soil should be moisture-conditioned and compacted to a minimum of 90 percent relative compaction as determined by ASTM Test Method D1557.
- Subgrade exposures should be moisture-conditioned and compacted to a minimum of 90 percent relative compaction as determined by ASTM Test Method D1557
- Base course material should be compacted to a minimum of 95 percent relative compaction.
- Utility trench backfill is discussed in Section 5.5.

Material imported to the site for use as fill should be reviewed and approved by the geotechnical engineer prior to import to the site and placement as fill. Imported soils should be very low in expansion potential (EI less than 20); non-corrosive to metals and concrete; and be free of hazardous substances.

When grading is interrupted by heavy rains, fill operations should not be resumed until the moisture content and the dry density of the placed fill are satisfactory.

5.1.5 Shrinkage and Bulking

The change in volume of excavated and recompacted soil varies according to soil type and location. This volume change is represented as a percentage increase (bulking) or decrease (shrinkage) in volume of fill after removal and recompaction. Field and laboratory data used in our calculations included laboratory-measured maximum dry density for the

general soil type encountered at the subject site, the measured in-place densities of near surface soils encountered and our experience.

Earthwork operations are generally anticipated to be limited to soils to a depth of 5 to 6 feet below current grade with some additional overexcavation in localized areas of the site where unsuitable bearing/very loose relative density soils may be encountered in the southern to southwestern region of the site. Data regarding the in-place density of the near surface soils could not be collected due to the manner in which field exploration was encountered whereby the soils to a depth of 5 feet at the boring locations were pre-drilled by use of a hand auger to protect against damaging buried utilities. Therefore, earthwork quantities (shrinkage/bulking) are primarily based upon experience with similar materials at other project sites and the limited available data from soils recovered from a depth of 6 feet.

On a preliminary basis, the existing fill materials requiring removal and recompaction are anticipated to exhibit volume shrinkage on the order of of 10 to 15 percent. The estimated shrinkage does not include material losses due to removal of organic material or other unsuitable bearing materials (debris, rubble, oversize material greater than 6-inches) and the actual shrinkage that occurs during grading may vary throughout the site.

5.1.6 Reuse of Concrete and Asphalt Rubble

If encountered during site clearing and/or during preparation activities, construction rubble (i.e., Portland cement concrete and asphalt concrete) may be incorporated in the proposed development. For use as structural fill, the processed material should be crushed to develop a relatively well-graded mixture with a maximum particle size of 3-inch nominal diameter. Concrete rubble should be free of rebar and processed asphalt pavement rubble may be used if mixed with the existing base course (where present). Processed material may be used as structural fill if uniformly mixed with onsite soils in proportion of 1 part processed material to 3 parts soil. For use as pavement base course, rubble should be crushed to satisfy gradation requirements of Section 200-2.4 of the *Standard Specifications for Public Works Construction,* (SSPWC, “Greenbook”). Such materials must be free of and segregated from any hazardous materials and/or organic material of any kind.

5.2 Foundation Design

Preparation of the building areas should be performed as described in Section 5.1 of this report. Upon completion of building pad preparation, the soils that will provide support of the foundations are expected to consist of properly moisture-conditioned structural compacted fill that exhibits very low to low expansion potential underlain by suitable bearing native soils.

5.2.1 Vertical Load Bearing Capacity

The proposed structures are recommended to be supported by a shallow foundation system in which continuous strip footings are used for wall support and isolated square pad footings for column support. Footings to support the proposed buildings are recommended to be designed for a maximum net allowable soil bearing pressure of 2,500 pounds per square foot (psf) for continuous strip footings for wall support and 3,000 psf for isolated square pad footings for column support.

The foundations for ancillary structures separate from the proposed buildings are recommend to be designed for a maximum 2,000 pounds per square foot (psf) for continuous strip footings for wall support and 2,500 psf for isolated square pad footings for column support. The recommended bearing pressures assume the foundations will be supported by a layer of structural compacted fill that is a minimum 2 feet in thickness below foundations and extends laterally distance of at least 2 feet beyond the edges of the foundations.

The allowable bearing values may be increased by one-third when considering short-term seismic or wind loads. The recommended bearing pressure is net so the unit weight of concrete may be assumed to be 50 pcf when calculating the component of load demand due to foundation weight; the weight of soil backfill can be neglected when determining the downward loads.

The recommended allowable bearing pressures stated above have been based upon specific minimum footing sizes and embedment depths:

- Minimum widths for foundations are recommended to be 18 inches for continuous strip footings and 24 inches for square pad footings.

- Minimum footing embedment depth for the isolated exterior footings and the footings for the exterior walls is recommended to be 18 inches.
- The minimum embedment depth for interior footings is recommended to be 18 inches.
- The minimum embedment depth for ancillary structures is 18 inches below adjacent subgrade elevation.

The depth of embedment should be determined from the finish subgrade elevation adjacent to the building for the perimeter footings and the finish pad grade within the structure for interior footings. Additional foundation embedment depth may be considered for foundations located close to property lines to protect foundations from being undermined due future excavation that may be performed on the adjacent properties.

Determination of the minimum steel reinforcement requirements of the continuous strip and isolated square pad footings should be performed by the structural engineer.

The foundation bearing soils are recommended to be evaluated by the geotechnical engineer prior to placing reinforcing steel. Evaluation is intended to verify suitable bearing conditions to support the footings and the footing excavations are generally in compliance with foundation plans.

5.2.2 Lateral Load Resistance

Lateral loads may be resisted by friction acting along the bottoms of the footings and passive resistance of the soil adjacent to the vertical sides of the foundations provided the foundations are poured neat against properly compacted fill or undisturbed native soils. Resistance to lateral load may be calculated on the basis of an allowable frictional coefficient of 0.30 and allowable passive resistance equal to an equivalent fluid density of 250 pounds-per-cubic-foot (pcf) to a maximum of 2,500 psf. No reduction will be needed to any of the above two components for computing the total resistance to lateral loads. The use of passive resistance in lateral load analysis requires the foundations to be cast against vertical, undisturbed trench walls or any voids along the footing be backfilled with structural compacted fill.

5.2.3 Settlement Estimate

Estimated post-construction total and differential settlement under the assumed loading conditions and preparation of the building areas as described in this report are estimated to be on the order of 1 inch and ½ inch, respectively. The differential settlement is expected to occur over a minimum span of 30 feet, thereby resulting in an angular distortion less than 0.002, which is expected to be within tolerable limits for the proposed structures.

Settlement is a function of footing size and contact bearing pressure. As a result, differential settlement can be expected between adjacent columns or walls where a large differential loading condition exists. Leighton should review the settlement estimates when final foundation plans and loads for the proposed structures become available.

5.3 Slab-on-Grade Floors

Upon completion of the recommended building pad preparation, the subgrades of the slabs supported on grade are anticipated to consist of newly placed structural compacted fill, which is generally expected to consist of the existing soils that have been overexcavated and recompacted under engineering controlled conditions.

Based upon the anticipated subgrade conditions, the floor slabs of the proposed buildings that will be supported on grade may be designed and constructed as a mat on elastic foundation using a modulus of subgrade reaction (k_{v1}) of 100 pounds per cubic inch (pci). These slabs are recommended to be a minimum of 4 inches in thickness and include No. 3 rebar placed at center of the slab at 18 inches on-center in each direction based on geotechnical considerations. Increase in the slab thickness and/or reinforcing may be necessary due to structural engineering considerations as determined by the structural engineer.

The slabs may are recommended to be underlain by a minimum 4-inch thick coarse granular material to serve as a working mat during construction and serve as a capillary moisture break.

Interior slabs-on-grade are recommended to be underlain by a synthetic sheeting to serve as a retarder to moisture vapor transmission in areas where moisture-sensitive floor coverings are used (such as vinyl, tile, or carpet) or storage areas

for personal possessions. Prior to installing the synthetic sheeting, the exposed subgrade surface should be clear of all extruding rock and gravel that could damage the sheeting. The sheeting should be evaluated for the presence of punctures or tears by the installer prior to pouring concrete. Installation of the sheeting should include proper overlap and taping of seams.

Appropriate synthetic sheeting should be determined by others qualified in evaluating and mitigating moisture vapor transmission through concrete slabs. Our firm does not practice in the field of moisture vapor transmission evaluation, since this is not specifically a geotechnical issue. Therefore, we recommend that a qualified person, such as the flooring subcontractor and/or structural engineer, be consulted with to evaluate the general and specific moisture vapor transmission paths and any impact on the proposed construction with respect to the storage facility and retail areas. That person should provide recommendations for mitigation of the potential adverse effects of moisture vapor transmission on various components of the structures as deemed appropriate.

Care should be taken to avoid slab curling if slabs are poured in hot weather. Frequent construction joints should be provided to minimize the potential for cracking. Slabs should be designed and constructed as promulgated by the Portland Cement Association (PCA). Prior to the slab pour, all utility trenches should be properly backfilled and compacted. Differential settlement of this material could result in movement and distress to hardscape and other improvements. The need to repair cracks, etc. should be anticipated.

5.4 Temporary Excavations

All temporary excavations, including utility trenches, retaining wall excavations, and other excavations should be performed in accordance with project plans, specifications and all Occupational Safety and Health Administration (OSHA) requirements.

Temporary excavations should be treated in accordance with the State of California version of OSHA excavation regulations, Construction Safety Orders for Excavation General Requirements, Article 6, Section 1541, effective October 1, 1995. The sides of excavations should be shored or sloped in accordance with OSHA regulations. OSHA allows the sides of unbraced excavations, up to a maximum height of 20 feet, to be cut to a ¾H:1V (horizontal:vertical) slope for Type A soils, 1H:1V for Type B soils, and 1½H:1V for Type C soils. Onsite sandy soils

are to be considered Type C soils which are subject to collapse in shallow unbraced excavations (i.e., approximately 3 to 4 feet in vertical height).

OSHA regulations are applicable in areas with no restriction of surrounding ground deformations. Shoring should be designed for areas with deformation restrictions. The soil type should be verified or revised based on geotechnical observation and testing during construction, as soil classifications may vary over short horizontal distances.

Typical cantilever shoring should be designed based on an active fluid pressure of 38 pcf, assuming level ground above the shoring. If excavations are braced at the top and at specific design intervals, the active pressure may then be approximated by a rectangular soil pressure distribution with the pressure per foot of width equal to 25***H*** psf, where ***H*** is equal to the depth of the excavation being shored.

Heavy construction loads, such as those resulting from stockpiles and heavy machinery, should be kept a minimum distance equivalent to the excavation height or 5 feet, whichever is greater, from the excavation unless the excavation is shored and these surcharges are considered in the design of the shoring system. Excavations that extend below an imaginary plane inclined at 45 degrees below the edge of any adjacent existing site foundation should be properly shored to maintain support of the adjacent structures.

5.5 Trench Backfill

Utility trenches should be backfilled with compacted fill in accordance with Sections 306-1.2 and 306-1.3 of the *Standard Specifications for Public Works Construction,* (SSPWC, “Greenbook”), 2018 Edition. Utility trenches can be backfilled with onsite material free of rubble, debris, organic and oversized material up to 3 inches in largest dimension. Prior to backfilling trenches, pipes should be bedded in and covered with either:

- **Granular Bedding:** a) ½-inch open grade aggregate; or b) a uniform sand material with a Sand Equivalent (SE) greater than or equal to (≥) 30, passing the No. 4 U.S. Standard Sieve (or as specified by the pipe manufacturer). Testing to evaluate the Sand Equivalent (SE) of representative samples of the near surface soils indicated SE values below 30, thereby indicating the on-site soils may not be suitable for reuse in this manner.

- **CLSM:** Controlled Low Strength Material (CLSM) conforming to Section 201-6 of the SSPWC. CLSM bedding should be placed to 1 foot (0.3 m) over the top of the conduit, and vibrated.

Pipe bedding should extend at least 4 inches below the pipeline invert and at least 12 inches over the top of the pipeline. The bedding and shading sand is recommended to be densified in place by vibratory, lightweight compaction equipment. Jetting or hydro-consolidation may be suitable for this project site where utility trenches will be underlain by the silty sands, typically present in the upper 5 to 10 feet.

Trench backfill over the pipe bedding zone may consist of native and clean fill soils. All backfill should be placed in thin lifts (appropriate for the type of compaction equipment), moisture conditioned above optimum, and mechanically compacted to at least 90 percent relative compaction, relative to the ASTM D 1557 laboratory maximum density.

5.6 Soil Corrosivity

In general, soil resistivity, which is a measure of how easily electrical current flows through soils, is the most influential factor for corrosion to ferrous metals. The following table presents an approximate relationship between soil resistivity and soil corrosiveness.

Table 4 – Soil Corrosivity as a Function of Resistivity

Soil Resistivity (ohm-cm)	Classification of Soil Corrosiveness
0 to 900	Very severe corrosion
900 to 2,300	Severely corrosive
2,300 to 5,000	Moderately corrosive
5,000 to 10,000	Mildly corrosive
10,000 to >100,000	Very mildly corrosive
Note: [1] ASTM STP 1013 titled *Effects of Soil Characteristics on Corrosion* (February, 1989).	

In addition to resistivity, the concentration of chloride ions can also be used to evaluate corrosive potential to steel, either in the form of reinforcement protected by concrete cover or plain steel substructures, such as steel pipes. As a general guideline, the chloride threshold adopted by Caltrans is a concentration of 500 ppm

or greater as determined by California Test 532. Concentrations of chloride ions above the stated concentration or other characteristics such as soil resistivity or redox potential may warrant special corrosion protection measures. The results of corrosivity testing are summarized in the following table.

Table 5 – Summary of Corrosivity Testing

Test Parameter	Test Results LB-3 @ 0'-5'	General Classification of Hazard
Water-Soluble Sulfate in Soil (ppm)	260	Negligible sulfate exposure to buried concrete
Water-Soluble Chloride in Soil (ppm)	40	Non-corrosive to buried reinforced concrete
pH	7.92	Moderately alkaline
Minimum Resistivity (saturated, ohm-cm)	1,335	Severely corrosive to buried ferrous pipes

The results of the resistivity tests indicate the underlying soil is moderately corrosive to buried ferrous metals per ASTM STP 1013. The samples tested for water-soluble chloride content indicate a low potential for corrosion of steel in concrete due to the chloride content of the soil.

Based on the test results, ferrous pipes buried in moist to wet site earth materials should be avoided by using high-density polyethylene (HDPE), polyvinyl chloride (PVC) and/or other non-ferrous pipe when possible provided the pipe walls possess sufficient strength for the embedment and external loading to which the pipe will be subjected. Ferrous pipe can also be protected by polyethylene bags, tape or coatings, di-electric fittings or other means to separate pipe from on-site soils. If buried ferrous pipes are planned for this site, further corrosivity testing of soil samples should be performed upon completion of rough grading and specific corrosion protection measures should be recommended by a qualified corrosion engineer.

5.7 Cement Type

In general, soil environments that are detrimental to concrete have high concentrations of soluble sulfates and/or pH values of less than 5.5. Section 4.3 of ACI 318 (ACI, 2014) provides specific guidelines for the concrete mix-design when the soluble sulfate content of the soil exceeds 0.1 percent by weight or 1,000 parts per million (ppm).

The results of laboratory testing indicated concentrations of soluble sulfate less than 0.1 percent. The test results indicate a sulfate Exposure Class designation of "S0" appears to be appropriate for the project site based upon criteria presented in ACI 318. However, if the concrete is expected to be in contact with reclaimed water, Type V cement and a water/cement ratio of 0.45 should be used. Samples should be collected from the compacted fill subgrade upon completion of grading to confirm the initial findings of this exploration.

5.8 Elevator Pit Wall Design

The proposed development is not expected to include new earth retaining structures due to the generally level topographic relief of the site and no below grade levels associated with the buildings. However, in consideration that the buildings will be multi-stories in height, the buildings are anticipated to include elevators. In the anticipation that elevator equipment will include below-grade pits to house the mechanical workings, design of the pit walls should include provisions to resist the lateral load of the adjacent soils. Based on the recommended building pad parathion and the anticipated soil conditions, design of the pit walls is recommended to be based upon an equivalent lateral earth pressure of 60 psf per foot of retained height.

5.9 Pavements

5.9.1 Pavement Subgrades

The pavement subgrades should be prepared as described in Section 5.1 of this report. In accordance with the recommendations, preparation of the subgrade within the areas of new pavement construction are recommended to be overexcavated to a depth of 2 feet below the current grade or planned subgrade elevation, or to the depth of undocumented fill whichever is greater, to allow placement of a minimum of 2 feet of structural fill to develop a suitable bearing subgrade for pavement support.

5.9.2 Hot Mix Asphalt (HMA) Pavement Sections

Asphalt pavements are anticipated to be feasible for the proposed development. Based on the anticipated subgrade conditions and the results of laboratory testing conducted on one bulk sample of the near surface soils

(LB-1), the following recommendations for pavement design have been based upon a design R-value of 30 for the anticipated subgrade. R-value tests should be performed upon completion of grading to verify the design value is appropriate for the actual subgrade conditions. Based on the design procedures outlined in the current Caltrans Highway Design Manual and using an R-value of 78 for the pavement base course, the following flexible pavement sections may be used for Traffic Index values that correspond to various levels of vehicle traffic.

Table 6 – Asphalt Pavement Sections

Traffic Index	Asphalt Concrete (inches)	Base Course (inches)	
		CAB	CMB
4 or less	3	5	6
5.0	3	6	7
6.0	4	7	8

Notes: CAB – Crushed Aggregate Base Course; Caltrans Class 2, Section 26 or SSPWC Section 200-2.2

CMB – Crushed Miscellaneous Base Course; SSPWC Section 200-2.4

The asphalt concrete should conform to the specifications outlined in Section 203-6 of the Standard Specifications for Public Works Construction (SSPWC, a.k.a. “Greenbook”), and asphalt concrete construction methods should meet the requirements of Section 302-5 of the Green Book.

The base course should conform to requirements of Section 26 of State of California Department of Transportation Standard Specifications (Caltrans), latest edition, or meet the specifications for untreated base as defined in Section 200-2.2 of the SSPWC (Greenbook). As an alternate, the base course may comply with the specifications for Crushed Miscellaneous Base per SSPWC Section 200-2.4 with an appropriate increase in thickness.

Prior to placement of the base course, the subgrade soil should be processed to a minimum depth of 8 inches, moisture-conditioned to 1 to 2 percent above optimum moisture content, and recompacted to a minimum of 95 percent relative compaction. Base course should be placed in thin lifts, moisture conditioned, as necessary, and compacted to a minimum of 95 percent relative compaction (ASTM D1557).

5.9.3 Portland Cement Concrete (PCC) Pavements

Portland cement concrete is recommended for areas of the development subjected to large loads and truck loading/unloading areas. In such areas, a minimum 6-inch thick Portland Concrete Cement (PCC) pavement section reinforced is recommended. Reinforcement is recommended to consist of No. 4 rebar at a maximum on-center spaced at 16 inches in each direction. The recommended PCC pavement section was based on the procedures described in the *Guide for Design and Construction of Concrete Parking Lots by the American Concrete Inst*itute (ACI 330R-08).

All PCC pavements should have a minimum 28-day concrete compressive strength of 3,000 pounds-per-square-inch (psi). The reinforcement should be evaluated by the civil/structural engineer to accommodate any additional structural loading requirements. Control joints are recommended to be installed at a maximum on-center spacing of 12 feet for 6-inch thick slabs, and should form square panels.

Concrete pavement may be underlain by a minimum 4-inch thick layer of compacted granular base to serve as a leveling mat for construction and to assist in load transfer at construction joints.

Integral curbs should be used at the perimeter of PCC pavement. Longitudinal joints should be avoided near curbs and gutters. Use of concrete cutoff or edge barriers should be considered at the perimeter of common parking or driveway areas when abutting either open (unfinished) or landscaped areas.

5.10 Concrete Flatwork and Exterior Slabs

Exterior concrete slabs-on-grade should have a minimum thickness of 4 inches. Common Type II cement should be adequate for concrete flatwork not exposed to recycled water. Type V cement and a water:cement ratio of 0.45 should be used for concrete exposed to recycled water.

Concrete flatwork should be placed on compacted fill. If this material has been disturbed or dried out, the subgrade soil to a depth of 12 inches should be moisture conditioned to 1 to 2 percent above optimum moisture content and recompacted to minimum 90 percent relative compaction.

Exterior concrete driveways, ramps, curbs, gutters, sidewalks often crack. Inclusion of joints at frequent intervals and reinforcement will help control the locations of the cracks, and thus reduce the unsightly appearance. Construction or weakened plane joints should be spaced at intervals of 6 feet or less for sidewalks, curbs and gutters. The spacing may be increased to 10 feet for ramps and driveways. If cracking occurs, repairs may be needed to mitigate the trip hazard and/or improve the appearance.

Minor cracking of concrete after curing due to expansion, drying and shrinkage is normal and should be expected. However, cracking is often aggravated by a high water-to-cement ratio, high concrete temperature at the time of placement, small nominal aggregate size, and rapid moisture loss due to hot, dry, and/or windy weather conditions during placement and curing. Cracking due to temperature and moisture fluctuations can also be expected.

The use of low-slump concrete or low water/cement ratios can reduce the potential for shrinkage cracking. Inclusion of joints at frequent intervals and reinforcement will help control the locations of the cracks, and thus improve aesthetics. Control joints should be spaced at intervals no more than 10 feet. If cracking occurs, repairs may be needed to mitigate the trip hazard and/or improve the appearance.

Slab cracking and/or uneven slab surfaces may result due to the presence of fill if the fill is left in place below the slabs. Slab distortion may result in tripping hazards. Standard methods to mitigate trip hazards include the following:

- Saw Cutting
- Grinding
- Patching and ramping
- Removing and replacement

A regular maintenance program should be implemented to mitigate trip hazards and comply with safety requirements.

5.11 Surface Drainage

Positive drainage of surface water away from structures is very important. Water should not be allowed to pond adjacent to buildings or new site improvements. Positive drainage may be accomplished by providing drainage away at a minimum of 2 percent for earthen surfaces for a lateral distance of at least five feet and further maintained by a swale or drainage path at a gradient of at least 1 percent.

Where necessary, drainage paths may be shortened by the use of area drains and collector pipes. Eave gutters are recommended and should reduce water infiltration into the subgrade materials. Downspouts should be connected to appropriate outlet devices.
Irrigation of landscaping should be controlled to maintain, as much as possible, consistent moisture content sufficient to provide healthy plant growth without over watering.

5.12 Additional Geotechnical Services

Leighton should review the grading plans, foundation plans, and specifications when they are available to verify that the recommendations presented in this report have been properly interpreted and incorporated.

Geotechnical observation and testing should be provided during the following activities:

- Grading and excavation of the site;
- Subgrade Preparation;
- Compaction of all fill materials;
- Utility trench backfilling and compaction;
- Footing excavation and slab-on-grade preparation;
- Pavement subgrade and base preparation;
- Placement of asphalt concrete and/or concrete; and
- When conditions are encountered on site that are not consistent with the conditions described in this report.

6.0 LIMITATIONS

This report was prepared using the degree of care and skill ordinarily exercised, under similar circumstances, by reputable geotechnical consultants practicing at this time in San Bernardino County. We do not make any warranty, either express or implied.

As in many projects, conditions revealed in excavations may be at variance with preliminary findings. If this occurs, the changed conditions must be evaluated by the geotechnical consultant and additional recommendations be developed as needed.

The identification and testing of hazardous, toxic or contaminated materials was outside the scope of Leighton's work. Should such materials be encountered at any time, or their existence be suspected, all measures stipulated in local, County, State and Federal regulations, as applicable, should be implemented.

This report is issued with the understanding that it is the responsibility of the owner, or of his representative, to ensure that the information and recommendations contained herein are brought to the attention of the necessary design consultants for the project and incorporated into the plans; and that the necessary steps are taken to see that the contractors carry out such recommendations in the field.

Changes in the conditions of a property can occur with the passage of time, whether due to natural processes or the work of man on the subject or adjacent properties. In addition, changes in standards of practice may occur from legislation or the broadening of knowledge. Accordingly, the findings of this report may at some future time be invalidated wholly or partially by changes outside Leighton’s control.

The conclusions and recommendations in this report are based in part upon data that were obtained from a necessarily limited number of observations, site visits, excavations, samples and tests. Such information can be obtained only with respect to the specific locations explored, and therefore may not completely define all subsurface conditions throughout the site. The nature of many sites is that differing geotechnical or geological conditions can occur within small distances and under varying climatic conditions. Furthermore, changes in subsurface conditions can and do occur over time. Therefore, the findings, conclusions and recommendations presented in this report can be relied upon only if Leighton has the opportunity to perform additional investigation of the site, finalize and complete the conclusions and recommendations presented in this report, and finally to observe the subsurface conditions during grading and construction of the project, in order to verify that our preliminary findings are representative of the site.

This report is intended only for the use of Legacy/Collier Residential, LLC and its design consultants, and only as related expressly to evaluation of the feasibility of developing the subject site with the proposed development and for preliminary planning and design.

If parties other than Leighton are engaged to provide construction geotechnical services, they must be notified that they will be required to assume complete responsibility for the geotechnical phase of the project by concurring with the findings and recommendations in this report or by providing alternative recommendations.

Any persons using this report for bidding or construction purposes should perform such independent explorations as they deem necessary to satisfy themselves as to the surface and subsurface conditions to be encountered and the procedures to be used in the performance of work on the subject site.

7.0 REFERENCES

American Concrete Institute (ACI), 2014, Building Code Requirements for Structural Concrete (ACI 318-14) and Commentary, an ACI Standard, reported by ACI Committee 318.

American Society of Civil Engineers (ASCE), 2017, Minimum Design Loads for Buildings and Other Structures, ASCE/SEI 7-16, with Supplement 1, Effective December 12, 2018.

Bray, J.D. and Sancio, R.B., 2006, Assessment of the Liquefaction Susceptibility of Fine-Grained Soils, Journal of Geotechnical and Geoenvironmental Engineering, American Society of Civil Engineers, September 2006, V. 132, No. 9, pp. 1165-1177.

Bryant, W.A., and Hart, E.W., 2007, Fault Rupture Hazard Zones in California, Alquist-Priolo Earthquake Fault Zoning Act with Index to Earthquake Zones Maps, Department of Conservation, California Geological Survey, Special Publication 42, 2007 Interim Revision.

California Building Standards Commission, 2019, 2019 California Building Code (CBC), California Code of Regulations, Title 24, Part 2, Volume 2 of 2, Based on 2018 International Building Code, Effective January 1, 2020.

California Department of Conservation, Geologic Energy Management Division (CalGEM), 2021, Interactive Wellfinder Website, https://maps.conservation.ca.gov/doggr/wellfinder/

California Geological Survey (CGS; formerly California Division of Mines and Geology, CDMG), 2000a, Seismic Hazards Zones, Ontario Quadrangle, Official Map Released November 17, 2000.

———, 2000b, Seismic Hazard Zone Report for the Ontario 7.5-Minute Quadrangle, Los Angeles County, California, Seismic Hazard Zone Report No. 040.

_____, 2000c, CD-ROM containing digital images of Official Maps of Alquist-Priolo Earthquake Fault Zones that affect the Southern Region, DMG CD 2000-003 2000.

_____, 2008, Special Publication 117A, Guidelines for Evaluating and Mitigating Seismic Hazards in California.

_____, 2018, Earthquake Fault Zones, A Guide for Government Agencies, Property Owners / Developers, and Geoscience Practitioners for Assessing Fault Rupture Hazards in California, Special Publication 42, Revised 2018.

San Bernardino County, 2010, Land Use Services, General Plan, Geologic Hazard Overlays, map FH27 C – Ontario, scale 1:14,400, dated march 9, 2010.

_____, 2013, Technical Guidance Document for Water Quality Management Plans, Prepared by CDM Smith, Inc. for the County of San Bernardino Areawide Stormwater Program, dated June 7, 2013.

Dibblee, T.W. Jr., 2002, Geologic Map of the San Dimas and Ontario Quadrangles, Los Angeles and San Bernardino Counties, California, Dibblee Geological Foundation Map No. DF-91.

Federal Emergency Management Agency, 2015, Flood Insurance Rate Map, City of Ontario, Map Number 06071C8620H, dated August 8, 2008.

Jennings, C.W., 2010, Fault Activity Map of California, California Geological Survey, Geologic Data Map No. 6, map scale 1:750,000.

Morton D.M., and Miller, F.K., 2006, Geologic Map of the San Bernardino and Santa Ana, 30' x 60' Quadrangles, California, USGS Open File Report 2006-1217.

Nationwide Environmental Title Research, LLC (NETR), 2021, Historic Aerials by NETR Online, website: http://www.historicaerials.com/aerials.

United States Geological Survey (USGS), 2018, Ontario Quadrangle, California, 7.5 Minute Series Topographic Map, map scale 1:24,000.

_____, 2008a, Unified Hazard Tool for Deaggregations, https://earthquake.usgs.gov/hazards/interactive/

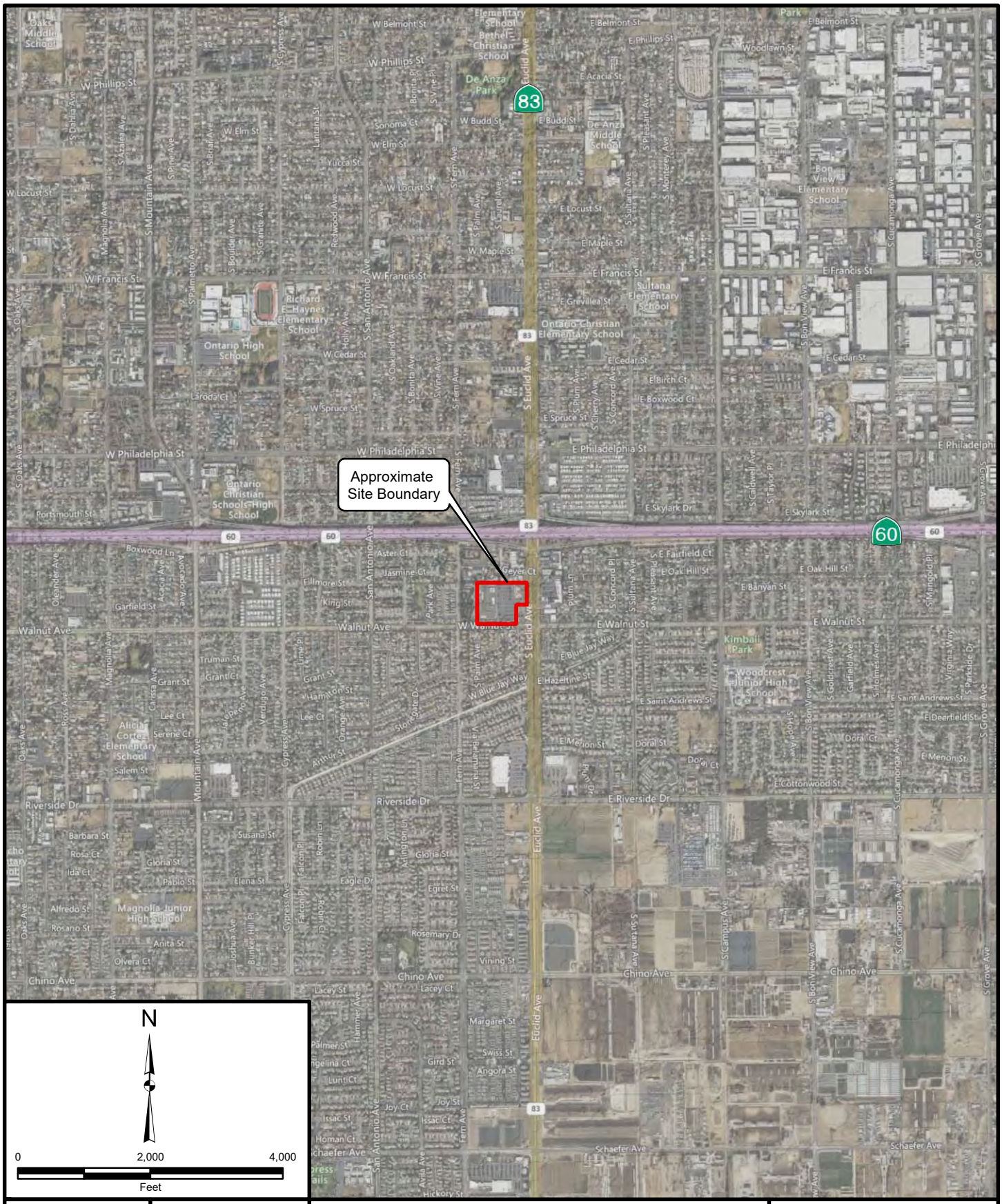
_____, 2008b, National Seismic Hazard Maps – Fault Parameters, https://earthquake.usgs.gov/cfusion/hazfaults_2008_search/query_main.cfm

_____, 2021a, Interactive Fault Map, http://earthquake.usgs.gov/hazards/qfaults/map/

_____, 2021b, Interactive Geologic Map, http://ngmdb.usgs.gov/maps/MapView/

Wildermuth Environmental, Inc., 2009, Chino Basin Optimum Basin Management Program, 2008 State of the Basin Report, Final Report, Prepared for Chino Basin Watermaster, dated November, 2009.

FIGURES



Project: 13493.001	Eng/Geol: JEH/EMH
Scale:1 " = 2,000 '	Date: May 2022

Reference: © 2022 Microsoft Corporation © 2022 Maxar ©CNES (2022) Distribution Airbus

SITE LOCATION MAP

Proposed Euclid and Walnut Mixed-Use Development
2502 and 2530 S. Euclid Avenue
Ontario, California

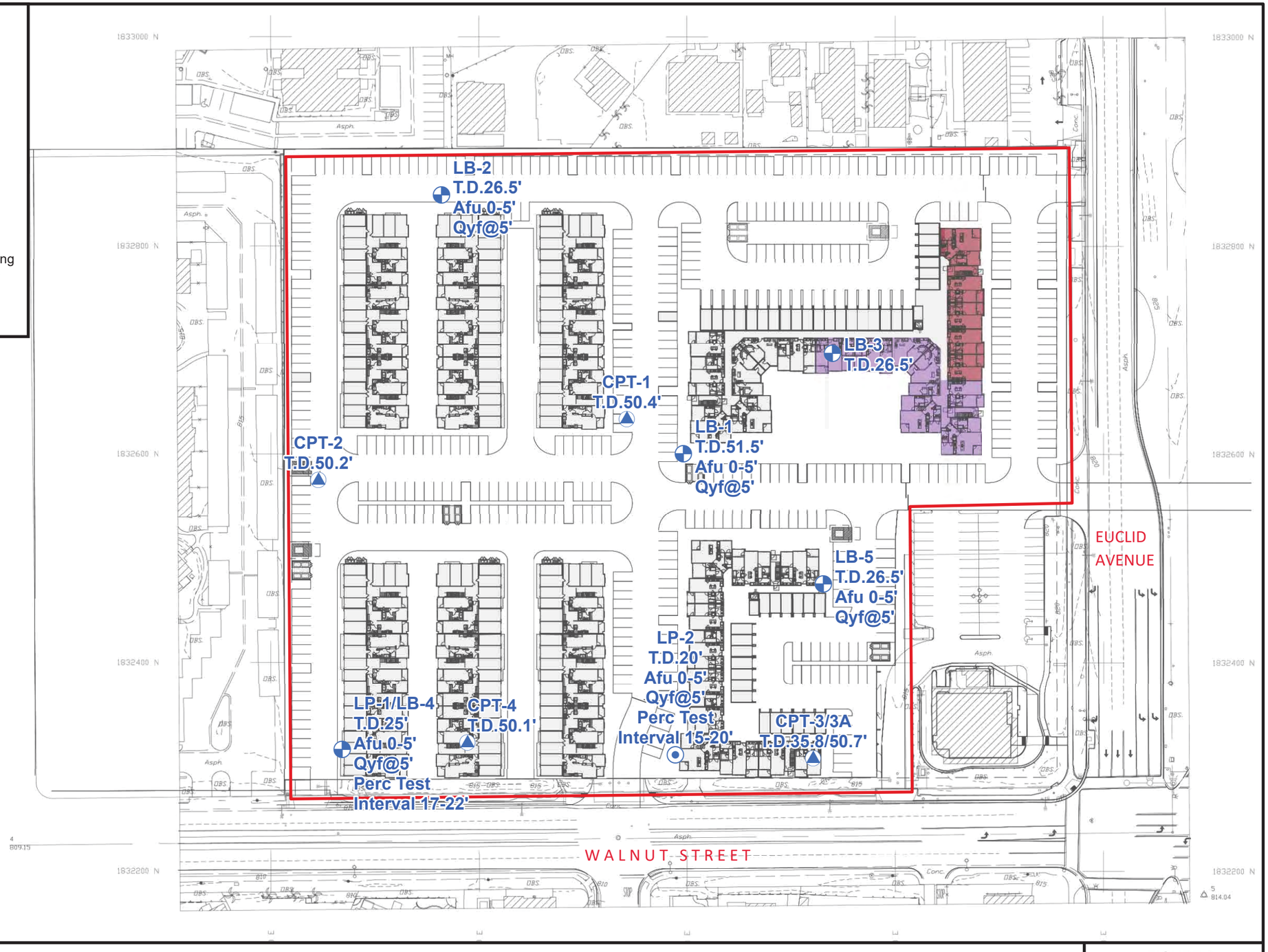
FIGURE 1

Leighton

Map Saved as J:\Drafting\13493\001\Maps\13493-001_F01_SLM_2022-04-19.mxd on 4/14/2022 2:00:06 PM Author: KVM (btran)

LEGEND

Afu	Artificial Fill
Qyf	Quaternary Young Alluvial Fan Deposits
LB-5	Approximate location of hollow-stem auger boring showing total depth (T.D.) and depth to earth units in feet below ground surface.
LP-2	Approximate location of percolation test well showing percolation test interval in feet below ground surface.
CPT-4	Approximate location of cone penetrometer test sounding showing total depth (T.D.) in feet below ground surface
	Approximate Site Boundary



N

0 100 200

Feet

Project: 13493.001	Eng/Geol: JEH/EMH
Scale:1 " = 100 '	Date: May 2022

Base Map: Option A Site Plan, Euclid and Walnut Mixed Use
Sheet 01, Dated: 03/10/2022
by AO Architecture Design Relationships

GEOTECHNICAL MAP

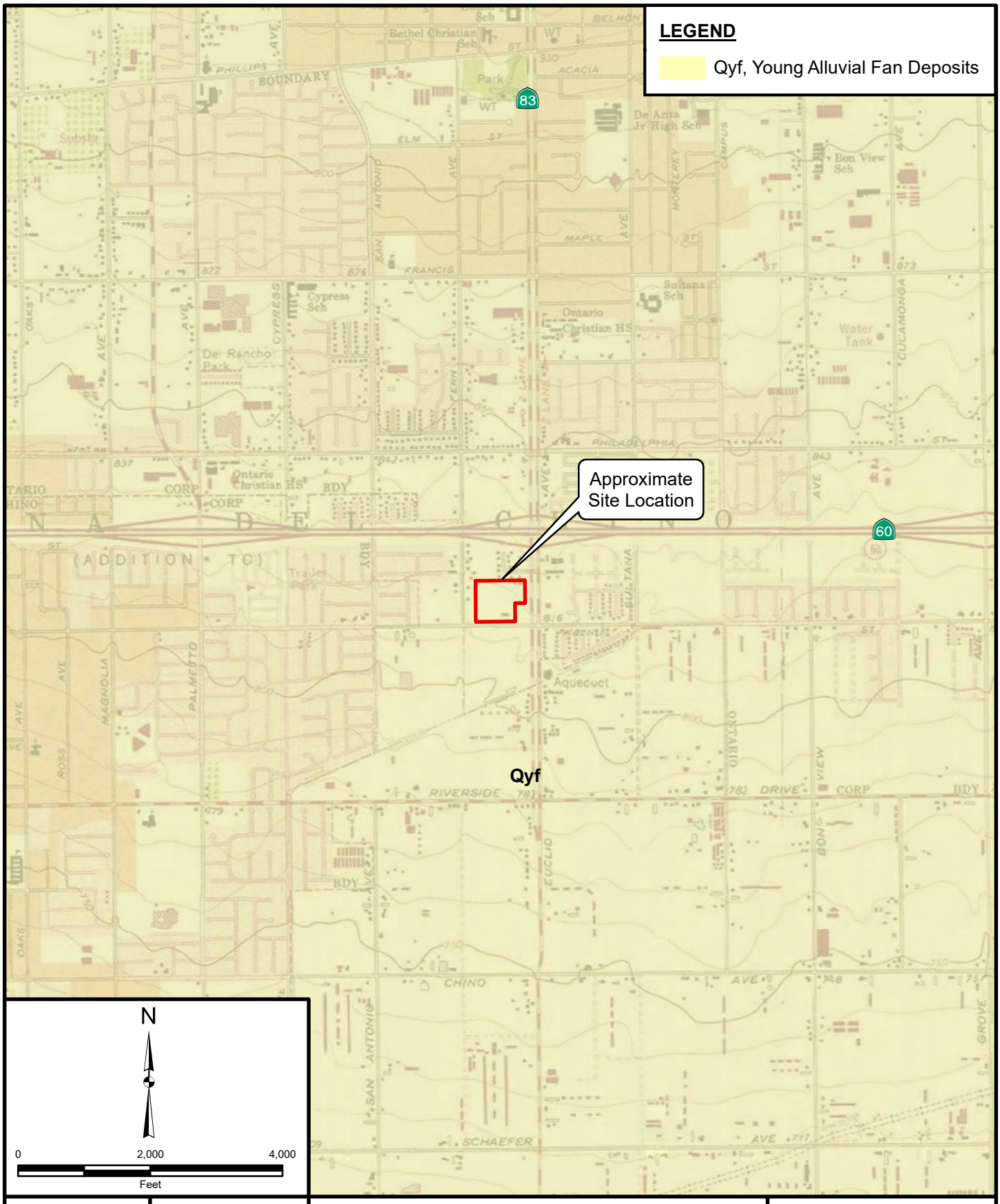
Proposed Euclid and Walnut Mixed-Use Development
2502 and 2530 S. Euclid Avenue
Ontario, California

FIGURE 2

Leighton

Map Saved as J:\Drafting\13493\001\Maps\13493-001_F02_GM_2022-04-20.mxd on 4/19/2022 11:14:24 AM Author: KVM (btran)

1234



Project: 13493.001	Eng/Geol: JEH/EMH
Scale:1 " = 2,000 '	Date: May 2022

Basemap: USGS Topo Map Service from Esri, 2021
Reference: USGS Geologic Map of the Sotuthern California GIS Compilation by CGS, Lancaster, et al., 2012

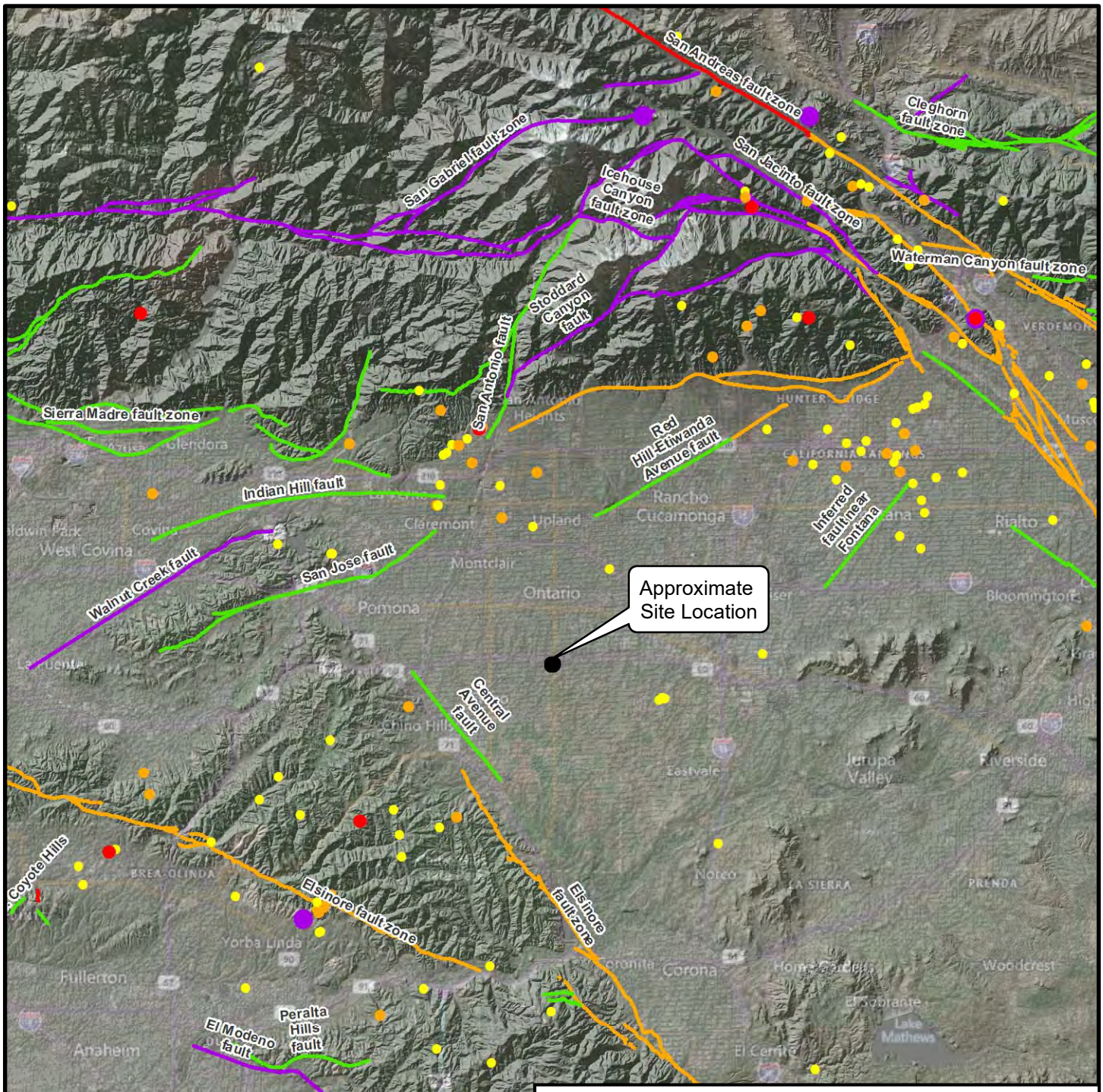
REGIONAL GEOLOGY MAP

Proposed Euclid and
Walnut Mixed-Use Development
2502 and 2530 S. Euclid Avenue
Ontario, California

FIGURE 3

Leighton

Map Saved as J:\Drafting\13493\001\Maps\13493-001_F03_RGM_2022-04-19.mxd on 4/14/2022 2:02:07 PM Author: KVM (btran)



LEGEND

Fault activity

Recency of Movement

- Historic (<200 years)
- Holocene (<11,700 years)
- Late Quaternary (last 700,000 years)
- Quaternary (<1.6M years)

Historical Earthquakes (≥M3.5)

- 3.5 - 3.99
- 4.0 - 4.99
- 5.0 - 5.99
- 6.0 - 6.99

Project: 13493.001	Eng/Geol: JEH/EMH
Scale: 1 " = 5 miles	Date: May 2022

Base Map: ESRI ArcGIS Online 2022
Reference: maps.conservation.ca.gov

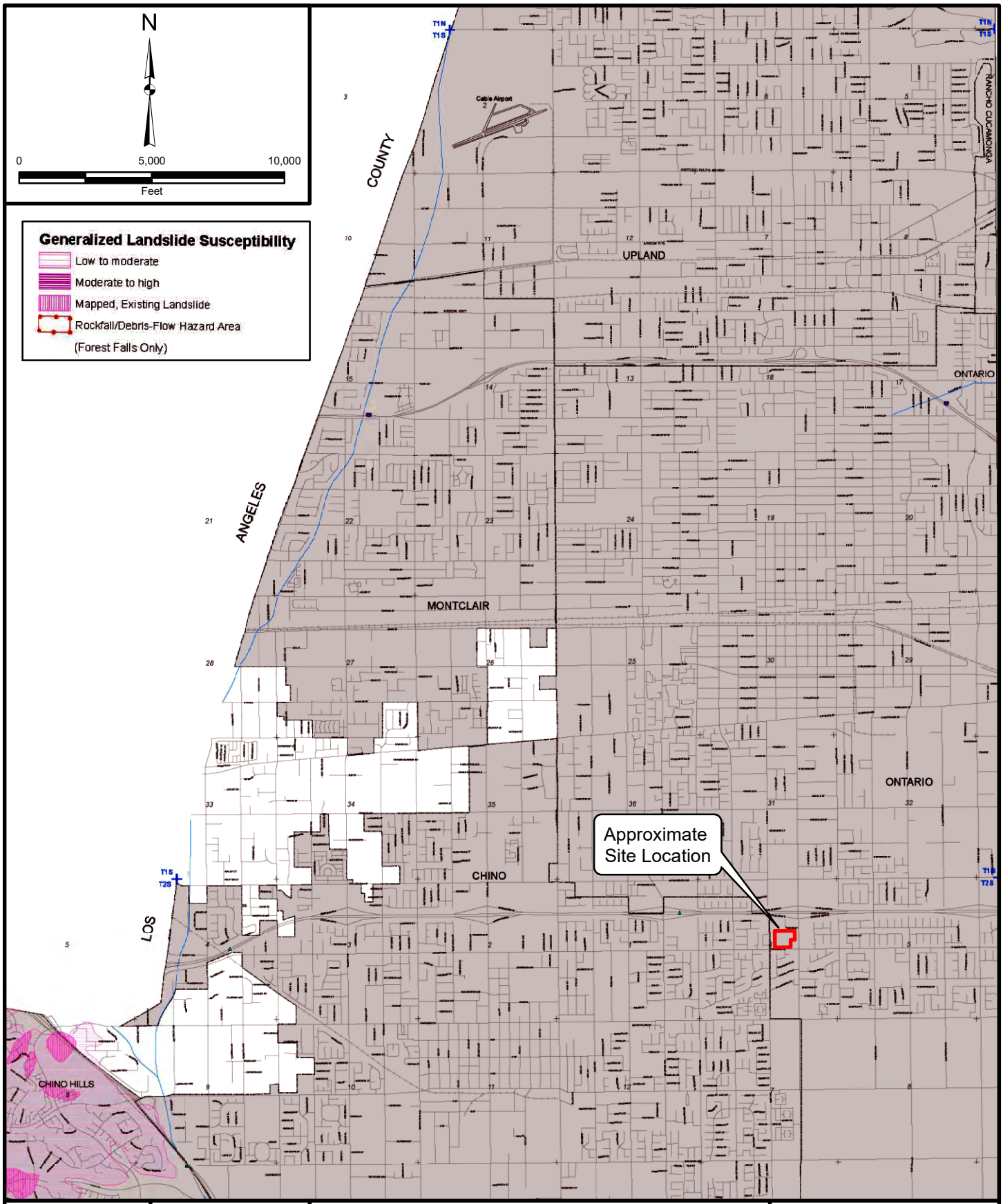
REGIONAL FAULTS AND HISTORIC SEISMICITY MAP

Proposed Euclid and Walnut Mixed-Use Development
2502 and 2530 S. Euclid Avenue
Ontario, California

FIGURE 4

Leighton

Map Saved as J:\Drafting\13493\001\Maps\13493-001_F04_RFHSM_2022-04-19.mxd on 4/14/2022 2:03:52 PM Author: KVM (btran)



Project: 13493.001	Eng/Geol: JEH/EMH
Scale: 1 " = 5,000 '	Date: May 2022

Base Map: San Bernardino County Land Use Plan General Plan, Geologic Hazard Overlays, FH27 C Ontario

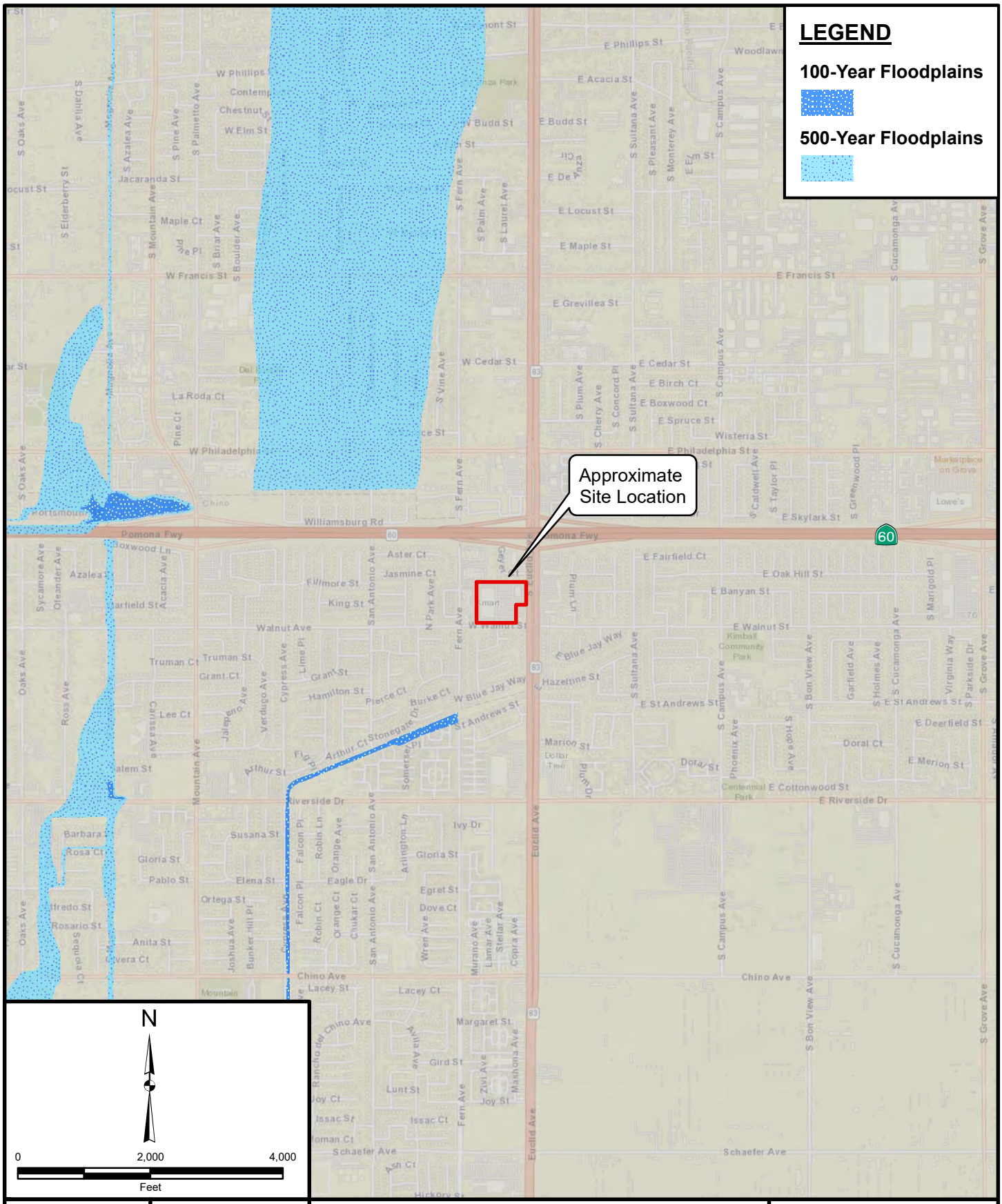
SEISMIC HAZARD MAP

Proposed Euclid and Walnut Mixed-Use Development
2502 and 2530 S. Euclid Avenue
Ontario, California

FIGURE 5

Leighton

Map Saved as J:\Drafting\13493\001\Maps\13493-001_F05_SHM_2022-04-20.mxd on 4/20/2022 1:12:49 PM Author: KVM (btran)



Project: 13493.001	Eng/Geol: JEH/EMH
Scale:1 " = 2,000 '	Date: May 2022

Base Map: ESRI ArcGIS Online 2022
Reference: FEMA, DWR

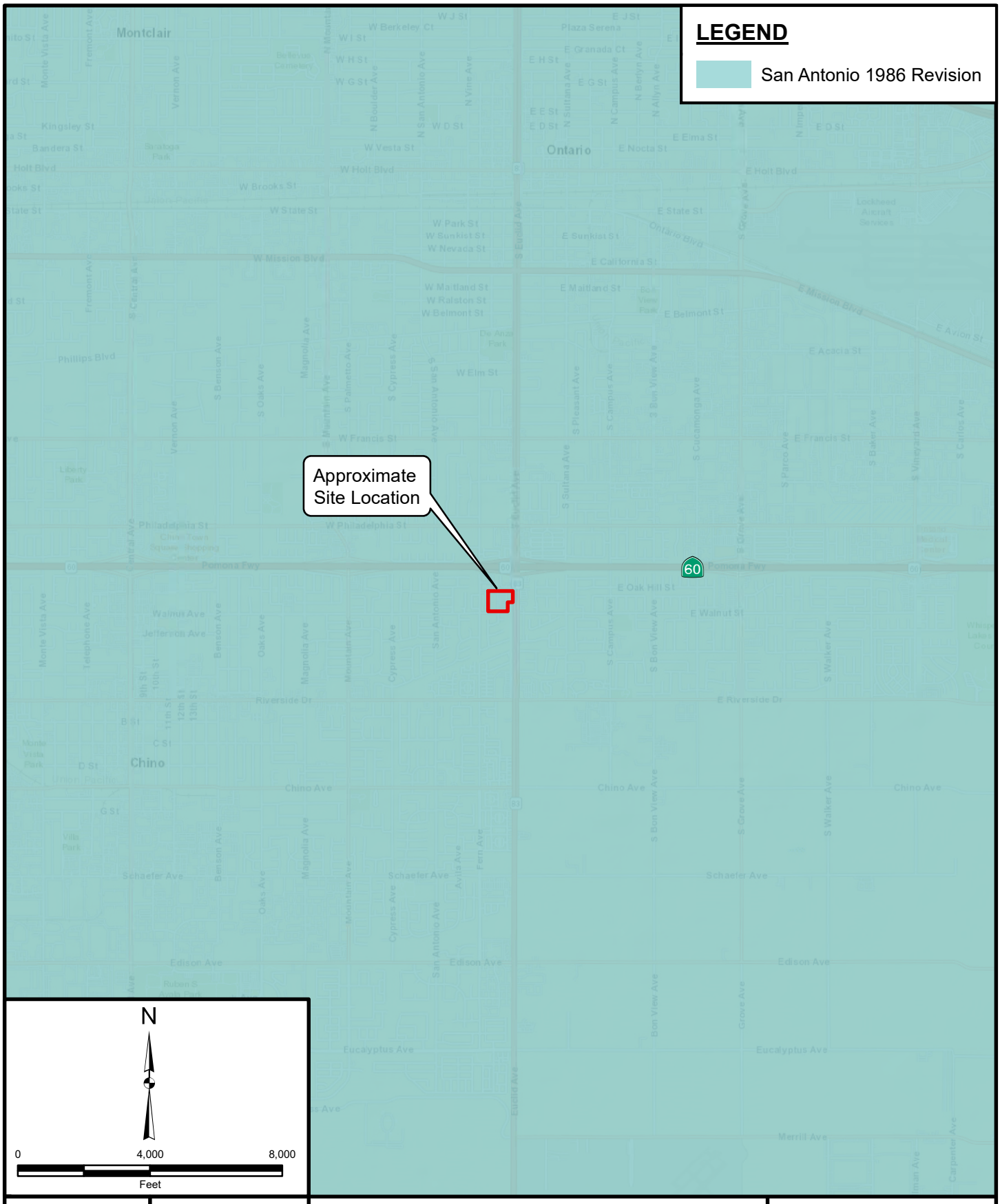
FLOOD HAZARD ZONE MAP

Proposed Euclid and
Walnut Mixed-Use Development
2502 and 2530 S. Euclid Avenue
Ontario, California

FIGURE 6

Leighton

Map Saved as J:\Drafting\13493\001\Maps\13493-001_F06_FHM_2022-04-19.mxd on 4/14/2022 2:10:26 PM Author: KVM (btran)



Project: 13493.001	Eng/Geol: JEH/EMH
Scale:1 " = 4,000 '	Date:May 2022

Base Map: ESRI ArcGIS Online 2022
Reference: FEMA, DWR

DAM INUNDATION MAP

Proposed Euclid and
Walnut Mixed-Use Development
2502 and 2530 S. Euclid Avenue
Ontario, California

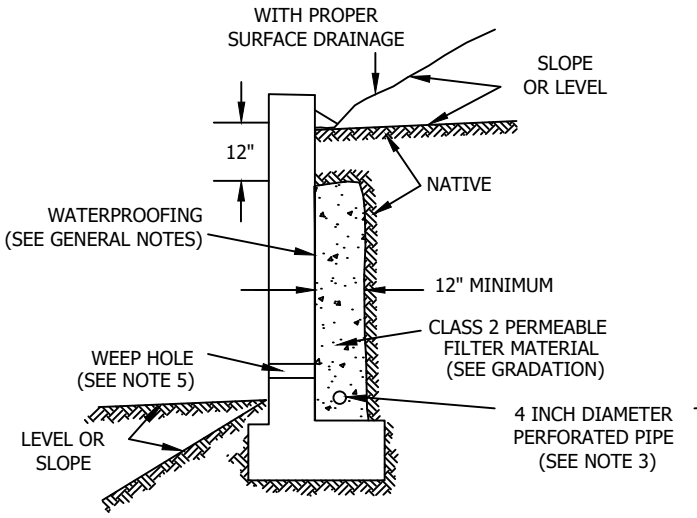
FIGURE 7

Leighton

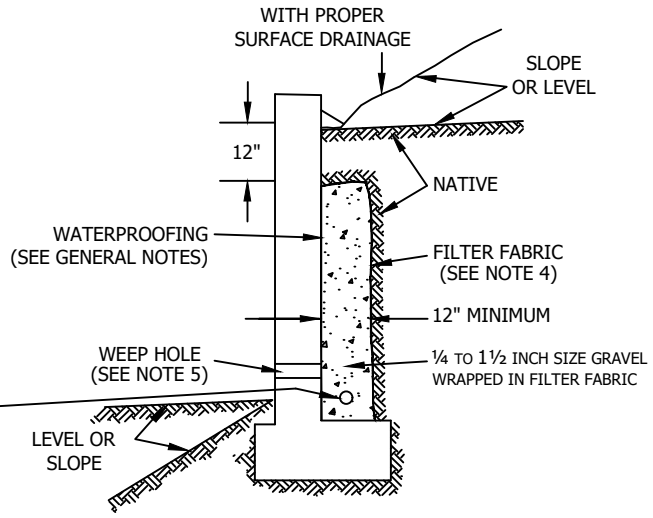
Map Saved as J:\Drafting\13493\001\Maps\13493-001_F07_DIM_2022-04-19.mxd on 4/14/2022 2:17:09 PM Author: KVM (btran)

SUBDRAIN OPTIONS AND BACKFILL WHEN NATIVE MATERIAL HAS EXPANSION INDEX OF ≤50

OPTION 1: PIPE SURROUNDED WITH CLASS 2 PERMEABLE MATERIAL



OPTION 2: GRAVEL WRAPPED IN FILTER FABRIC



Class 2 Filter Permeable Material Gradation
Per Caltrans Specifications

Sieve Size	Percent Passing
1"	100
3/4"	90-100
3/8"	40-100
No. 4	25-40
No. 8	18-33
No. 30	5-15
No. 50	0-7
No. 200	0-3

GENERAL NOTES:

* Waterproofing should be provided where moisture nuisance problem through the wall is undesirable.
* Water proofing of the walls is not under purview of the geotechnical engineer
* All drains should have a gradient of 1 percent minimum
*Outlet portion of the subdrain should have a 4-inch diameter solid pipe discharged into a suitable disposal area designed by the project engineer. The subdrain pipe should be accessible for maintenance (rodding)
*Other subdrain backfill options are subject to the review by the geotechnical engineer and modification of design parameters.

Notes:
1) Sand should have a sand equivalent of 30 or greater and may be densified by water jetting.
2) 1 Cu. ft. per ft. of 1/4- to 1 1/2-inch size gravel wrapped in filter fabric
3) Pipe type should be ASTM D1527 Acrylonitrile Butadiene Styrene (ABS) SDR35 or ASTM D1785 Polyvinyl Chloride plastic (PVC), Schedule 40, Armco A2000 PVC, or approved equivalent. Pipe should be installed with perforations down. Perforations should be 3/8 inch in diameter placed at the ends of a 120-degree arc in two rows at 3-inch on center (staggered)
4) Filter fabric should be Mirafi 140NC or approved equivalent.
5) Weephole should be 3-inch minimum diameter and provided at 10-foot maximum intervals. If exposure is permitted, weepholes should be located 12 inches above finished grade. If exposure is not permitted such as for a wall adjacent to a sidewalk/curb, a pipe under the sidewalk to be discharged through the curb face or equivalent should be provided. For a basement-type wall, a proper subdrain outlet system should be provided.
6) Retaining wall plans should be reviewed and approved by the geotechnical engineer.
7) Walls over six feet in height are subject to a special review by the geotechnical engineer and modifications to the above requirements.

RETAINING WALL BACKFILL AND SUBDRAIN DETAIL FOR WALLS 6 FEET OR LESS IN HEIGHT

WHEN NATIVE MATERIAL HAS EXPANSION INDEX OF ≤50

Leighton

FIGURE 8

1240

V:\active Info\TEMPLATES\STANDARD-FIGURES\WALL-STANDARD-FIGURES.DWG (09-02-21 9:07:35AM) Plotted by bbain

APPENDIX A

EXPLORATION LOGS

GEOTECHNICAL BORING LOG LB-1

Project No.	13493.001	**Date Drilled**	4-6-22
Project	Legacy-Collier, Proposed Residential Development	**Logged By**	BTM
Drilling Co.	Martini Drilling, Corp.	**Hole Diameter**	8"
Drilling Method	Hollow Stem Auger - 140lb - Autohammer - 30" Drop	**Ground Elevation**	805'
Location	See Figure 2 - *Geotechnical Map*	**Sampled By**	BTM

Elevation Feet	Depth Feet	Graphic Log (N S)	Attitudes	Sample No. (Bulk / Driven)	Blows Per 6 Inches	Dry Density pcf	Moisture Content, %	Soil Class. (U.S.C.S.)	SOIL DESCRIPTION	Type of Tests
									This Soil Description applies only to a location of the exploration at the time of sampling. Subsurface conditions may differ at other locations and may change with time. The description is a simplification of the actual conditions encountered. Transitions between soil types may be gradual.	
805	0								@Surface: 2.5 -inches Asphalt Concrete over 4.5 -inches Base	
				B-1				ML-SM	**Artificial Fill, undocumented (Afu)** @0.58': Sandy SILT, olive brown, moist, low plasticity, very fine to fine sand, slightly micaceous; grades to Silty SAND, medium brown, moist, very fine to fine sand, slightly micaceous @ ~4'	EI, RV
800	5			R-1	4 7 9			ML/CL	<Quaternary-Aged Young Alluvial Deposits (Qyf) **@5': Silty CLAY, stiff, olive brown, moist, low plasticity, iron oxidation staining, slightly micaceous, few fine sand** **PP=2.50 TSF)>>**	CN
				R-2	7 11 13	95	9	ML-SM	@7.5': Sandy SILT, very stiff, medium olive brown, moist, very fine sand, low plasticity, slightly micaceous, slightly laminated; grades to Clayey SILT with sand, grayish brown, moist, low plasticity, iron oxidation staining, slightly micaceous, few fine sand	
795	10			R-3	4 9 15	89	31	CL-ML	@10': Silty CLAY, very stiff, gray, moist, low to medium plasticity, iron oxidation staining/veins, few fine sand, trace subrounded gravel, slightly laminated PP>4.5 TSF	
790	15			R-4	4 8 12	112	16		@15': Silty CLAY, stiff, medium brown, moist, medium plasticity, iron oxidation staining, slightly micaceous; grades to Sandy CLAY, medium brown, moist, medium plasticity, very fine to fine sand, slightly micaceous, iron oxidation staining PP=4.25 TSF	
785	20			R-5	8 18 22	120	12	SC	@20': Clayey SAND, medium dense, mottled medium brown to orange, low plasticity, predominately fine sand, little medium sand, slightly micaceous, slightly laminated, trace fine subrounded gravel PP>4.50 TSF	
780	25			R-6	12 16 27			SP	@25': SAND with Silt, medium dense, yellowish brown, slightly moist, predominately fine sand, poorly-graded, little medium sand, slightly micaceous	CO
775	30									

SAMPLE TYPES:

B	BULK SAMPLE
C	CORE SAMPLE
G	GRAB SAMPLE
R	RING SAMPLE
S	SPLIT SPOON SAMPLE
T	TUBE SAMPLE

TYPE OF TESTS:

-200	% FINES PASSING	DS	DIRECT SHEAR	SA	SIEVE ANALYSIS
AL	ATTERBERG LIMITS	EI	EXPANSION INDEX	SE	SAND EQUIVALENT
CN	CONSOLIDATION	H	HYDROMETER	SG	SPECIFIC GRAVITY
CO	COLLAPSE	MD	MAXIMUM DENSITY	UC	UNCONFINED COMPRESSIVE STRENGTH
CR	CORROSION	PP	POCKET PENETROMETER		
CU	UNDRAINED TRIAXIAL	RV	R VALUE		

Leighton

*** This log is a part of a report by Leighton and should not be used as a stand-alone document. ***

GEOTECHNICAL BORING LOG LB-1

Project No.	13493.001	**Date Drilled**	4-6-22
Project	Legacy-Collier, Proposed Residential Development	**Logged By**	BTM
Drilling Co.	Martini Drilling, Corp.	**Hole Diameter**	8"
Drilling Method	Hollow Stem Auger - 140lb - Autohammer - 30" Drop	**Ground Elevation**	805'
Location	See Figure 2 - *Geotechnical Map*	**Sampled By**	BTM

Elevation Feet	Depth Feet	Graphic Log (N / S)	Attitudes	Sample No.	Bulk / Driven	Blows Per 6 Inches	Dry Density pcf	Moisture Content, %	Soil Class. (U.S.C.S.)	SOIL DESCRIPTION	Type of Tests
775	30			S-7		9 12 14		4		@30': SAND with gravel, medium dense, orange brown, slightly moist, fine to coarse sand, few fine subrounded gravel, slightly micaceous	
770	35			R-8		11 24 50/4"				@35': SAND with Silt, Very dense, yellowish brown, predominately fine sand, little medium to coarse sand, poorly graded, few fine subangular to subrounded gravel	CO
765	40			S-9		8 12 19		4		@40': SAND, dense, medium brown, slightly moist, predominately fine sand, little medium to coarse sand, trace to few fine subangular to subrounded gravel, slightly micaceous	
760	45			R-10		47 50/3"	115	2		@45': Very dense, medium brown to orange brown, few fine subrounded gravel	
755	50			S-11		35 39 50/4"		3		@50': Very dense, little subrounded granitic gravel	
750	55									**Total Depth: 51.5' bgs** **No groundwater encountered during drilling** **Backfilled with soil cuttings** **Patched with cold-mix asphalt concrete**	
745	60										

This Soil Description applies only to a location of the exploration at the time of sampling. Subsurface conditions may differ at other locations and may change with time. The description is a simplification of the actual conditions encountered. Transitions between soil types may be gradual.

SAMPLE TYPES:
- B BULK SAMPLE
- C CORE SAMPLE
- G GRAB SAMPLE
- R RING SAMPLE
- S SPLIT SPOON SAMPLE
- T TUBE SAMPLE

TYPE OF TESTS:
- -200 % FINES PASSING
- AL ATTERBERG LIMITS
- CN CONSOLIDATION
- CO COLLAPSE
- CR CORROSION
- CU UNDRAINED TRIAXIAL
- DS DIRECT SHEAR
- EI EXPANSION INDEX
- H HYDROMETER
- MD MAXIMUM DENSITY
- PP POCKET PENETROMETER
- RV R VALUE
- SA SIEVE ANALYSIS
- SE SAND EQUIVALENT
- SG SPECIFIC GRAVITY
- UC UNCONFINED COMPRESSIVE STRENGTH

Leighton

*** This log is a part of a report by Leighton and should not be used as a stand-alone document. ***

GEOTECHNICAL BORING LOG LB-2

Project No.	13493.001	**Date Drilled**	4-6-22
Project	Legacy-Collier, Proposed Residential Development	**Logged By**	BTM
Drilling Co.	Martini Drilling, Corp.	**Hole Diameter**	8"
Drilling Method	Hollow Stem Auger - 140lb - Autohammer - 30" Drop	**Ground Elevation**	807'
Location	See Figure 2 - *Geotechnical Map*	**Sampled By**	BTM

Elevation Feet	Depth Feet	Graphic Log	Attitudes	Sample No.	Bulk / Driven	Blows Per 6 Inches	Dry Density pcf	Moisture Content, %	Soil Class. (U.S.C.S.)	SOIL DESCRIPTION	Type of Tests
		N S								*This Soil Description applies only to a location of the exploration at the time of sampling. Subsurface conditions may differ at other locations and may change with time. The description is a simplification of the actual conditions encountered. Transitions between soil types may be gradual.*	
	0									@Surface: 4 -inches Asphalt Concrete over 5 -inches Base	
805				B-1					ML-SM	**Artificial Fill, undocumented (Afu)** @0.75': Sandy SILT, olive brown, moist, low plasticity, very fine sand, slightly micaceous, some debris (asphalt)	DS, MD, SE
	5			R-1		3 8 16			ML-SM	<Quaternary-Aged Young Alluvial Deposits (Qyf) **@5': Clayey SAND, medium dense, olive gray, very moist, low plasticity, very fine to fine sand, slightly micaceous, pinhole pores; grades to Silty SAND with gravel, light to medium brown, predominately fine sand, few medium sand, fine subangular granitic gravel)>>**	CN
800				R-2		6 11 11	101	3	SP	@7.5': SAND, medium dense, grayish brown, moist, very fine to fine sand, slightly micaceous, little iron oxidation staining	
	10			R-3		4 8 12			CL/SM	@10': CLAY, stiff, olive gray, moist, lean, low plasticity, extensive iron oxidation staining, few very fine sand, slightly micaceous; grades to Silty SAND, light orange brown, very fine sand, slightly micaceous	CN, AL
795											
	15			R-4		10 10 11	103	4	SP-ML	@15': SAND with silt, medium dense, light gray, slightly moist, very fine to fine sand, micaceous; interbedded with Clayey SILT, medium brown, moist, low plasticity, laminated, iron oxidation staining	
790											
	20			R-5		7 11 17	112	16	ML-SM CL-SC	@20': Sandy SILT, very stiff, medium brown, moist, low plasticity, very fine sand, micaceous; grades to Sandy CLAY, medium brown, moist, low plasticity, very fine to fine sand, trace subrounded gravel	
785										PP = 3.50	
	25			R-6		10 15 24	108	10	SP	@25': Sandy CLAY, very stiff, medium brown, moist, low plasticity, very fine to fine sand, micaceous, some silt	
780										PP > 4.50 TSF @26': SAND with silt, orange brown, dry to slightly moist, very fine to fine sand, few medium sand, slightly micaceous **Total Depth: 26.5' bgs** **No groundwater encountered during drilling** **Backfilled with soil cuttings**	
	30										

SAMPLE TYPES:

B	BULK SAMPLE
C	CORE SAMPLE
G	GRAB SAMPLE
R	RING SAMPLE
S	SPLIT SPOON SAMPLE
T	TUBE SAMPLE

TYPE OF TESTS:

-200	% FINES PASSING	DS	DIRECT SHEAR	SA	SIEVE ANALYSIS
AL	ATTERBERG LIMITS	EI	EXPANSION INDEX	SE	SAND EQUIVALENT
CN	CONSOLIDATION	H	HYDROMETER	SG	SPECIFIC GRAVITY
CO	COLLAPSE	MD	MAXIMUM DENSITY	UC	UNCONFINED COMPRESSIVE STRENGTH
CR	CORROSION	PP	POCKET PENETROMETER		
CU	UNDRAINED TRIAXIAL	RV	R VALUE		

Leighton

*** * * This log is a part of a report by Leighton and should not be used as a stand-alone document. * * ***

GEOTECHNICAL BORING LOG LB-2

Project No.	13493.001	**Date Drilled**	4-6-22
Project	Legacy-Collier, Proposed Residential Development	**Logged By**	BTM
Drilling Co.	Martini Drilling, Corp.	**Hole Diameter**	8"
Drilling Method	Hollow Stem Auger - 140lb - Autohammer - 30" Drop	**Ground Elevation**	807'
Location	See Figure 2 - *Geotechnical Map*	**Sampled By**	BTM

Elevation Feet	Depth Feet	Graphic Log (N / S)	Attitudes	Sample No. (Bulk / Driven)	Blows Per 6 Inches	Dry Density pcf	Moisture Content, %	Soil Class. (U.S.C.S.)	SOIL DESCRIPTION	Type of Tests
	30								**Patched with cold-mix asphalt concrete**	
775										
	35									
770										
	40									
765										
	45									
760										
	50									
755										
	55									
750										
	60									

This Soil Description applies only to a location of the exploration at the time of sampling. Subsurface conditions may differ at other locations and may change with time. The description is a simplification of the actual conditions encountered. Transitions between soil types may be gradual.

SAMPLE TYPES:

- B BULK SAMPLE
- C CORE SAMPLE
- G GRAB SAMPLE
- R RING SAMPLE
- S SPLIT SPOON SAMPLE
- T TUBE SAMPLE

TYPE OF TESTS:

- -200 % FINES PASSING
- AL ATTERBERG LIMITS
- CN CONSOLIDATION
- CO COLLAPSE
- CR CORROSION
- CU UNDRAINED TRIAXIAL
- DS DIRECT SHEAR
- EI EXPANSION INDEX
- H HYDROMETER
- MD MAXIMUM DENSITY
- PP POCKET PENETROMETER
- RV R VALUE
- SA SIEVE ANALYSIS
- SE SAND EQUIVALENT
- SG SPECIFIC GRAVITY
- UC UNCONFINED COMPRESSIVE STRENGTH

Leighton

*** This log is a part of a report by Leighton and should not be used as a stand-alone document. ***

GEOTECHNICAL BORING LOG LB-3

Project No.	13493.001	**Date Drilled**	4-6-22
Project	Legacy-Collier, Proposed Residential Development	**Logged By**	BTM
Drilling Co.	Martini Drilling, Corp.	**Hole Diameter**	8"
Drilling Method	Hollow Stem Auger - 140lb - Autohammer - 30" Drop	**Ground Elevation**	808'
Location	See Figure 2 - *Geotechnical Map*	**Sampled By**	BTM

Elevation Feet	Depth Feet	Graphic Log (N S)	Attitudes	Sample No.	Bulk Driven	Blows Per 6 Inches	Dry Density pcf	Moisture Content, %	Soil Class. (U.S.C.S.)	SOIL DESCRIPTION	Type of Tests
										This Soil Description applies only to a location of the exploration at the time of sampling. Subsurface conditions may differ at other locations and may change with time. The description is a simplification of the actual conditions encountered. Transitions between soil types may be gradual.	
	0									@Surface: 3.5 -inches Asphalt Concrete over 12 -inches Base	
				B-1					SM	**Artificial Fill, undocumented (Afu)** @1.3': Silty SAND, olive brown, slightly moist, very fine to fine sand, few medium sand, trace coarse sand, non-plastic, few debris (asphalt)	CR, MD
805	5			R-1		7 9 11	111	8	SM	<Quaternary-Aged Young Alluvial Deposits (Qyf) **@5': Silty SAND, medium dense, medium brown, moist, very fine to fine sand, slightly laminated, slightly micaceous)>>**	
800				R-2		7 12 15			CL-SC	@7.5': Silty SAND, medium dense, olive, slightly moist, fine sand, low plasticity, iron oxidation staining, carbonate veins; grades to SAND, yellowish brown, slightly moist, very fine to fine sand	DS
	10			R-3		10 16 26	90	26	CL	@10': Silty CLAY, very stiff, grayish brown, slightly moist, low to medium plasticity, trace very fine sand, iron oxidation staining PP > 4.50 TSF	
795											
	15			R-4		5 9 17	87	35		@15': Very stiff, slightly laminated PP = 4.25 TSF	
790											
	20			R-5		12 16 27	122	12	SC	@20': Clayey SAND, medium dense, orange brown, slightly moist, low plasticity, fine sand, trace medium to coarse sand, slightly laminated, iron oxidation staining PP = 4.50 TSF	
785											
	25			R-6		7 10 17	114	14		@25': Medium dense, higher sand content, pinhole pores PP > 4.50 TSF	
780										**Total Depth: 26.5' bgs** **No groundwater encountered during drilling** **Backfilled with soil cuttings** **Patched with cold-mix asphalt concrete**	
	30										

SAMPLE TYPES:

- B BULK SAMPLE
- C CORE SAMPLE
- G GRAB SAMPLE
- R RING SAMPLE
- S SPLIT SPOON SAMPLE
- T TUBE SAMPLE

TYPE OF TESTS:

- -200 % FINES PASSING
- AL ATTERBERG LIMITS
- CN CONSOLIDATION
- CO COLLAPSE
- CR CORROSION
- CU UNDRAINED TRIAXIAL
- DS DIRECT SHEAR
- EI EXPANSION INDEX
- H HYDROMETER
- MD MAXIMUM DENSITY
- PP POCKET PENETROMETER
- RV R VALUE
- SA SIEVE ANALYSIS
- SE SAND EQUIVALENT
- SG SPECIFIC GRAVITY
- UC UNCONFINED COMPRESSIVE STRENGTH

Leighton

*** This log is a part of a report by Leighton and should not be used as a stand-alone document. ***

GEOTECHNICAL BORING LOG LB-5

Project No.	13493.001	**Date Drilled**	4-6-22
Project	Legacy-Collier, Proposed Residential Development	**Logged By**	BTM
Drilling Co.	Martini Drilling, Corp.	**Hole Diameter**	8"
Drilling Method	Hollow Stem Auger - 140lb - Autohammer - 30" Drop	**Ground Elevation**	807'
Location	See Figure 2 - *Geotechnical Map*	**Sampled By**	BTM

Elevation Feet	Depth Feet	Graphic Log (N / S)	Attitudes	Sample No. (Bulk / Driven)	Blows Per 6 Inches	Dry Density pcf	Moisture Content, %	Soil Class. (U.S.C.S.)	SOIL DESCRIPTION	Type of Tests
									This Soil Description applies only to a location of the exploration at the time of sampling. Subsurface conditions may differ at other locations and may change with time. The description is a simplification of the actual conditions encountered. Transitions between soil types may be gradual.	
	0								@Surface: 5 -inches Asphalt Concrete over 3 -inches Base	
805				B-1				SM	**Artificial Fill, undocumented (Afu)** @0.67': Silty SAND, olive brown, slightly moist, very fine to fine sand, few medium sand, trace coarse sand, trace debris (asphalt)	SE
	5			R-1	5 7 9			SM-ML	<Quaternary-Aged Young Alluvial Deposits (Qyf) **@5': Silty SAND, medium dense, medium brown, slightly moist, very fine to fine sand, trace coarse sand, nonplastic, slightly micaceous; grades to Sandy SILT, yellowish brown, slightly moist, very fine sand, no to low plasticity, slightly micaceous)>>**	
800				R-2	9 16 16			ML-SM	@7.5': Sandy SILT, very stiff, grayish brown, slightly moist, very fine sand, low plasticity, iron oxidation staining; grades to Sandy SILT, yellowish brown	
	10			R-3	6 11 16			CL-ML	@10': Silty CLAY, very stiff, grayish brown to tan, moist, low plasticity, slightly laminated, trace very fine sand; grades to SAND, tan to yellowish brown, slightly moist, very fine to fine sand, slightly micaceous	
795										
	15			R-4	5 10 21				@15': Silty CLAY, very stiff, grayish brown, moist, low to medium plasticity, iron oxidation staining, some very fine to fine sand, slightly laminated	
790										
	20			R-5	6 9 19				@20': Very stiff, few to little very fine to fine sand, slightly laminated	
785										
	25			R-6	10 18 28			SC	@25': Clayey SAND, dense, olive brown, moist, predominately fine sand, trace to few medium to coarse sand, low plasticity, slightly micaceous; grades to orange, iron oxidation stained Clayey SAND, slightly laminated	
780									**Total Depth: 26.5' bgs** **No groundwater encountered during drilling** **Backfilled with soil cuttings** **Patched with cold-mix asphalt concrete**	
	30									

SAMPLE TYPES:

- B BULK SAMPLE
- C CORE SAMPLE
- G GRAB SAMPLE
- R RING SAMPLE
- S SPLIT SPOON SAMPLE
- T TUBE SAMPLE

TYPE OF TESTS:

- -200 % FINES PASSING
- AL ATTERBERG LIMITS
- CN CONSOLIDATION
- CO COLLAPSE
- CR CORROSION
- CU UNDRAINED TRIAXIAL
- DS DIRECT SHEAR
- EI EXPANSION INDEX
- H HYDROMETER
- MD MAXIMUM DENSITY
- PP POCKET PENETROMETER
- RV R VALUE
- SA SIEVE ANALYSIS
- SE SAND EQUIVALENT
- SG SPECIFIC GRAVITY
- UC UNCONFINED COMPRESSIVE STRENGTH

Leighton

*** * * This log is a part of a report by Leighton and should not be used as a stand-alone document. * * ***

GEOTECHNICAL BORING LOG LP-1

Project No.	13493.001	**Date Drilled**	4-6-22
Project	Legacy-Collier, Proposed Residential Development	**Logged By**	BTM
Drilling Co.	Martini Drilling, Corp.	**Hole Diameter**	8"
Drilling Method	Hollow Stem Auger - 140lb - Autohammer - 30" Drop	**Ground Elevation**	805'
Location	See Figure 2 - *Geotechnical Map*	**Sampled By**	BTM

Elevation Feet	Depth Feet	Graphic Log	Attitudes	Sample No.	Bulk Driven	Blows Per 6 Inches	Dry Density pcf	Moisture Content, %	Soil Class. (U.S.C.S.)	SOIL DESCRIPTION	Type of Tests
		N S								*This Soil Description applies only to a location of the exploration at the time of sampling. Subsurface conditions may differ at other locations and may change with time. The description is a simplification of the actual conditions encountered. Transitions between soil types may be gradual.*	
805	0									@Surface: 3 -inches Asphalt Concrete over 7 -inches Base	
				B-1					ML-SM	**Artificial Fill, undocumented (Afu)** @0.83': Sandy SILT, olive brown, moist, low plasticity, very fine sand, slightly micaceous; grades to Silty SAND, medium brown, moist, very fine to fine sand, trace medium sand, slightly micaceous @ ~4'	
800	5			S-1		2 2 2			SM-ML	**Quaternary-Aged Young Alluvial Deposits (Qyf)** @5': Silty SAND, very loose, medium brown, moist, very fine to fine sand, slightly micaceous, nonplastic	
795	10			S-2		2 3 4			ML-CL	@10': Clayey Sandy SILT, medium stiff, moist, low plasticity, very fine sand, slightly micaceous; grades to Silty CLAY with sand, gray, moist, low to medium plasticity, very fine sand, micaceous, extensive iron oxidation staining	
790	15			R-3		6 9 11	104	5	SP	@15': Silty SAND, medium dense, grayish brown, slightly moist, prodominately fine sand, some clay, trace medium to coarse sand, trace fine subrounded gravel, slightly micaceous	, SA
				R-4		8 13 21	119	12	SM	@18.5': Sandy SILT, very stiff, olive brown, slightly moist, low plasticity, very fine to fine sand, iron oxidation staining, slightly micaceous PP > 4.50 TSF	, SA
785	20			S-5		5 6 7			ML-SM	@23.5': Sandy CLAY, stiff to medium dense, orange mottled with brown, low plasticity, very fine to fine sand, slightly micaceous	SA
780	25									**Total Depth: 25' bgs** **No groundwater encountered during drilling** **Temporary percolation well installed; screened from 17 - 22' bgs** **Upon completion of percolation testing, boring was backfilled with soil cuttings and patched with cold-mix asphalt**	
775	30										

SAMPLE TYPES:

- B BULK SAMPLE
- C CORE SAMPLE
- G GRAB SAMPLE
- R RING SAMPLE
- S SPLIT SPOON SAMPLE
- T TUBE SAMPLE

TYPE OF TESTS:

- -200 % FINES PASSING
- AL ATTERBERG LIMITS
- CN CONSOLIDATION
- CO COLLAPSE
- CR CORROSION
- CU UNDRAINED TRIAXIAL
- DS DIRECT SHEAR
- EI EXPANSION INDEX
- H HYDROMETER
- MD MAXIMUM DENSITY
- PP POCKET PENETROMETER
- RV R VALUE
- SA SIEVE ANALYSIS
- SE SAND EQUIVALENT
- SG SPECIFIC GRAVITY
- UC UNCONFINED COMPRESSIVE STRENGTH

Leighton

*** * * This log is a part of a report by Leighton and should not be used as a stand-alone document. * * ***

GEOTECHNICAL BORING LOG LP-2

Project No.	13493.001	**Date Drilled**	4-6-22
Project	Legacy-Collier, Proposed Residential Development	**Logged By**	BTM
Drilling Co.	Martini Drilling, Corp.	**Hole Diameter**	8"
Drilling Method	Hollow Stem Auger - 140lb - Autohammer - 30" Drop	**Ground Elevation**	804'
Location	See Figure 2 - *Geotechnical Map*	**Sampled By**	BTM

Elevation Feet	Depth Feet	Graphic Log	Attitudes	Sample No.	Blows Per 6 Inches	Dry Density pcf	Moisture Content, %	Soil Class. (U.S.C.S.)	SOIL DESCRIPTION	Type of Tests
		N S		Bulk Driven					*This Soil Description applies only to a location of the exploration at the time of sampling. Subsurface conditions may differ at other locations and may change with time. The description is a simplification of the actual conditions encountered. Transitions between soil types may be gradual.*	
	0								@Surface: 3.5 -inches Asphalt Concrete over 4 -inches Base	
				B-1				SM-ML	**Artificial Fill, undocumented (Afu)** @0.62': Silty SAND to Sandy SILT, olive brown, slightly moist, very fine to fine sand, low to no plasticity, slightly micaceous	
800	5			S-1	4 2 2			SM	<Quaternary-Aged Young Alluvial Deposits (Qyf) **@5': Silty SAND, very loose, medium to dark brown, moist, very fine to fine sand, trace coarse sand to fine subrounded gravel)>>**	
795	10			S-2	2 2 3			ML/CL	@10': Sandy SILT, medium stiff, mottled with gray and light brown, slightly moist, low plasticity, very fine sand, slightly micaceous; grades to Silty CLAY, grayish brown, moist, low to medium plasticity, iron oxidation staining, laminated	
790	15			R-3	4 6 9	91	25		@15': Silty CLAY, stiff, olive brown, moist, low plasticity, very fine sand, slightly micaceous, laminated, iron oxidation staining	, SA
785	20			R-4	12 16 26	115	7	SM	@18.5': Silty SAND, medium dense, olive brown, moist, very fine to fine sand, low to no plasticity, little iron oxidation staining, trace pinhole pores	, SA
780	25								**Total Depth: 20' bgs** **No groundwater encountered during drilling** **Temporary percolation well installed; screened from 15 - 20' bgs** **Upon completion of percolation testing, boring was backfilled with soil cuttings and patched with cold-mix asphalt**	
775	30									

SAMPLE TYPES:

B	BULK SAMPLE
C	CORE SAMPLE
G	GRAB SAMPLE
R	RING SAMPLE
S	SPLIT SPOON SAMPLE
T	TUBE SAMPLE

TYPE OF TESTS:

-200	% FINES PASSING	DS	DIRECT SHEAR	SA	SIEVE ANALYSIS
AL	ATTERBERG LIMITS	EI	EXPANSION INDEX	SE	SAND EQUIVALENT
CN	CONSOLIDATION	H	HYDROMETER	SG	SPECIFIC GRAVITY
CO	COLLAPSE	MD	MAXIMUM DENSITY	UC	UNCONFINED COMPRESSIVE STRENGTH
CR	CORROSION	PP	POCKET PENETROMETER		
CU	UNDRAINED TRIAXIAL	RV	R VALUE		

Leighton

*** * * This log is a part of a report by Leighton and should not be used as a stand-alone document. * * ***

APPENDIX B

PERCOLATION TEST DATA

Boring Percolation Test Data Sheet

Project Number:	13493.001	**Test Hole Number:**	LP-1	
Project Name:	Legacy - Collier	**Date Excavated:**	4/6/2022	
Earth Description:	Alluvium	**Date Tested:**	4/7/2022	
Liquid Description:	Tap water	**Depth of boring (ft):**	23.5	
Tested By:	LFO/KD	**Radius of boring (in):**	4	
Time Interval Standard		**Radius of casing (in):**	1	
Start Time for Pre-Soak:	8:34	**Length of slotted of casing (ft):**		5
Start Time for Standard:	9:31	**Depth to Initial Water Depth (ft):**		16.9
Standard Time Interval	25	**Porosity of Annulus Material, *n* :**		0.35
Between Readings, mins:	10	**Bentonite Plug at Bottom:** No		

Percolation Data

Reading	Time	Time Interval, Δt (min.)	Initial/Final Depth to Water (ft.)	Initial/Final Water Height, H_0/H_f (in.)	Total Water Drop, Δd (in.)	Percolation Rate (min./in.)	Infiltration Rate (in./hr.)
1	8:34	25	16.93	78.8	8.2	3.06	0.20
	8:59		17.61	70.7			
2	9:04	25	16.99	78.1	7.4	3.36	0.18
	9:29		17.61	70.7			
3	9:31	10	16.94	78.7	5.9	1.70	0.35
	9:41		17.43	72.8			
4	9:43	10	17.00	78.0	5.0	1.98	0.30
	9:53		17.42	73.0			
5	9:55	10	17.00	78.0	5.3	1.89	0.32
	10:05		17.44	72.7			
6	10:06	10	17.00	78.0	5.3	1.89	0.32
	10:16		17.44	72.7			
7	10:18	10	17.00	78.0	5.4	1.85	0.33
	10:28		17.45	72.6			
8	10:30	10	17.00	78.0	5.3	1.89	0.32
	10:40		17.44	72.7			

Infiltration Rate (I) = Discharge Volume/Surface Area of Test Section/Time Interval

Infiltration Rate, I (Last Reading) = **0.32** **in./hr.**

Boring Percolation Test Data Sheet

Project Number:	13493.001	**Test Hole Number:**	LP-2	
Project Name:	Legacy - Collier	**Date Excavated:**	4/6/2022	
Earth Description:	Alluvium	**Date Tested:**	4/7/2022	
Liquid Description:	Tap water	**Depth of boring (ft):**	20	
Tested By:	LFO/KD	**Radius of boring (in):**	4	
Time Interval Standard		**Radius of casing (in):**	1	
Start Time for Pre-Soak:	7:25	**Length of slotted of casing (ft):**		5
Start Time for Standard:	8:27	**Depth to Initial Water Depth (ft):**		15.05
Standard Time Interval	25	**Porosity of Annulus Material, *n* :**		0.35
Between Readings, mins:	10	**Bentonite Plug at Bottom:** No		

Percolation Data

Reading	Time	Time Interval, Δt (min.)	Initial/Final Depth to Water (ft.)	Initial/Final Water Height, H_0/H_f (in.)	Total Water Drop, Δd (in.)	Percolation Rate (min./in.)	Infiltration Rate (in./hr.)
1	7:25	25	15.05	59.4	0.1	208.33	0.00
	7:50		15.06	59.3			
2	7:55	25	15.20	57.6	16.2	1.54	0.59
	8:20		16.55	41.4			
3	8:27	10	15.08	59.0	8.0	1.24	0.66
	8:37		15.75	51.0			
4	8:39	10	15.05	59.4	8.8	1.14	0.72
	8:49		15.78	50.6			
5	8:56	10	15.08	59.0	8.0	1.24	0.66
	9:06		15.75	51.0			
6	9:08	10	15.08	59.0	5.0	1.98	0.40
	9:18		15.50	54.0			
7	9:21	10	15.08	59.0	8.4	1.19	0.69
	9:31		15.78	50.6			
8	9:34	10	15.08	59.0	8.4	1.19	0.69
	9:44		15.78	50.6			

Infiltration Rate (I) = Discharge Volume/Surface Area of Test Section/Time Interval

Infiltration Rate, I (Last Reading) = **0.69** **in./hr.**

APPENDIX C

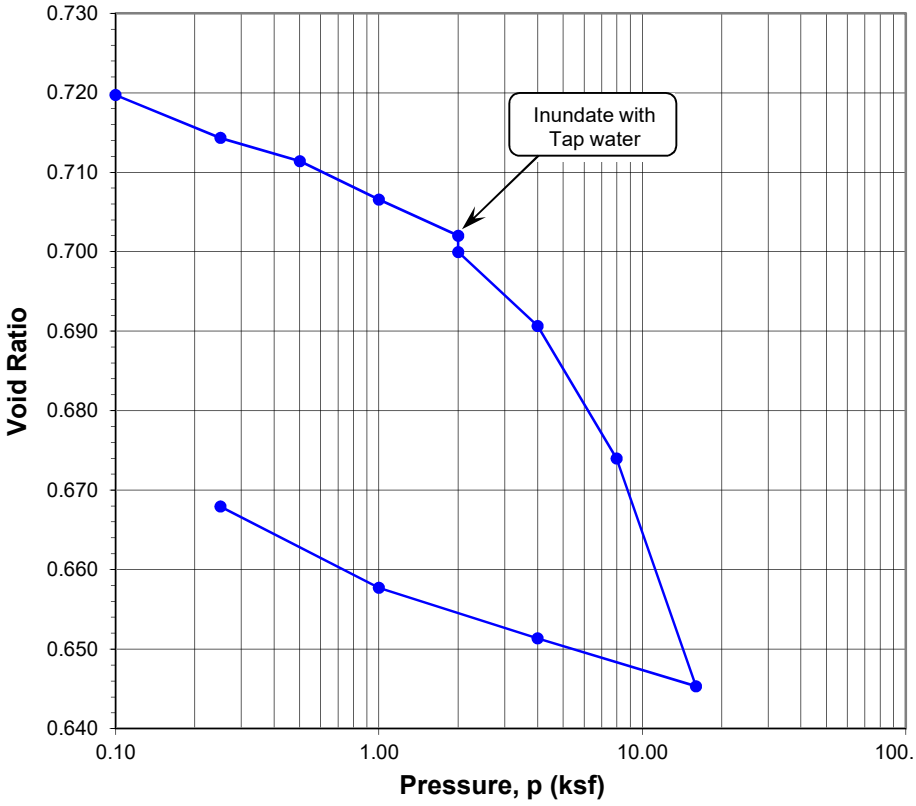
LABORATORY TEST RESULTS

ONE-DIMENSIONAL CONSOLIDATION PROPERTIES of SOILS

ASTM D 2435

Project Name:	Legacy-Collier, Proposed Euclid & Walnut Mixed-Use, Ontario CA	Tested By: GB/JD	Date: 04/13/22
Project No.:	13493.001	Checked By: A. Santos	Date: 04/26/22
Boring No.:	LB-1	Depth (ft.): 5.0	
Sample No.:	R-1	Sample Type: Ring	
Soil Identification:	Olive silty clay (CL-ML)		

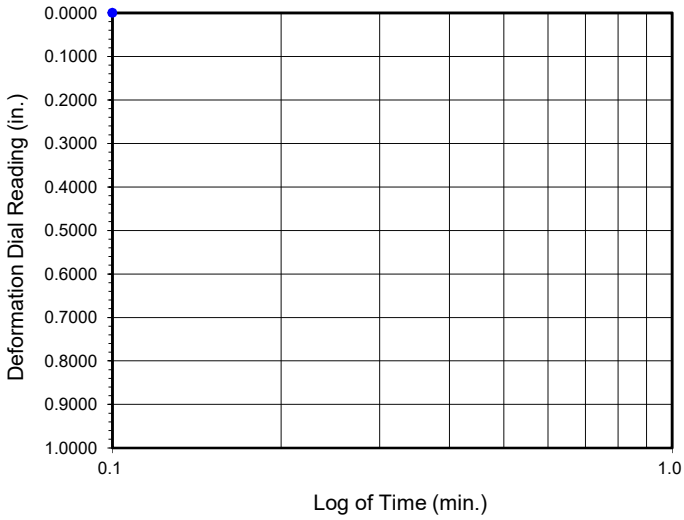
Sample Diameter (in.):	2.415
Sample Thickness (in.):	1.000
Weight of Sample + ring (g):	185.47
Weight of Ring (g):	45.70
Height after consol. (in.):	0.9695
Before Test	
Wt. of Wet Sample+Cont. (g):	169.15
Wt. of Dry Sample+Cont. (g):	153.14
Weight of Container (g):	65.19
Initial Moisture Content (%)	18.2
Initial Dry Density (pcf)	98.3
Initial Saturation (%):	68
Initial Vertical Reading (in.)	0.0773
After Test	
Wt. of Wet Sample+Cont. (g):	254.24
Wt. of Dry Sample+Cont. (g):	229.01
Weight of Container (g):	59.14
Final Moisture Content (%)	20.32
Final Dry Density (pcf):	106.5
Final Saturation (%):	94
Final Vertical Reading (in.)	0.1103
Specific Gravity (assumed):	2.71
Water Density (pcf):	62.43

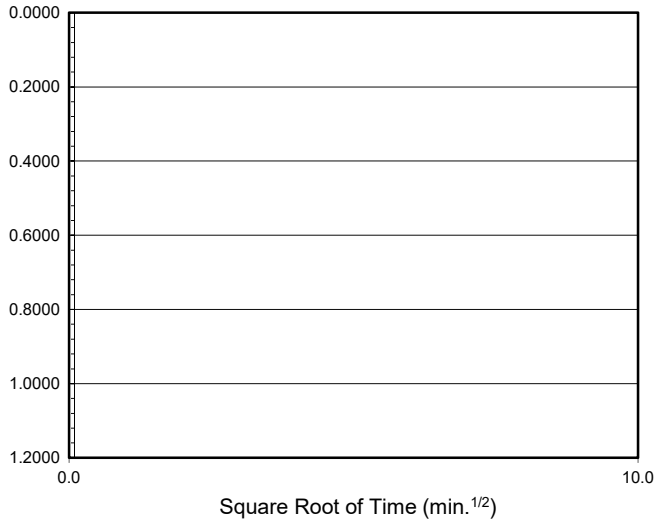


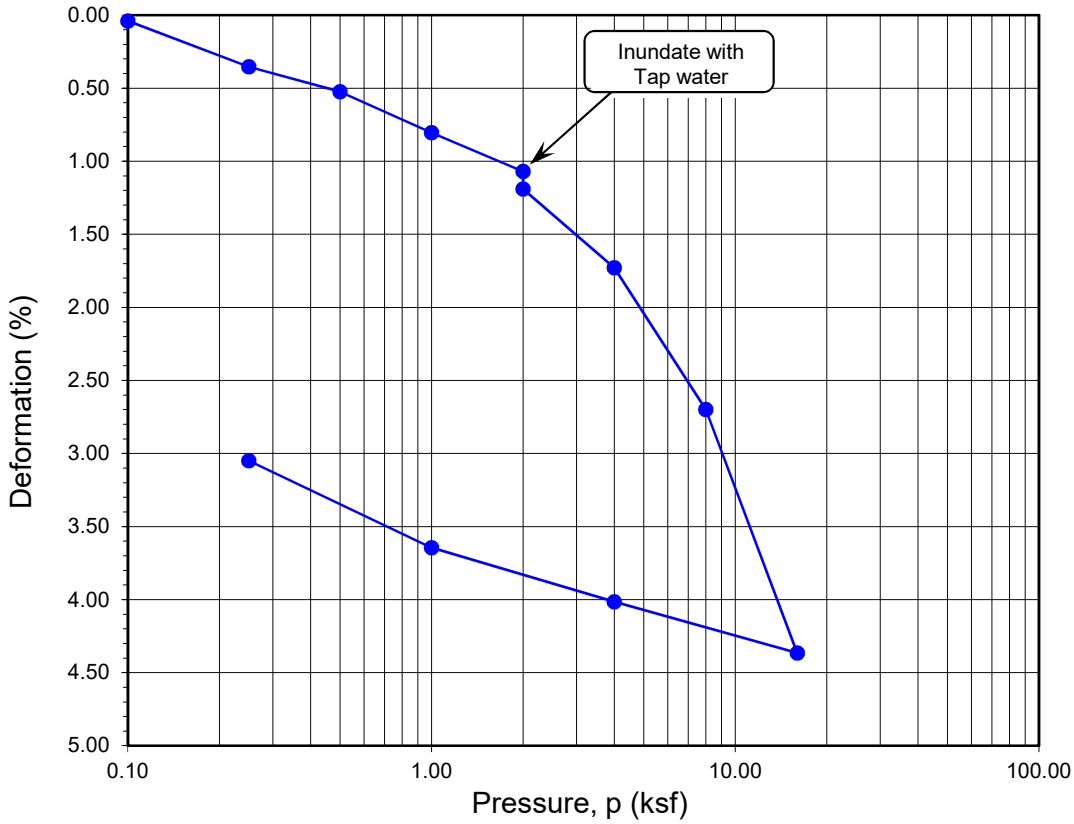
Pressure (p) (ksf)	Final Reading (in.)	Apparent Thickness (in.)	Load Compliance (%)	Deformation % of Sample Thickness	Void Ratio	Corrected Deformation (%)
0.10	0.0777	0.9996	0.00	0.04	0.720	0.04
0.25	0.0812	0.9962	0.03	0.39	0.714	0.36
0.50	0.0834	0.9940	0.08	0.61	0.711	0.53
1.00	0.0869	0.9905	0.15	0.95	0.707	0.80
2.00	0.0905	0.9868	0.25	1.32	0.702	1.07
2.00	0.0917	0.9856	0.25	1.44	0.700	1.19
4.00	0.0982	0.9791	0.36	2.09	0.691	1.73
8.00	0.1092	0.9681	0.49	3.19	0.674	2.70
16.00	0.1274	0.9500	0.64	5.01	0.645	4.37
4.00	0.1222	0.9552	0.47	4.49	0.651	4.02
1.00	0.1172	0.9602	0.34	3.99	0.658	3.65
0.25	0.1103	0.9670	0.25	3.30	0.668	3.05

Time Readings				
Date	Time	Elapsed Time (min)	Square Root of Time	Dial Rdgs. (in.)

Time Readings







Boring No.	Sample No.	Depth (ft.)	Moisture Content (%)		Dry Density (pcf)		Void Ratio		Degree of Saturation (%)	
			Initial	Final	Initial	Final	Initial	Final	Initial	Final
LB-1	**R-1**	**5**	**18.2**	**20.3**	**98.3**	**106.5**	**0.720**	**0.668**	**68**	**94**

Soil Identification: Olive silty clay (CL-ML)

Leighton

ONE-DIMENSIONAL CONSOLIDATION PROPERTIES of SOILS
ASTM D 2435

Project No.: 13493.001

Legacy-Collier, Proposed Euclid & Walnut Mixed-Use, Ontario CA

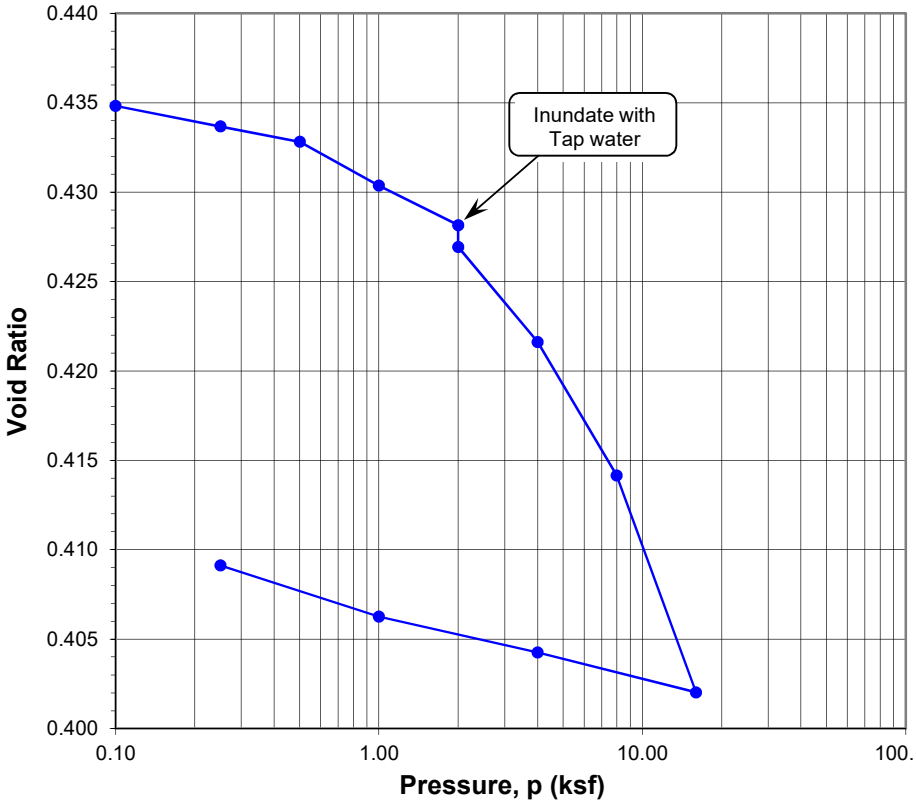
04-22

ONE-DIMENSIONAL CONSOLIDATION PROPERTIES of SOILS

ASTM D 2435

Project Name:	Legacy-Collier, Proposed Euclid & Walnut Mixed-Use, Ontario CA	Tested By: GB/JD	Date: 04/13/22
Project No.:	13493.001	Checked By: A. Santos	Date: 04/26/22
Boring No.:	LB-2	Depth (ft.): 5.0	
Sample No.:	R-1	Sample Type: Ring	
Soil Identification:	Olive gray silty, clayey sand (SC-SM)		

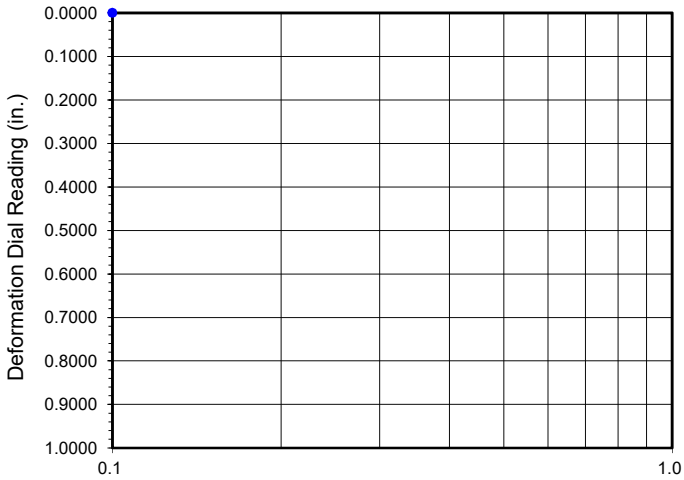
Sample Diameter (in.):	2.415
Sample Thickness (in.):	1.000
Weight of Sample + ring (g):	199.47
Weight of Ring (g):	44.89
Height after consol. (in.):	0.9819
Before Test	
Wt. of Wet Sample+Cont. (g):	189.19
Wt. of Dry Sample+Cont. (g):	178.43
Weight of Container (g):	59.52
Initial Moisture Content (%)	9.0
Initial Dry Density (pcf)	117.9
Initial Saturation (%):	56
Initial Vertical Reading (in.)	0.0958
After Test	
Wt. of Wet Sample+Cont. (g):	269.21
Wt. of Dry Sample+Cont. (g):	253.05
Weight of Container (g):	66.12
Final Moisture Content (%)	11.38
Final Dry Density (pcf):	120.3
Final Saturation (%):	76
Final Vertical Reading (in.)	0.1178
Specific Gravity (assumed):	2.71
Water Density (pcf):	62.43

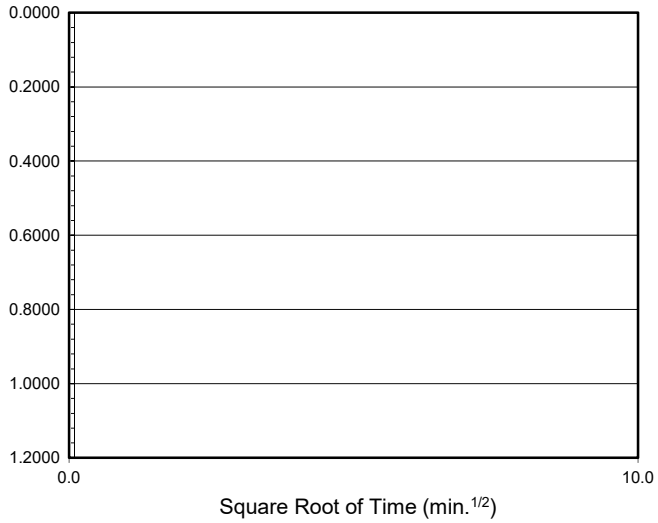


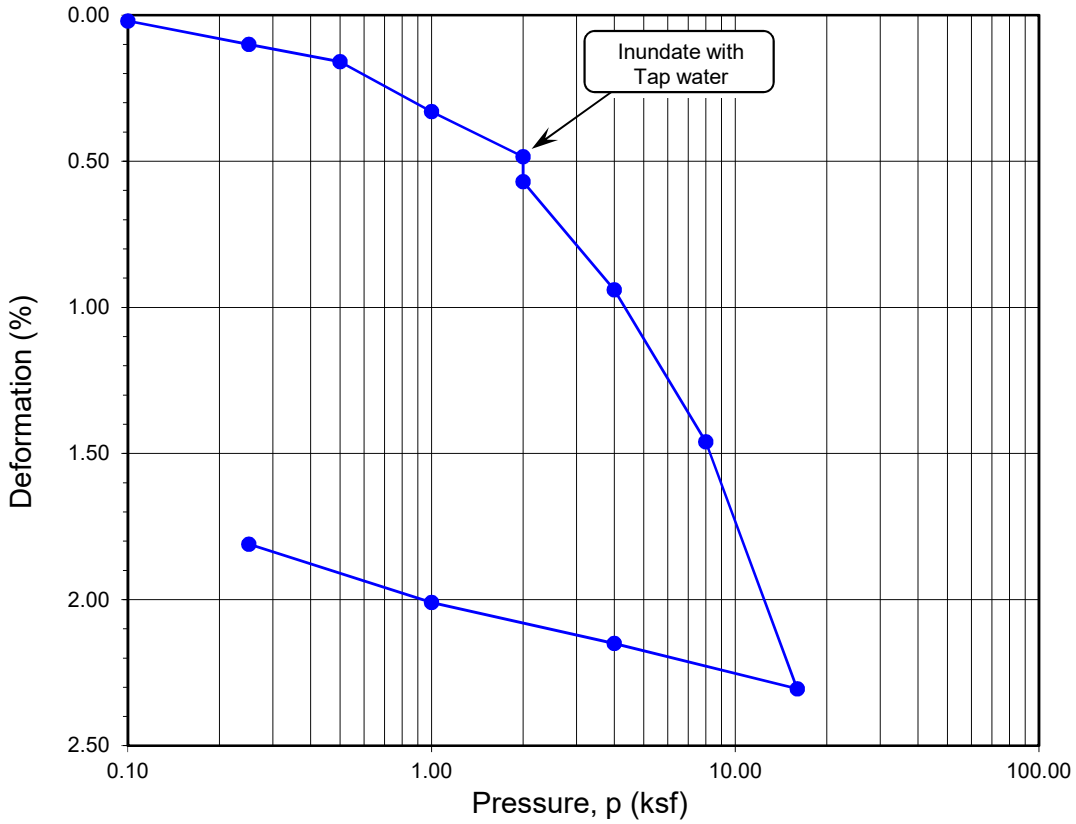
Pressure (p) (ksf)	Final Reading (in.)	Apparent Thickness (in.)	Load Compliance (%)	Deformation % of Sample Thickness	Void Ratio	Corrected Deformation (%)
0.10	0.0960	0.9998	0.00	0.02	0.435	0.02
0.25	0.0974	0.9984	0.06	0.16	0.434	0.10
0.50	0.0988	0.9970	0.14	0.30	0.433	0.16
1.00	0.1015	0.9943	0.24	0.57	0.430	0.33
2.00	0.1043	0.9916	0.36	0.84	0.428	0.48
2.00	0.1051	0.9907	0.36	0.93	0.427	0.57
4.00	0.1102	0.9856	0.50	1.44	0.422	0.94
8.00	0.1170	0.9788	0.66	2.12	0.414	1.46
16.00	0.1275	0.9684	0.86	3.17	0.402	2.31
4.00	0.1240	0.9718	0.67	2.82	0.404	2.15
1.00	0.1210	0.9748	0.51	2.52	0.406	2.01
0.25	0.1178	0.9780	0.39	2.20	0.409	1.81

Time Readings				
Date	Time	Elapsed Time (min)	Square Root of Time	Dial Rdgs. (in.)

Time Readings







Boring No.	Sample No.	Depth (ft.)	Moisture Content (%)		Dry Density (pcf)		Void Ratio		Degree of Saturation (%)	
			Initial	Final	Initial	Final	Initial	Final	Initial	Final
LB-2	**R-1**	**5**	**9.0**	**11.4**	**117.9**	**120.3**	**0.435**	**0.409**	**56**	**76**

Soil Identification: Olive gray silty, clayey sand (SC-SM)

Leighton

ONE-DIMENSIONAL CONSOLIDATION PROPERTIES of SOILS
ASTM D 2435

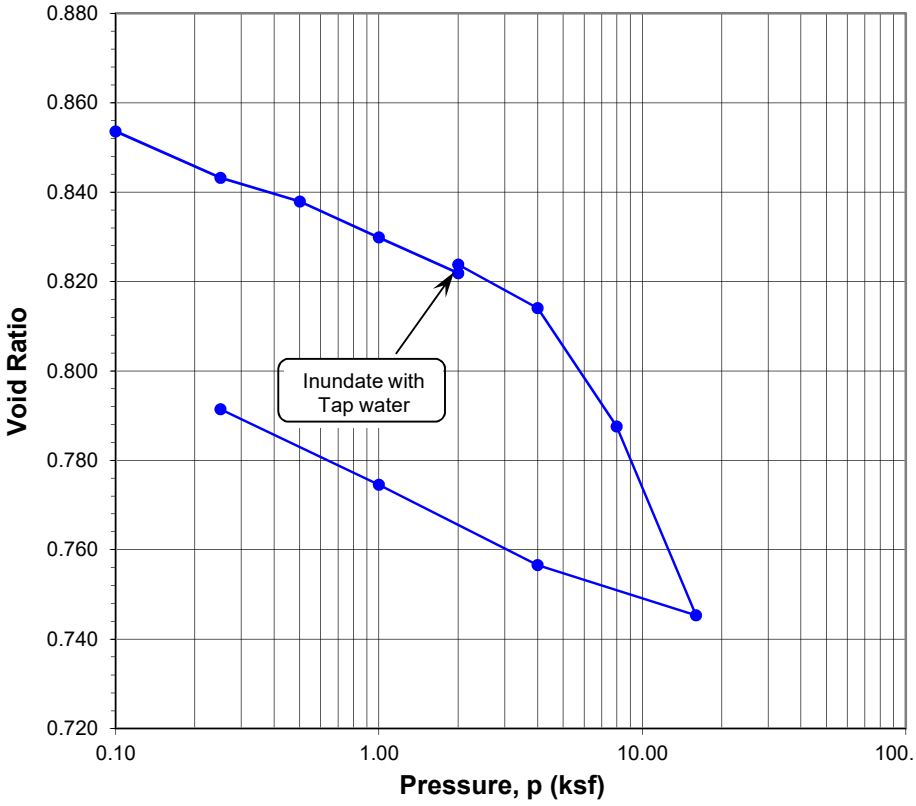
Project No.: 13493.001
Legacy-Collier, Proposed Euclid & Walnut Mixed-Use, Ontario CA
04-22

ONE-DIMENSIONAL CONSOLIDATION PROPERTIES of SOILS

ASTM D 2435

Project Name:	Legacy-Collier, Proposed Euclid & Walnut Mixed-Use, Ontario CA	Tested By: GB/JD	Date: 04/13/22
Project No.:	13493.001	Checked By: A. Santos	Date: 04/26/22
Boring No.:	LB-2	Depth (ft.): 10.0	
Sample No.:	R-3	Sample Type: Ring	
Soil Identification:	Olive gray lean clay (CL)		

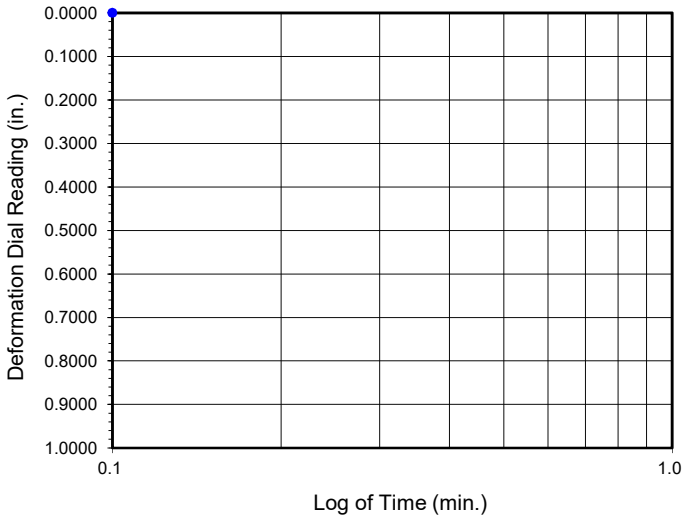
Sample Diameter (in.):	2.415
Sample Thickness (in.):	1.000
Weight of Sample + ring (g):	193.07
Weight of Ring (g):	45.55
Height after consol. (in.):	0.9656
Before Test	
Wt. of Wet Sample+Cont. (g):	263.34
Wt. of Dry Sample+Cont. (g):	214.46
Weight of Container (g):	55.13
Initial Moisture Content (%)	30.7
Initial Dry Density (pcf)	93.9
Initial Saturation (%):	100
Initial Vertical Reading (in.)	0.0902
After Test	
Wt. of Wet Sample+Cont. (g):	253.11
Wt. of Dry Sample+Cont. (g):	222.45
Weight of Container (g):	61.21
Final Moisture Content (%)	26.50
Final Dry Density (pcf):	99.6
Final Saturation (%):	99
Final Vertical Reading (in.)	0.1293
Specific Gravity (assumed):	2.79
Water Density (pcf):	62.43

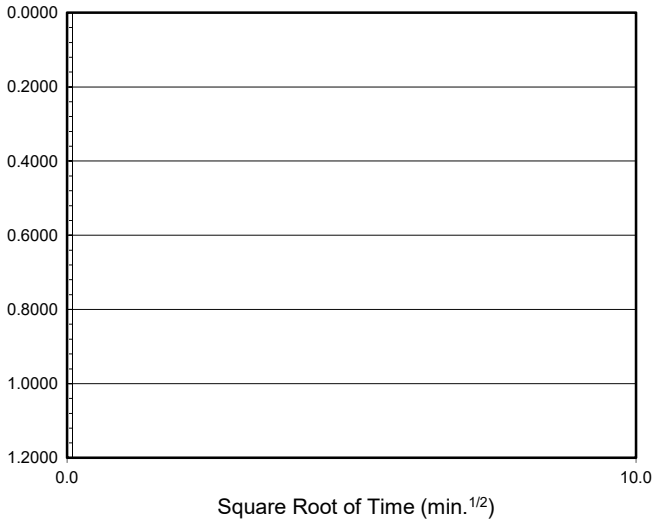


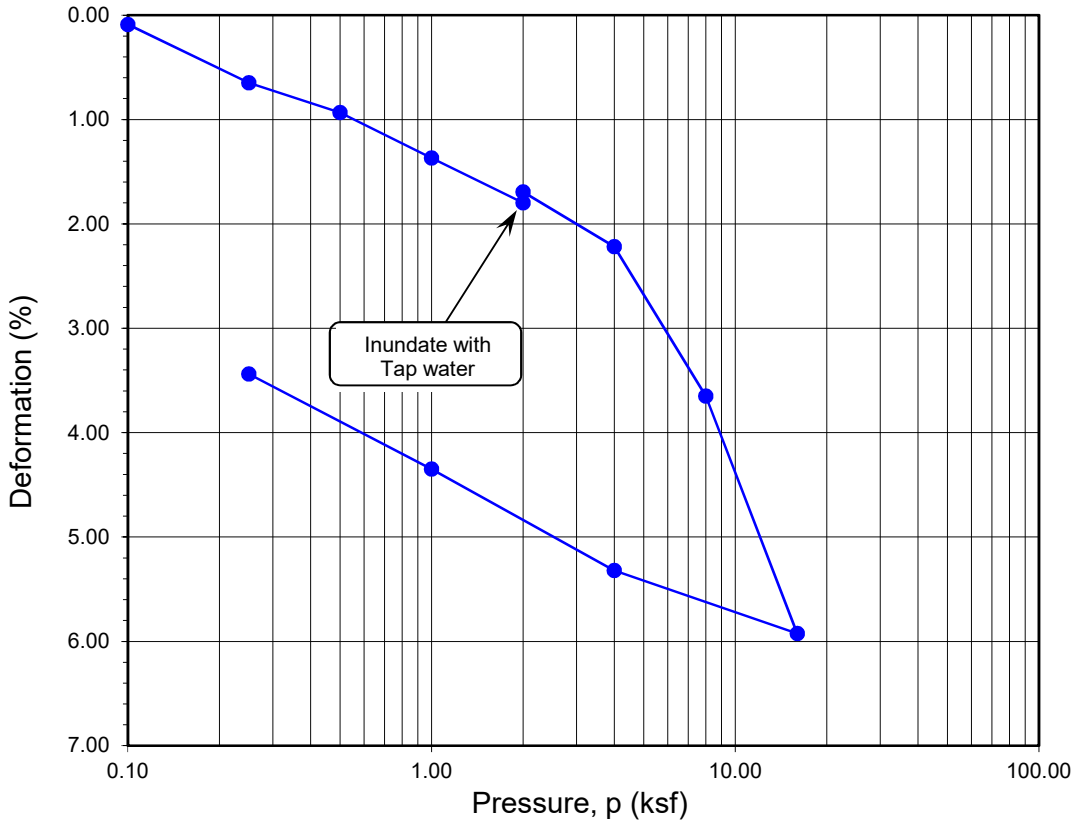
Pressure (p) (ksf)	Final Reading (in.)	Apparent Thickness (in.)	Load Compliance (%)	Deformation % of Sample Thickness	Void Ratio	Corrected Deforma-tion (%)
0.10	0.0911	0.9991	0.00	0.09	0.854	0.09
0.25	0.0978	0.9924	0.11	0.76	0.843	0.65
0.50	0.1021	0.9882	0.25	1.19	0.838	0.94
1.00	0.1082	0.9820	0.43	1.80	0.830	1.37
2.00	0.1140	0.9762	0.58	2.38	0.822	1.80
2.00	0.1130	0.9773	0.58	2.28	0.824	1.70
4.00	0.1196	0.9706	0.72	2.94	0.814	2.22
8.00	0.1355	0.9547	0.88	4.53	0.788	3.65
16.00	0.1602	0.9301	1.07	7.00	0.745	5.93
4.00	0.1523	0.9379	0.89	6.21	0.757	5.32
1.00	0.1409	0.9493	0.72	5.07	0.775	4.35
0.25	0.1293	0.9609	0.47	3.91	0.791	3.44

Time Readings				
Date	Time	Elapsed Time (min)	Square Root of Time	Dial Rdgs. (in.)

Time Readings







Boring No.	Sample No.	Depth (ft.)	Moisture Content (%)		Dry Density (pcf)		Void Ratio		Degree of Saturation (%)	
			Initial	Final	Initial	Final	Initial	Final	Initial	Final
LB-2	**R-3**	**10**	**30.7**	**26.5**	**93.9**	**99.6**	**0.855**	**0.791**	**100**	**99**

Soil Identification: Olive gray lean clay (CL)

Leighton

ONE-DIMENSIONAL CONSOLIDATION PROPERTIES of SOILS
ASTM D 2435

Project No.: 13493.001

Legacy-Collier, Proposed Euclid & Walnut Mixed-Use, Ontario CA

04-22

TESTS for SULFATE CONTENT
CHLORIDE CONTENT and pH of SOILS

Project Name: Legacy-Collier, Proposed Euclid & Walnut Mixed-Use, Ontario CA — Tested By: G. Berdy — Date: 04/13/22

Project No.: 13493.001 — Checked By: A. Santos — Date: 04/25/22

Boring No.	LB-3			
Sample No.	B-1			
Sample Depth (ft)	0-5			
Soil Identification:	Olive brown (SM)			
Wet Weight of Soil + Container (g)	168.20			
Dry Weight of Soil + Container (g)	168.07			
Weight of Container (g)	52.00			
Moisture Content (%)	0.11			
Weight of Soaked Soil (g)	100.19			

SULFATE CONTENT, DOT California Test 417, Part II

Beaker No.	8			
Crucible No.	3			
Furnace Temperature (°C)	860			
Time In / Time Out	7:15/8:00			
Duration of Combustion (min)	45			
Wt. of Crucible + Residue (g)	24.5192			
Wt. of Crucible (g)	24.5129			
Wt. of Residue (g) (A)	0.0063			
PPM of Sulfate (A) x 41150	259.25			
PPM of Sulfate, Dry Weight Basis	**260**			

CHLORIDE CONTENT, DOT California Test 422

ml of Extract For Titration (B)	15			
ml of AgNO3 Soln. Used in Titration (C)	0.4			
PPM of Chloride (C -0.2) * 100 * 30 / B	40			
PPM of Chloride, Dry Wt. Basis	**40**			

pH TEST, DOT California Test 643

pH Value	**7.92**			
Temperature °C	20.3			

SOIL RESISTIVITY TEST

DOT CA TEST 643

Project Name: Legacy-Collier, Proposed Euclid & Walnut Mixed-Use, Ontario C Tested By : G. Berdy Date: 04/19/22

Project No. : 13493.001 Checked By: A. Santos Date: 04/25/22

Boring No.: LB-3 Depth (ft.) : 0-5

Sample No. : B-1

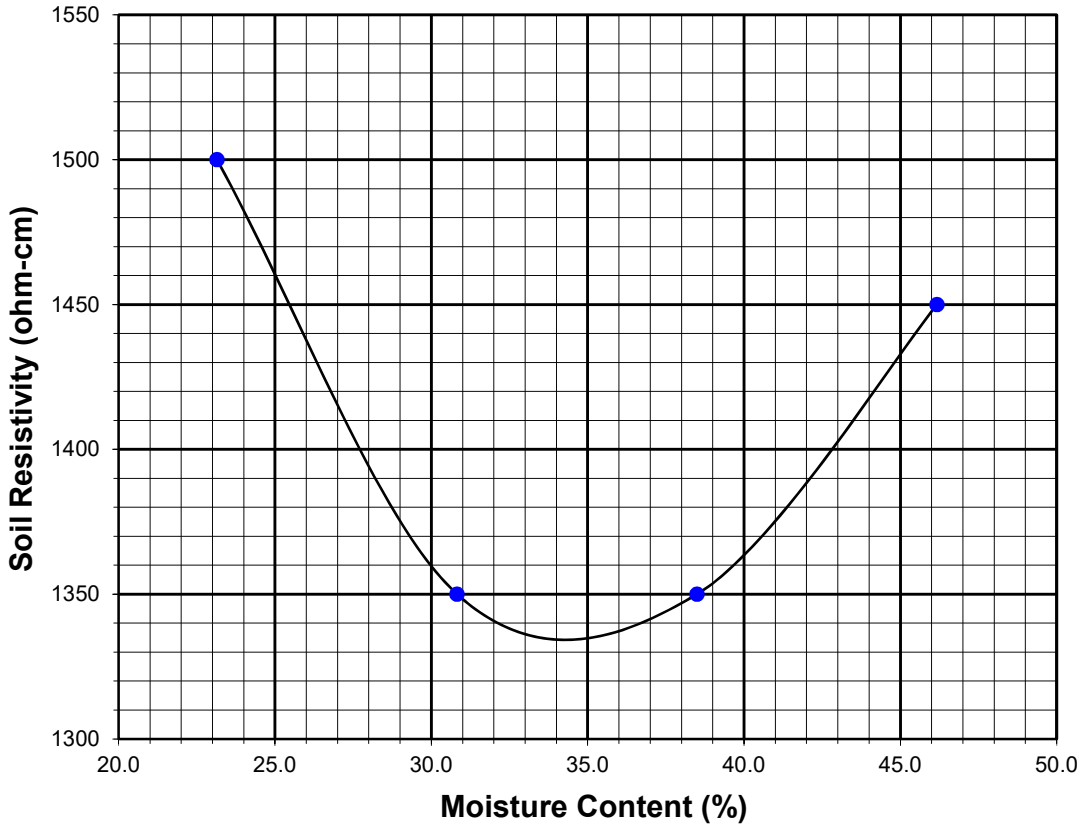
Soil Identification:* Olive brown (SM)

*California Test 643 requires soil specimens to consist only of portions of samples passing through the No. 8 US Standard Sieve before resistivity testing. Therefore, this test method may not be representative for coarser materials.

Specimen No.	Water Added (ml) (Wa)	Adjusted Moisture Content (MC)	Resistance Reading (ohm)	Soil Resistivity (ohm-cm)
1	30	23.14	1500	1500
2	40	30.82	1350	1350
3	50	38.50	1350	1350
4	60	46.18	1450	1450
5				

Moisture Content (%) (MCi)	0.11
Wet Wt. of Soil + Cont. (g)	168.20
Dry Wt. of Soil + Cont. (g)	168.07
Wt. of Container (g)	52.00
Container No.	
Initial Soil Wt. (g) (Wt)	130.40
Box Constant	1.000
MC =(((1+Mci/100)x(Wa/Wt+1))-1)x100	

Min. Resistivity (ohm-cm)	Moisture Content (%)	Sulfate Content (ppm)	Chloride Content (ppm)	Soil pH	
				pH	Temp. (°C)
DOT CA Test 643		DOT CA Test 417 Part II	DOT CA Test 422	DOT CA Test 643	
1335	**34.4**	**260**	**40**	**7.92**	**20.3**

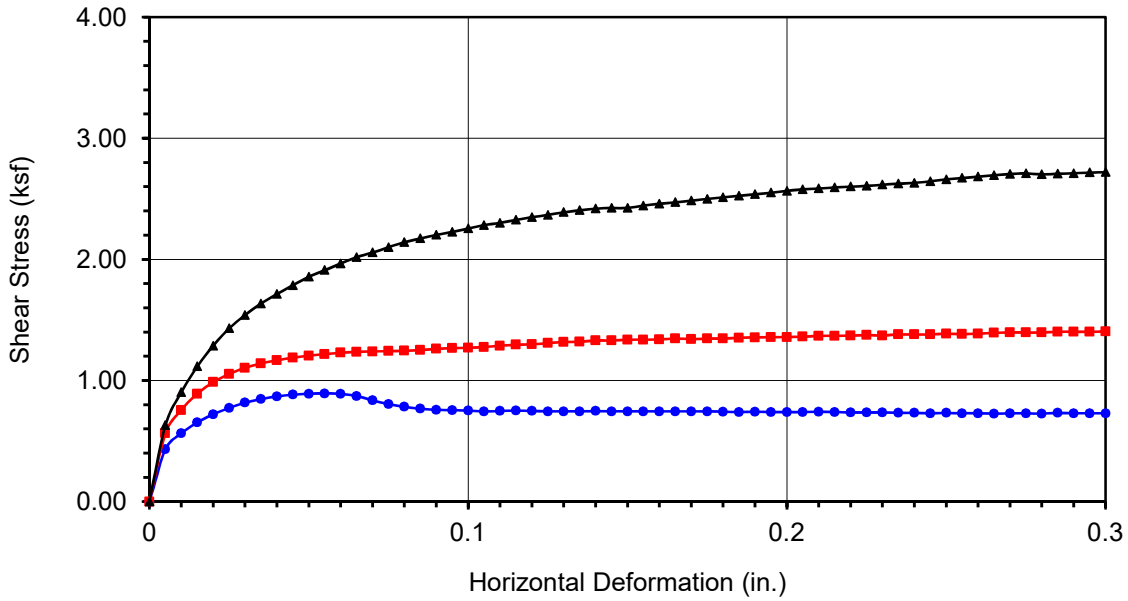


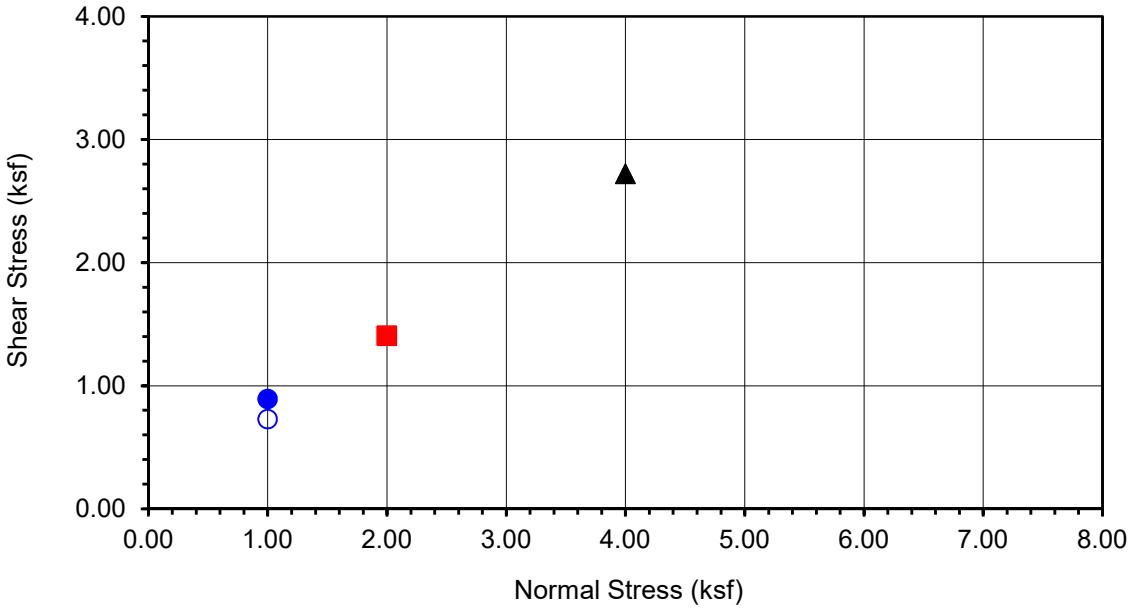
DIRECT SHEAR TEST

Consolidated Drained - ASTM D 3080

Project Name:	Legacy-Collier, Proposed Euclid & Walnut Mixed-Use, Ontario CA	Tested By:	G. Bathala	Date:	04/18/22
Project No.:	13493.001	Checked By:	A. Santos	Date:	04/25/22
Boring No.:	LB-2	Sample Type:	90% Remold		
Sample No.:	B-1	Depth (ft.):	0-5		
Soil Identification:	Olive brown sandy silt s(ML)				

Sample Diameter(in):	2.415	2.415	2.415
Sample Thickness(in.):	1.000	1.000	1.000
Weight of Sample + ring(gm):	197.98	198.21	198.62
Weight of Ring(gm):	45.38	45.43	45.60
Before Shearing			
Weight of Wet Sample+Cont.(gm):	169.35	169.35	169.35
Weight of Dry Sample+Cont.(gm):	155.92	155.92	155.92
Weight of Container(gm):	56.15	56.15	56.15
Vertical Rdg.(in): Initial	0.2545	0.2729	0.0000
Vertical Rdg.(in): Final	0.2651	0.2858	-0.0224
After Shearing			
Weight of Wet Sample+Cont.(gm):	211.09	212.06	191.55
Weight of Dry Sample+Cont.(gm):	190.82	191.76	171.67
Weight of Container(gm):	58.12	58.19	38.35
Specific Gravity (Assumed):	2.70	2.70	2.70
Water Density(pcf):	62.43	62.43	62.43





Boring No.	**LB-2**
Sample No.	**B-1**
Depth (ft)	**0-5**
Sample Type:	
90% Remold	
Soil Identification:	
Olive brown sandy silt s(ML)	

Normal Stress (kip/ft²)	1.000	2.000	4.000
Peak Shear Stress (kip/ft²)	● 0.893	■ 1.405	▲ 2.719
Shear Stress @ End of Test (ksf)	○ 0.729	□ 1.405	△ 2.719
Deformation Rate (in./min.)	0.0017	0.0017	0.0017
Initial Sample Height (in.)	1.000	1.000	1.000
Diameter (in.)	2.415	2.415	2.415
Initial Moisture Content (%)	13.46	13.46	13.46
Dry Density (pcf)	111.9	112.0	112.2
Saturation (%)	71.7	71.9	72.3
Soil Height Before Shearing (in.)	0.9894	0.9871	0.9776
Final Moisture Content (%)	15.3	15.2	14.9

Leighton

DIRECT SHEAR TEST RESULTS

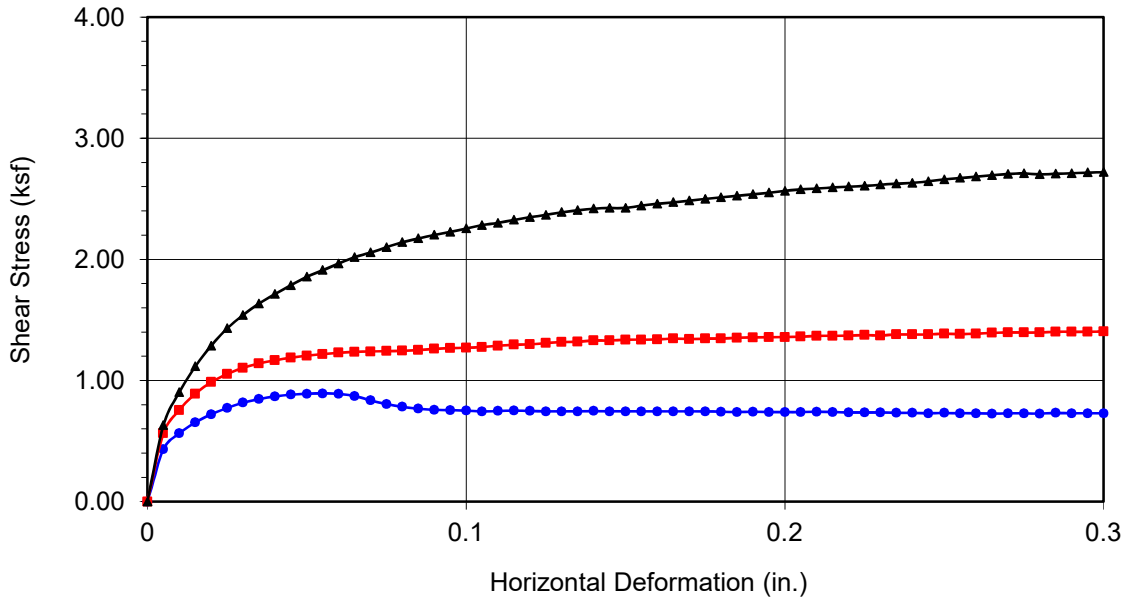
Consolidated Drained - ASTM D 3080

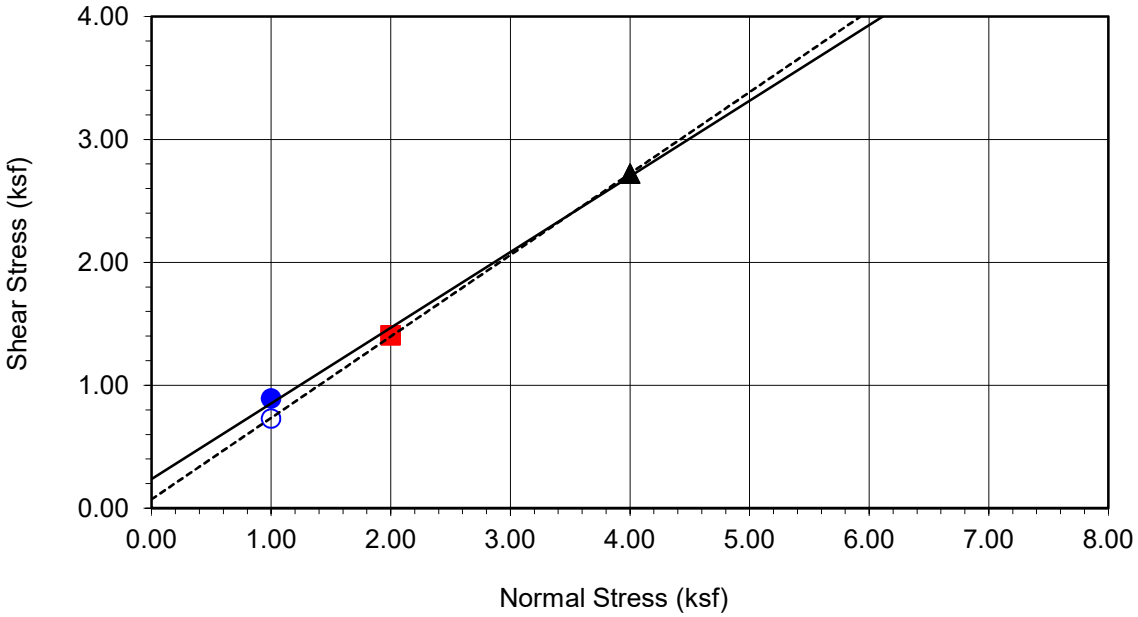
Project No.: 13493.001

Legacy-Collier, Proposed Euclid & Walnut Mixed-Use, Ontario CA

04-22

DS LB-2, B-1 @ 0-5





Boring No.	**LB-2**
Sample No.	**B-1**
Depth (ft)	**0-5**
Sample Type:	90% Remold
Soil Identification:	Olive brown sandy silt s(ML)

Strength Parameters

	C (psf)	ϕ (°)
Peak	236	32
Ultimate	72	34

Normal Stress (kip/ft²)	1.000	2.000	4.000
Peak Shear Stress (kip/ft²)	● 0.893	■ 1.405	▲ 2.719
Shear Stress @ End of Test (ksf)	○ 0.729	□ 1.405	△ 2.719
Deformation Rate (in./min.)	0.0017	0.0017	0.0017
Initial Sample Height (in.)	1.000	1.000	1.000
Diameter (in.)	2.415	2.415	2.415
Initial Moisture Content (%)	13.46	13.46	13.46
Dry Density (pcf)	111.9	112.0	112.2
Saturation (%)	71.7	71.9	72.3
Soil Height Before Shearing (in.)	0.9894	0.9871	0.9776
Final Moisture Content (%)	15.3	15.2	14.9

Leighton

DIRECT SHEAR TEST RESULTS

Consolidated Drained - ASTM D 3080

Project No.: 13493.001

Legacy-Collier, Proposed Euclid & Walnut Mixed-Use, Ontario CA

04-22

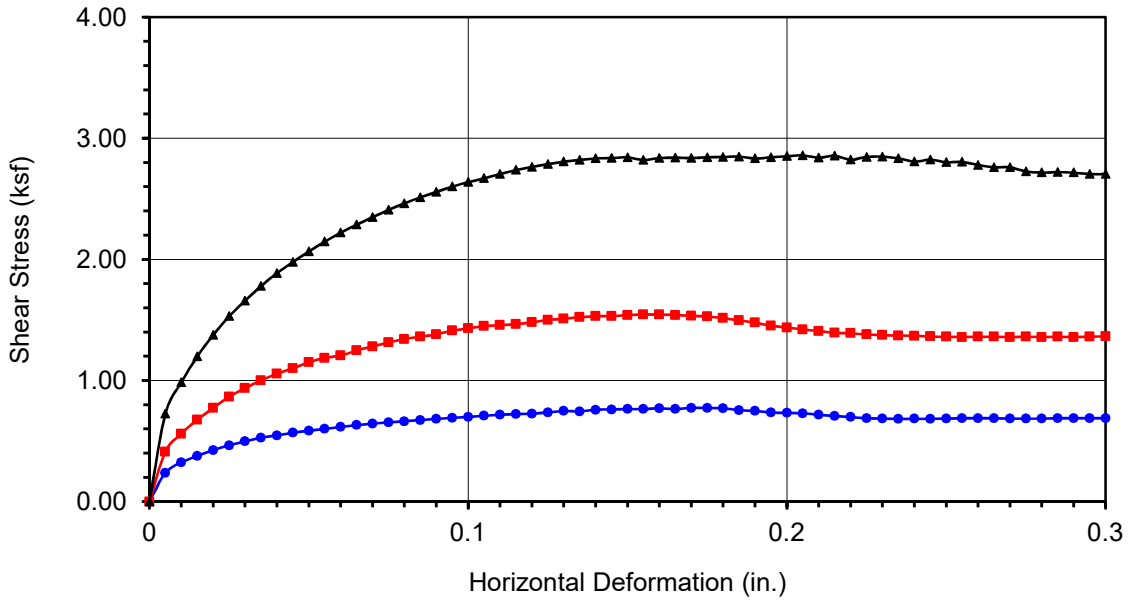
DS LB-2, B-1 @ 0-5

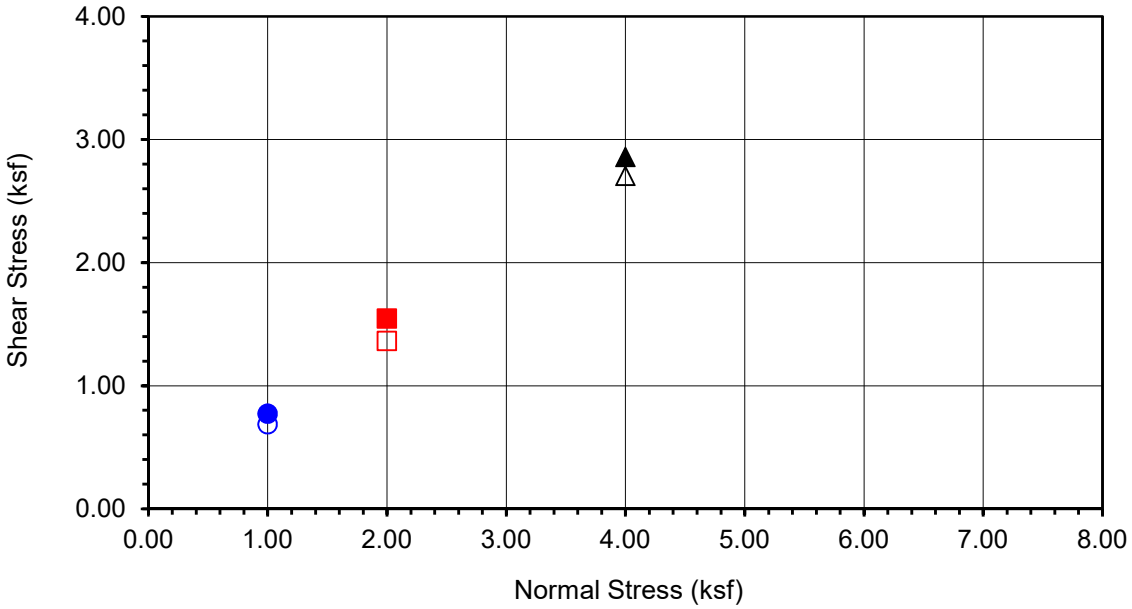
DIRECT SHEAR TEST

Consolidated Drained - ASTM D 3080

Project Name:	Legacy-Collier, Proposed Euclid & Walnut Mixed-Use, Ontario CA	Tested By:	G. Bathala	Date:	04/19/22
Project No.:	13493.001	Checked By:	A. Santos	Date:	04/25/22
Boring No.:	LB-3	Sample Type:	Ring		
Sample No.:	R-2	Depth (ft.):	7.5		
Soil Identification:	Olive silty sand (SM)				

Sample Diameter(in):	2.415	2.415	2.415
Sample Thickness(in.):	1.000	1.000	1.000
Weight of Sample + ring(gm):	177.41	181.99	182.19
Weight of Ring(gm):	43.72	45.58	45.95
Before Shearing			
Weight of Wet Sample+Cont.(gm):	182.62	182.62	182.62
Weight of Dry Sample+Cont.(gm):	178.05	178.05	178.05
Weight of Container(gm):	58.18	58.18	58.18
Vertical Rdg.(in): Initial	0.0000	0.2562	0.2637
Vertical Rdg.(in): Final	-0.0126	0.2707	0.2918
After Shearing			
Weight of Wet Sample+Cont.(gm):	208.16	204.29	212.34
Weight of Dry Sample+Cont.(gm):	188.26	184.44	192.59
Weight of Container(gm):	66.34	58.11	67.16
Specific Gravity (Assumed):	2.70	2.70	2.70
Water Density(pcf):	62.43	62.43	62.43





Boring No.	**LB-3**
Sample No.	**R-2**
Depth (ft)	**7.5**
Sample Type:	
Ring	
Soil Identification:	
Olive silty sand (SM)	

Normal Stress (kip/ft²)	1.000	2.000	4.000
Peak Shear Stress (kip/ft²)	● 0.773	■ 1.544	▲ 2.858
Shear Stress @ End of Test (ksf)	○ 0.688	□ 1.364	△ 2.704
Deformation Rate (in./min.)	0.0033	0.0033	0.0033
Initial Sample Height (in.)	1.000	1.000	1.000
Diameter (in.)	2.415	2.415	2.415
Initial Moisture Content (%)	3.81	3.81	3.81
Dry Density (pcf)	107.1	109.3	109.1
Saturation (%)	17.9	19.0	18.9
Soil Height Before Shearing (in.)	0.9874	0.9855	0.9719
Final Moisture Content (%)	16.3	15.7	15.7

Leighton

DIRECT SHEAR TEST RESULTS

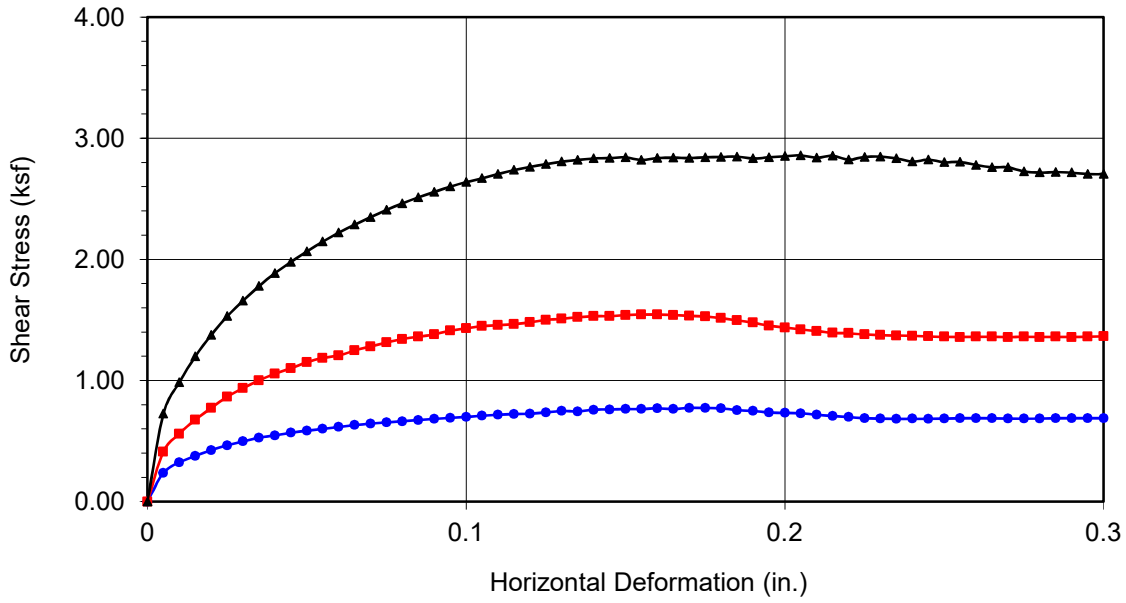
Consolidated Drained - ASTM D 3080

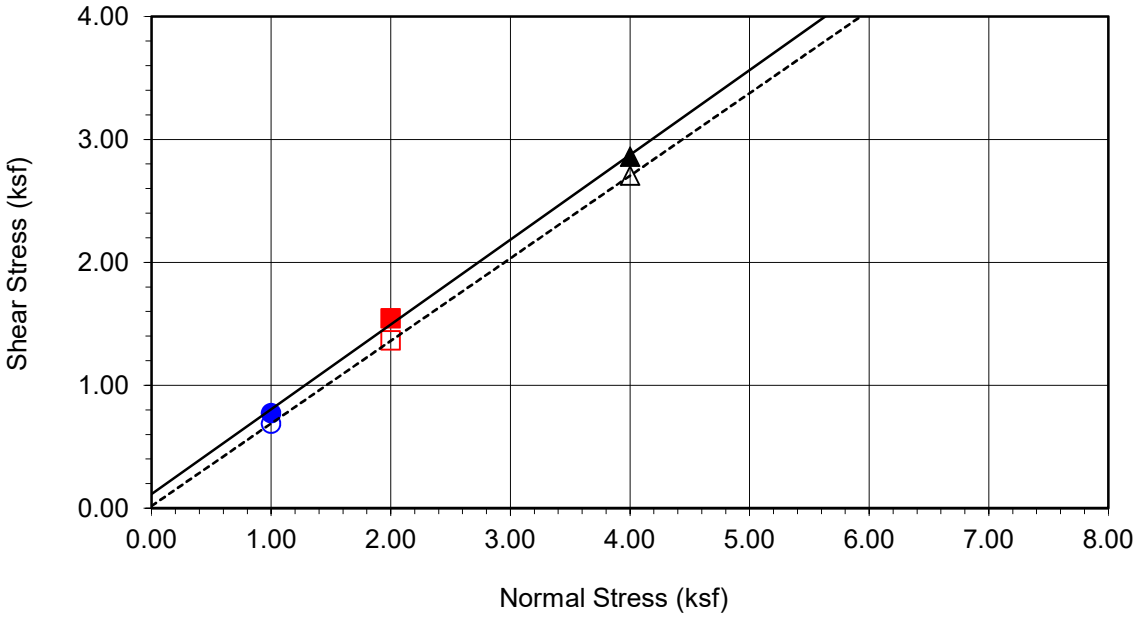
Project No.: 13493.001

Legacy-Collier, Proposed Euclid & Walnut Mixed-Use, Ontario CA

04-22

DS LB-3, R-2 @ 7.5





Boring No.	**LB-3**
Sample No.	**R-2**
Depth (ft)	**7.5**
Sample Type:	Ring
Soil Identification:	Olive silty sand (SM)

Strength Parameters

	C (psf)	ϕ (°)
Peak	116	35
Ultimate	18	34

Normal Stress (kip/ft²)	1.000	2.000	4.000
Peak Shear Stress (kip/ft²)	● 0.773	■ 1.544	▲ 2.858
Shear Stress @ End of Test (ksf)	○ 0.688	□ 1.364	△ 2.704
Deformation Rate (in./min.)	0.0033	0.0033	0.0033
Initial Sample Height (in.)	1.000	1.000	1.000
Diameter (in.)	2.415	2.415	2.415
Initial Moisture Content (%)	3.81	3.81	3.81
Dry Density (pcf)	107.1	109.3	109.1
Saturation (%)	17.9	19.0	18.9
Soil Height Before Shearing (in.)	0.9874	0.9855	0.9719
Final Moisture Content (%)	16.3	15.7	15.7

Leighton

DIRECT SHEAR TEST RESULTS

Consolidated Drained - ASTM D 3080

Project No.: 13493.001

Legacy-Collier, Proposed Euclid & Walnut Mixed-Use, Ontario CA

04-22

DS LB-3, R-2 @ 7.5

EXPANSION INDEX of SOILS
ASTM D 4829

Project Name:	Legacy-Collier, Proposed Euclid & Walnut Mixed-Use, Ontario CA	Tested By:	G. Berdy	Date:	04/13/22
Project No.:	13493.001	Checked By:	A. Santos	Date:	04/25/22
Boring No.:	LB-1	Depth (ft.):	0-5		
Sample No.:	B-1				
Soil Identification:	Olive brown sandy silt s(ML)				

Dry Wt. of Soil + Cont.	(g)	1000.00
Wt. of Container No.	(g)	0.00
Dry Wt. of Soil	(g)	1000.00
Weight Soil Retained on #4 Sieve		0.00
Percent Passing # 4		100.00

MOLDED SPECIMEN		Before Test	After Test
Specimen Diameter	(in.)	4.01	4.01
Specimen Height	(in.)	1.0000	1.0175
Wt. Comp. Soil + Mold	(g)	609.40	443.20
Wt. of Mold	(g)	202.10	0.00
Specific Gravity (Assumed)		2.70	2.70
Container No.		O	O
Wet Wt. of Soil + Cont.	(g)	819.60	645.30
Dry Wt. of Soil + Cont.	(g)	751.90	575.77
Wt. of Container	(g)	0.00	202.10
Moisture Content	(%)	9.00	18.61
Wet Density	(pcf)	122.9	131.4
Dry Density	(pcf)	112.7	110.8
Void Ratio		0.496	0.522
Total Porosity		0.331	0.343
Pore Volume	(cc)	68.6	72.2
Degree of Saturation (%) [S_{meas}]		**49.0**	96.3

SPECIMEN INUNDATION in distilled water for the period of 24 h or expansion rate < 0.0002 in./h

Date	Time	Pressure (psi)	Elapsed Time (min.)	Dial Readings (in.)
04/13/22	11:12	1.0	0	0.5855
04/13/22	11:22	1.0	10	0.5855
Add Distilled Water to the Specimen				
04/13/22	11:59	1.0	37	0.6000
04/14/22	5:42	1.0	1100	0.6030
04/14/22	9:53	1.0	1351	0.6030

Expansion Index (EI_{meas}) = ((Final Rdg - Initial Rdg) / Initial Thick.) x 1000	**18**

Borehole	Depth	Liquid Limit	Plastic Limit	Plasticity Index	Maximum Size (mm)	%<#200 Sieve	Class-ification	Water Content (%)	Dry Density (pcf)	Satur-ation (%)	Void Ratio
LB-1	7.5							9.3	94.6		
LB-1	10.0							31.0	88.6		
LB-1	15.0							15.7	111.5		
LB-1	20.0							12.2	120.1		
LB-1	30.0							3.6			
LB-1	40.0							4.4			
LB-1	45.0							2.0	114.9		
LB-1	50.0							3.2			
LB-2	7.5							3.0	101.4		
LB-2	15.0							4.0	102.8		
LB-2	20.0							15.7	111.9		
LB-2	25.0							10.4	108.4		
LB-3	5.0							7.7	110.6		
LB-3	10.0							26.3	90.1		
LB-3	15.0							35.1	87.0		
LB-3	20.0							12.5	121.7		
LB-3	25.0							13.9	113.8		
LP-1	15.0							5.0	104.3		
LP-1	18.5							12.4	119.3		
LP-2	15.0							25.4	91.0		
LP-2	18.5							7.3	115.0		



Summary of Laboratory Results

Project Name: Legacy-Collier, Proposed Residential Development

Project Number: 13493.001

Date: 5/4/2022 11:49:57 AM

Figure No. 1

MODIFIED PROCTOR COMPACTION TEST

ASTM D 1557

Project Name:	Legacy-Collier, Proposed Euclid & Walnut Mixed-Use, Ontario CA	Tested By:	J. Gonzalez	Date:	04/12/22
Project No.:	13493.001	Checked By:	A. Santos	Date:	04/13/22
Boring No.:	LB-2	Depth (ft.):	0-5		
Sample No.:	B-1				
Soil Identification:	Olive brown sandy silt s(ML)				

Preparation Method: [X] Moist [ ] Dry

[X] Mechanical Ram [ ] Manual Ram

Mold Volume (ft³) 0.03330 *Ram Weight = 10 lb.; Drop = 18 in.*

TEST NO.	1	2	3	4	5	6
Wt. Compacted Soil + Mold (g)	3861	3920	3880			
Weight of Mold (g)	1826	1826	1826			
Net Weight of Soil (g)	2035	2094	2054			
Wet Weight of Soil + Cont. (g)	462.6	478.9	498.0			
Dry Weight of Soil + Cont. (g)	423.8	429.5	437.3			
Weight of Container (g)	37.9	36.3	39.6			
Moisture Content (%)	10.05	12.56	15.26			
Wet Density (pcf)	134.7	138.6	136.0			
Dry Density (pcf)	122.4	123.2	118.0			

Maximum Dry Density (pcf) **123.5** **Optimum Moisture Content (%)** **11.5**

PROCEDURE USED

[X] **Procedure A**
Soil Passing No. 4 (4.75 mm) Sieve
Mold : 4 in. (101.6 mm) diameter
Layers : 5 (Five)
Blows per layer : 25 (twenty-five)
May be used if +#4 is 20% or less

[ ] **Procedure B**
Soil Passing 3/8 in. (9.5 mm) Sieve
Mold : 4 in. (101.6 mm) diameter
Layers : 5 (Five)
Blows per layer : 25 (twenty-five)
Use if +#4 is >20% and +3/8 in. is 20% or less

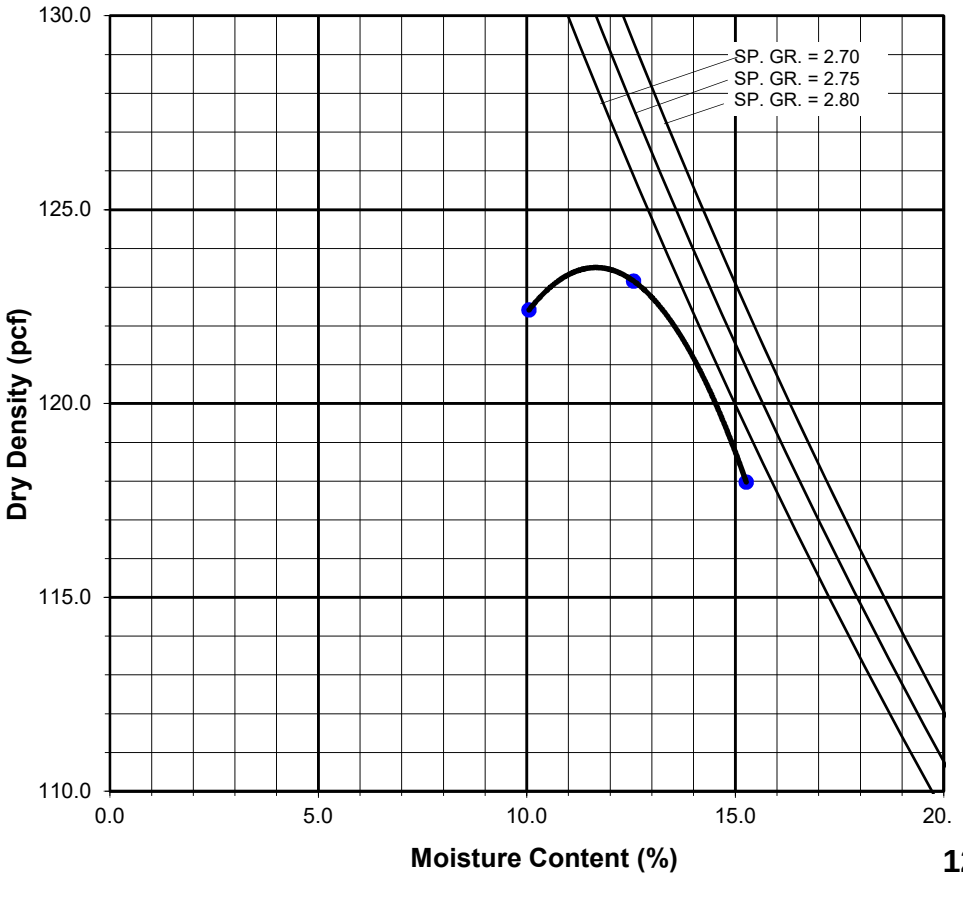
[ ] **Procedure C**
Soil Passing 3/4 in. (19.0 mm) Sieve
Mold : 6 in. (152.4 mm) diameter
Layers : 5 (Five)
Blows per layer : 56 (fifty-six)
Use if +3/8 in. is >20% and +¾ in. is <30%

Particle-Size Distribution:

GR:SA:FI

Atterberg Limits:

LL,PL,PI



1270

MX LB-2, B-1 @ 0-5

MODIFIED PROCTOR COMPACTION TEST

ASTM D 1557

Project Name:	Legacy-Collier, Proposed Euclid & Walnut Mixed-Use, Ontario CA	Tested By:	J. Gonzalez	Date:	04/13/22
Project No.:	13493.001	Checked By:	A. Santos	Date:	04/25/22
Boring No.:	LB-3	Depth (ft.):	0-5		
Sample No.:	B-1				
Soil Identification:	Olive brown silty sand (SM)				

Preparation Method: [X] Moist [ ] Dry

[X] Mechanical Ram [ ] Manual Ram

Mold Volume (ft³) 0.03330 *Ram Weight = 10 lb.; Drop = 18 in.*

TEST NO.	1	2	3	4	5	6
Wt. Compacted Soil + Mold (g)	3839	3913	3850			
Weight of Mold (g)	1826	1826	1826			
Net Weight of Soil (g)	2013	2087	2024			
Wet Weight of Soil + Cont. (g)	499.8	520.0	518.3			
Dry Weight of Soil + Cont. (g)	469.3	477.3	466.0			
Weight of Container (g)	41.0	39.1	37.8			
Moisture Content (%)	7.12	9.74	12.21			
Wet Density (pcf)	133.3	138.2	134.0			
Dry Density (pcf)	124.4	125.9	119.4			

Maximum Dry Density (pcf) **126.4** **Optimum Moisture Content (%)** **9.0**

PROCEDURE USED

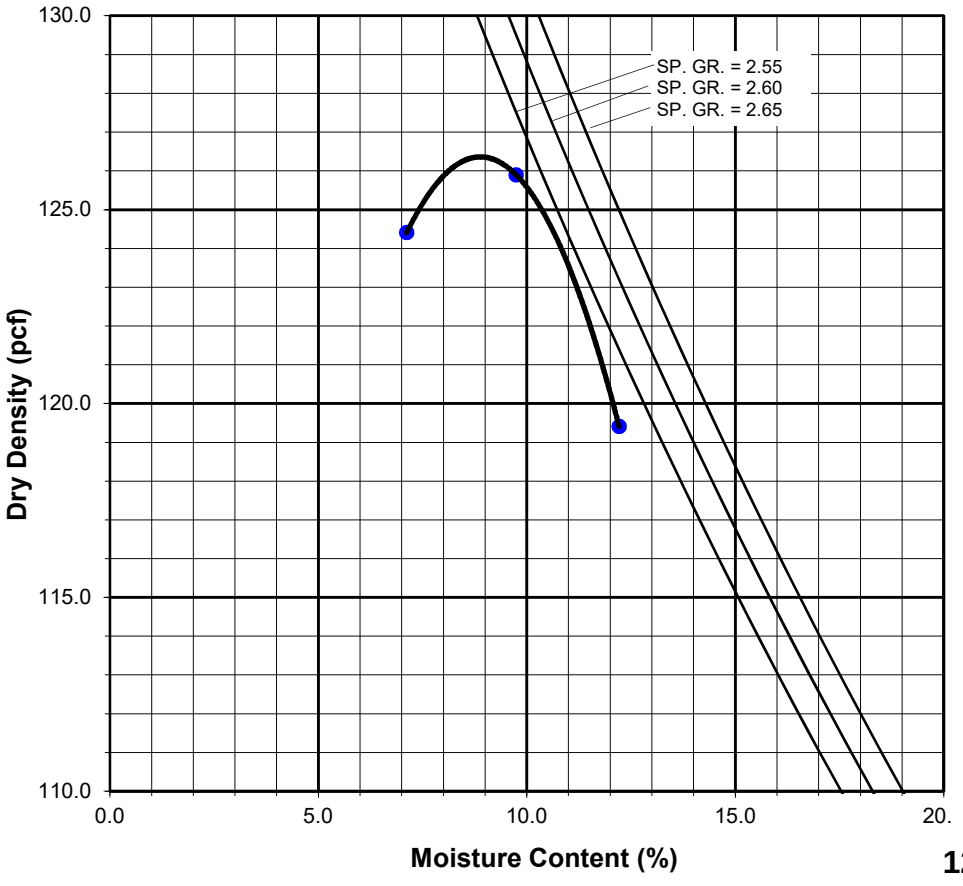
[X] **Procedure A**
Soil Passing No. 4 (4.75 mm) Sieve
Mold : 4 in. (101.6 mm) diameter
Layers : 5 (Five)
Blows per layer : 25 (twenty-five)
May be used if +#4 is 20% or less

[ ] **Procedure B**
Soil Passing 3/8 in. (9.5 mm) Sieve
Mold : 4 in. (101.6 mm) diameter
Layers : 5 (Five)
Blows per layer : 25 (twenty-five)
Use if +#4 is >20% and +3/8 in. is 20% or less

[ ] **Procedure C**
Soil Passing 3/4 in. (19.0 mm) Sieve
Mold : 6 in. (152.4 mm) diameter
Layers : 5 (Five)
Blows per layer : 56 (fifty-six)
Use if +3/8 in. is >20% and +¾ in. is <30%

Particle-Size Distribution:
GR:SA:FI

Atterberg Limits:
LL,PL,PI



1271

MX LB-3, B-1 @ 0-5

ATTERBERG LIMITS

ASTM D 4318

Project Name:	Legacy-Collier, Proposed Euclid & Walnut Mixed-Use, Onratio CA	Tested By:	J. Domingo	Date:	04/22/22
Project No. :	13493.001	Input By:	G. Bathala	Date:	04/25/22
Boring No.:	LB-2	Checked By:	A. Santos		
Sample No.:	R-3	Depth (ft.)	10.0		
Soil Identification:	Olive gray lean clay (CL)				

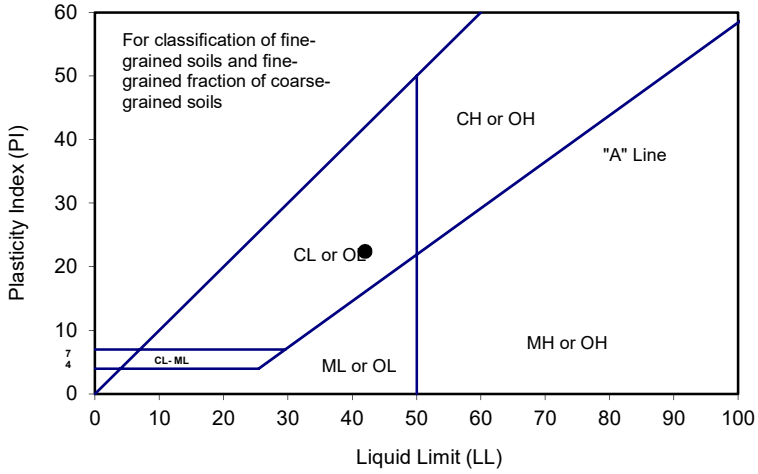
TEST	PLASTIC LIMIT		LIQUID LIMIT			
NO.	1	2	1	2	3	4
Number of Blows [N]			26	21	16	
Wet Wt. of Soil + Cont. (g)	8.64	8.87	20.09	21.49	20.68	
Dry Wt. of Soil + Cont. (g)	7.38	7.61	14.48	15.38	14.70	
Wt. of Container (g)	1.06	1.07	1.11	1.03	1.00	
Moisture Content (%) [Wn]	19.94	19.27	41.96	42.58	43.65	

Liquid Limit	**42**
Plastic Limit	**20**
Plasticity Index	**22**
Classification	**CL**

PI at "A" - Line = 0.73(LL-20) 16.06

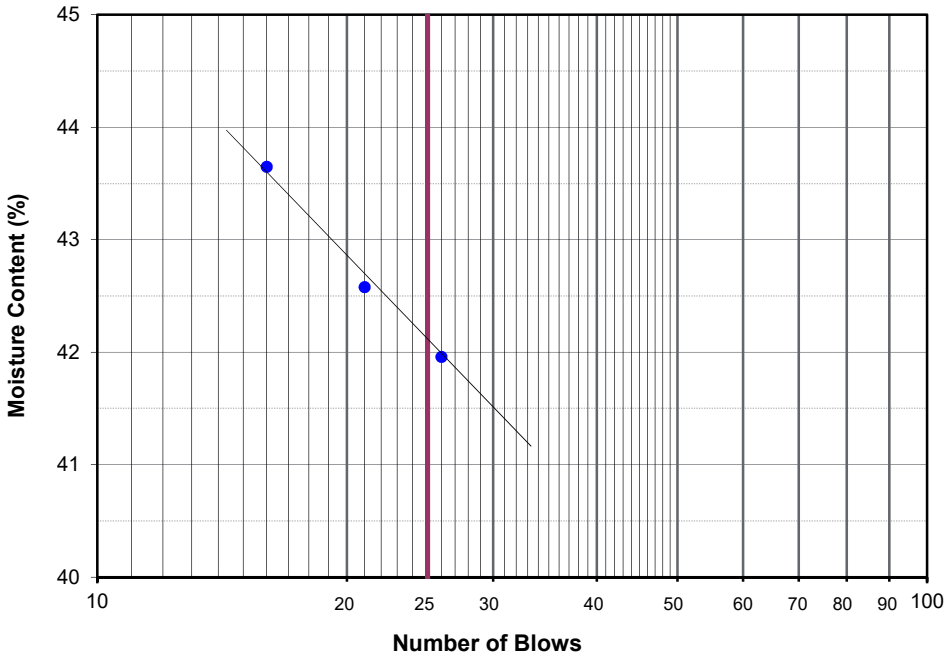
One - Point Liquid Limit Calculation

$LL = Wn(N/25)^{0.121}$



PROCEDURES USED

	Wet Preparation
	Multipoint - Wet
X	Dry Preparation
	Multipoint - Dry
X	Procedure A
	Multipoint Test
	Procedure B
	One-point Test



Project Name: Legacy-Collier, Proposed Euclid & Walnut Mixed-Use, Ontario CA
Project No.: 13493.001

Summary of Pocket Penetrometer Test Results

Tested by:	S. Felter	Date:	04/19/22
Prepared by:	G. Bathala	Date:	04/22/22

Boring No.	Sample No.	Depth (ft.)	Readings	Remarks
LB-1	R-2	7.5	2.50	
	R-3	10	>4.50	
	R-4	15	4.25	
	R-5	20	>4.50	
	R-10	45	3.50	
LB-2	R-2	7.5	1.75	
	R-4	15	3.75	
	R-5	20	3.50	
	R-6	25	>4.50	
LB-3	R-1	5	>4.50	
	R-3	10	>4.50	
	R-4	15	4.25	
	R-5	20	4.50	
	R-6	25	>4.50	
LP-1	R-3	15	2.75	
	R-4	18.5	>4.50	
LP-2	R-3	15	>4.50	
	R-4	18.5	>4.50	

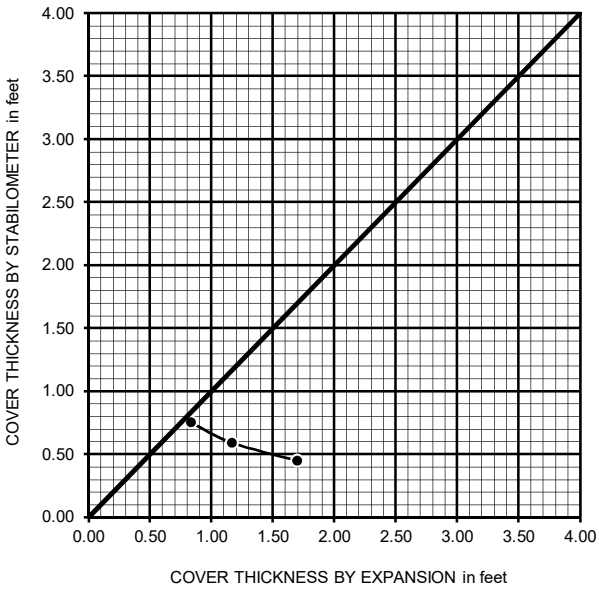
R-VALUE TEST RESULTS
DOT CA Test 301

PROJECT NAME:	Legacy-Collier, Proposed Euclid & Walnut Mixed-Use Ontario CA	PROJECT NUMBER:	13493.001
BORING NUMBER:	LB-1	DEPTH (FT.):	0-5
SAMPLE NUMBER:	B-1	TECHNICIAN:	O. Figueroa
SAMPLE DESCRIPTION:	Olive brown sandy silt s(ML)	DATE COMPLETED:	4/13/2022

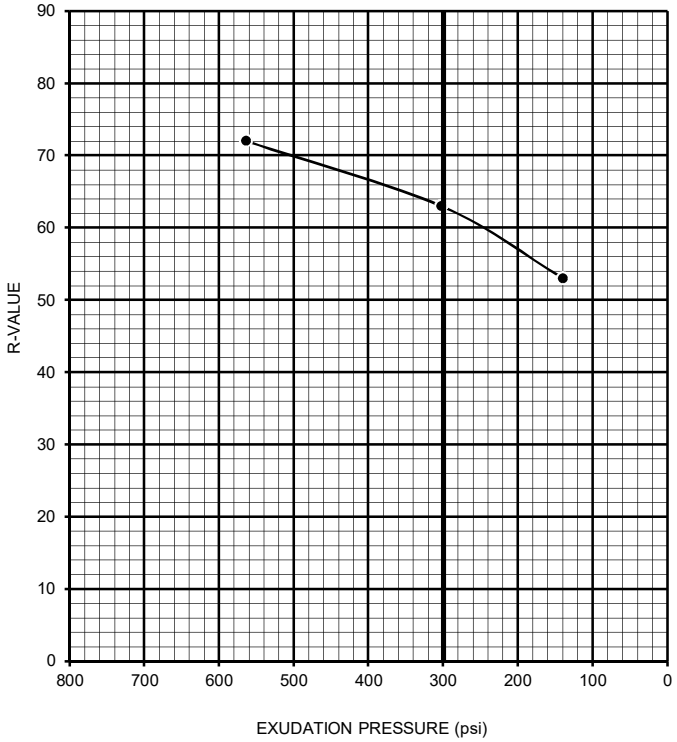
TEST SPECIMEN	a	b	c
MOISTURE AT COMPACTION %	12.7	13.7	14.6
HEIGHT OF SAMPLE, Inches	2.45	2.50	2.53
DRY DENSITY, pcf	120.2	118.7	116.2
COMPACTOR PRESSURE, psi	325	250	150
EXUDATION PRESSURE, psi	564	302	139
EXPANSION, Inches x 10exp-4	51	35	25
STABILITY Ph 2,000 lbs (160 psi)	28	36	46
TURNS DISPLACEMENT	4.60	5.13	5.45
R-VALUE UNCORRECTED	72	63	53
R-VALUE CORRECTED	72	63	53

DESIGN CALCULATION DATA	a	b	c
GRAVEL EQUIVALENT FACTOR	1.0	1.0	1.0
TRAFFIC INDEX	5.0	5.0	5.0
STABILOMETER THICKNESS, ft.	0.45	0.59	0.75
EXPANSION PRESSURE THICKNESS, ft.	1.70	1.17	0.83

EXPANSION PRESSURE CHART



EXUDATION PRESSURE CHART



R-VALUE BY EXPANSION:	50
R-VALUE BY EXUDATION:	63
EQUILIBRIUM R-VALUE:	50

SAND EQUIVALENT TEST

DOT CA Test 217

Project Name: Legacy-Collier, Proposed Euclid & Walnut Mixed-Use, Ontario CA Tested By: A Santos Date: 04/25/22

Project No. : 13493.001 Input By: J. Ward Date: 04/25/22

Boring No.	Sample No.	Depth (ft.)	Soil Type	T1	T2	T3	T4	R1	R2	SE	Average SE
LB-2	B-1	0-5	Olive brown sandy silt s(ML)	11:20	11:30	11:33	11:53	13.5	1.2	9	**9**
				11:24	11:34	11:37	11:57	13.4	1.1	9	
				11:28	11:38	11:41	12:01	13.5	1.1	9	
LB-5	B-1	0-5	Olive brown silty sand (SM)	13:40	13:50	13:53	14:13	12.6	1.4	12	**12**
				13:44	13:54	13:57	14:17	12.6	1.4	12	
				13:48	13:58	14:01	14:21	12.7	1.3	11	

T1 = Starting Time

T2 = (T1 + 10 min) Begin Agitation

(131 cycles in 45 sec)

T3 = Settlement Starting Time

T4 = (T3 + 20 min) Take Clay Reading (R1)

and Sand Reading (R2)

Sand Equivalent = R2 / R1 * 100

Record SE as Next Higher Integer

1275

PARTICLE-SIZE DISTRIBUTION (GRADATION) of SOILS USING SIEVE ANALYSIS

ASTM D 6913

Project Name:	Legacy-Collier, Proposed Euclid & Walnut Mixed-Use, Ontario CA	Tested By:	S. Felter	Date:	04/20/22
Project No.:	13493.001	Checked By:	A. Santos	Date:	04/25/22
Boring No.:	LP-1	Depth (feet):	15.0		
Sample No.:	R-3				
Soil Identification:	Grayish brown silty sand (SM)				

		Moisture Content of Total Air - Dry Soil	
Container No.:	2	Wt. of Air-Dry Soil + Cont. (g)	0.0
Wt. of Air-Dried Soil + Cont.(g)	712.3	Wt. of Dry Soil + Cont. (g)	0.0
Wt. of Container (g)	110.0	Wt. of Container No._____ (g)	1.0
Dry Wt. of Soil (g)	602.3	Moisture Content (%)	0.0

After Wet Sieve	Container No.	2
	Wt. of Dry Soil + Container (g)	582.3
	Wt. of Container (g)	110.0
	Dry Wt. of Soil Retained on # 200 Sieve (g)	472.3

U. S. Sieve Size (in.)	U. S. Sieve Size (mm.)	Cumulative Weight Dry Soil Retained (g)	Percent Passing (%)
1 1/2"	37.5		
1"	25.0		
3/4"	19.0		
1/2"	12.5		
3/8"	9.5	0.0	100.0
#4	4.75	1.2	99.8
#8	2.36	3.6	99.4
#16	1.18	17.0	97.2
#30	0.600	54.5	91.0
#50	0.300	166.8	72.3
#100	0.150	343.0	43.1
#200	0.075	464.2	22.9
PAN			

GRAVEL: **0 %**

SAND: **77 %**

FINES: **23 %**

GROUP SYMBOL: **SM**

Cu = D60/D10 = _____

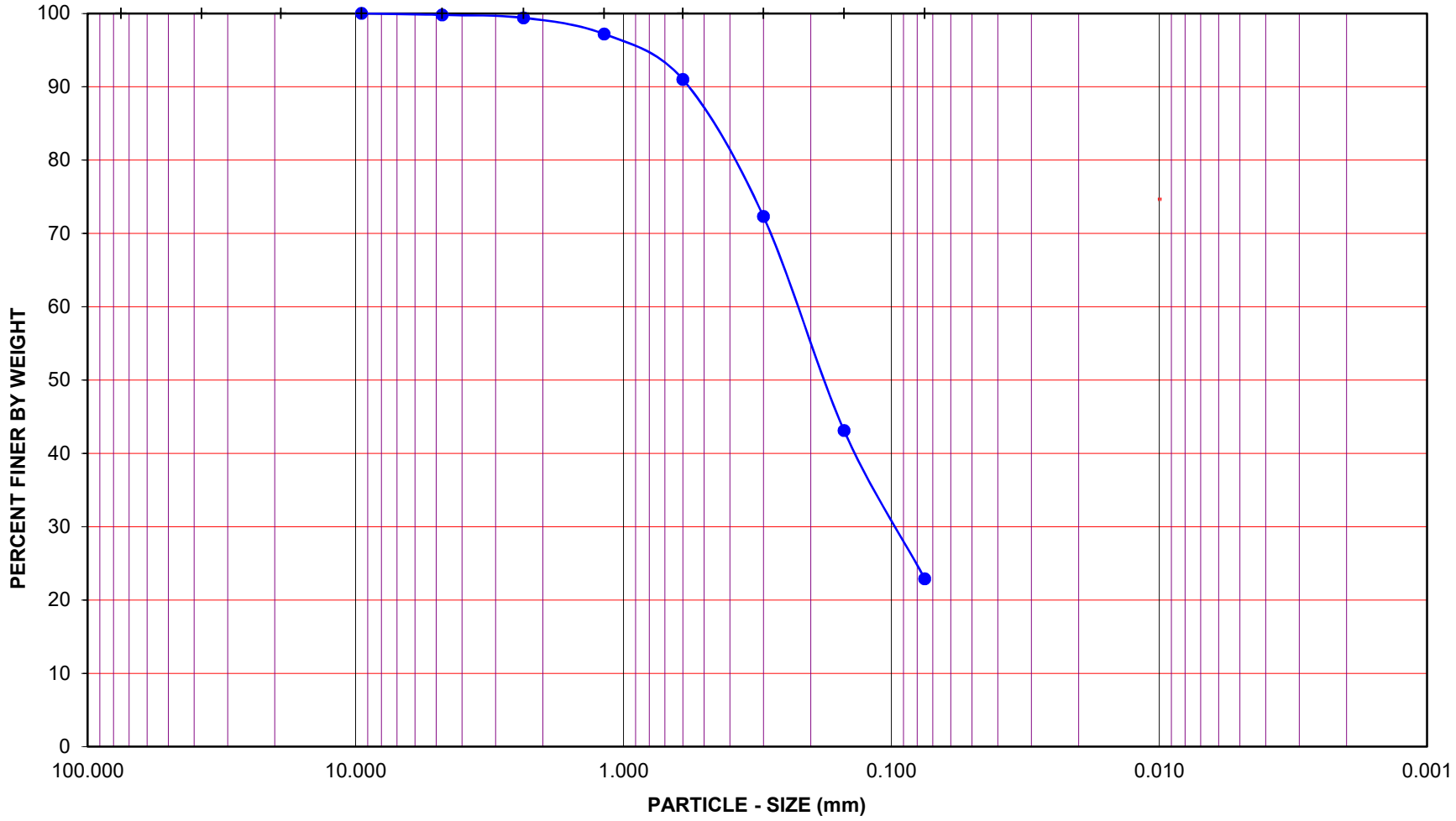
Cc = $(D30)^2/(D60*D10)$ = _____

Remarks: _____

GRAVEL		SAND			FINES	
COARSE	FINE	COARSE	MEDIUM	FINE	SILT	CLAY

U.S. STANDARD SIEVE OPENING — U.S. STANDARD SIEVE NUMBER — HYDROMETER

3.0" 1 1/2" 3/4" 3/8" #4 #8 #16 #30 #50 #100 #200



Project Name: Legacy-Collier, Proposed Euclid & Walnut Mixed-Use, Ontario CA

Project No.: 13493.001

Boring No.: LP-1 Sample No.: R-3

Depth (feet): 15.0 Soil Type : SM

Soil Identification: Grayish brown silty sand (SM)

GR:SA:FI : (%) 0 : 77 : 23

Leighton

PARTICLE - SIZE DISTRIBUTION ASTM D 6913

1277

Sieve LP-1, R-3 @ 15

PARTICLE-SIZE DISTRIBUTION (GRADATION) of SOILS USING SIEVE ANALYSIS

ASTM D 6913

Project Name:	Legacy-Collier, Proposed Euclid & Walnut Mixed Use, Ontario CA	Tested By:	S. Felter	Date:	04/20/22
Project No.:	13493.001	Checked By:	A. Santos	Date:	04/25/22
Boring No.:	LP-1	Depth (feet):	18.5		
Sample No.:	R-4				
Soil Identification:	Olive brown sandy silt s(ML)				

		Moisture Content of Total Air - Dry Soil	
Container No.:	9545	Wt. of Air-Dry Soil + Cont. (g)	0.0
Wt. of Air-Dried Soil + Cont.(g)	774.5	Wt. of Dry Soil + Cont. (g)	0.0
Wt. of Container (g)	106.2	Wt. of Container No._____ (g)	1.0
Dry Wt. of Soil (g)	668.3	Moisture Content (%)	0.0

After Wet Sieve	Container No.	9545
	Wt. of Dry Soil + Container (g)	426.4
	Wt. of Container (g)	106.2
	Dry Wt. of Soil Retained on # 200 Sieve (g)	320.2

U. S. Sieve Size (in.)	U. S. Sieve Size (mm.)	Cumulative Weight Dry Soil Retained (g)	Percent Passing (%)
1 1/2"	37.5		
1"	25.0		
3/4"	19.0		
1/2"	12.5		
3/8"	9.5	0.0	100.0
#4	4.75	2.9	99.6
#8	2.36	8.0	98.8
#16	1.18	15.3	97.7
#30	0.600	41.7	93.8
#50	0.300	106.5	84.1
#100	0.150	206.4	69.1
#200	0.075	315.8	52.7
PAN			

GRAVEL: **0 %**

SAND: **47 %**

FINES: **53 %**

GROUP SYMBOL: **s(ML)**

Cu = D60/D10 = _____

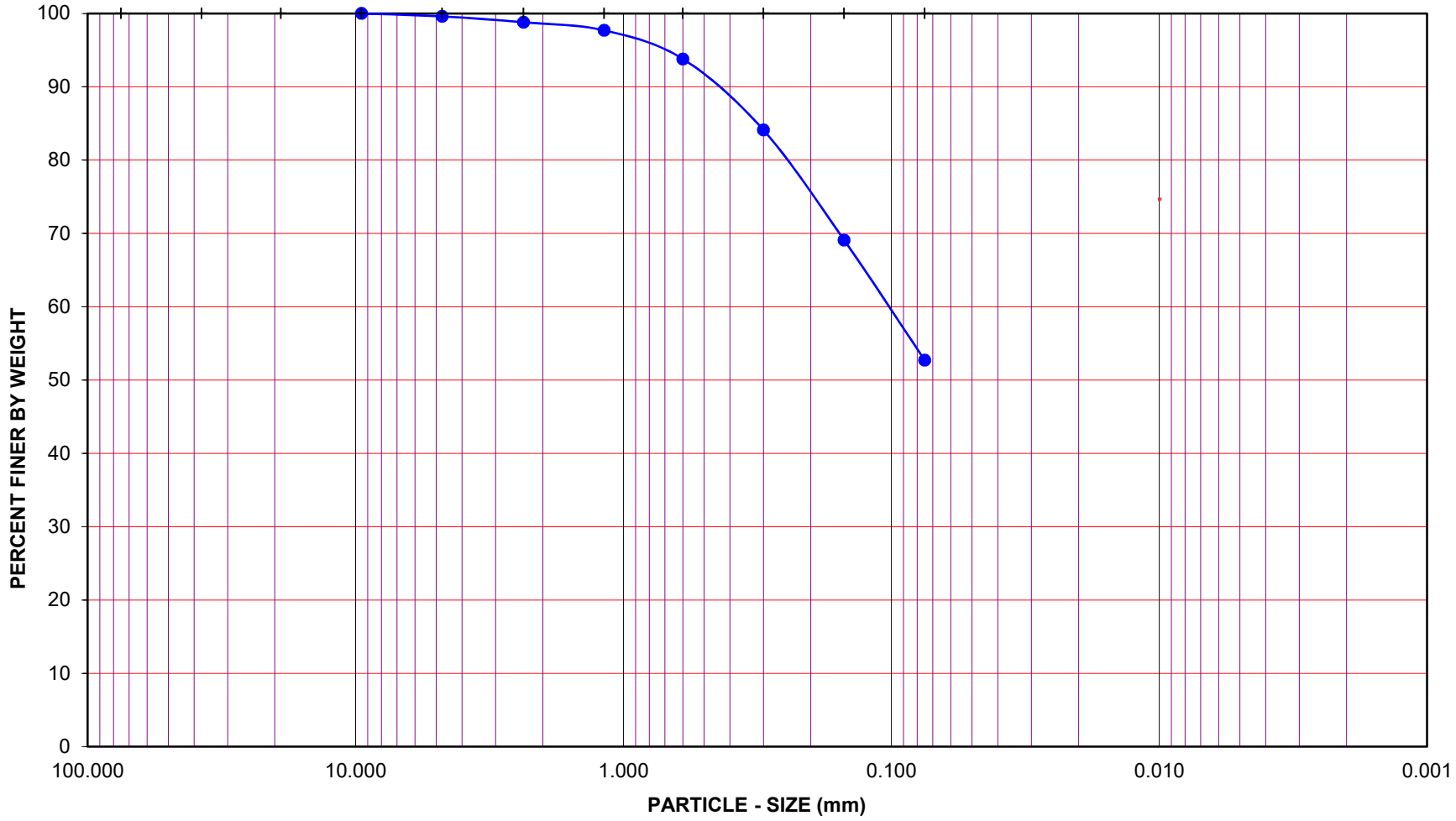
Cc = $(D30)^2/(D60*D10)$ = _____

Remarks: _____

GRAVEL		SAND			FINES	
COARSE	FINE	COARSE	MEDIUM	FINE	SILT	CLAY

U.S. STANDARD SIEVE OPENING — U.S. STANDARD SIEVE NUMBER — HYDROMETER

3.0" 1 1/2" 3/4" 3/8" #4 #8 #16 #30 #50 #100 #200



Project Name: Legacy-Collier, Proposed Euclid & Walnut Mixed Use, Ontario CA

Project No.: 13493.001

Boring No.: LP-1 Sample No.: R-4

Depth (feet): 18.5 Soil Type : s(ML)

Soil Identification: Olive brown sandy silt s(ML)

GR:SA:FI : (%) 0 : 47 : 53

Leighton

PARTICLE - SIZE DISTRIBUTION ASTM D 6913

1279

Sieve LP-1, R-4 @ 18.5

PARTICLE-SIZE DISTRIBUTION (GRADATION) of SOILS USING SIEVE ANALYSIS

ASTM D 6913

Project Name:	Legacy-Collier, Proposed Euclid & Walnut Mixed-Use, Ontario CA	Tested By:	S. Felter	Date:	04/19/22
Project No.:	13493.001	Checked By:	A. Santos	Date:	04/25/22
Boring No.:	LP-1	Depth (feet):	23.5		
Sample No.:	S-5				
Soil Identification:	Brown sandy lean clay s(CL)				

		Moisture Content of Total Air - Dry Soil	
Container No.:	969	Wt. of Air-Dry Soil + Cont. (g)	0.0
Wt. of Air-Dried Soil + Cont.(g)	538.7	Wt. of Dry Soil + Cont. (g)	0.0
Wt. of Container (g)	109.4	Wt. of Container No._____ (g)	1.0
Dry Wt. of Soil (g)	429.3	Moisture Content (%)	0.0

After Wet Sieve	Container No.	969
	Wt. of Dry Soil + Container (g)	344.3
	Wt. of Container (g)	109.4
	Dry Wt. of Soil Retained on # 200 Sieve (g)	234.9

U. S. Sieve Size (in.)	U. S. Sieve Size (mm.)	Cumulative Weight Dry Soil Retained (g)	Percent Passing (%)
1 1/2"	37.5		
1"	25.0		
3/4"	19.0		
1/2"	12.5		
3/8"	9.5	0.0	100.0
#4	4.75	1.1	99.7
#8	2.36	4.2	99.0
#16	1.18	12.8	97.0
#30	0.600	36.0	91.6
#50	0.300	83.7	80.5
#100	0.150	148.7	65.4
#200	0.075	220.7	48.6
PAN			

GRAVEL: **0 %**

SAND: **51 %**

FINES: **49 %**

GROUP SYMBOL: **s(CL)**

Cu = D60/D10 = _____

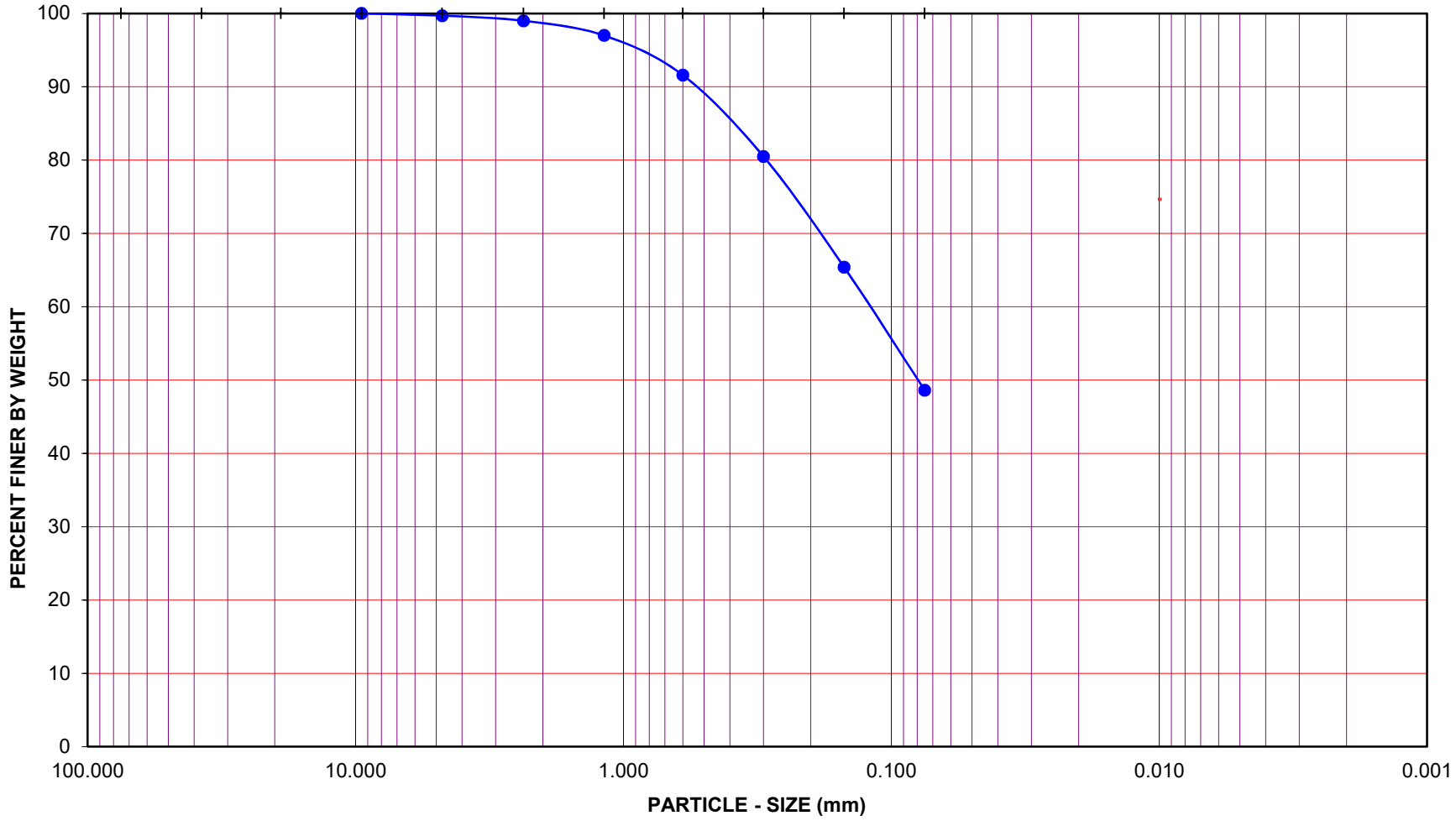
Cc = $(D30)^2/(D60*D10)$ = _____

Remarks: _____

GRAVEL		SAND			FINES	
COARSE	FINE	COARSE	MEDIUM	FINE	SILT	CLAY

U.S. STANDARD SIEVE OPENING — U.S. STANDARD SIEVE NUMBER — HYDROMETER

3.0" 1 1/2" 3/4" 3/8" #4 #8 #16 #30 #50 #100 #200



Project Name: Legacy-Collier, Proposed Euclid & Walnut Mixed-Use, Ontario CA

Project No.: 13493.001

Boring No.: LP-1 Sample No.: S-5

Depth (feet): 23.5 Soil Type : s(CL)

Soil Identification: Brown sandy lean clay s(CL)

GR:SA:FI : (%) 0 : 51 : 49

Leighton

PARTICLE - SIZE DISTRIBUTION ASTM D 6913

1281

Sieve LP-1, S-5 @ 23.5

PARTICLE-SIZE DISTRIBUTION (GRADATION) of SOILS USING SIEVE ANALYSIS

ASTM D 6913

Project Name:	Legacy-Collier, Proposed Euclid & Walnut Mixed-Use, Ontario CA	Tested By:	S. Felter	Date:	04/19/22
Project No.:	13493.001	Checked By:	A. Santos	Date:	04/25/22
Boring No.:	LP-2	Depth (feet):	15.0		
Sample No.:	R-3				
Soil Identification:	Olive brown silty clay (CL-ML)				

		Moisture Content of Total Air - Dry Soil	
Container No.:	V-1	Wt. of Air-Dry Soil + Cont. (g)	0.0
Wt. of Air-Dried Soil + Cont.(g)	635.6	Wt. of Dry Soil + Cont. (g)	0.0
Wt. of Container (g)	108.7	Wt. of Container No._____ (g)	1.0
Dry Wt. of Soil (g)	526.9	Moisture Content (%)	0.0

After Wet Sieve	Container No.	V-1
	Wt. of Dry Soil + Container (g)	139.2
	Wt. of Container (g)	108.7
	Dry Wt. of Soil Retained on # 200 Sieve (g)	30.5

U. S. Sieve Size (in.)	U. S. Sieve Size (mm.)	Cumulative Weight Dry Soil Retained (g)	Percent Passing (%)
1 1/2"	37.5		
1"	25.0		
3/4"	19.0		
1/2"	12.5		
3/8"	9.5		
#4	4.75		
#8	2.36		
#16	1.18	0.0	100.0
#30	0.600	0.4	99.9
#50	0.300	4.4	99.2
#100	0.150	12.6	97.6
#200	0.075	28.4	94.6
PAN			

GRAVEL: **0 %**

SAND: **5 %**

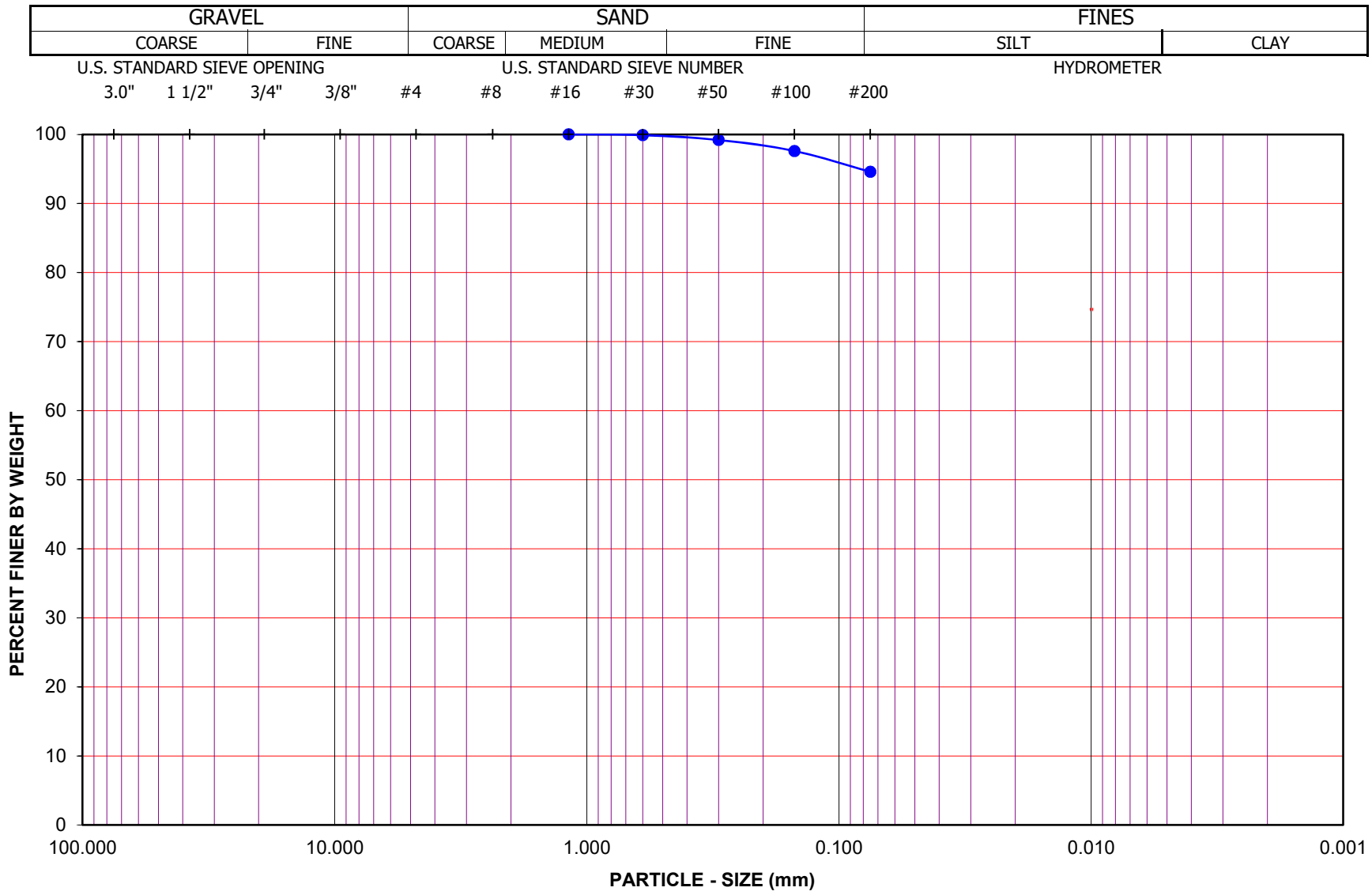
FINES: **95 %**

GROUP SYMBOL: **CL-ML**

Cu = D60/D10 = _____

Cc = $(D30)^2/(D60*D10)$ = _____

Remarks: _____



Project Name: Legacy-Collier, Proposed Euclid & Walnut Mixed-Use, Ontario CA

Project No.: 13493.001

Boring No.: LP-2 Sample No.: R-3

Depth (feet): 15.0 Soil Type : CL-ML

Soil Identification: Olive brown silty clay (CL-ML)

GR:SA:FI : (%) 0 : 5 : 95

Leighton

PARTICLE - SIZE DISTRIBUTION ASTM D 6913

12833

PARTICLE-SIZE DISTRIBUTION (GRADATION) of SOILS USING SIEVE ANALYSIS

ASTM D 6913

Project Name:	Legacy-Collier, Proposed Euclid & Walnut Mixed Use, Ontario CA	Tested By:	S. Felter	Date:	04/20/22
Project No.:	13493.001	Checked By:	A. Santos	Date:	04/25/22
Boring No.:	LP-2	Depth (feet):	18.5		
Sample No.:	R-4				
Soil Identification:	Olive brown silty sand (SM)				

		Moisture Content of Total Air - Dry Soil	
Container No.:	R-2	Wt. of Air-Dry Soil + Cont. (g)	0.0
Wt. of Air-Dried Soil + Cont.(g)	799.6	Wt. of Dry Soil + Cont. (g)	0.0
Wt. of Container (g)	107.7	Wt. of Container No._____ (g)	1.0
Dry Wt. of Soil (g)	691.9	Moisture Content (%)	0.0

After Wet Sieve	Container No.	R-2
	Wt. of Dry Soil + Container (g)	576.0
	Wt. of Container (g)	107.7
	Dry Wt. of Soil Retained on # 200 Sieve (g)	468.3

U. S. Sieve Size (in.)	U. S. Sieve Size (mm.)	Cumulative Weight Dry Soil Retained (g)	Percent Passing (%)
1 1/2"	37.5		
1"	25.0		
3/4"	19.0		
1/2"	12.5		
3/8"	9.5	0.0	100.0
#4	4.75	0.9	99.9
#8	2.36	3.8	99.5
#16	1.18	13.1	98.1
#30	0.600	43.5	93.7
#50	0.300	150.5	78.2
#100	0.150	340.6	50.8
#200	0.075	464.3	32.9
PAN			

GRAVEL: **0 %**

SAND: **67 %**

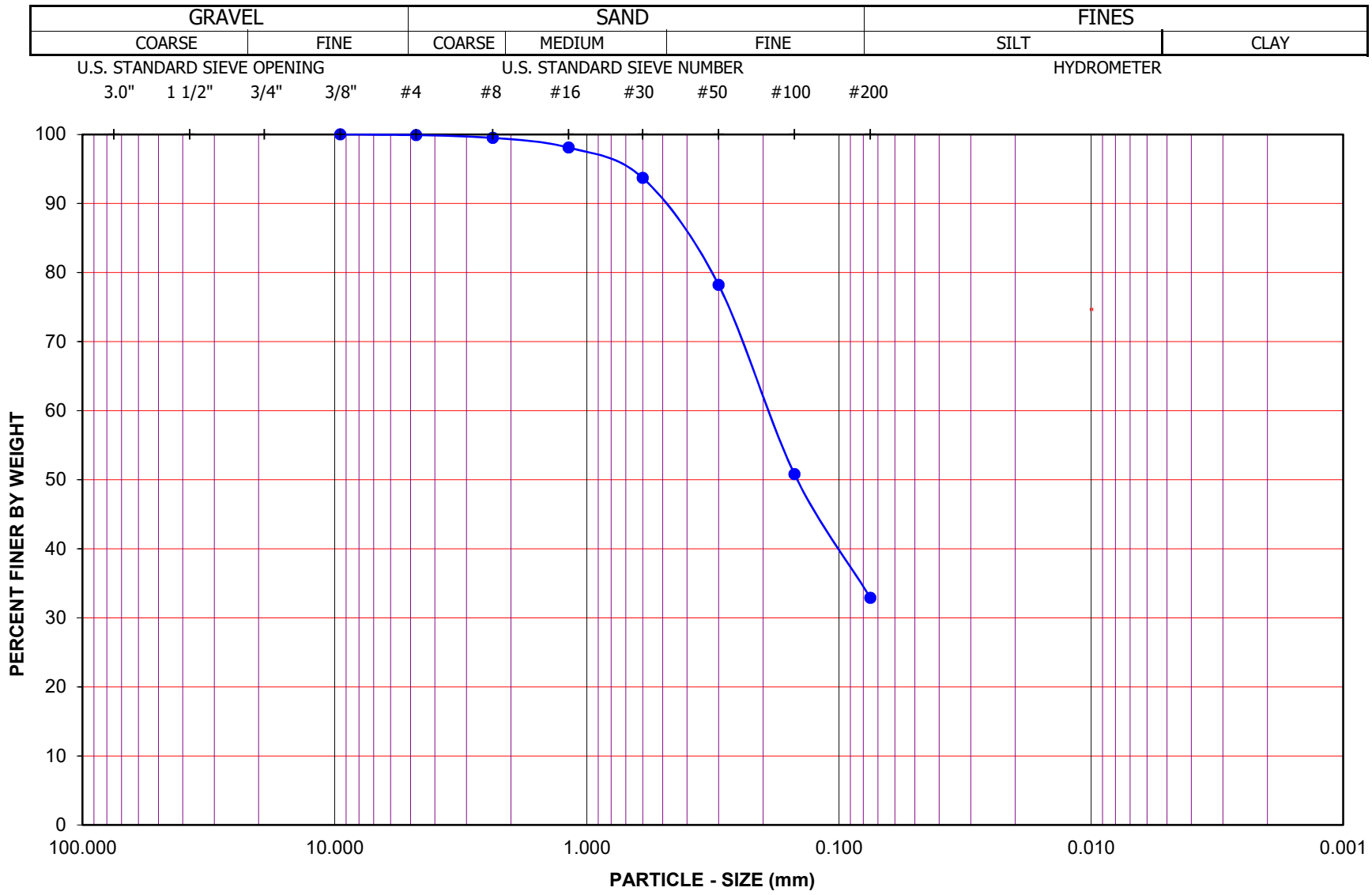
FINES: **33 %**

GROUP SYMBOL: **SM**

Cu = D60/D10 = _____

Cc = $(D30)^2/(D60*D10)$ = _____

Remarks: _____



Project Name: Legacy-Collier, Proposed Euclid & Walnut Mixed Use, Ontario CA

Project No.: 13493.001

Boring No.: LP-2 Sample No.: R-4

Depth (feet): 18.5 Soil Type : SM

Soil Identification: Olive brown silty sand (SM)

GR:SA:FI : (%) 0 : 67 : 33

Leighton

PARTICLE - SIZE DISTRIBUTION ASTM D 6913

1285

Sieve LP-2, R-4 @ 18.5

ONE-DIMENSIONAL SWELL OR SETTLEMENT POTENTIAL OF COHESIVE SOILS

ASTM D 4546

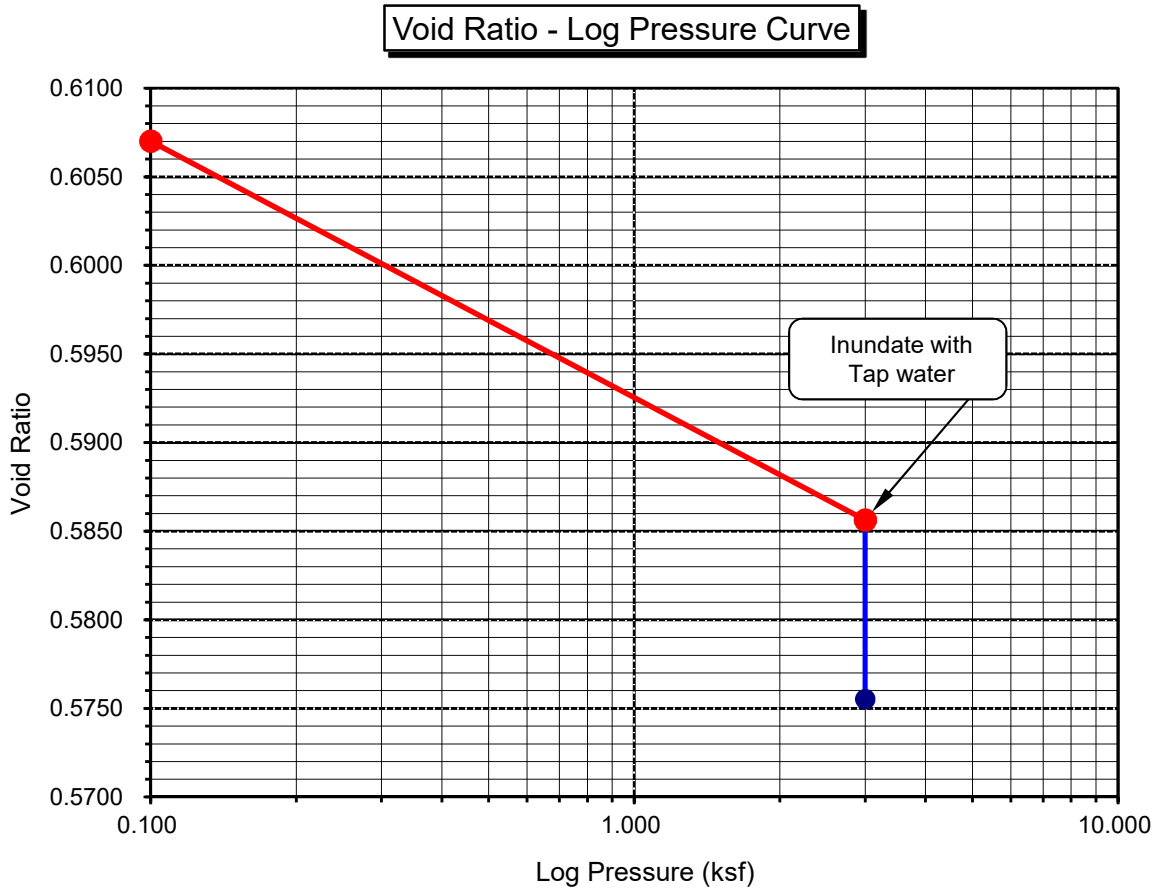
Project Name:	Legacy-Collier, Proposed Euclid & Walnut Mixed-Use, Ontario CA	Tested By:	G. Bathala	Date:	04/18/22
Project No.:	13493.001	Checked By:	A. Santos	Date:	04/26/22
Boring No.:	LB-1	Sample Type:	Ring		
Sample No.:	R-6	Depth (ft.)	25.0		
Sample Description:	Yellowish brown poorly-graded sand with silt (SP-SM)				

Initial Dry Density (pcf):	104.9
Initial Moisture (%):	3.61
Initial Length (in.):	1.0000
Initial Dial Reading:	0.3076
Diameter(in):	2.415

Final Dry Density (pcf):	107.0
Final Moisture (%) :	18.2
Initial Void Ratio:	0.6072
Specific Gravity(assumed):	2.70
Initial Saturation (%)	16.0

Pressure (p) (ksf)	Final Reading (in)	Apparent Thickness (in)	Load Compliance (%)	Swell (+) Settlement (-) % of Sample Thickness	Void Ratio	Corrected Deformation (%)
0.100	0.3075	0.9999	0.00	-0.01	0.6070	-0.01
3.000	0.2890	0.9814	0.52	-1.86	0.5856	-1.34
H2O	0.2827	0.9751	0.52	-2.49	0.5755	-1.97

Percent Swell (+) / Settlement (-) After Inundation = -0.64



ONE-DIMENSIONAL SWELL OR SETTLEMENT POTENTIAL OF COHESIVE SOILS

ASTM D 4546

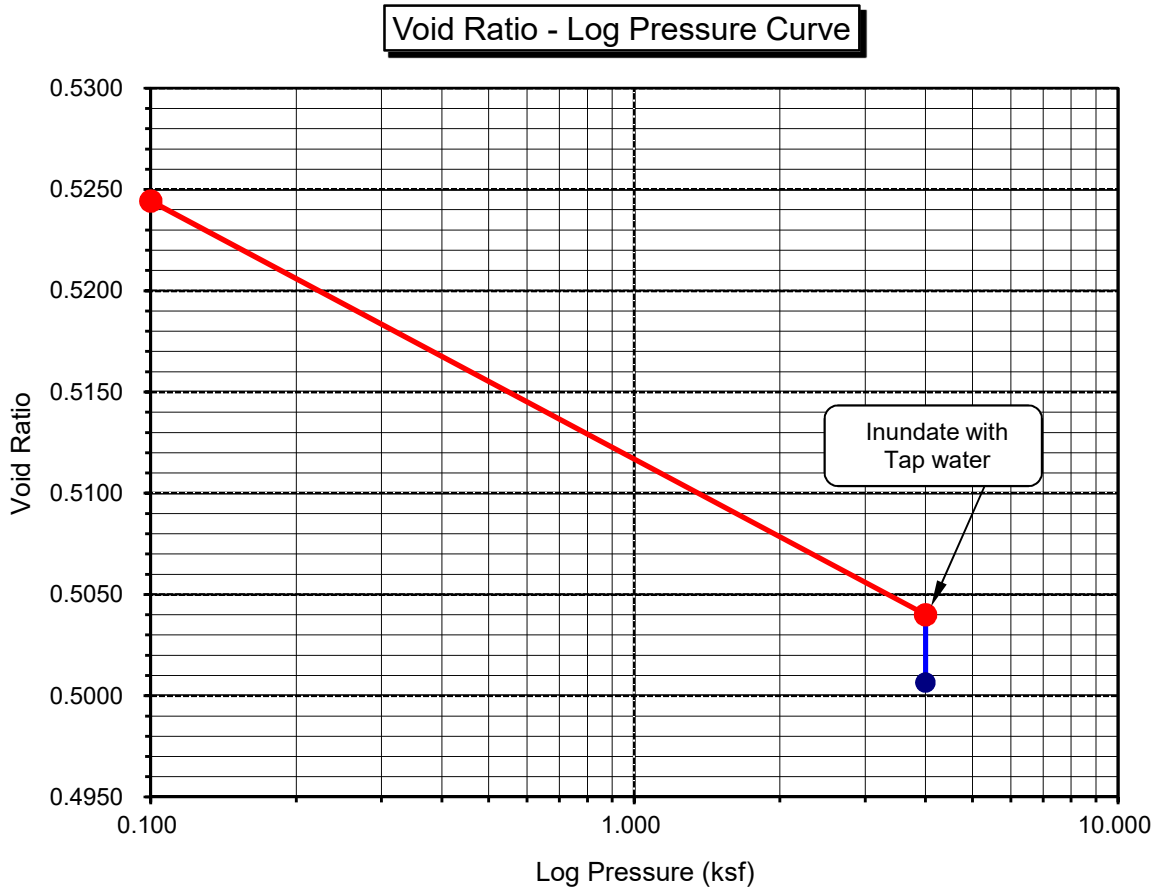
Project Name:	Legacy-Collier, Proposed Euclid & Walnut Mixed-Use, Ontario CA	Tested By:	G. Bathala	Date:	04/18/22
Project No.:	13493.001	Checked By:	A. Santos	Date:	04/26/22
Boring No.:	LB-1	Sample Type:	Ring		
Sample No.:	R-8	Depth (ft.)	35.0		
Sample Description:	Yellowish brown poorly-graded sand with silt (SP-SM)				

Initial Dry Density (pcf):	110.6
Initial Moisture (%):	3.30
Initial Length (in.):	1.0000
Initial Dial Reading:	0.3373
Diameter(in):	2.415

Final Dry Density (pcf):	112.3
Final Moisture (%) :	15.9
Initial Void Ratio:	0.5246
Specific Gravity(assumed):	2.70
Initial Saturation (%)	17.0

Pressure (p) (ksf)	Final Reading (in)	Apparent Thickness (in)	Load Compliance (%)	Swell (+) Settlement (-) % of Sample Thickness	Void Ratio	Corrected Deformation (%)
0.100	0.3372	0.9999	0.00	-0.01	0.5244	-0.01
4.000	0.3220	0.9847	0.18	-1.53	0.5040	-1.35
H2O	0.3198	0.9825	0.18	-1.75	0.5007	-1.57

Percent Swell (+) / Settlement (-) After Inundation = -0.22



November 29, 2022

Project No. 13493.002

Legacy/Collier Residential, LLC
5154 California Avenue
Irvine, California 92617

Attention: Mr. David Pinto

Subject: **Addendum to Geotechnical Exploration Report**
Infiltration Testing
Proposed "Euclid and Walnut Mixed Use" Development
112 Walnut Street, 2502 and 2530 Euclid Avenue
Ontario, San Bernardino County, California

Reference: Leighton and Associates, Inc., 2022, *Geotechnical Exploration Report, Proposed "Euclid and Walnut Mixed Use" Development, 112 Walnut Street, 2502 and 2530 Euclid Avenue, Ontario, California*, Project No. 13493.001, dated May 13, 2022.

Introduction

Per your request, Leighton and Associates, Inc. (Leighton) performed supplemental infiltration testing for the subject mixed use development. Additional field infiltration testing was performed in coordination with Mr. Steve Ellis of Fuscoe Engineering, Inc. (project civil engineer) to target the locations and depths planned for infiltration. While official infiltration plans were not available, we understand that stormwater infiltration is intended to be achieved utilizing a drywell system to be located in the southern portion of the site extending to approximate depths of no greater than 45 feet below ground surface (bgs).

Purpose and Scope

Purpose of our exploration was to perform field infiltration tests at the proposed device locations and invert depths. The test locations and depths were selected by the project civil engineer. Our Scope of Work included the following:

- ***Pre-Field Exploration Activities*** – Site reconnaissance performed by a professional geologist to mark the proposed infiltration test locations. Underground Service Alert

(USA) was notified to locate and mark existing underground utilities prior to our subsurface exploration.

- ***Field Exploration*** – Our supplemental subsurface exploration was performed on August 24, 2022 and included drilling, logging, and sampling of two (2) hollow-stem auger borings (designated LP-3 and LP-4) to depths ranging from approximately 40 to 45 feet below the existing ground surface. The approximate locations of these explorations are shown on Figure 1, *Geotechnical Map*. The corresponding boring logs are presented in Appendix A, *Exploration Logs.*

  During drilling of the hollow-stem auger borings drive samples were obtained from the borings for geotechnical laboratory testing. Sample collection was performed by conducting the Standard Penetration Test (SPT) within the borings in accordance with ASTM Test Method D 1586. Samples were collected within the proposed test infiltration zone at 5-foot intervals. During sampling, the sampler was driven below the bottom of the borehole by a 140-pound weight (hammer) free-falling 30 inches. The drilling rig was equipped with an automatic hammer to provide greater consistency in the drop height and striking frequency. The number of blows to drive the sampler the final 12 inches of the 18-inch drive interval is termed the “blowcount” or SPT N-value. N-values provide a measure of relative density in granular (non-cohesive) soils and comparative consistency in cohesive soils. Number of blows per 6 inches of penetration was recorded on the boring logs included in Appendix A.

  The borings were logged in the field by a geologist from our firm. Each soil sample collected was reviewed and described in accordance with the Unified Soil Classification System (USCS). The samples were sealed and packaged for transportation to our laboratory for testing. After completion of drilling, the borings were converted to percolation wells for subsequent testing.

- ***Percolation Testing*** – Borings LP-3 and LP-4 (Figure 1) were converted to temporary percolation test wells upon completion of drilling and sampling. The test wells consisted of 2-inch diameter slotted (0.020-inch) PVC well casing screened within the proposed test zone. In-situ percolation testing was performed in general accordance with the County of San Bernardino guidelines Upon completion of the percolation testing, the well casing was removed from each boring and the borings were backfilled with soil cuttings and patched at the surface to match existing site conditions.

- ***Laboratory Testing*** – Selected soil samples obtained from our hollow-stem-auger borings were tested at our in-house geotechnical laboratory. This laboratory testing

program was designed to evaluate the fines content of the soils within the tested zone (i.e. soil particles finer than the No. 200 sieve). . Results are included in Appendix C.

- ***Report Preparation*** – This report presents our findings, conclusions, and recommendations for the proposed infiltration devices.

Infiltration Testing

Percolation testing was performed in temporary wells installed within borings LP-3 and LP-4 located in the southern region of the site with test zone at depths of 25 to 45 feet bgs and 25 to 40 feet bgs, respectively. The percolation tests were conducted in general accordance with the *San Bernardino County Technical Guidance Document (TGD) for Water Quality Management Plans* (2013). Results of the percolation testing are presented in Appendix B. The test locations and tested depth intervals are shown on Plate 1.

A boring percolation test is useful for field measurements of the infiltration rate of soils, and is suited for testing when the design depth of the infiltration device is deeper than current existing grades, especially in areas where it is difficult to dig test pits, or where the depths of these test pits would be considerably deep. At the subject site, testing consisted of advancing the borings to the anticipated depth for the invert of the proposed infiltration devices.

The *Percolation Test Procedure* (falling-head test method) as outlined in the County Guidelines was implemented at each percolation test well location. The infiltration rate was calculated by dividing the rate of discharge by the infiltration surface area, or flow area. The volume of discharge was calculated by adding the total volume of water that dropped within the PVC pipe and within the annulus, and incorporating a porosity reduction factor to account for the porosity of the annulus material. The flow area was based on the average water height within the test well.

Detailed results of the field testing data and measured infiltration rate for the test well are presented in Appendix B. The test results are summarized in the table below:

Table 1 – Measured (Unfactored) Infiltration Rate

Test Well Designation	Approximate Depth of Test Zone (feet bgs)	Measured Infiltration Rate (inches per hour)
LB-3	25 to 45	0.14
LP-4	25 to 40	0.47

Based on the results of our field percolation testing that was performed at the site, the measured (unfactored) infiltration rates for the two (2) tests performed were 0.14 inches per hour (LP-3) and 0.47 inches per hour (LP-2), respectively. According to the *San Bernardino County Technical Guidance Document (TGD) for Water Quality Management Plans* (2013), the measured infiltration rate at the LP-4 well location technically exceeds the minimum feasibility criteria of 0.3 inch per hour. However, implementation of a minimum factor of safety of 2.0 as required for the design infiltration rate indicates the depth and location tested for both wells are considered infeasible for infiltration.

Closure

We appreciate the opportunity to work with you on this project. If you have any questions regarding this report, please contact us directly at the phone extensions and/or e-mail addresses listed below.





Respectfully submitted,

LEIGHTON AND ASSOCIATES, INC.

Eric M. Holliday, PG, 9219
Senior Project Geologist
Ext 4252, eholliday@leightongroup.com

John E. Haertle, PE, GE 2352
Principal Engineer
Ext: 4268, jhaertle@leightongroup.com

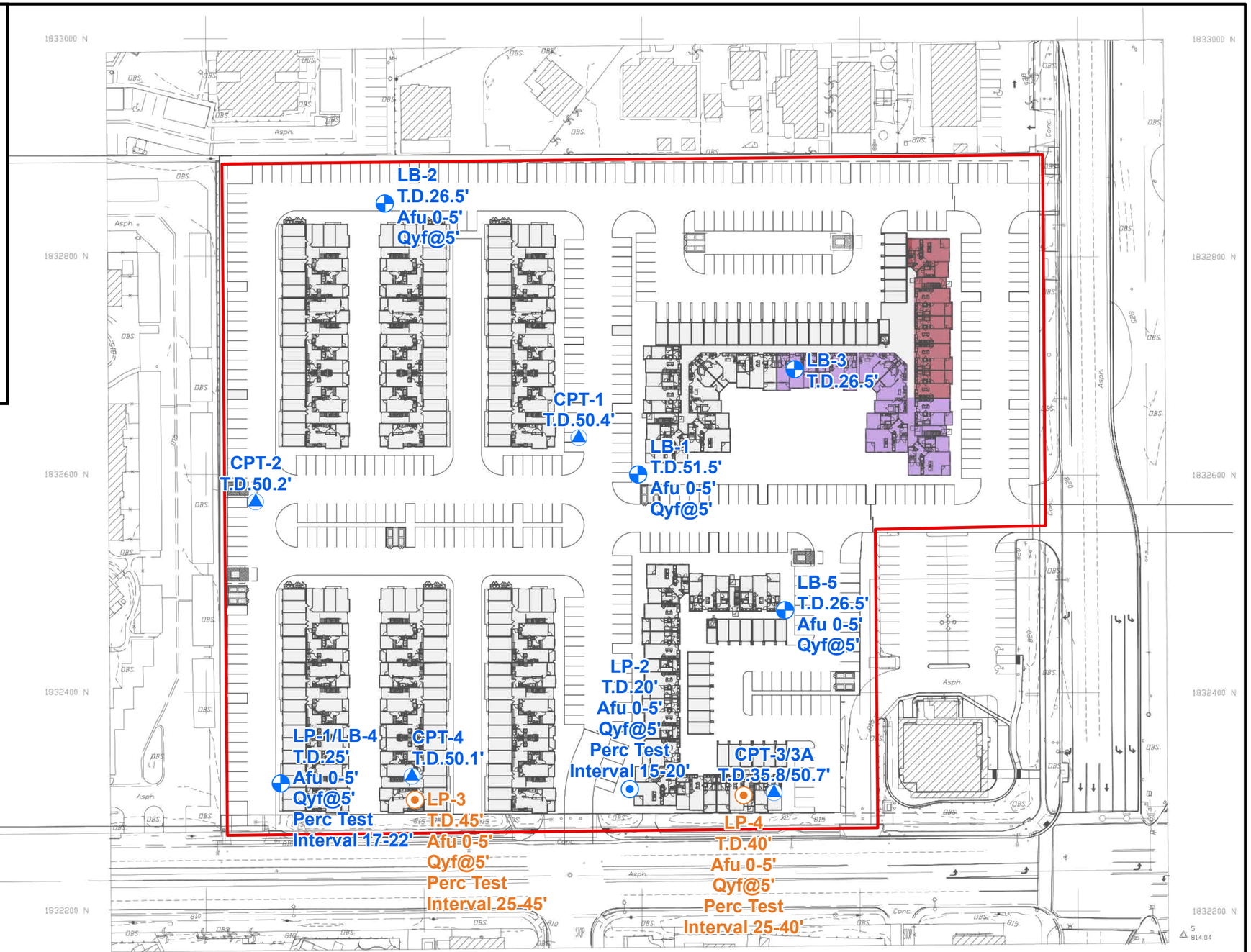
EMH/JEH/lr

Attachments: Figure 1 – *Geotechnical Map*
Appendix A - *Exploration Logs*
Appendix B - *Percolation Test Data*
Appendix C - *Geotechnical Laboratory Testing*

Distribution: (1) Addressee

LEGEND

Afu	Artificial Fill
Qyf	Quaternary Young Alluvial Fan Deposits
LP-4	Approximate location of current percolation test well showing percolation test interval in feet below ground surface.
LB-5	Approximate location of previous hollow-stem auger boring showing total depth (T.D.) and depth to earth units in feet below ground surface. (Leighton, 2022)
LP-2	Approximate location of previous percolation test well showing percolation test interval in feet below ground surface. (Leighton, 2022)
CPT-4	Approximate location of previous cone penetrometer test sounding showing total depth (T.D.) in feet below ground surface (Leighton, 2022)
	Approximate Site Boundary



N

0 100 200

Feet

Project: 13493.002	Eng/Geol: JEH/EMH
Scale: 1 " = 100 '	Date: November 2022

Base Map: Option A Site Plan, Euclid and Walnut Mixed Use
Sheet 01, Dated: 03/10/2022
by AO Architecture Design Relationships

GEOTECHNICAL MAP

Proposed Euclid and Walnut Mixed-Use Development
2502 and 2530 S. Euclid Avenue
Ontario, California

FIGURE 1

Leighton

Map Saved as J:\Drafting\13493\002\Maps\13493-002_F01_GM_2022-11-18.mxd on 11/18/2022 10:57:40 AM Author: KVM (btran)

APPENDIX A
Exploration Logs

GEOTECHNICAL BORING LOG LP-3

Project No.	13493.002	**Date Drilled**	8-24-22
Project	Proposed Euclid and Walnut Mixed-Use Development	**Logged By**	BTM
Drilling Co.	Martini Drilling, Corp.	**Hole Diameter**	8"
Drilling Method	Hollow Stem Auger - 140lb - Autohammer - 30" Drop	**Ground Elevation**	'
Location	See Figure 1 - *Geotechnical Map*	**Sampled By**	BTM

Elevation Feet	Depth Feet	Graphic Log	Attitudes	Sample No.	Bulk / Driven	Blows Per 6 Inches	Dry Density pcf	Moisture Content, %	Soil Class. (U.S.C.S.)	SOIL DESCRIPTION	Type of Tests
		N S								*This Soil Description applies only to a location of the exploration at the time of sampling. Subsurface conditions may differ at other locations and may change with time. The description is a simplification of the actual conditions encountered. Transitions between soil types may be gradual.*	
	0									@Surface: 3 -inches Asphalt Concrete over 6 -inches Base	
									SM	**Artificial Fill, undocumented (Afu)** @0.75': Silty SAND, brown, slightly moist, very fine sand, trace medium to coarse sand and fine subrounded gravel	
	5									**Quaternary-Aged Young Alluvial Valley Deposits (Qyf)**	
	10										
	15										
	20			S-1		3 7 11			SM-ML	@20': Clayey Sandy SILT to Clayey Silty SAND, medium dense/very stiff, olive brown, slightly moist, very fine sand, low plasticity, slightly micaceous, friable, pockets of higher clay content	
	25			S-2		4 8 9			SM	@25': Silty SAND, medium dense, mottled reddish brown and grayish brown, slightly moist, very fine sand, nonplastic, slightly micaceous, friable, grading slightly finer toward bottom	-200
	30										

SAMPLE TYPES:

B	BULK SAMPLE
C	CORE SAMPLE
G	GRAB SAMPLE
R	RING SAMPLE
S	SPLIT SPOON SAMPLE
T	TUBE SAMPLE

TYPE OF TESTS:

-200	% FINES PASSING	DS	DIRECT SHEAR	SA	SIEVE ANALYSIS
AL	ATTERBERG LIMITS	EI	EXPANSION INDEX	SE	SAND EQUIVALENT
CN	CONSOLIDATION	H	HYDROMETER	SG	SPECIFIC GRAVITY
CO	COLLAPSE	MD	MAXIMUM DENSITY	UC	UNCONFINED COMPRESSIVE STRENGTH
CR	CORROSION	PP	POCKET PENETROMETER		
CU	UNDRAINED TRIAXIAL	RV	R VALUE		

Leighton

*** This log is a part of a report by Leighton and should not be used as a stand-alone document. ***

GEOTECHNICAL BORING LOG LP-3

Project No.	13493.002	**Date Drilled**	8-24-22
Project	Proposed Euclid and Walnut Mixed-Use Development	**Logged By**	BTM
Drilling Co.	Martini Drilling, Corp.	**Hole Diameter**	8"
Drilling Method	Hollow Stem Auger - 140lb - Autohammer - 30" Drop	**Ground Elevation**	'
Location	See Figure 1 - *Geotechnical Map*	**Sampled By**	BTM

Elevation Feet	Depth Feet	Graphic Log (N / S)	Attitudes	Sample No. (Bulk / Driven)	Blows Per 6 Inches	Dry Density pcf	Moisture Content, %	Soil Class. (U.S.C.S.)	SOIL DESCRIPTION	Type of Tests
	30			S-3	9 11 11			ML	@30': Sandy SILT, very stiff, mottled orange brown and grayish brown, slightly moist, very fine sand, trace coarse sand, nonplastic, friable, slightly micaceous	
	35			S-4	7 11 14			SM	@35': Silty SAND, medium dense, olive brown, moist, very fine sand, micaceous, friable	-200
				S-5	10 11 11			ML	@38.5': Sandy SILT, medium dense, brown, moist, very fine sand, nonplastic, micaceous, friable, trace medium sand	
	40									
				S-6	7 14 37			SM-ML	@43.5': Interbedded Clayey Sandy SILT and Silty SAND; Clayey Sandy SILT, hard, brown, slightly moist, fine to medium sand, low plasticity, slightly micaceous	
	45								Silty SAND, very dense, yellowish brown, slightly moist, very fine to fine sand, micaceous, nonplastic, friable	
									Total Depth: 45' bgs No groundwater encountered during drilling Temporary percolation well installed; screened from 25-45' Upon completion of percolation testing, boring backfilled with soil cuttings and patched with asphalt concrete.	
	50									
	55									
	60									

This Soil Description applies only to a location of the exploration at the time of sampling. Subsurface conditions may differ at other locations and may change with time. The description is a simplification of the actual conditions encountered. Transitions between soil types may be gradual.

SAMPLE TYPES:
- B BULK SAMPLE
- C CORE SAMPLE
- G GRAB SAMPLE
- R RING SAMPLE
- S SPLIT SPOON SAMPLE
- T TUBE SAMPLE

TYPE OF TESTS:
- -200 % FINES PASSING
- AL ATTERBERG LIMITS
- CN CONSOLIDATION
- CO COLLAPSE
- CR CORROSION
- CU UNDRAINED TRIAXIAL
- DS DIRECT SHEAR
- EI EXPANSION INDEX
- H HYDROMETER
- MD MAXIMUM DENSITY
- PP POCKET PENETROMETER
- RV R VALUE
- SA SIEVE ANALYSIS
- SE SAND EQUIVALENT
- SG SPECIFIC GRAVITY
- UC UNCONFINED COMPRESSIVE STRENGTH

Leighton

*** This log is a part of a report by Leighton and should not be used as a stand-alone document. ***

GEOTECHNICAL BORING LOG LP-4

Project No.	13493.002	**Date Drilled**	8-24-22
Project	Proposed Euclid and Walnut Mixed-Use Development	**Logged By**	BTM
Drilling Co.	Martini Drilling, Corp.	**Hole Diameter**	8"
Drilling Method	Hollow Stem Auger - 140lb - Autohammer - 30" Drop	**Ground Elevation**	'
Location	See Figure 1 - *Geotechnical Map*	**Sampled By**	BTM

Elevation Feet	Depth Feet	Graphic Log	Attitudes	Sample No.	Bulk / Driven	Blows Per 6 Inches	Dry Density pcf	Moisture Content, %	Soil Class. (U.S.C.S.)	SOIL DESCRIPTION	Type of Tests
		N S								*This Soil Description applies only to a location of the exploration at the time of sampling. Subsurface conditions may differ at other locations and may change with time. The description is a simplification of the actual conditions encountered. Transitions between soil types may be gradual.*	
	0									@Surface: 4 -inches Asphalt Concrete over 5 -inches Base	
									SM	**Artificial Fill, undocumented (Afu)** @0.75': Silty SAND, brown, slightly moist, very fine sand, trace medium to coarse sand and fine subrounded gravel	
	5									**Quaternary-Aged Young Alluvial Valley Deposits (Qyf)**	
	10										
	15										
	20			S-1		4 5 5			CL/SM	@20': Silty CLAY, stiff, gray-brown, slightly moist, medium plasticity, few very fine sand; grading to Silty SAND, loose, brown, slightly moist, very fine sand, some silt, nonplastic, trace fine subangular gravel	-200
	25			S-2		5 7 8			SM-SC	@25': Silty SAND, medium dense, grayish brown to yellowish brown, slightly moist, very fine to fine sand, slightly micaceous, some silt; grading to Sandy CLAY/Clayey SAND, medium dense/stiff, reddish brown, slightly moist, very fine to fine sand, low plasticity, slightly micaceous	
	30										

SAMPLE TYPES:

B	BULK SAMPLE
C	CORE SAMPLE
G	GRAB SAMPLE
R	RING SAMPLE
S	SPLIT SPOON SAMPLE
T	TUBE SAMPLE

TYPE OF TESTS:

-200	% FINES PASSING	DS	DIRECT SHEAR	SA	SIEVE ANALYSIS
AL	ATTERBERG LIMITS	EI	EXPANSION INDEX	SE	SAND EQUIVALENT
CN	CONSOLIDATION	H	HYDROMETER	SG	SPECIFIC GRAVITY
CO	COLLAPSE	MD	MAXIMUM DENSITY	UC	UNCONFINED COMPRESSIVE STRENGTH
CR	CORROSION	PP	POCKET PENETROMETER		
CU	UNDRAINED TRIAXIAL	RV	R VALUE		

Leighton

*** This log is a part of a report by Leighton and should not be used as a stand-alone document. ***

GEOTECHNICAL BORING LOG LP-4

Project No.	13493.002	**Date Drilled**	8-24-22
Project	Proposed Euclid and Walnut Mixed-Use Development	**Logged By**	BTM
Drilling Co.	Martini Drilling, Corp.	**Hole Diameter**	8"
Drilling Method	Hollow Stem Auger - 140lb - Autohammer - 30" Drop	**Ground Elevation**	'
Location	See Figure 1 - *Geotechnical Map*	**Sampled By**	BTM

Elevation Feet	Depth Feet	Graphic Log (N / S)	Attitudes	Sample No.	Bulk / Driven	Blows Per 6 Inches	Dry Density pcf	Moisture Content, %	Soil Class. (U.S.C.S.)	SOIL DESCRIPTION	Type of Tests
	30			S-3		8 9 12			SM	@30': Silty SAND, medium dense, orange brown, slightly moist, very fine sand, slightly micaceous, nonplastic, friable	
	35			S-4		8 38 50/5"			SP	@35': Grading to Silty Gravelly SAND, very dense, whitish tan, slightly moist, fine to coarse sand, some fine subangular to subrounded gravel (granitic)	-200
				S-5		15 21 25			SM	@38.5': Silty SAND, dense, brown, slightly moist, very fine to fine sand, some silt, nonplastic, slightly micaceous, friable	
	40									Total Depth: 40' bgs No groundwater encountered during drilling Temporary percolation well installed; screened from 25-40' Upon completion of percolation testing, boring backfilled with soil cuttings and patched with asphalt concrete.	
	45										
	50										
	55										
	60										

SAMPLE TYPES:

B	BULK SAMPLE
C	CORE SAMPLE
G	GRAB SAMPLE
R	RING SAMPLE
S	SPLIT SPOON SAMPLE
T	TUBE SAMPLE

TYPE OF TESTS:

-200	% FINES PASSING	DS	DIRECT SHEAR	SA	SIEVE ANALYSIS
AL	ATTERBERG LIMITS	EI	EXPANSION INDEX	SE	SAND EQUIVALENT
CN	CONSOLIDATION	H	HYDROMETER	SG	SPECIFIC GRAVITY
CO	COLLAPSE	MD	MAXIMUM DENSITY	UC	UNCONFINED COMPRESSIVE STRENGTH
CR	CORROSION	PP	POCKET PENETROMETER		
CU	UNDRAINED TRIAXIAL	RV	R VALUE		

Leighton

*** This log is a part of a report by Leighton and should not be used as a stand-alone document. ***

APPENDIX B

Percolation Test Data

Boring Percolation Test Data Sheet

Project Number:	13493.002	**Test Hole Number:**	LP-3	
Project Name:	Legacy - Collier	**Date Excavated:**	8/24/2022	
Earth Description:	Alluvium	**Date Tested:**	8/24/2022	
Liquid Description:	Tap water	**Depth of boring (ft):**	45	
Tested By:	BTM	**Radius of boring (in):**	4	
Time Interval Standard		**Radius of casing (in):**	1	
Start Time for Pre-Soak:	11:25	**Length of slotted of casing (ft):**		20
Start Time for Standard:	12:21	**Depth to Initial Water Depth (ft):**		25.05
Standard Time Interval		**Porosity of Annulus Material, *n* :**		1
Between Readings, mins:	10	**Bentonite Plug at Bottom:** No		

Percolation Data

Reading	Time	Time Interval, Δt (min.)	Initial/Final Depth to Water (ft.)	Initial/Final Water Height, H_0/H_f (in.)	Total Water Drop, Δd (in.)	Percolation Rate (min./in.)	Infiltration Rate (in./hr.)
1	11:25	25	25.05	239.4	17.5	1.43	0.36
	11:50		26.51	221.9			
2	11:54	25	25.00	240.0	15.4	1.63	0.31
	12:19		26.28	224.6			
3	12:21	10	25.00	240.0	6.4	1.57	0.32
	12:31		25.53	233.6			
4	12:33	10	25.00	240.0	5.4	1.85	0.27
	12:43		25.45	234.6			
5	12:44	10	25.00	240.0	4.6	2.19	0.23
	12:54		25.38	235.4			
6	12:58	10	25.00	240.0	4.2	2.38	0.21
	13:08		25.35	235.8			
7	13:17	10	25.00	240.0	3.1	3.21	0.16
	13:27		25.26	236.9			
8	13:29	10	25.00	240.0	2.9	3.47	0.14
	13:39		25.24	237.1			

Infiltration Rate (I) = Discharge Volume/Surface Area of Test Section/Time Interval

Infiltration Rate, I (Last Reading) = **0.14** **in./hr.**

Boring Percolation Test Data Sheet

Project Number:	13493.002	**Test Hole Number:**	LP-4	
Project Name:	Legacy - Collier	**Date Excavated:**	8/24/2022	
Earth Description:	Alluvium	**Date Tested:**	8/24/2022	
Liquid Description:	Tap water	**Depth of boring (ft):**	40	
Tested By:	BTM	**Radius of boring (in):**	4	
Time Interval Standard		**Radius of casing (in):**	1	
Start Time for Pre-Soak:	10:21	**Length of slotted of casing (ft):**		15
Start Time for Standard:	11:20	**Depth to Initial Water Depth (ft):**		25.00
Standard Time Interval		**Porosity of Annulus Material, *n* :**		1
Between Readings, mins:	10	**Bentonite Plug at Bottom:** No		

Percolation Data

Reading	Time	Time Interval, Δt (min.)	Initial/Final Depth to Water (ft.)	Initial/Final Water Height, H_0/H_f (in.)	Total Water Drop, Δd (in.)	Percolation Rate (min./in.)	Infiltration Rate (in./hr.)
1	10:21	25	25.00	180.0	38.6	0.65	1.14
	10:46		28.22	141.4			
2	10:51	25	25.02	179.8	32.5	0.77	0.94
	11:16		27.73	147.2			
3	11:20	10	25.00	180.0	12.6	0.79	0.86
	11:30		26.05	167.4			
4	11:32	10	25.00	180.0	10.8	0.93	0.73
	11:42		25.90	169.2			
5	11:46	10	25.00	180.0	10.2	0.98	0.69
	11:56		25.85	169.8			
6	12:00	10	25.00	180.0	8.5	1.17	0.58
	12:10		25.71	171.5			
7	12:13	10	25.00	180.0	8.4	1.19	0.57
	12:23		25.70	171.6			
8	12:27	10	25.00	180.0	7.0	1.44	0.47
	12:37		25.58	173.0			
9	12:38	10	25.02	179.8	6.8	1.46	0.46
	12:48		25.59	172.9			
10	12:50	10	25.00	180.0	7.0	1.44	0.47
	13:00		25.58	173.0			

Infiltration Rate (I) = Discharge Volume/Surface Area of Test Section/Time Interval

Infiltration Rate, I (Last Reading) = **0.47** **in./hr.**

APPENDIX C

Geotechnical Laboratory Testing

Boring No.	LP-3	LP-3	LP-4	LP-4				
Sample No.	S-2	S-4	S-1	S-4				
Depth (ft.)	25.0	35.0	20.0	35.0				
Sample Type	SPT	SPT	SPT	SPT				
Soil Identification	Yellowish brown silty sand (SM)	Light olive brown silty sand (SM)	Light olive brown sandy silt s(ML)	Light olive brown silty sand with gravel (SM)g				
Moisture Correction								
Wet Weight of Soil + Container (g)	0.00	0.00	0.00	0.00				
Dry Weight of Soil + Container (g)	0.00	0.00	0.00	0.00				
Weight of Container (g)	1.00	1.00	1.00	1.00				
Moisture Content (%)	0.00	0.00	0.00	0.00				
Sample Dry Weight Determination								
Weight of Sample + Container (g)	616.90	794.40	588.90	847.80				
Weight of Container (g)	108.60	108.50	107.30	108.00				
Weight of Dry Sample (g)	508.30	685.90	481.60	739.80				
Container No.:	V-1	927	936	957				
After Wash								
Method (A or B)	A	A	A	A				
Dry Weight of Sample + Cont. (g)	411.10	609.70	340.00	732.50				
Weight of Container (g)	108.60	108.50	107.30	108.00				
Dry Weight of Sample (g)	302.50	501.20	232.70	624.50				
% Passing No. 200 Sieve	**40.5**	**26.9**	**51.7**	**15.6**				
% Retained No. 200 Sieve	59.5	73.1	48.3	84.4				

Leighton

PERCENT PASSING
No. 200 SIEVE
ASTM D 1140

Project Name: Legacy - Ontario
Project No.: 13493.002

Tested By: J. Domingo Date: 09/12/22

1302

Passing #200 LP-3 and LP-4

DESIGN INFILTRATION RATE AND FACTOR OF SAFETY CALCULATION

VII.4.1. Site Suitability Considerations

Suitability assessment related considerations include (**Table VII.3**):

- Soil assessment methods – the site assessment extent (e.g., number of borings, test pits, etc.) and the measurement method used to estimate the short-term infiltration rate.
- Predominant soil texture/percent fines – soil texture and the percent of fines can greatly influence the potential for clogging.
- Site soil variability – site with spatially heterogeneous soils (vertically or horizontally) as determined from site investigations are more difficult to estimate average properties for resulting in a higher level of uncertainty associated with initial estimates.
- Depth to seasonal high groundwater/impervious layer – groundwater mounding may become an issue during excessively wet conditions where shallow aquifers or shallow clay lenses are present.

Table VII.3: Suitability Assessment Related Considerations for Infiltration Facility Safety Factors

Consideration	High Concern	Medium Concern	Low Concern
Assessment methods (see explanation below)	Use of soil survey maps or simple texture analysis to estimate short-term infiltration rates	Direct measurement of ≥ 20 percent of infiltration area with localized infiltration measurement methods (e.g., infiltrometer)	Direct measurement of ≥ 50 percent of infiltration area with localized infiltration measurement methods or Use of extensive test pit infiltration measurement methods
Texture Class	Silty and clayey soils with significant fines	Loamy soils	Granular to slightly loamy soils
Site soil variability	Highly variable soils indicated from site assessment or limited soil borings collected during site assessment	Soil borings/test pits indicate moderately homogeneous soils	Multiple soil borings/test pits indicate relatively homogeneous soils
Depth to groundwater/ impervious layer	<5 ft below facility bottom	5-10 ft below facility bottom	>10 below facility bottom

Localized infiltration testing refers to methods such as the double ring infiltrometer test (ASTM D3385-88) which measure infiltration rates over an area less than 10 sq-ft, may include lateral

Table VII.4: Design Related Considerations for Infiltration Facility Safety Factors

Consideration	High Concern	Medium Concern	Low Concern
Tributary area size	Greater than 10 acres.	Greater than 2 acres but less than 10 acres.	2 acres or less.
Level of pretreatment/ expected influent sediment loads	Pretreatment from gross solids removal devices only, such as hydrodynamic separators, racks and screens AND tributary area includes landscaped areas, steep slopes, high traffic areas, or any other areas expected to produce high sediment, trash, or debris loads.	Good pretreatment with BMPs that mitigate coarse sediments such as vegetated swales AND influent sediment loads from the tributary area are expected to be relatively low (e.g., low traffic, mild slopes, disconnected impervious areas, etc.).	Excellent pretreatment with BMPs that mitigate fine sediments such as bioretention or media filtration OR sedimentation or facility only treats runoff from relatively clean surfaces, such as rooftops.
Redundancy of treatment	No redundancy in BMP treatment train.	Medium redundancy, other BMPs available in treatment train to maintain at least 50% of function of facility in event of failure.	High redundancy, multiple components capable of operating independently and in parallel, maintaining at least 90% of facility functionality in event of failure.
Compaction during construction	Construction of facility on a compacted site or elevated probability of unintended/ indirect compaction.	Medium probability of unintended/ indirect compaction.	Heavy equipment actively prohibited from infiltration areas during construction and low probability of unintended/ indirect compaction.

VII.4.3. Determining Factor of Safety

A factor of safety shall be used. To assist in selecting the appropriate design infiltration rate, the measured short term infiltration rate should be adjusted using a weighted average of several safety factors using the worksheet shown in **Worksheet H** below. The design infiltration rate would be determined as follows:

1. For each consideration shown in **Table VII.3** and **Table VII.4** above, determine whether the consideration is a high, medium, or low concern.
2. For all high concerns, assign a factor value of 3, for medium concerns, assign a factor value of 2, and for low concerns assign a factor value of 1.
3. Multiply each of the factors by the corresponding weight to get a product.
4. Sum the products within each factor category to obtain a safety factor for each.
5. Multiply the two safety factors together to get the final combined safety factor. If the combined safety factor is less than 2, then 2 shall be used as the safety factor.
6. Divide the measured short term infiltration rate by the combined safety factor to obtain the adjusted design infiltration rate for use in sizing the infiltration facility.

The design infiltration rate shall be used to size BMPs and to evaluate their expected long term performance. This rate shall not be less than 2, but may be higher at the discretion of the design engineer.

Worksheet H: Factor of Safety and Design Infiltration Rate and Worksheet

Factor Category		Factor Description	Assigned Weight (w)	Factor Value (v)	Product (p) p = w x v
A	Suitability Assessment	Soil assessment methods	0.25	**1**	**0.25**
		Predominant soil texture	0.25	**1**	**0.25**
		Site soil variability	0.25	**2**	**0.50**
		Depth to groundwater / impervious layer	0.25	**1**	**0.25**
		Suitability Assessment Safety Factor, $S_A = \Sigma p$			**1.25**
B	Design	Tributary area size **Area is < 10ac**	0.25	**2**	**0.50**
		Level of pretreatment/ expected sediment loads	0.25	**3**	**0.75**
		Redundancy	0.25	**3**	**0.75**
		Compaction during construction	0.25	**3**	**0.75**
		Design Safety Factor, $S_B = \Sigma p$			**2.75**
Combined Safety Factor, $S_{TOT} = S_A \times S_B$		**1.25X2.75**			**3.44**
Measured Infiltration Rate, inch/hr, K_M (corrected for test-specific bias)		**@ Test LP2:** **@ Test LP4:**			**0.69 in/hr** **0.47 in/hr**
Design Infiltration Rate, in/hr, $K_{DESIGN} = S_{TOT} \times K_M$		**0.69/3.44** **0.47/3.44**			**0.20 in/hr** **0.14 in/hr**

Supporting Data

Briefly describe infiltration test and provide reference to test forms:
Please see attached Infiltration test report for detail of testing.

As the design infiltration rates are less than 0.33 in/hour, the INFILTRATION BMP's are not recommended and not proposed

Note: The minimum combined adjustment factor shall not be less than 2.0 and the maximum combined adjustment factor shall not exceed 9.0.

Addendum Appendix D

LINSCOTT LAW & GREENSPAN
engineers

Engineers & Planners
Traffic
Transportation
Parking

Linscott, Law & Greenspan, Engineers
2 Executive Circle
Suite 250
Irvine, CA 92614
949.825.6175 T
949.825.6173 F
www.llgengineers.com

Pasadena
Irvine
San Diego
Woodland Hills

June 23, 2022

Benjamin Mount
Legacy/Colliers Residential, LLC
5141 California Avenue, Suite 100
Irvine, CA 92617
Email: bmount@legacypartners.com

LLG Reference: 2.22.4563.1

Subject: **Trip Generation Assessment for the Euclid Avenue Mixed-Use Apartment Project**
Ontario, California

Dear Mr. Mount:

Linscott, Law & Greenspan, Engineers (LLG) is pleased to submit this Trip Generation Assessment associated for the Euclid Avenue Mixed-Use Apartment Project (hereinafter referred to as "Project") in the City of Ontario, California.

This letter summarizes the traffic generation forecast potential for the proposed demolition of an existing commercial center consisting of an 11,450 SF strip retail center, 4,100 SF fast-food restaurant with drive-through (Carl's Jr.), and an 89,500 SF K-Mart/Sears appliance repair shop and the construction of 376 apartment units with 10,898 SF of ground floor retail space.

PROJECT DESCRIPTION

The Project site is a 9.4±-acre parcel of land that is located north of Walnut Street and west of Euclid Avenue in the City of Ontario, California. The subject property is currently developed with a 11,450 SF strip retail center, 4,100 SF fast-food restaurant with drive-through (Carl's Jr.), and a vacant 89,500 SF K-Mart/Sears appliance repair shop. ***Figure 1***, located at the rear of this letter report, presents a Vicinity Map, which illustrates the general location of the project and the surrounding street system.

The Project is proposing to demolish the existing commercial center and construct a total of 376 apartment units with 10,898 SF of ground floor retail. The Project is expected to be completed in two phases. Phase 1 would leave the existing Carl's Jr. site untouched and includes of the development of 4,500 SF ground floor retail space and 346 apartment units consisting of 18 studio units, 190 one-bedroom units, and 138 two-bedroom units. Phase 2 would consist of replacing the existing Carl's Jr. with additional 30 apartment units and 6,398 SF of ground floor retail space.

Philip M. Linscott, PE (1924-2000)
Jack M. Greenspan, PE (Ret.)
William A. Law, PE (Ret.)
Paul W. Wilkinson, PE
John P. Keating, PE
David S. Shender, PE
John A. Boarman, PE
Clare M. Look-Jaeger, PE
Richard E. Barretto, PE
Keil D. Maberry, PE

The proposed Project will provide a total of 625 parking spaces for the residential component and 44 parking spaces for the retail component. Out of the total parking provided, Phase 1 will provide 587 residential spaces and 18 retail spaces, and Phase 2 will provide 38 residential spaces and 26 retail spaces.

Vehicular access is proposed via two right-turn only driveways located along Euclid Avenue and three full access unsignalized driveways located along Walnut Street in close proximity to the site's current driveways. It should be noted that the project is proposing gated access to the residential component.

Figure 2 presents an existing aerial photograph of the Project site. ***Figure 3*** presents the proposed site plan for the Project Site.

PROJECT TRAFFIC CHARACTERISTICS

Trip Generation Forecast

Traffic generation is expressed in vehicle trip ends, defined as one-way vehicular movements, either entering or exiting the generating land use. Generation factors and/or equations used in this analysis are based on information found in the 11th Edition of *Trip Generation,* published by the Institute of Transportation Engineers (ITE) [Washington, D.C., 2021].

As presented in upper portion of ***Table 1,*** the trip generation potential of the proposed Project and the existing/entitled land use has been estimated using the average rates for the following:

- ITE Land Use Code 221: Multifamily Housing (Mid-Rise)
- ITE Land Use Code 822: Strip Retail Plaza (<40K)
- ITE Land Use Coed 875: Department Store
- ITE Land Use Code 934: Fast Food Restaurant with Drive-Through Window

The middle portion of *Table 1* summarizes the trip generation potential of the existing/entitled land uses and the proposed Project for Phase 1. As shown, the existing/entitled land use is forecast to generate 2,605 daily trips, with 71 trips (44 inbound, 27 outbound) produced in the AM peak hour and 150 trips (76 inbound, 74 outbound) produced in the PM peak hour. The proposed Project is forecast to generate 1,791 daily trips, with 138 trips (35 inbound, 103 outbound) produced in the AM peak hour and 153 trips (91 inbound, 62 outbound) produced in the PM peak hour. Comparison of the trips generated by the proposed Project to the trips generated by the existing/entitled land use indicates that the proposed Project will generate 814

fewer daily trips, 67 *more* AM peak hour trips, and 3 *fewer* PM peak hour trips as part of Phase 1.

The lower portion of *Table 1* summarizes the trip generation potential of the existing/entitled land use and the proposed Project for Phase 2. As shown, the existing/entitled land use is forecast to generate 1,438 daily trips, with 91 trips (46 inbound, 45 outbound) produced in the AM peak hour and 61 trips (31 inbound, 30 outbound) produced in the PM peak hour. The proposed Project is forecast to generate 449 daily trips, with 24 trips (11 inbound, 13 outbound) produced in the AM peak hour and 37 trips (20 inbound, 17 outbound) produced in the PM peak hour. Comparison of the trips generated by the proposed Project to the trips generated by the existing/entitled land use indicates that the proposed Project will generate 989 *fewer* daily trips, 67 *fewer* AM peak hour trips, and 24 *fewer* PM peak hour trips as part of Phase 2.

The last row of *Table 1* shows the "net" trip generation potential of both Phases 1 and 2 of the proposed Project combined. As shown, the entirety of the proposed Project is forecast to result in 1,803 *fewer* daily trips, 0 AM peak hour trips, and 21 *fewer* PM peak hour trips when compared to the existing/entitled land uses.

CONCLUSION

Based on the findings above, the proposed Project (Phase 1 and 2) results in a lower trip generation forecast when compared to the existing/entitled land use. Therefore, it is concluded that the proposed Project can be expected to generate trips that would be within the trip budget originally approved for the Project site and would not create any new traffic impacts.

* * * * * * * * * *

LINSCOTT LAW & GREENSPAN engineers

We appreciate the opportunity to be of service on this Project. Should you need further assistance, or have any questions regarding this analysis, please call us at (949) 825-6175.

Sincerely,

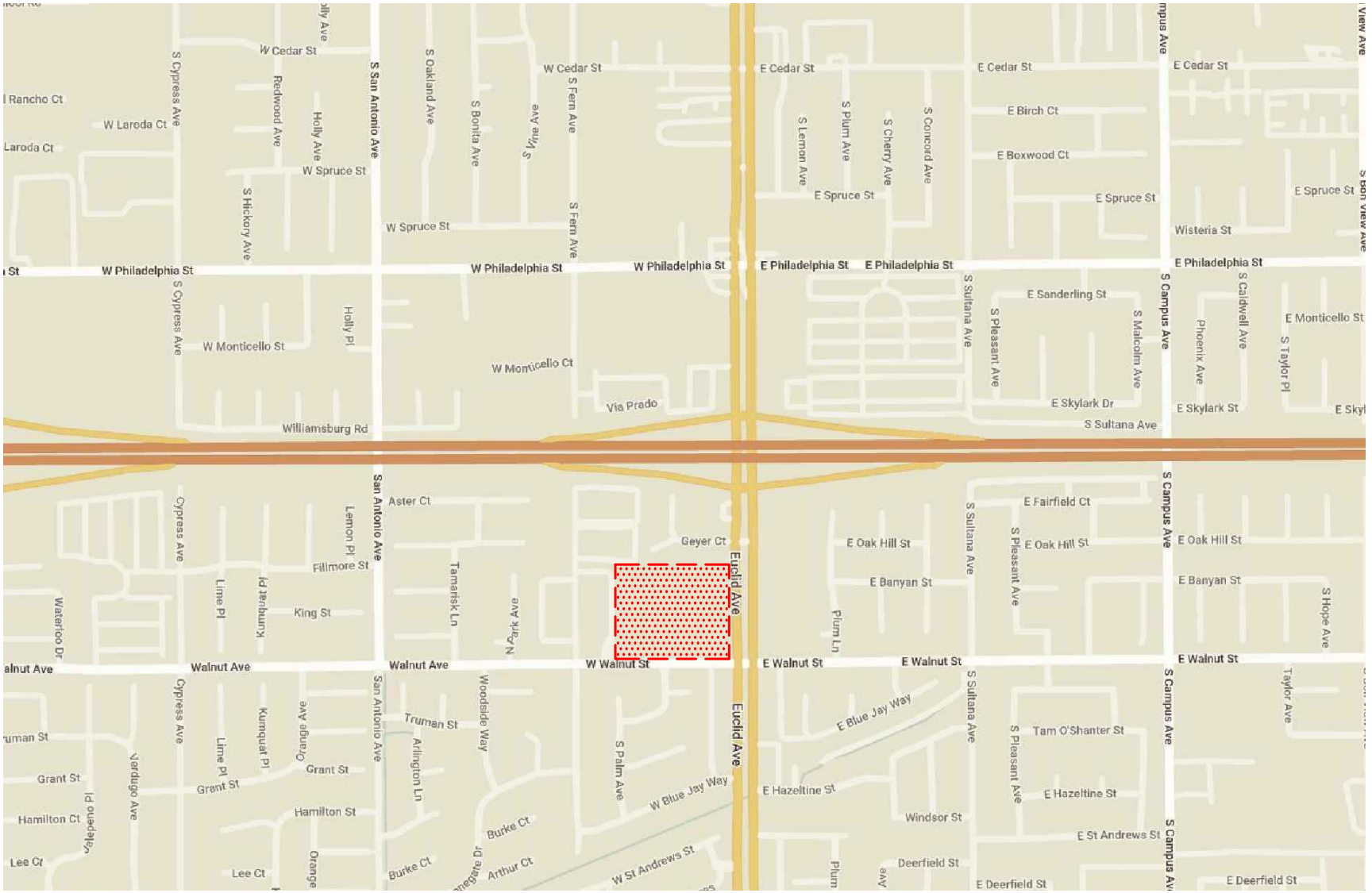
Linscott, Law & Greenspan, Engineers



Richard E. Barretto, P.E.
Principal

Cc. Shane S. Green, P.E., Senior Transportation Engineer

Attachments



n:\4500\2224563 – euclid residential, ontario\dwg\4563 f-1.dwg LDP 15:35:07 06-09-2022 kopulsky

LINSCOTT LAW & GREENSPAN engineers

N NO SCALE

SOURCE: GOOGLE

KEY

= PROJECT SITE

FIGURE 1

VICINITY MAP

EUCLID AVENUE MIXED–USE APARTMENTS, ONTARIO



n:\4500\2224563 - euclid residential, ontario\dwg\4563 f-2.dwg LDP 15:49:35 06-09-2022 kopulsky

LINSCOTT LAW & GREENSPAN engineers

N NO SCALE

SOURCE: GOOGLE

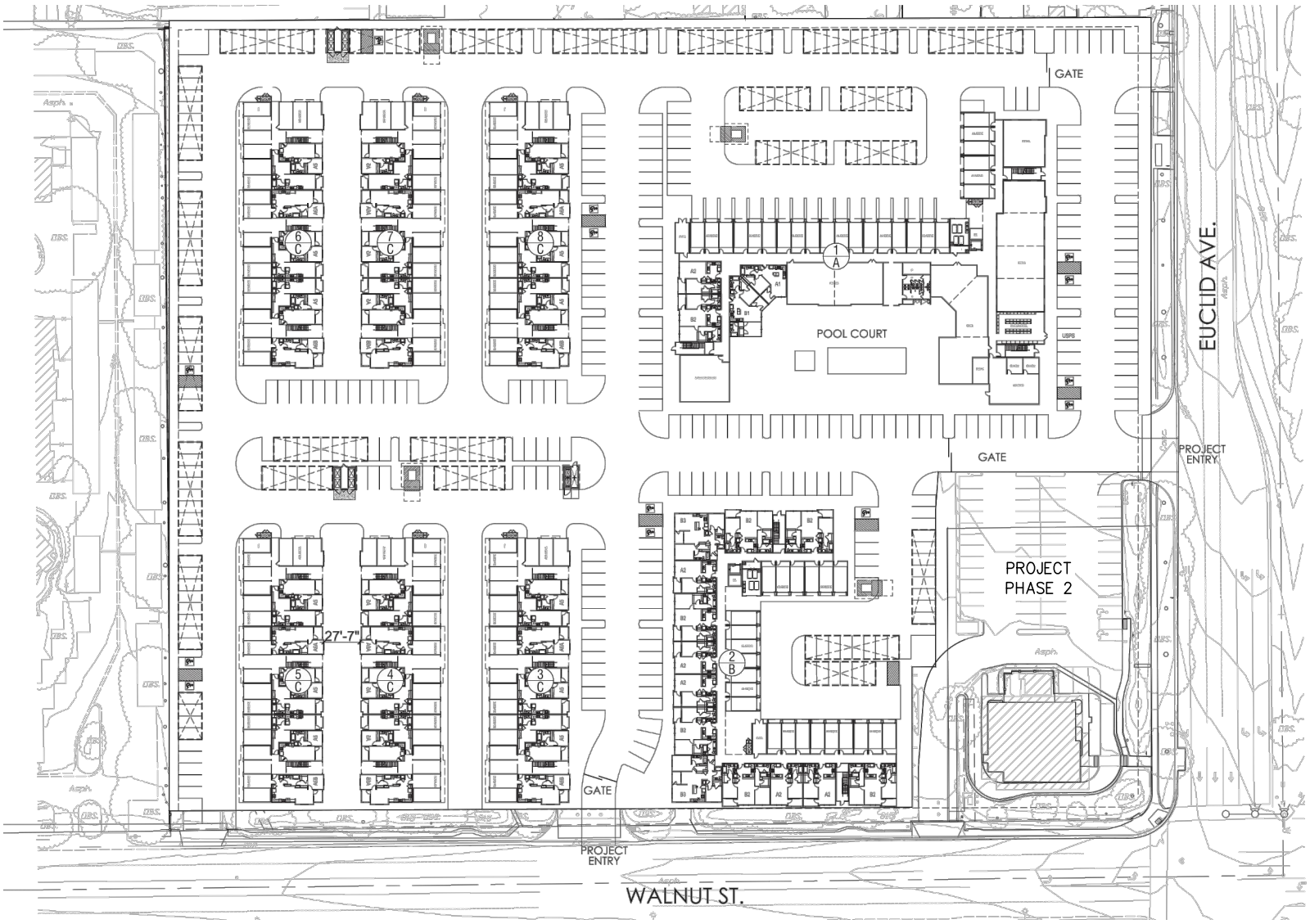
KEY

= PROJECT SITE

FIGURE 2

EXISTING AERIAL PHOTOGRAPH

EUCLID AVENUE MIXED-USE APARTMENTS, ONTARIO



n:\4500\2224563 - euclid residential, ontario\dwg\4563 f-3.dwg LDP 16:00:09 06-09-2022 kopulsky

LINSCOTT LAW & GREENSPAN engineers

N NO SCALE

SOURCE: AO ARCHITECTS

FIGURE 3

PROPOSED SITE PLAN

EUCLID AVENUE MIXED-USE APARTMENTS, ONTARIO

LINSCOTT LAW & GREENSPAN engineers

TABLE 1
PROJECT TRAFFIC GENERATION RATES AND FORECAST[1]

Project Description	Daily 2-Way	AM Peak Hour			PM Peak Hour		
		Enter	Exit	Total	Enter	Exit	Total
Trip Generation Rates:							
▪ 221: Multifamily Housing (Mid-Rise) (TE/DU)	4.54	23%	77%	0.37	61%	39%	0.39
▪ 822: Strip Retail Plaza (<40K) (TE/TSF)	54.45	60%	40%	2.36	50%	50%	6.59
▪ 875: Department Store (TE/TSF)	25.37[2]	64%	36%	0.58	50%	50%	1.95
▪ 934: Fast Food Restaurant with Drive-Through Window (TE/TSF)	467.48	51%	49%	44.61	52%	48%	33.03
Phase 1 – Entitled/Existing Land Use Trip Generation:							
▪ K-Mart (89,500 SF)	2,271	33	19	52	88	87	175
Pass-by Reduction[3]	-227	-3	-2	-5	-35	-35	-70
Shopping Plaza Subtotal	2,044	30	17	47	53	52	105
▪ Strip Retail (11,450 SF)	623	16	11	27	38	37	75
Pass-by Reduction[3]	-62	-2	-1	-3	-15	-15	-30
Shopping Plaza Subtotal	561	14	10	24	23	22	45
Phase 1 Entitled/Existing Land Use Trip Generation Total	**2,605**	**44**	**27**	**71**	**76**	**74**	**150**
Phase 1 – Proposed Project Trip Generation:							
▪ Apartments (346 DU)	1,571	29	99	128	82	53	135
▪ Ground Floor Retail (4,500 SF)	245	7	4	11	15	15	30
Pass-by Reduction[3]	-25	-1	0	-1	-6	-6	-12
Ground Floor Retail Subtotal	220	6	4	10	9	9	18
Phase 1 Proposed Project Trip Generation Total	**1,791**	**35**	**103**	**138**	**91**	**62**	**153**
[A] Phase 1 Net Project Trip Generation Total	**-814**	**-9**	**76**	**67**	**15**	**-12**	**3**
Phase 2 – Entitled/Existing Land Use Trip Generation:							
▪ Carl's Jr. (4,100 SF)	1,917	93	90	183	70	65	135
Pass-by Reduction[3]	-479	-47	-45	-92	-39	-35	-74
Carl's Jr. Subtotal	1,438	46	45	91	31	30	61
Phase 2 Entitled/Existing Land Use Trip Generation Total	**1,438**	**46**	**45**	**91**	**31**	**30**	**61**
Phase 2 – Proposed Project Trip Generation:							
▪ Apartments (30 DU)	136	3	8	11	7	5	12
▪ Ground Floor Retail (6,398 SF)	348	9	6	15	21	21	42
Pass-by Reduction[3]	-35	-1	-1	-2	-8	-9	-17
Ground Floor Retail Subtotal	313	8	5	13	13	12	25
Phase 2 Proposed Project Trip Generation Total	**449**	**11**	**13**	**24**	**20**	**17**	**37**
[B] Phase 2 Net Project Trip Generation Total	**-989**	**-35**	**-32**	**-67**	**-11**	**-13**	**-24**
Phases 1 and 2 Total Net Project Trip Generation ([A] + [B])	**-1,803**	**-44**	**44**	**0**	**4**	**-25**	**-21**

Notes:
TE/TSF = Trip ends per 1,000 SF of development
TE/DU = Trip ends per dwelling unit

1 Source: *Trip Generation*, 11th Edition, Institute of Transportation Engineers (ITE), Washington, D.C. (2021).

2 ITE's *Trip Generation* 11th Edition does not provide a Daily trip rate for ITE LU 875 Department Store. Therefore, the daily trip rate has been estimated using the PM peak hour trip rate and the relationship between the Daily and PM peak hour trip rates of ITE LU 821 Shopping Plaza (40-150K).

3 Pass-by trips are trips made as intermediate stops on the way from an origin to a primary trip destination. Pass-by trips are attracted from traffic passing the site on adjacent streets, which contain direct access to the generator. For this analysis, the following pass-by reduction factors were used (Source: *Trip Generation, 11th Edition, Institute of Transportation Engineers (ITE), Washington, D.C. (2021)*):
- ITE LU 822 Strip Retail Plaza (<40K): Daily and AM Peak Hour - Estimated to be 10% / PM Peak Hour – Estimated to be 40% which is consistent with ITE LU 821.
- ITE LU 875 Department Store: Daily and AM Peak Hour - Estimated to be 10% / PM Peak Hour – Estimated to be 40% which is consistent with ITE LU 821.
- ITE LU 934 Fast Food Restaurant with Drive-Through Window: Daily - Estimated to be 25% / AM Peak Hour – 50% / PM Peak Hour – 55%

1650 SPRUCE STREET, STE 106
RIVERSIDE, CA 92507
951.787.9222
WWW.MIGCOM.COM

MEMO

To: David Pinto, Legacy Partners
CC: Benjamin Mount and Tim O'Brien, Legacy Partners; Dale Goldsmith, Armbruster Goldsmith & Delvac LLP
From: Chris Dugan and William Deeman
Date: September 8, 2023
SUBJECT: Technical Air Quality Assessment for PDEV22-027 Euclid/Walnut Planned Unit Development (PUD22-004) Project

MIG, Inc. (MIG) has prepared this memorandum at the request of Legacy Partners. This technical assessment estimates the potential construction and operational air quality emissions associated with the proposed Euclid/Walnut Planned Unit Development Project (proposed Project) in the City of Ontario, California (City) and determines the proposed Project's consistency with The Ontario Plan (TOP). This technical assessment is intended to satisfy TOP Environmental Impact Report (EIR) Mitigation Measure AQ 3-1, which states that prior to discretionary approval for development projects subject to CEQA (California Environmental Quality Act) review (i.e., nonexempt projects), the City shall require project applicants prepare and submit a technical assessment evaluating potential project construction-related air quality impacts to the City of Ontario Planning Department for review and approval (City of Ontario, 2022). Please see Attachment 1 for the complete requirements of TOP EIR Mitigation Measure AQ 3-1. As explained in more detail in this memo, the proposed Project would not result in a new or more severe air quality impact than identified in the TOP EIR.

EMISSIONS ESTIMATE METHODOLOGY

The proposed Project would generate both short-term construction emissions and long-term operational emissions. The Project's potential air quality emissions were estimated using the California Emissions Estimator Model (CalEEMod), Version (V.) 2022.1. CalEEMod is a computer program recommended for use by the South Coast Air Quality Management District (SCAQMD) for use in preparing emission estimates for land use and development projects. The proposed Project's construction and operational characteristics are based on the Project Description contained in the Project's California Environmental Quality Act (CEQA) Addendum. Emissions were generated using CalEEMod default assumptions, modified as follows to reflect the following Project-specific context, information, and details:

- Construction Phases: Phase 1 construction was modified to add a trenching phase and the building construction phase was changed to occur in three phases foundation, vertical, and mechanical electrical plumbing/other (MEP/other) based on project-specific information from the project construction team.
- Construction Schedule: Phase 1 was modeled as an 18-month project with overlapping site preparation, grading, trenching, building construction foundation, vertical, MEP/other, paving, and coating phases to provide a more conservative analysis, as explained below.
- Hauling: 9,105 cubic yards of soil was added to Phase 1 construction grading activities. 101,620 square feet of demolition was added to Phase 1 construction and 6,000 square feet of demolition was added to Phase 2 construction based on project-specific information from the project construction team.

- Fugitive Dust: Watering twice per day was added to Phase 1 construction and Phase 2 construction in accordance with SCAQMD Rule 403.
- Vehicle Trips: Vehicle trip rates and primary/pass-by trip percentages were updated based on the Projected Left-Turn Warrant for the Euclid Avenue Mixed-Use Apartment Project report (LLG 2023).
- Area Sources: All wood burning stoves were removed from Phase 1 and Phase 2 residential development in compliance with SCAQMD Rule 445. In addition, all fireplaces were updated to be electric as indicated by the Project Applicant.

Emissions estimates were calculated for the following regional and local air quality emissions scenarios:

- Phase 1 Construction
- Phase 1 Operations
- Combined Phase 1 Operations and Phase 2 Construction
- Combined Phase 1 Operations and Phase 2 Operations

MIG notes the emissions modeling conducted for the Project is considered very conservative (i.e., likely to substantially overestimate daily Project emissions) for the following reasons:

- As the Project Applicant indicated, Phase 1 construction is estimated to last up to a total of approximately 28 months; however, the modeling conducted for the project condenses these activities to 18 months and conservatively estimates potential emissions from overlapping site development and construction of the eight buildings. This compressed schedule with overlapping phases results in more daily construction activity, and therefore more daily emissions than would occur with a 28-month schedule with no overlapping phases. Thus, modeled maximum daily emissions are based on overlapping construction phases that most likely will not actually occur.
- Phase 2 construction was modeled to occur directly after Phase 1 construction was completed. The specific timing of development of Phase 2 has not yet been determined and due to existing long term lease conditions may not actually occur for approximately 10 years or more. Emissions are expected to decrease in the future as construction fleets turnover with newer (i.e., less emissive) equipment and updated standards are adopted. Thus, modeling of Phase 2 immediately after Phase 1 provides an overestimate of potential emissions.
- Comparing the combined Phase 1 Operations and Phase 2 Construction emissions to regional and local operational significance thresholds is considered a conservative approach as operational thresholds are more stringent than construction thresholds.
- The localized significance thresholds applied to the Project site are based on a 5-acre site, i.e., the largest site acreage for which screening threshold values are established. However, Phase 1 of the proposed Project would disturb approximately 9.4-acres of the site and in total the Project is approximately 10.6 acres, therefore the 5-acre threshold values would be overly stringent for the proposed Project.
- Project emissions were modeled and presented as gross Project emissions rather than net Project emissions. The Project site is currently developed, but no credit has been applied. This approach overestimates the net change in emissions associated with the Project.

Please refer to Attachments 2 and 3 for detailed CalEEMod emissions estimates.

RESULTS

The results of the CalEEMod emissions modeling conducted for the proposed Project are summarized in Tables 1 to 5 below.

Table 1 below shows the modeled air quality emissions associated with Phase 1 unmitigated construction activities:

Table 1: Phase 1 Unmitigated Maximum Daily Construction Emissions

Scenario/Metric	Maximum Daily Regional Pollutant Emissions (Pounds Per Day)					
	VOC	**NO_X**	**CO**	**SO_2**	**PM_{10}**	**$PM_{2.5}$**
Phase 1 Max Daily – 2024 Summer	8.5	83.8	80.0	0.1	17.1	9.2
Phase 1 Max Daily – 2024 Winter	7.4	42.2	89.7	0.1	12.4	4.0
Phase 1 Max Daily – 2025 Summer	155	39.1	85.4	0.1	12.2	3.8
Phase 1 Max Daily – 2025 Winter	4.6	25.7	66.6	0.1	7.3	2.5
SCAQMD Regional Threshold	**75**	**100**	**550**	**150**	**150**	**55**
Exceeds Threshold?	***Yes***	***No***	***No***	***No***	***No***	***No***
Scenario/Metric	**Maximum Daily Localized Pollutant Emissions (Pounds Per Day)**					
	VOC	**NO_X**	**CO**	**SO_2**	**PM_{10}**	**$PM_{2.5}$**
Phase 1 Max Daily – 2024 Summer(A)	--	83.8	80.0	--	15.4	8.7
Phase 1 Max Daily – 2024 Winter(A)	--	42.2	89.7	--	1.7	1.4
Phase 1 Max Daily – 2025 Summer(A)	--	25.7	66.6	--	1.0	0.8
Phase 1 Max Daily – 2025 Winter(A)	--	39.1	85.4	--	1.5	1.2
SCAQMD Localized Threshold(B)	**--**	**270**	**2,193**	**--**	**16**	**9**
Exceeds Threshold?	**--**	***No***	***No***	**--**	***No***	***No***

Source: MIG (see Attachment 2) and SCAQMD 2023.

(A) On-site PM emissions derived using 2% of Mobile Exhaust and On-Road Fugitive Dust emissions.

(B) LST construction threshold values conservatively based on SRA 33 Southwest San Bernardino Valley for a 5-acre site with receptor distance of 25 meters (since the Phase 1 size is 9.4 acres).

As shown in Table 1, the Phase 1 unmitigated construction emissions would exceed regional SCAQMD VOC thresholds. Accordingly, as required by TOP EIR Mitigation Measure AQ 3-1, the Project shall incorporate measures to reduce construction emissions, including the use of Super-Compliant VOC paints for residential buildings (to reduce VOC emissions). Refer to the "TOP EIR Mitigation" discussion below for additional details on emission reduction measures incorporated into the Project.

Table 2 below shows modeled air quality emissions associated with Phase 1 mitigated construction activities:

Table 2: Phase 1 Mitigated Maximum Daily Construction Emissions

Scenario/Metric	Maximum Daily Regional Pollutant Emissions (Pounds Per Day)					
	VOC	**NO_X**	**CO**	**SO_2**	**PM_{10}**	**$PM_{2.5}$**
Phase 1 Max Daily – 2024 Summer	2.6	83.8	80.0	0.1	17.1	9.2
Phase 1 Max Daily – 2024 Winter	5.3	42.2	89.7	0.1	12.4	4.0
Phase 1 Max Daily – 2025 Summer	38.6	39.1	85.4	0.1	12.2	3.8
Phase 1 Max Daily – 2025 Winter	3.3	25.7	66.6	0.1	7.3	2.5
SCAQMD Regional Threshold	**75**	**100**	**550**	**150**	**150**	**55**
Exceeds Threshold?	***No***	***No***	***No***	***No***	***No***	***No***
Scenario/Metric	**Maximum Daily Localized Pollutant Emissions (Pounds Per Day)**					
	VOC	**NO_X**	**CO**	**SO_2**	**PM_{10}**	**$PM_{2.5}$**
Phase 1 Max Daily – 2024 Summer(A)	--	83.8	80.0	--	15.4	8.7
Phase 1 Max Daily – 2024 Winter(A)	--	42.2	89.7	--	1.7	1.4
Phase 1 Max Daily – 2025 Summer(A)	--	25.7	66.6	--	1.0	0.8
Phase 1 Max Daily – 2025 Winter(A)	--	39.1	85.4	--	1.5	1.2
SCAQMD Localized Threshold(B)	**--**	**270**	**2,193**	**--**	**16**	**9**
Exceeds Threshold?	**--**	***No***	***No***	**--**	***No***	***No***

Source: MIG (see Attachment 2) and SCAQMD 2023.

(A) On-site PM emissions derived using 2% of Mobile Exhaust and On-Road Fugitive Dust emissions.

(B) LST construction threshold values conservatively based on SRA 33 Southwest San Bernardino Valley for a 5-acre site with receptor distance of 25 meters (since the Phase 1 size is 9.4 acres).

As shown in Table 2, the Phase 1 mitigated construction emissions would not exceed regional SCAQMD thresholds or localized thresholds.

Table 3 below shows modeled air quality emissions associated with Phase 1 operations:

Table 3: Phase 1 Maximum Daily Operational Emissions

Scenario/Metric	Maximum Daily Regional Pollutant Emissions (Pounds Per Day)					
	VOC	**NO_X**	**CO**	**SO_2**	**PM_{10}**	**$PM_{2.5}$**
Phase 1 Operations Max Daily Emissions(A)	19.7	7.8	80.7	0.2	13.1	3.5
SCAQMD Regional Threshold(B)	**55**	**55**	**550**	**150**	**150**	**55**
Exceeds Threshold?	***No***	***No***	***No***	***No***	***No***	***No***
Scenario/Metric	**Maximum Daily Localized Pollutant Emissions (Pounds Per Day)**					
	VOC	**NO_X**	**CO**	**SO_2**	**PM_{10}**	**$PM_{2.5}$**
Phase 1 Operations Max Daily Emissions©	--	1.8	26.4	--	0.4	0.2
SCAQMD Localized Threshold(D)	**--**	**270**	**2,193**	**--**	***4***	***2***
Exceeds Threshold?	**--**	***No***	***No***	**--**	***No***	***No***

Source: MIG (see Attachment 2) and SCAQMD 2023

(A) Emissions presented are worst-case emissions and may reflect summer or winter daily emissions levels.

(B) SCAQMD Operational threshold presented.

(C) Emissions presented are worst-case emissions and may reflect summer or winter daily emissions levels. Mobile emissions assumed 2% occur on-site.

(D) LST operations threshold values conservatively based on SRA 33 Southwest San Bernardino Valley for a 5-acre site with receptor distance of 25 meters (since the Phase 1 size is 9.4 acres).

As shown in Table 3, Phase 1 operational emissions would not exceed regional SCAQMD thresholds or localized thresholds.

Table 4 shows modeled air quality emissions associated with Phase 1 operations and Phase 2 construction:

Table 4: Phase 1 Maximum Daily Operational Emissions and Phase 2 Maximum Daily Construction Emissions

Scenario/Metric	Maximum Daily Regional Pollutant Emissions (Pounds Per Day)					
	VOC	**NO_X**	**CO**	**SO_2**	**PM_{10}**	**$PM_{2.5}$**
Phase 1 Operations Max Daily Emissions(A)	19.7	7.8	80.7	0.2	13.1	3.5
Phase 2 Construction Max Daily Emissions(A)	21	13.3	15.5	<0.1	3.5	1.9
Total Daily Emissions(B)	40.7	21.1	96.2	0.2	16.6	5.4
SCAQMD Regional Threshold(C)	**55**	**55**	**550**	**150**	**150**	**55**
Exceeds Threshold?	***No***	***No***	***No***	***No***	***No***	***No***
Scenario/Metric	**Maximum Daily Local Pollutant Emissions (Pounds Per Day)**					
	VOC	**NO_X**	**CO**	**SO_2**	**PM_{10}**	**$PM_{2.5}$**
Phase 1 Operations Max Daily Emissions(D)	--	1.8	26.4	--	0.4	0.2
Phase 2 Construction Max Daily Emissions(A)	--	12.9	14.6	--	3.3	1.8
Total Daily Emissions(B)	--	15.1	41.9	--	3.9	2.0
SCAQMD Localized Threshold(E)	**--**	**270**	**2,193**	**--**	***4***	***2***
Exceeds Threshold?	**--**	***No***	***No***	**--**	***No***	***No***

Source: MIG (see Attachment 2 and 3) and SCAQMD 2023

(A) Emissions presented are worst-case emissions and may reflect summer or winter daily emissions levels.

(B) Totals may not equal due to rounding.

(C) SCAQMD Operational threshold presented.

(D) Emissions presented are worst-case emissions and may reflect summer or winter daily emissions levels. Mobile emissions assumed 2% occur on-site.

(E) LST operations threshold values conservatively based on SRA 33 Southwest San Bernardino Valley for a 5-acre site with receptor distance of 25 meters. Application of these thresholds are considered overly conservative as the above estimates include both construction and operations emissions, the Project site is approximately 10.6-acres as opposed to 5-acres, and the nearest off-site receptor would be more than 25 meters from the Phase 2 construction area.

As shown in Table 4, the combined emissions of Phase 1 operations and Phase 2 construction would not exceed regional SCAQMD thresholds or localized thresholds.

Table 5 below shows modeled air quality emissions associated with Phase 1 and Phase 2 operations:

Table 5: Phase 1 Maximum Daily Operational Emissions and Phase 2 Maximum Daily Operational Emissions

Scenario/Metric	Maximum Daily Regional Pollutant Emissions (Pounds Per Day)					
	VOC	**NO_X**	**CO**	**SO_2**	**PM_{10}**	**$PM_{2.5}$**
Phase 1 Operations Max Daily Emissions(A)	19.7	7.8	80.7	0.2	13.1	3.5
Phase 2 Operations Max Daily Emissions(A)	2.6	1.8	17.7	<0.1	3.7	1.0
Total Daily Emissions(B)	22.3	9.6	98.4	0.2	16.8	4.5
SCAQMD Regional Threshold	**55**	**55**	**550**	**150**	**150**	**55**
Exceeds Threshold?	***No***	***No***	***No***	***No***	***No***	***No***
Scenario/Metric	**Maximum Daily Local Pollutant Emissions (Pounds Per Day)**					
	VOC	**NO_X**	**CO**	**SO_2**	**PM_{10}**	**$PM_{2.5}$**
Phase 1 Operations Max Daily Emissions(C)	13.4	1.8	26.4	<0.1	0.4	0.2
Phase 2 Operations Max Daily Emissions(C)	0.1	0.1	2.0	<0.1	0.1	<0.1
Total Daily Emissions(B)	13.5	1.9	28.4	<0.1	0.5	0.2
SCAQMD Localized Threshold(D)	**--**	**270**	**2,193**	**--**	***4***	***2***
Exceeds Threshold?	**--**	***No***	***No***	**--**	***No***	***No***

Source: MIG (see Attachment 2 and 3) and SCAQMD 2023

(A) Emissions presented are worst-case emissions and may reflect summer or winter daily emissions levels.

(B) Totals may not equal due to rounding.

(C) Emissions presented are worst-case emissions and may reflect summer or winter daily emissions levels. Mobile emissions assumed 2% occur on-site.

(D) LST operations threshold values conservatively based on SRA 33 Southwest San Bernardino Valley for a 5-acre site with receptor distance of 25 meters (since the combined site size is 10.6 acres).

As shown in Table 5, combined emissions associated with operations of Phase 1 and Phase 2 would not exceed regional SCAQMD thresholds or localized thresholds.

TOP EIR MITIGATION

As stated in TOP EIR Mitigation Measure AQ 3-1, if construction emissions are determined to potentially exceed the SCAQMD regional significance thresholds, the City shall require feasible mitigation measures to reduce construction emissions. As shown in Table 1, modeled Phase 1 construction VOC maximum daily emissions would exceed the SCAQMD regional threshold of 75 pounds per day. To ensure Project modeled emissions would not exceed regional or localized significance thresholds, the following mitigation measures in compliance with TOP EIR air quality Mitigation Measure AQ 3-1 are necessary for the Project:

- Using Super-Compliant VOC paints during construction for residential interior and exterior paints, i.e., using paints with 10 grams per liter (g/L) or lower VOC content for residential interior and exterior surfaces.

Incorporating the above mitigation measures would result in less than significant regional emissions from the proposed Project.

CONCLUSION

As described in this memo, the construction and operational emissions from proposed Project would not exceed any applicable SCAQMD-recommended CEQA thresholds of significance and is consistent with TOP with mitigation incorporated. The proposed Project, therefore, would not result in a new or substantially greater significant air quality impact than identified in the TOP EIR.

PREPARERS AND REFERENCES

This memorandum was prepared by MIG under contract to Legacy Partners. This report reflects the independent, objective, professional opinion of MIG. The following individuals were involved in the preparation and review of this Report:

MIG
Chris Dugan, Director of Air Quality, GHG, and Noise Services 1650 Spruce Street, Suite 106
cdugan@migcom.com / 916-956-3802 Riverside, California 92507

William Deeman, Environmental Analyst I

The following references were used to prepare this memorandum:

City of Ontario, 2022. The Ontario Plan 2050 Final Supplemental EIR. August 2022.

Linscott Law & Greenspan (LLG). 2023. Protected Left-Turn Warrant for the Euclid Avenue Mixed-Use Apartment Project. July 31, 2023.

South Coast Air Quality Management District (SCAQMD). 2023. Air Quality Analysis Handbook – South Coast AQMD Air Quality Significance Thresholds (Updated March 2023). Available online at: https://www.aqmd.gov/home/rules-compliance/ceqa/air-quality-analysis-handbook

.

Attachment 1

TOP EIR Mitigation Measures

This page intentionally left blank.

- **M-3.5: Light Rail.** We support extension of the Metro Rail Gold Line to Ontario, and will work to secure station locations ~~adjacent to the Meredith site and~~ at the proposed multimodal transit center.

- **M-3.10: Multimodal ~~Transit~~ Transportation Center.** We intend to ensure the development of a multimodal ~~transit~~ transportation center near ~~LA~~ONT airport to serve as a transit hub with amenities for transit riders, pedestrians, and bicyclists transitioning to local buses, BRT, the Gold Line, high-speed rail, the proposed Ontario Airport Metro Center ~~c~~Circulator, and other future transit modes. We support locations for the multimodal transportation center that are north of ONT airport, between Vineyard Avenue and Interstate 15.

- **M-4.4: Environmental Considerations** We support both local and regional efforts to reduce/eliminate the negative environmental impacts of goods movement through the planning and implementation of truck routing and the development of a plan to evaluate the future needs of clean fueling/recharging and electrified truck parking.

5.3.6 Level of Significance Before Mitigation

Upon implementation of regulatory requirements and standard conditions of approval, some impacts would be less than significant: Impact 5.3-5.

Without mitigation, these impacts would be **potentially significant**:

- **Impact 5.3-1** The additional population growth forecast for TOP 2050 and the associated emissions would not be consistent with the assumptions of the South Coast AQMD's AQMP.

- **Impact 5.3-2** Construction activities associated with future development that would be accommodated under TOP 2050 could generate short-term emissions in exceedance of the South Coast AQMD's threshold criteria.

- **Impact 5.3-3** Implementation of TOP 2050 would generate additional, long-term emissions in exceedance of South Coast AQMD's threshold criteria and cumulatively contribute to the South Coast Air Basin's nonattainment designations.

- **Impact 5.3-4** Operation of industrial and warehousing land uses accommodated under TOP 2050 could expose sensitive receptors to substantial toxic air contaminant concentrations.

5.3.7 Mitigation Measures

5.3.7.1 MITIGATION MEASURES FROM THE 2010 CERTIFIED EIR

The following mitigation measures were taken directly from the 2010 Certified EIR. Any modifications to the mitigation measures from the certified EIR are shown in ~~strikethrough~~ for deleted text and underline for new, inserted text. Mitigation Measure 3-1 was modified to reflect changes in technology since the 2010 Certified

EIR. Mitigation Measure 3-3 is deleted because it pertains to impacts of the environment on a project, which are not subject to CEQA.

Impact 5.3-2

3-1 Prior to discretionary approval by the City of Ontario for development projects subject to CEQA (California Environmental Quality Act) review (i.e., nonexempt projects), project applicants shall prepare and submit a technical assessment evaluating potential project construction-related air quality impacts to the City of Ontario Planning Department for review and approval. The evaluation shall be prepared in conformance with South Coast Air Quality Management District (South Coast AQMD) methodology for assessing air quality impacts. If construction-related criteria air pollutants are determined to have the potential to exceed the South Coast AQMD–adopted thresholds of significance, ~~The~~ City of Ontario ~~b~~Building ~~d~~Department shall require ~~that all new construction projects incorporate~~ feasible mitigation measures to reduce air quality emissions. Potential measures shall be incorporated as conditions of approval for a project and may include:

- Require fugitive dust control measures that exceed South Coast Air Quality Management District's Rule 403, such as:
  - Requiring use of nontoxic soil stabilizers to reduce wind erosion.
  - Applying water every four hours to active soil disturbing activities.
  - Tarping and/or maintaining a minimum of 24 inches of freeboard on trucks hauling dirt, sand, soil, or other loose materials.
- Using construction equipment rated by the United States Environmental Protection Agency as having ~~Tier 3~~ Tier 4 interim or higher exhaust emission limits.
- Ensuring construction equipment is properly serviced and maintained to the manufacturer's standards.
- Limiting nonessential idling of construction equipment to no more than five consecutive minutes.
- Using Super-Compliant VOC paints for coating of architectural surfaces whenever possible. A list of Super-Compliant architectural coating manufactures can be found on the South Coast Air Quality Management District's website at: http://www.aqmd.gov/prdas/brochures/Super-Compliant_AIM.pdf.

These identified measures shall be incorporated into all appropriate construction documents (e.g., construction management plans) submitted to the City and shall be verified by the City's Planning Department.

Impact 5.3-3

3-2 The City of Ontario shall evaluate new development proposals within the City and require all developments to include access or linkages to alternative modes of transportation, such as transit stops, bike paths, and/or pedestrian paths (e.g. sidewalks).

~~3-3 The City of Ontario shall evaluate new development proposals within the City for potential incompatibilities with regard to the California Air Resources Board's Air Quality and Land Use Handbook: A Community Health Perspective (April 2005). New development that is inconsistent with the recommended buffer distances shall only be approved if feasible mitigation measures, such as high efficiency Minimum Efficiency Reporting Value (MERV) filters have incorporated into the project design to protect future sensitive receptors from harmful concentrations of air pollutants as a result of proximity to existing air pollution sources.~~

5.3.7.2 NEW MITIGATION MEASURES

Impact 5.3-1

Mitigation measures applied to a development project's construction (Mitigation Measure 3-1) and operational phase (Mitigation Measures 3-2 and new Mitigation Measure AQ-1) would reduce impacts associated with consistency with the South Coast AQMD.

Impact 5.3-1

No new mitigation measures are warranted for construction-related impacts under Impact 5.3-1.

Impact 5.3-3

AQ 1 Prior to discretionary approval by the City of Ontario for development projects subject to CEQA (California Environmental Quality Act) review (i.e., nonexempt projects), project applicants shall prepare and submit a technical assessment evaluating potential project operation-phase-related air quality impacts to the City of Ontario Planning Department for review and approval. The evaluation shall be prepared in conformance with South Coast Air Quality Management District (South Coast AQMD) methodology in assessing air quality impacts. If operation-related air pollutants are determined to have the potential to exceed the South Coast AQMD–adopted thresholds of significance, the City of Ontario Planning Department shall require that applicants for new development projects incorporate mitigation measures to reduce air pollutant emissions during operational activities. The identified measures shall be included as part of the conditions of approval. Possible mitigation measures to reduce long-term emissions could include, but are not limited to the following:

- For site-specific development that requires refrigerated vehicles, the construction documents shall demonstrate an adequate number of electrical service connections at

This page intentionally left blank.

Attachment 2

Phase 1 CalEEMod Emissions Estimates and Fugitive Dust Calculations

This page intentionally left blank.

Legacy Ontario PUD Construction Phase 1 Mitigated Detailed Report

Table of Contents

1. Basic Project Information

1.1. Basic Project Information

1.2. Land Use Types

1.3. User-Selected Emission Reduction Measures by Emissions Sector

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

2.2. Construction Emissions by Year, Unmitigated

2.3. Construction Emissions by Year, Mitigated

2.4. Operations Emissions Compared Against Thresholds

2.5. Operations Emissions by Sector, Unmitigated

2.6. Operations Emissions by Sector, Mitigated

3. Construction Emissions Details

3.1. Demolition (2024) - Unmitigated

3.2. Demolition (2024) - Mitigated

3.3. Site Preparation (2024) - Unmitigated

3.4. Site Preparation (2024) - Mitigated

3.5. Grading (2024) - Unmitigated

3.6. Grading (2024) - Mitigated

3.7. Foundation (2024) - Unmitigated

3.8. Foundation (2024) - Mitigated

3.9. Foundation (2025) - Unmitigated

3.10. Foundation (2025) - Mitigated

3.11. Vertical (2024) - Unmitigated

3.12. Vertical (2024) - Mitigated

3.13. Vertical (2025) - Unmitigated

3.14. Vertical (2025) - Mitigated

3.15. MEP/Other (2024) - Unmitigated

3.16. MEP/Other (2024) - Mitigated

3.17. MEP/Other (2025) - Unmitigated

3.18. MEP/Other (2025) - Mitigated

3.19. Paving (2025) - Unmitigated

3.20. Paving (2025) - Mitigated

3.21. Coatings (2025) - Unmitigated

3.22. Coatings (2025) - Mitigated

3.23. Trenching (2024) - Unmitigated

3.24. Trenching (2024) - Mitigated

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

4.1.2. Mitigated

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

4.2.2. Electricity Emissions By Land Use - Mitigated

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

4.2.4. Natural Gas Emissions By Land Use - Mitigated

4.3. Area Emissions by Source

4.3.1. Unmitigated

4.3.2. Mitigated

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

4.4.2. Mitigated

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

4.5.2. Mitigated

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

4.6.2. Mitigated

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

4.7.2. Mitigated

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

4.8.2. Mitigated

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

4.9.2. Mitigated

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

4.10.4. Soil Carbon Accumulation By Vegetation Type - Mitigated

4.10.5. Above and Belowground Carbon Accumulation by Land Use Type - Mitigated

4.10.6. Avoided and Sequestered Emissions by Species - Mitigated

5. Activity Data

5.1. Construction Schedule

5.2. Off-Road Equipment

5.2.1. Unmitigated

5.2.2. Mitigated

5.3. Construction Vehicles

5.3.1. Unmitigated

5.3.2. Mitigated

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

5.5. Architectural Coatings

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

5.6.2. Construction Earthmoving Control Strategies

5.7. Construction Paving

5.8. Construction Electricity Consumption and Emissions Factors

5.9. Operational Mobile Sources

5.9.1. Unmitigated

5.9.2. Mitigated

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

5.10.1.2. Mitigated

5.10.2. Architectural Coatings

5.10.3. Landscape Equipment

5.10.4. Landscape Equipment - Mitigated

5.11. Operational Energy Consumption

5.11.1. Unmitigated

5.11.2. Mitigated

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

5.12.2. Mitigated

5.13. Operational Waste Generation

5.13.1. Unmitigated

5.13.2. Mitigated

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

5.14.2. Mitigated

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

5.15.2. Mitigated

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

5.16.2. Process Boilers

5.17. User Defined

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

5.18.1.2. Mitigated

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

5.18.1.2. Mitigated

5.18.2. Sequestration

5.18.2.1. Unmitigated

5.18.2.2. Mitigated

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

6.2. Initial Climate Risk Scores

6.3. Adjusted Climate Risk Scores

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

7.2. Healthy Places Index Scores

7.3. Overall Health & Equity Scores

7.4. Health & Equity Measures

7.5. Evaluation Scorecard

7.6. Health & Equity Custom Measures

8. User Changes to Default Data

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	Legacy Ontario PUD Construction Phase 1 Mitigated
Construction Start Date	6/1/2024
Operational Year	2026
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.60
Precipitation (days)	9.20
Location	34.02755638431904, -117.65236816489812
County	San Bernardino-South Coast
City	Ontario
Air District	South Coast AQMD
Air Basin	South Coast
TAZ	5251
EDFZ	10
Electric Utility	Southern California Edison
Gas Utility	Southern California Gas
App Version	2022.1.1.19

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description

1341

Apartments Mid Rise	346	Dwelling Unit	2.92	458,974	29,928	0.00	1,145	—
Strip Mall	5.40	1000sqft	0.12	5,400	0.00	0.00	—	—
Other Asphalt Surfaces	6.36	Acre	6.36	0.00	0.00	0.00	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

Sector	#	Measure Title
Construction	C-13	Use Low-VOC Paints for Construction

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	10.5	8.48	83.8	80.0	0.13	3.57	13.5	17.1	3.26	5.91	9.17	—	16,016	16,016	0.91	0.71	32.8	16,259
Mit.	10.5	8.48	83.8	80.0	0.13	3.57	13.5	17.1	3.26	5.91	9.17	—	16,016	16,016	0.91	0.71	32.8	16,259
% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	8.78	155	42.2	89.7	0.10	1.54	10.8	12.4	1.42	2.57	4.00	—	20,687	20,687	1.04	0.96	1.38	21,001
Mit.	8.78	39.7	42.2	89.7	0.10	1.54	10.8	12.4	1.42	2.57	4.00	—	20,687	20,687	1.04	0.96	1.38	21,001
% Reduced	—	74%	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	3.65	11.3	18.1	40.3	0.04	0.62	4.89	5.51	0.57	1.16	1.74	—	9,355	9,355	0.46	0.43	9.65	9,506
Mit.	3.65	5.02	18.1	40.3	0.04	0.62	4.89	5.51	0.57	1.16	1.74	—	9,355	9,355	0.46	0.43	9.65	9,506
% Reduced	—	56%	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.67	2.07	3.30	7.35	0.01	0.11	0.89	1.01	0.10	0.21	0.32	—	1,549	1,549	0.08	0.07	1.60	1,574
Mit.	0.67	0.92	3.30	7.35	0.01	0.11	0.89	1.01	0.10	0.21	0.32	—	1,549	1,549	0.08	0.07	1.60	1,574
% Reduced	—	56%	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

2.2. Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	10.5	8.48	83.8	80.0	0.13	3.57	13.5	17.1	3.26	5.91	9.17	—	16,016	16,016	0.91	0.71	22.8	16,259
2025	5.47	4.62	25.7	66.6	0.06	0.90	7.21	8.10	0.83	1.72	2.54	—	14,201	14,201	0.67	0.64	32.8	14,442
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	8.78	7.41	42.2	89.7	0.10	1.54	10.8	12.4	1.42	2.57	4.00	—	20,687	20,687	1.04	0.96	1.38	21,001
2025	7.99	155	39.0	85.4	0.10	1.35	10.8	12.2	1.24	2.57	3.82	—	20,422	20,422	1.02	0.96	1.27	20,735
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	2.38	1.97	14.8	22.0	0.03	0.59	2.84	3.43	0.54	0.89	1.43	—	4,840	4,840	0.26	0.23	4.02	4,919
2025	3.65	11.3	18.1	40.3	0.04	0.62	4.89	5.51	0.57	1.16	1.74	—	9,355	9,355	0.46	0.43	9.65	9

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	0.43	0.36	2.70	4.01	0.01	0.11	0.52	0.63	0.10	0.16	0.26	—	801	801	0.04	0.04	0.67	814
2025	0.67	2.07	3.30	7.35	0.01	0.11	0.89	1.01	0.10	0.21	0.32	—	1,549	1,549	0.08	0.07	1.60	1,574

2.3. Construction Emissions by Year, Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	10.5	8.48	83.8	80.0	0.13	3.57	13.5	17.1	3.26	5.91	9.17	—	16,016	16,016	0.91	0.71	22.8	16,259
2025	5.47	4.62	25.7	66.6	0.06	0.90	7.21	8.10	0.83	1.72	2.54	—	14,201	14,201	0.67	0.64	32.8	14,442
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	8.78	7.41	42.2	89.7	0.10	1.54	10.8	12.4	1.42	2.57	4.00	—	20,687	20,687	1.04	0.96	1.38	21,001
2025	7.99	39.7	39.0	85.4	0.10	1.35	10.8	12.2	1.24	2.57	3.82	—	20,422	20,422	1.02	0.96	1.27	20,735
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	2.38	1.97	14.8	22.0	0.03	0.59	2.84	3.43	0.54	0.89	1.43	—	4,840	4,840	0.26	0.23	4.02	4,919
2025	3.65	5.02	18.1	40.3	0.04	0.62	4.89	5.51	0.57	1.16	1.74	—	9,355	9,355	0.46	0.43	9.65	9,506
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	0.43	0.36	2.70	4.01	0.01	0.11	0.52	0.63	0.10	0.16	0.26	—	801	801	0.04	0.04	0.67	814
2025	0.67	0.92	3.30	7.35	0.01	0.11	0.89	1.01	0.10	0.21	0.32	—	1,549	1,549	0.08	0.07	1.60	1,574

2.4. Operations Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	9.81	19.7	7.51	80.7	0.16	0.19	12.9	13.1	0.18	3.27	3.45	169	19,223	19,392	18.1	0.80	55.1	20,136
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	7.44	17.4	7.79	51.2	0.14	0.18	12.9	13.1	0.17	3.27	3.44	169	18,221	18,390	18.1	0.82	4.66	19,092
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	8.68	18.6	8.03	66.6	0.15	0.19	12.8	13.0	0.18	3.25	3.43	169	17,317	17,487	18.0	0.81	25.7	18,204
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.58	3.40	1.47	12.2	0.03	0.03	2.34	2.37	0.03	0.59	0.63	28.0	2,867	2,895	2.98	0.13	4.25	3,014

2.5. Operations Emissions by Sector, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	7.82	7.11	6.35	60.4	0.15	0.10	12.9	13.0	0.09	3.27	3.36	—	15,202	15,202	0.71	0.69	51.8	15,478
Area	1.88	12.6	0.19	19.9	< 0.005	0.01	—	0.01	0.01	—	0.01	0.00	1,221	1,221	0.11	0.01	—	1,228
Energy	0.11	0.06	0.97	0.42	0.01	0.08	—	0.08	0.08	—	0.08	—	2,700	2,700	0.25	0.02	—	2,712
Water	—	—	—	—	—	—	—	—	—	—	—	28.4	98.7	127	2.92	0.07	—	221
Waste	—	—	—	—	—	—	—	—	—	—	—	141	0.00	141	14.1	0.00	—	493
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.32	3.32
Total	9.81	19.7	7.51	80.7	0.16	0.19	12.9	13.1	0.18	3.27	3.45	169	19,223	19,392	18.1	0.80	55.1	20,136

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	7.33	6.61	6.81	50.7	0.14	0.10	12.9	13.0	0.09	3.27	3.36	—	14,254	14,254	0.73	0.72	1.34	14,487
Area	0.00	10.8	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	1,168	1,168	0.11	0.01	—	1,175
Energy	0.11	0.06	0.97	0.42	0.01	0.08	—	0.08	0.08	—	0.08	—	2,700	2,700	0.25	0.02	—	2,712
Water	—	—	—	—	—	—	—	—	—	—	—	28.4	98.7	127	2.92	0.07	—	221
Waste	—	—	—	—	—	—	—	—	—	—	—	141	0.00	141	14.1	0.00	—	493
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.32	3.32
Total	7.44	17.4	7.79	51.2	0.14	0.18	12.9	13.1	0.17	3.27	3.44	169	18,221	18,390	18.1	0.82	4.66	19,092
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	7.28	6.56	6.93	52.6	0.14	0.10	12.8	12.9	0.09	3.25	3.35	—	14,402	14,402	0.73	0.72	22.4	14,657
Area	1.29	12.0	0.13	13.6	< 0.005	0.01	—	0.01	0.01	—	0.01	0.00	117	117	0.01	< 0.005	—	117
Energy	0.11	0.06	0.97	0.42	0.01	0.08	—	0.08	0.08	—	0.08	—	2,700	2,700	0.25	0.02	—	2,712
Water	—	—	—	—	—	—	—	—	—	—	—	28.4	98.7	127	2.92	0.07	—	221
Waste	—	—	—	—	—	—	—	—	—	—	—	141	0.00	141	14.1	0.00	—	493
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.32	3.32
Total	8.68	18.6	8.03	66.6	0.15	0.19	12.8	13.0	0.18	3.25	3.43	169	17,317	17,487	18.0	0.81	25.7	18,204
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	1.33	1.20	1.26	9.60	0.03	0.02	2.34	2.35	0.02	0.59	0.61	—	2,384	2,384	0.12	0.12	3.70	2,427
Area	0.23	2.19	0.02	2.48	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.00	19.3	19.3	< 0.005	< 0.005	—	19.4
Energy	0.02	0.01	0.18	0.08	< 0.005	0.01	—	0.01	0.01	—	0.01	—	447	447	0.04	< 0.005	—	449
Water	—	—	—	—	—	—	—	—	—	—	—	4.70	16.3	21.0	0.48	0.01	—	36.6
Waste	—	—	—	—	—	—	—	—	—	—	—	23.3	0.00	23.3	2.33	0.00	—	81.6
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.55	0.55
Total	1.58	3.40	1.47	12.2	0.03	0.03	2.34	2.37	0.03	0.59	0.63	28.0	2,867	2,895	2.98	0.13	4.25	3,014

2.6. Operations Emissions by Sector, Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	7.82	7.11	6.35	60.4	0.15	0.10	12.9	13.0	0.09	3.27	3.36	—	15,202	15,202	0.71	0.69	51.8	15,478
Area	1.88	12.6	0.19	19.9	< 0.005	0.01	—	0.01	0.01	—	0.01	0.00	1,221	1,221	0.11	0.01	—	1,228
Energy	0.11	0.06	0.97	0.42	0.01	0.08	—	0.08	0.08	—	0.08	—	2,700	2,700	0.25	0.02	—	2,712
Water	—	—	—	—	—	—	—	—	—	—	—	28.4	98.7	127	2.92	0.07	—	221
Waste	—	—	—	—	—	—	—	—	—	—	—	141	0.00	141	14.1	0.00	—	493
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.32	3.32
Total	9.81	19.7	7.51	80.7	0.16	0.19	12.9	13.1	0.18	3.27	3.45	169	19,223	19,392	18.1	0.80	55.1	20,136
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	7.33	6.61	6.81	50.7	0.14	0.10	12.9	13.0	0.09	3.27	3.36	—	14,254	14,254	0.73	0.72	1.34	14,487
Area	0.00	10.8	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	1,168	1,168	0.11	0.01	—	1,175
Energy	0.11	0.06	0.97	0.42	0.01	0.08	—	0.08	0.08	—	0.08	—	2,700	2,700	0.25	0.02	—	2,712
Water	—	—	—	—	—	—	—	—	—	—	—	28.4	98.7	127	2.92	0.07	—	221
Waste	—	—	—	—	—	—	—	—	—	—	—	141	0.00	141	14.1	0.00	—	493
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.32	3.32
Total	7.44	17.4	7.79	51.2	0.14	0.18	12.9	13.1	0.17	3.27	3.44	169	18,221	18,390	18.1	0.82	4.66	19,092
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	7.28	6.56	6.93	52.6	0.14	0.10	12.8	12.9	0.09	3.25	3.35	—	14,402	14,402	0.73	0.72	22.4	14,657
Area	1.29	12.0	0.13	13.6	< 0.005	0.01	—	0.01	0.01	—	0.01	0.00	117	117	0.01	< 0.005	—	117
Energy	0.11	0.06	0.97	0.42	0.01	0.08	—	0.08	0.08	—	0.08	—	2,700	2,700	0.25	0.02	—	2,712
Water	—	—	—	—	—	—	—	—	—	—	—	28.4	98.7	127	2.92	0.07	—	2

Waste	—	—	—	—	—	—	—	—	—	—	—	141	0.00	141	14.1	0.00	—	493
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.32	3.32
Total	8.68	18.6	8.03	66.6	0.15	0.19	12.8	13.0	0.18	3.25	3.43	169	17,317	17,487	18.0	0.81	25.7	18,204
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	1.33	1.20	1.26	9.60	0.03	0.02	2.34	2.35	0.02	0.59	0.61	—	2,384	2,384	0.12	0.12	3.70	2,427
Area	0.23	2.19	0.02	2.48	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.00	19.3	19.3	< 0.005	< 0.005	—	19.4
Energy	0.02	0.01	0.18	0.08	< 0.005	0.01	—	0.01	0.01	—	0.01	—	447	447	0.04	< 0.005	—	449
Water	—	—	—	—	—	—	—	—	—	—	—	4.70	16.3	21.0	0.48	0.01	—	36.6
Waste	—	—	—	—	—	—	—	—	—	—	—	23.3	0.00	23.3	2.33	0.00	—	81.6
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.55	0.55
Total	1.58	3.40	1.47	12.2	0.03	0.03	2.34	2.37	0.03	0.59	0.63	28.0	2,867	2,895	2.98	0.13	4.25	3,014

3. Construction Emissions Details

3.1. Demolition (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.12	2.62	24.9	21.7	0.03	1.06	—	1.06	0.98	—	0.98	—	3,425	3,425	0.14	0.03	—	3,437
Demolition	—	—	—	—	—	—	1.47	1.47	—	0.22	0.22	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.38	0.32	3.00	2.62	< 0.005	0.13	—	0.13	0.12	—	0.12	—	413	413	0.02	< 0.005	—	414
Demolition	—	—	—	—	—	—	0.18	0.18	—	0.03	0.03	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.07	0.06	0.55	0.48	< 0.005	0.02	—	0.02	0.02	—	0.02	—	68.4	68.4	< 0.005	< 0.005	—	68.6
Demolition	—	—	—	—	—	—	0.03	0.03	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09	0.08	0.07	1.27	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	216	216	0.01	0.01	0.86	219
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.25	0.04	2.30	1.29	0.01	0.04	0.49	0.53	0.02	0.13	0.16	—	1,870	1,870	0.21	0.30	3.94	1,969
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.12	0.00	0.00	0.02	0.02	0.00	0.01	0.01	—	24.2	24.2	< 0.005	< 0.005	0.04	24.5
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.03	< 0.005	0.29	0.16	< 0.005	< 0.005	0.06	0.06	< 0.005	0.02	0.02	—	226	226	0.02	0.04	0.20	237
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	4.01	4.01	< 0.005	< 0.005	0.01	4.06

Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.01	< 0.005	0.05	0.03	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	37.3	37.3	< 0.005	0.01	0.03	39.3

3.2. Demolition (2024) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.12	2.62	24.9	21.7	0.03	1.06	—	1.06	0.98	—	0.98	—	3,425	3,425	0.14	0.03	—	3,437
Demolition	—	—	—	—	—	—	1.47	1.47	—	0.22	0.22	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.38	0.32	3.00	2.62	< 0.005	0.13	—	0.13	0.12	—	0.12	—	413	413	0.02	< 0.005	—	414
Demolition	—	—	—	—	—	—	0.18	0.18	—	0.03	0.03	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.07	0.06	0.55	0.48	< 0.005	0.02	—	0.02	0.02	—	0.02	—	68.4	68.4	< 0.005	< 0.005	—	68.6
Demolition	—	—	—	—	—	—	0.03	0.03	—	< 0.005	< 0.005	—	—	—	—	—	—	—

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09	0.08	0.07	1.27	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	216	216	0.01	0.01	0.86	219
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.25	0.04	2.30	1.29	0.01	0.04	0.49	0.53	0.02	0.13	0.16	—	1,870	1,870	0.21	0.30	3.94	1,969
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.12	0.00	0.00	0.02	0.02	0.00	0.01	0.01	—	24.2	24.2	< 0.005	< 0.005	0.04	24.5
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.03	< 0.005	0.29	0.16	< 0.005	< 0.005	0.06	0.06	< 0.005	0.02	0.02	—	226	226	0.02	0.04	0.20	237
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	4.01	4.01	< 0.005	< 0.005	0.01	4.06
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.01	< 0.005	0.05	0.03	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	37.3	37.3	< 0.005	0.01	0.03	39.3

3.3. Site Preparation (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	4.34	3.65	36.0	32.9	0.05	1.60	—	1.60	1.47	—	1.47	—	5,296	5,296	0.21	0.04	—	5,314
Dust From Material Movement	—	—	—	—	—	—	7.67	7.67	—	3.94	3.94	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.29	0.24	2.36	2.17	< 0.005	0.11	—	0.11	0.10	—	0.10	—	348	348	0.01	< 0.005	—	349
Dust From Material Movement	—	—	—	—	—	—	0.50	0.50	—	0.26	0.26	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05	0.04	0.43	0.40	< 0.005	0.02	—	0.02	0.02	—	0.02	—	57.7	57.7	< 0.005	< 0.005	—	57.8
Dust From Material Movement	—	—	—	—	—	—	0.09	0.09	—	0.05	0.05	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.10	0.09	0.08	1.48	0.00	0.00	0.23	0.23	0.00	0.05	0.05	—	252	252	0.01	0.01	1.01	256

Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.08	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	15.4	15.4	< 0.005	< 0.005	0.03	15.6
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	2.55	2.55	< 0.005	< 0.005	< 0.005	2.59
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.4. Site Preparation (2024) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	4.34	3.65	36.0	32.9	0.05	1.60	—	1.60	1.47	—	1.47	—	5,296	5,296	0.21	0.04	—	5,314
Dust From Material Movement	—	—	—	—	—	—	7.67	7.67	—	3.94	3.94	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.29	0.24	2.36	2.17	< 0.005	0.11	—	0.11	0.10	—	0.10	—	348	348	0.01	< 0.005	—	349
Dust From Material Movement	—	—	—	—	—	—	0.50	0.50	—	0.26	0.26	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05	0.04	0.43	0.40	< 0.005	0.02	—	0.02	0.02	—	0.02	—	57.7	57.7	< 0.005	< 0.005	—	57.8
Dust From Material Movement	—	—	—	—	—	—	0.09	0.09	—	0.05	0.05	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.10	0.09	0.08	1.48	0.00	0.00	0.23	0.23	0.00	0.05	0.05	—	252	252	0.01	0.01	1.01	256
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	0.01	0.01	0.01	0.08	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	15.4	15.4	< 0.005	< 0.005	0.03	15.6
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	2.55	2.55	< 0.005	< 0.005	< 0.005	2.59
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.5. Grading (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.26	1.90	18.2	18.8	0.03	0.84	—	0.84	0.77	—	0.77	—	2,958	2,958	0.12	0.02	—	2,969
Dust From Material Movement	—	—	—	—	—	—	2.77	2.77	—	1.34	1.34	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.28	0.23	2.25	2.32	< 0.005	0.10	—	0.10	0.10	—	0.10	—	365	365	0.01	< 0.005	—	366

Dust From Material Movement	—	—	—	—	—	—	0.34	0.34	—	0.16	0.16	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05	0.04	0.41	0.42	< 0.005	0.02	—	0.02	0.02	—	0.02	—	60.4	60.4	< 0.005	< 0.005	—	60.6
Dust From Material Movement	—	—	—	—	—	—	0.06	0.06	—	0.03	0.03	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09	0.08	0.07	1.27	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	216	216	0.01	0.01	0.86	219
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.24	0.04	2.19	1.22	0.01	0.03	0.47	0.50	0.02	0.13	0.15	—	1,782	1,782	0.20	0.29	3.75	1,876
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.12	0.00	0.00	0.02	0.02	0.00	0.01	0.01	—	24.7	24.7	< 0.005	< 0.005	0.05	25.1
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.03	< 0.005	0.28	0.15	< 0.005	< 0.005	0.06	0.06	< 0.005	0.02	0.02	—	220	220	0.02	0.04	0.20	231
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	4.10	4.10	< 0.005	< 0.005	0.01	4.15
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0

Hauling	0.01	< 0.005	0.05	0.03	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	36.4	36.4	< 0.005	0.01	0.03	38.3

3.6. Grading (2024) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.26	1.90	18.2	18.8	0.03	0.84	—	0.84	0.77	—	0.77	—	2,958	2,958	0.12	0.02	—	2,969
Dust From Material Movement	—	—	—	—	—	—	2.77	2.77	—	1.34	1.34	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.28	0.23	2.25	2.32	< 0.005	0.10	—	0.10	0.10	—	0.10	—	365	365	0.01	< 0.005	—	366
Dust From Material Movement	—	—	—	—	—	—	0.34	0.34	—	0.16	0.16	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05	0.04	0.41	0.42	< 0.005	0.02	—	0.02	0.02	—	0.02	—	60.4	60.4	< 0.005	< 0.005	—	60.6

Dust From Material Movement	—	—	—	—	—	—	0.06	0.06	—	0.03	0.03	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09	0.08	0.07	1.27	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	216	216	0.01	0.01	0.86	219
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.24	0.04	2.19	1.22	0.01	0.03	0.47	0.50	0.02	0.13	0.15	—	1,782	1,782	0.20	0.29	3.75	1,876
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.12	0.00	0.00	0.02	0.02	0.00	0.01	0.01	—	24.7	24.7	< 0.005	< 0.005	0.05	25.1
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.03	< 0.005	0.28	0.15	< 0.005	< 0.005	0.06	0.06	< 0.005	0.02	0.02	—	220	220	0.02	0.04	0.20	231
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	4.10	4.10	< 0.005	< 0.005	0.01	4.15
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.01	< 0.005	0.05	0.03	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	36.4	36.4	< 0.005	0.01	0.03	38.3

3.7. Foundation (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.44	1.20	11.2	13.1	0.02	0.50	—	0.50	0.46	—	0.46	—	2,398	2,398	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.44	1.20	11.2	13.1	0.02	0.50	—	0.50	0.46	—	0.46	—	2,398	2,398	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.30	0.25	2.37	2.77	< 0.005	0.11	—	0.11	0.10	—	0.10	—	507	507	0.02	< 0.005	—	508
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.06	0.05	0.43	0.51	< 0.005	0.02	—	0.02	0.02	—	0.02	—	83.9	83.9	< 0.005	< 0.005	—	84.2
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.44	1.31	1.22	21.2	0.00	0.00	3.28	3.28	0.00	0.77	0.77	—	3,611	3,611	0.15	0.12	14.4	3,667
Vendor	0.13	0.03	1.36	0.73	0.01	0.02	0.32	0.34	0.02	0.09	0.11	—	1,187	1,187	0.09	0.18	3.31	1,246
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.37	1.24	1.43	16.0	0.00	0.00	3.28	3.28	0.00	0.77	0.77	—	3,310	3,310	0.16	0.12	0.37	3,351
Vendor	0.12	0.03	1.42	0.74	0.01	0.02	0.32	0.34	0.02	0.09	0.11	—	1,188	1,188	0.09	0.18	0.09	1,243
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.29	0.26	0.30	3.56	0.00	0.00	0.69	0.69	0.00	0.16	0.16	—	709	709	0.03	0.03	1.32	719
Vendor	0.03	0.01	0.30	0.16	< 0.005	< 0.005	0.07	0.07	< 0.005	0.02	0.02	—	251	251	0.02	0.04	0.30	263
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.05	0.06	0.65	0.00	0.00	0.13	0.13	0.00	0.03	0.03	—	117	117	0.01	< 0.005	0.22	119
Vendor	< 0.005	< 0.005	0.06	0.03	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	41.6	41.6	< 0.005	0.01	0.05	43.5
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.8. Foundation (2024) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.44	1.20	11.2	13.1	0.02	0.50	—	0.50	0.46	—	0.46	—	2,398	2,398	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

1360

Off-Road Equipment	1.44	1.20	11.2	13.1	0.02	0.50	—	0.50	0.46	—	0.46	—	2,398	2,398	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.30	0.25	2.37	2.77	< 0.005	0.11	—	0.11	0.10	—	0.10	—	507	507	0.02	< 0.005	—	508
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.06	0.05	0.43	0.51	< 0.005	0.02	—	0.02	0.02	—	0.02	—	83.9	83.9	< 0.005	< 0.005	—	84.2
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.44	1.31	1.22	21.2	0.00	0.00	3.28	3.28	0.00	0.77	0.77	—	3,611	3,611	0.15	0.12	14.4	3,667
Vendor	0.13	0.03	1.36	0.73	0.01	0.02	0.32	0.34	0.02	0.09	0.11	—	1,187	1,187	0.09	0.18	3.31	1,246
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.37	1.24	1.43	16.0	0.00	0.00	3.28	3.28	0.00	0.77	0.77	—	3,310	3,310	0.16	0.12	0.37	3,351
Vendor	0.12	0.03	1.42	0.74	0.01	0.02	0.32	0.34	0.02	0.09	0.11	—	1,188	1,188	0.09	0.18	0.09	1,243
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.29	0.26	0.30	3.56	0.00	0.00	0.69	0.69	0.00	0.16	0.16	—	709	709	0.03	0.03	1.32	719
Vendor	0.03	0.01	0.30	0.16	< 0.005	< 0.005	0.07	0.07	< 0.005	0.02	0.02	—	251	251	0.02	0.04	0.30	263

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.05	0.06	0.65	0.00	0.00	0.13	0.13	0.00	0.03	0.03	—	117	117	0.01	< 0.005	0.22	119
Vendor	< 0.005	< 0.005	0.06	0.03	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	41.6	41.6	< 0.005	0.01	0.05	43.5
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.9. Foundation (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.35	1.13	10.4	13.0	0.02	0.43	—	0.43	0.40	—	0.40	—	2,398	2,398	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.20	0.16	1.51	1.89	< 0.005	0.06	—	0.06	0.06	—	0.06	—	347	347	0.01	< 0.005	—	348
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.03	0.28	0.34	< 0.005	0.01	—	0.01	0.01	—	0.01	—	57.5	57.5	< 0.005	< 0.005	—	57.7
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.20	1.08	1.22	14.7	0.00	0.00	3.28	3.28	0.00	0.77	0.77	—	3,241	3,241	0.15	0.12	0.34	3,282
Vendor	0.11	0.03	1.36	0.70	0.01	0.02	0.32	0.34	0.02	0.09	0.11	—	1,169	1,169	0.09	0.18	0.09	1,224
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.17	0.15	0.19	2.25	0.00	0.00	0.47	0.47	0.00	0.11	0.11	—	476	476	0.02	0.02	0.82	483
Vendor	0.02	< 0.005	0.20	0.10	< 0.005	< 0.005	0.05	0.05	< 0.005	0.01	0.02	—	169	169	0.01	0.03	0.21	177
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.03	0.41	0.00	0.00	0.09	0.09	0.00	0.02	0.02	—	78.8	78.8	< 0.005	< 0.005	0.14	79.9
Vendor	< 0.005	< 0.005	0.04	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	28.0	28.0	< 0.005	< 0.005	0.03	29.4
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.10. Foundation (2025) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	1.35	1.13	10.4	13.0	0.02	0.43	—	0.43	0.40	—	0.40	—	2,398	2,398	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.20	0.16	1.51	1.89	< 0.005	0.06	—	0.06	0.06	—	0.06	—	347	347	0.01	< 0.005	—	348
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.03	0.28	0.34	< 0.005	0.01	—	0.01	0.01	—	0.01	—	57.5	57.5	< 0.005	< 0.005	—	57.7
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.20	1.08	1.22	14.7	0.00	0.00	3.28	3.28	0.00	0.77	0.77	—	3,241	3,241	0.15	0.12	0.34	3,282
Vendor	0.11	0.03	1.36	0.70	0.01	0.02	0.32	0.34	0.02	0.09	0.11	—	1,169	1,169	0.09	0.18	0.09	1,224
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.17	0.15	0.19	2.25	0.00	0.00	0.47	0.47	0.00	0.11	0.11	—	476	476	0.02	0.02	0.82	483
Vendor	0.02	< 0.005	0.20	0.10	< 0.005	< 0.005	0.05	0.05	< 0.005	0.01	0.02	—	169	169	0.01	0.03	0.21	177
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.03	0.41	0.00	0.00	0.09	0.09	0.00	0.02	0.02	—	78.8	78.8	< 0.005	< 0.005	0.14	79.9

Vendor	< 0.005	< 0.005	0.04	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	28.0	28.0	< 0.005	< 0.005	0.03	29.4
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.11. Vertical (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.44	1.20	11.2	13.1	0.02	0.50	—	0.50	0.46	—	0.46	—	2,398	2,398	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.22	0.18	1.71	2.00	< 0.005	0.08	—	0.08	0.07	—	0.07	—	366	366	0.01	< 0.005	—	367
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.03	0.31	0.37	< 0.005	0.01	—	0.01	0.01	—	0.01	—	60.6	60.6	< 0.005	< 0.005	—	60.8
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.37	1.24	1.43	16.0	0.00	0.00	3.28	3.28	0.00	0.77	0.77	—	3,310	3,310	0.16	0.12	0.37	3,351
Vendor	0.12	0.03	1.42	0.74	0.01	0.02	0.32	0.34	0.02	0.09	0.11	—	1,188	1,188	0.09	0.18	0.09	1,243
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.21	0.19	0.22	2.57	0.00	0.00	0.50	0.50	0.00	0.12	0.12	—	512	512	0.02	0.02	0.95	520
Vendor	0.02	< 0.005	0.22	0.11	< 0.005	< 0.005	0.05	0.05	< 0.005	0.01	0.02	—	181	181	0.01	0.03	0.22	190
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.03	0.04	0.47	0.00	0.00	0.09	0.09	0.00	0.02	0.02	—	84.8	84.8	< 0.005	< 0.005	0.16	86.0
Vendor	< 0.005	< 0.005	0.04	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	30.0	30.0	< 0.005	< 0.005	0.04	31.4
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.12. Vertical (2024) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.44	1.20	11.2	13.1	0.02	0.50	—	0.50	0.46	—	0.46	—	2,398	2,398	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.22	0.18	1.71	2.00	< 0.005	0.08	—	0.08	0.07	—	0.07	—	366	366	0.01	< 0.005	—	367
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.03	0.31	0.37	< 0.005	0.01	—	0.01	0.01	—	0.01	—	60.6	60.6	< 0.005	< 0.005	—	60.8
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.37	1.24	1.43	16.0	0.00	0.00	3.28	3.28	0.00	0.77	0.77	—	3,310	3,310	0.16	0.12	0.37	3,351
Vendor	0.12	0.03	1.42	0.74	0.01	0.02	0.32	0.34	0.02	0.09	0.11	—	1,188	1,188	0.09	0.18	0.09	1,243
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.21	0.19	0.22	2.57	0.00	0.00	0.50	0.50	0.00	0.12	0.12	—	512	512	0.02	0.02	0.95	520
Vendor	0.02	< 0.005	0.22	0.11	< 0.005	< 0.005	0.05	0.05	< 0.005	0.01	0.02	—	181	181	0.01	0.03	0.22	190
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.03	0.04	0.47	0.00	0.00	0.09	0.09	0.00	0.02	0.02	—	84.8	84.8	< 0.005	< 0.005	0.16	86.0
Vendor	< 0.005	< 0.005	0.04	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	30.0	30.0	< 0.005	< 0.005	0.04	31.4
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.13. Vertical (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.35	1.13	10.4	13.0	0.02	0.43	—	0.43	0.40	—	0.40	—	2,398	2,398	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.35	1.13	10.4	13.0	0.02	0.43	—	0.43	0.40	—	0.40	—	2,398	2,398	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.76	0.64	5.89	7.35	0.01	0.24	—	0.24	0.22	—	0.22	—	1,351	1,351	0.05	0.01	—	1,356
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.14	0.12	1.07	1.34	< 0.005	0.04	—	0.04	0.04	—	0.04	—	224	224	0.01	< 0.005	—	224
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.27	1.15	1.10	19.5	0.00	0.00	3.28	3.28	0.00	0.77	0.77	—	3,535	3,535	0.15	0.12	13.1	3,588
Vendor	0.12	0.03	1.30	0.70	0.01	0.02	0.32	0.34	0.02	0.09	0.11	—	1,168	1,168	0.09	0.18	3.29	1,227
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.20	1.08	1.22	14.7	0.00	0.00	3.28	3.28	0.00	0.77	0.77	—	3,241	3,241	0.15	0.12	0.34	3,282
Vendor	0.11	0.03	1.36	0.70	0.01	0.02	0.32	0.34	0.02	0.09	0.11	—	1,169	1,169	0.09	0.18	0.09	1,224
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.67	0.60	0.74	8.76	0.00	0.00	1.84	1.84	0.00	0.43	0.43	—	1,852	1,852	0.09	0.07	3.19	1,878
Vendor	0.06	0.02	0.77	0.39	< 0.005	0.01	0.18	0.19	0.01	0.05	0.06	—	659	659	0.05	0.10	0.80	690
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.12	0.11	0.14	1.60	0.00	0.00	0.34	0.34	0.00	0.08	0.08	—	307	307	0.01	0.01	0.53	311
Vendor	0.01	< 0.005	0.14	0.07	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	109	109	0.01	0.02	0.13	114
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.14. Vertical (2025) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	1.35	1.13	10.4	13.0	0.02	0.43	—	0.43	0.40	—	0.40	—	2,398	2,398	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.35	1.13	10.4	13.0	0.02	0.43	—	0.43	0.40	—	0.40	—	2,398	2,398	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.76	0.64	5.89	7.35	0.01	0.24	—	0.24	0.22	—	0.22	—	1,351	1,351	0.05	0.01	—	1,356
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.14	0.12	1.07	1.34	< 0.005	0.04	—	0.04	0.04	—	0.04	—	224	224	0.01	< 0.005	—	224
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.27	1.15	1.10	19.5	0.00	0.00	3.28	3.28	0.00	0.77	0.77	—	3,535	3,535	0.15	0.12	13.1	3,588
Vendor	0.12	0.03	1.30	0.70	0.01	0.02	0.32	0.34	0.02	0.09	0.11	—	1,168	1,168	0.09	0.18	3.29	1,227
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.20	1.08	1.22	14.7	0.00	0.00	3.28	3.28	0.00	0.77	0.77	—	3,241	3,241	0.15	0.12	0.34	3,282

Vendor	0.11	0.03	1.36	0.70	0.01	0.02	0.32	0.34	0.02	0.09	0.11	—	1,169	1,169	0.09	0.18	0.09	1,224
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.67	0.60	0.74	8.76	0.00	0.00	1.84	1.84	0.00	0.43	0.43	—	1,852	1,852	0.09	0.07	3.19	1,878
Vendor	0.06	0.02	0.77	0.39	< 0.005	0.01	0.18	0.19	0.01	0.05	0.06	—	659	659	0.05	0.10	0.80	690
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.12	0.11	0.14	1.60	0.00	0.00	0.34	0.34	0.00	0.08	0.08	—	307	307	0.01	0.01	0.53	311
Vendor	0.01	< 0.005	0.14	0.07	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	109	109	0.01	0.02	0.13	114
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.15. MEP/Other (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.44	1.20	11.2	13.1	0.02	0.50	—	0.50	0.46	—	0.46	—	2,398	2,398	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.13	0.11	1.03	1.21	< 0.005	0.05	—	0.05	0.04	—	0.04	—	221	221	0.01	< 0.005	—	221

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.19	0.22	< 0.005	0.01	—	0.01	0.01	—	0.01	—	36.5	36.5	< 0.005	< 0.005	—	36.6
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.37	1.24	1.43	16.0	0.00	0.00	3.28	3.28	0.00	0.77	0.77	—	3,310	3,310	0.16	0.12	0.37	3,351
Vendor	0.12	0.03	1.42	0.74	0.01	0.02	0.32	0.34	0.02	0.09	0.11	—	1,188	1,188	0.09	0.18	0.09	1,243
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.12	0.11	0.13	1.55	0.00	0.00	0.30	0.30	0.00	0.07	0.07	—	309	309	0.01	0.01	0.57	313
Vendor	0.01	< 0.005	0.13	0.07	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	109	109	0.01	0.02	0.13	114
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.02	0.28	0.00	0.00	0.05	0.05	0.00	0.01	0.01	—	51.1	51.1	< 0.005	< 0.005	0.09	51.8
Vendor	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	18.1	18.1	< 0.005	< 0.005	0.02	18.9
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.16. MEP/Other (2024) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.44	1.20	11.2	13.1	0.02	0.50	—	0.50	0.46	—	0.46	—	2,398	2,398	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.13	0.11	1.03	1.21	< 0.005	0.05	—	0.05	0.04	—	0.04	—	221	221	0.01	< 0.005	—	221
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.19	0.22	< 0.005	0.01	—	0.01	0.01	—	0.01	—	36.5	36.5	< 0.005	< 0.005	—	36.6
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.37	1.24	1.43	16.0	0.00	0.00	3.28	3.28	0.00	0.77	0.77	—	3,310	3,310	0.16	0.12	0.37	3,351
Vendor	0.12	0.03	1.42	0.74	0.01	0.02	0.32	0.34	0.02	0.09	0.11	—	1,188	1,188	0.09	0.18	0.09	1,243
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.12	0.11	0.13	1.55	0.00	0.00	0.30	0.30	0.00	0.07	0.07	—	309	309	0.01	0.01	0.57	313
Vendor	0.01	< 0.005	0.13	0.07	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	109	109	0.01	0.02	0.13	114
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.02	0.28	0.00	0.00	0.05	0.05	0.00	0.01	0.01	—	51.1	51.1	< 0.005	< 0.005	0.09	51.8
Vendor	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	18.1	18.1	< 0.005	< 0.005	0.02	18.9
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.17. MEP/Other (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.35	1.13	10.4	13.0	0.02	0.43	—	0.43	0.40	—	0.40	—	2,398	2,398	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.35	1.13	10.4	13.0	0.02	0.43	—	0.43	0.40	—	0.40	—	2,398	2,398	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.84	0.70	6.52	8.14	0.01	0.27	—	0.27	0.25	—	0.25	—	1,497	1,497	0.06	0.01	—	1,502
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.15	0.13	1.19	1.49	< 0.005	0.05	—	0.05	0.05	—	0.05	—	248	248	0.01	< 0.005	—	249
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.27	1.15	1.10	19.5	0.00	0.00	3.28	3.28	0.00	0.77	0.77	—	3,535	3,535	0.15	0.12	13.1	3,588
Vendor	0.12	0.03	1.30	0.70	0.01	0.02	0.32	0.34	0.02	0.09	0.11	—	1,168	1,168	0.09	0.18	3.29	1,227
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.20	1.08	1.22	14.7	0.00	0.00	3.28	3.28	0.00	0.77	0.77	—	3,241	3,241	0.15	0.12	0.34	3,282
Vendor	0.11	0.03	1.36	0.70	0.01	0.02	0.32	0.34	0.02	0.09	0.11	—	1,169	1,169	0.09	0.18	0.09	1,224
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.74	0.66	0.82	9.70	0.00	0.00	2.03	2.03	0.00	0.48	0.48	—	2,052	2,052	0.09	0.08	3.53	2,081
Vendor	0.07	0.02	0.85	0.44	0.01	0.01	0.20	0.21	0.01	0.06	0.07	—	730	730	0.06	0.11	0.89	765
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.14	0.12	0.15	1.77	0.00	0.00	0.37	0.37	0.00	0.09	0.09	—	340	340	0.02	0.01	0.59	344
Vendor	0.01	< 0.005	0.16	0.08	< 0.005	< 0.005	0.04	0.04	< 0.005	0.01	0.01	—	121	121	0.01	0.02	0.15	127
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.18. MEP/Other (2025) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.35	1.13	10.4	13.0	0.02	0.43	—	0.43	0.40	—	0.40	—	2,398	2,398	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.35	1.13	10.4	13.0	0.02	0.43	—	0.43	0.40	—	0.40	—	2,398	2,398	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.84	0.70	6.52	8.14	0.01	0.27	—	0.27	0.25	—	0.25	—	1,497	1,497	0.06	0.01	—	1,502
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.15	0.13	1.19	1.49	< 0.005	0.05	—	0.05	0.05	—	0.05	—	248	248	0.01	< 0.005	—	249
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.27	1.15	1.10	19.5	0.00	0.00	3.28	3.28	0.00	0.77	0.77	—	3,535	3,535	0.15	0.12	13.1	3,588
Vendor	0.12	0.03	1.30	0.70	0.01	0.02	0.32	0.34	0.02	0.09	0.11	—	1,168	1,168	0.09	0.18	3.29	1,227
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.20	1.08	1.22	14.7	0.00	0.00	3.28	3.28	0.00	0.77	0.77	—	3,241	3,241	0.15	0.12	0.34	3,282
Vendor	0.11	0.03	1.36	0.70	0.01	0.02	0.32	0.34	0.02	0.09	0.11	—	1,169	1,169	0.09	0.18	0.09	1,224
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.74	0.66	0.82	9.70	0.00	0.00	2.03	2.03	0.00	0.48	0.48	—	2,052	2,052	0.09	0.08	3.53	2,081
Vendor	0.07	0.02	0.85	0.44	0.01	0.01	0.20	0.21	0.01	0.06	0.07	—	730	730	0.06	0.11	0.89	765
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.14	0.12	0.15	1.77	0.00	0.00	0.37	0.37	0.00	0.09	0.09	—	340	340	0.02	0.01	0.59	344
Vendor	0.01	< 0.005	0.16	0.08	< 0.005	< 0.005	0.04	0.04	< 0.005	0.01	0.01	—	121	121	0.01	0.02	0.15	127
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.19. Paving (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.95	0.80	7.45	9.98	0.01	0.35	—	0.35	0.32	—	0.32	—	1,511	1,511	0.06	0.01	—	1,517
Paving	—	0.72	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.06	0.05	0.47	0.63	< 0.005	0.02	—	0.02	0.02	—	0.02	—	95.2	95.2	< 0.005	< 0.005	—	95.6
Paving	—	0.05	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.09	0.11	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	15.8	15.8	< 0.005	< 0.005	—	15.8
Paving	—	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.06	0.07	0.88	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	194	194	0.01	0.01	0.02	196
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	< 0.005	< 0.005	< 0.005	0.06	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	12.4	12.4	< 0.005	< 0.005	0.02	12.6
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	2.05	2.05	< 0.005	< 0.005	< 0.005	2.08
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.20. Paving (2025) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.95	0.80	7.45	9.98	0.01	0.35	—	0.35	0.32	—	0.32	—	1,511	1,511	0.06	0.01	—	1,517
Paving	—	0.72	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.06	0.05	0.47	0.63	< 0.005	0.02	—	0.02	0.02	—	0.02	—	95.2	95.2	< 0.005	< 0.005	—	95.6
Paving	—	0.05	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.09	0.11	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	15.8	15.8	< 0.005	< 0.005	—	15.8
Paving	—	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.06	0.07	0.88	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	194	194	0.01	0.01	0.02	196
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.06	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	12.4	12.4	< 0.005	< 0.005	0.02	12.6
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	2.05	2.05	< 0.005	< 0.005	< 0.005	2.08
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.21. Coatings (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.15	0.13	0.88	1.14	< 0.005	0.03	—	0.03	0.03	—	0.03	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	—	150	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.05	0.06	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	7.32	7.32	< 0.005	< 0.005	—	7.34
Architectural Coatings	—	8.22	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.21	1.21	< 0.005	< 0.005	—	1.22
Architectural Coatings	—	1.50	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.72	0.65	0.73	8.84	0.00	0.00	1.97	1.97	0.00	0.46	0.46	—	1,944	1,944	0.09	0.07	0.20	1,969
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.03	0.04	0.51	0.00	0.00	0.11	0.11	0.00	0.03	0.03	—	108	108	< 0.005	< 0.005	0.19	110
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.09	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	17.9	17.9	< 0.005	< 0.005	0.03	18.1
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.22. Coatings (2025) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.15	0.13	0.88	1.14	< 0.005	0.03	—	0.03	0.03	—	0.03	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	—	35.1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.05	0.06	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	7.32	7.32	< 0.005	< 0.005	—	7.34
Architectural Coatings	—	1.92	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.21	1.21	< 0.005	< 0.005	—	1.22
Architectural Coatings	—	0.35	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.72	0.65	0.73	8.84	0.00	0.00	1.97	1.97	0.00	0.46	0.46	—	1,944	1,944	0.09	0.07	0.20	1,969
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.03	0.04	0.51	0.00	0.00	0.11	0.11	0.00	0.03	0.03	—	108	108	< 0.005	< 0.005	0.19	110
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.09	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	17.9	17.9	< 0.005	< 0.005	0.03	18.1
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.23. Trenching (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.45	0.38	2.91	3.71	0.01	0.14	—	0.14	0.13	—	0.13	—	547	547	0.02	< 0.005	—	549
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.45	0.38	2.91	3.71	0.01	0.14	—	0.14	0.13	—	0.13	—	547	547	0.02	< 0.005	—	549
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.02	0.18	0.22	< 0.005	0.01	—	0.01	0.01	—	0.01	—	33.0	33.0	< 0.005	< 0.005	—	33.1
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	< 0.005	< 0.005	0.03	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	5.46	5.46	< 0.005	< 0.005	—	5.48
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.04	0.04	0.63	0.00	0.00	0.10	0.10	0.00	0.02	0.02	—	108	108	< 0.005	< 0.005	0.43	110
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.04	0.04	0.48	0.00	0.00	0.10	0.10	0.00	0.02	0.02	—	99.0	99.0	< 0.005	< 0.005	0.01	100
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	6.05	6.05	< 0.005	< 0.005	0.01	6.13
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.00	1.00	< 0.005	< 0.005	< 0.005	1.02
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.24. Trenching (2024) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	C

Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.45	0.38	2.91	3.71	0.01	0.14	—	0.14	0.13	—	0.13	—	547	547	0.02	< 0.005	—	549
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.45	0.38	2.91	3.71	0.01	0.14	—	0.14	0.13	—	0.13	—	547	547	0.02	< 0.005	—	549
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.02	0.18	0.22	< 0.005	0.01	—	0.01	0.01	—	0.01	—	33.0	33.0	< 0.005	< 0.005	—	33.1
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.03	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	5.46	5.46	< 0.005	< 0.005	—	5.48
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.04	0.04	0.63	0.00	0.00	0.10	0.10	0.00	0.02	0.02	—	108	108	< 0.005	< 0.005	0.43	110
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.04	0.04	0.48	0.00	0.00	0.10	0.10	0.00	0.02	0.02	—	99.0	99.0	< 0.005	< 0.005	0.01	100
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	6.05	6.05	< 0.005	< 0.005	0.01	6.13
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.00	1.00	< 0.005	< 0.005	< 0.005	1.02
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	6.52	5.94	5.19	49.3	0.12	0.08	10.4	10.5	0.08	2.65	2.73	—	12,326	12,326	0.58	0.57	41.9	12,551

Strip Mall	1.29	1.16	1.15	11.1	0.03	0.02	2.45	2.47	0.02	0.62	0.64	—	2,876	2,876	0.13	0.13	9.84	2,927
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	7.82	7.11	6.35	60.4	0.15	0.10	12.9	13.0	0.09	3.27	3.36	—	15,202	15,202	0.71	0.69	51.8	15,478
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	6.11	5.53	5.57	41.5	0.11	0.08	10.4	10.5	0.08	2.65	2.73	—	11,558	11,558	0.61	0.58	1.09	11,749
Strip Mall	1.22	1.09	1.24	9.24	0.03	0.02	2.45	2.47	0.02	0.62	0.64	—	2,696	2,696	0.13	0.13	0.26	2,739
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	7.33	6.61	6.81	50.7	0.14	0.10	12.9	13.0	0.09	3.27	3.36	—	14,254	14,254	0.73	0.72	1.34	14,487
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	1.11	1.00	1.03	7.85	0.02	0.01	1.89	1.91	0.01	0.48	0.49	—	1,933	1,933	0.10	0.10	3.00	1,968
Strip Mall	0.22	0.20	0.23	1.75	< 0.005	< 0.005	0.44	0.45	< 0.005	0.11	0.12	—	451	451	0.02	0.02	0.70	459
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	1.33	1.20	1.26	9.60	0.03	0.02	2.34	2.35	0.02	0.59	0.61	—	2,384	2,384	0.12	0.12	3.70	2,427

4.1.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Apartme Mid Rise	6.52	5.94	5.19	49.3	0.12	0.08	10.4	10.5	0.08	2.65	2.73	—	12,326	12,326	0.58	0.57	41.9	12,551
Strip Mall	1.29	1.16	1.15	11.1	0.03	0.02	2.45	2.47	0.02	0.62	0.64	—	2,876	2,876	0.13	0.13	9.84	2,927
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	7.82	7.11	6.35	60.4	0.15	0.10	12.9	13.0	0.09	3.27	3.36	—	15,202	15,202	0.71	0.69	51.8	15,478
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	6.11	5.53	5.57	41.5	0.11	0.08	10.4	10.5	0.08	2.65	2.73	—	11,558	11,558	0.61	0.58	1.09	11,749
Strip Mall	1.22	1.09	1.24	9.24	0.03	0.02	2.45	2.47	0.02	0.62	0.64	—	2,696	2,696	0.13	0.13	0.26	2,739
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	7.33	6.61	6.81	50.7	0.14	0.10	12.9	13.0	0.09	3.27	3.36	—	14,254	14,254	0.73	0.72	1.34	14,487
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	1.11	1.00	1.03	7.85	0.02	0.01	1.89	1.91	0.01	0.48	0.49	—	1,933	1,933	0.10	0.10	3.00	1,968
Strip Mall	0.22	0.20	0.23	1.75	< 0.005	< 0.005	0.44	0.45	< 0.005	0.11	0.12	—	451	451	0.02	0.02	0.70	459
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	1.33	1.20	1.26	9.60	0.03	0.02	2.34	2.35	0.02	0.59	0.61	—	2,384	2,384	0.12	0.12	3.70	2,427

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

1389

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	1,416	1,416	0.14	0.02	—	1,425
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	49.8	49.8	< 0.005	< 0.005	—	50.1
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	1,466	1,466	0.14	0.02	—	1,475
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	1,416	1,416	0.14	0.02	—	1,425
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	49.8	49.8	< 0.005	< 0.005	—	50.1
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	1,466	1,466	0.14	0.02	—	1,475
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	235	235	0.02	< 0.005	—	236
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	8.25	8.25	< 0.005	< 0.005	—	8.30
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	243	243	0.02	< 0.005	—	244

4.2.2. Electricity Emissions By Land Use - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	1,416	1,416	0.14	0.02	—	1,425
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	49.8	49.8	< 0.005	< 0.005	—	50.1
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	1,466	1,466	0.14	0.02	—	1,475
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	1,416	1,416	0.14	0.02	—	1,425
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	49.8	49.8	< 0.005	< 0.005	—	50.1
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	1,466	1,466	0.14	0.02	—	1,475
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	235	235	0.02	< 0.005	—	236
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	8.25	8.25	< 0.005	< 0.005	—	8.30

Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	243	243	0.02	< 0.005	—	244

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	0.11	0.06	0.96	0.41	0.01	0.08	—	0.08	0.08	—	0.08	—	1,224	1,224	0.11	< 0.005	—	1,227
Strip Mall	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	10.2	10.2	< 0.005	< 0.005	—	10.2
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.11	0.06	0.97	0.42	0.01	0.08	—	0.08	0.08	—	0.08	—	1,234	1,234	0.11	< 0.005	—	1,238
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	0.11	0.06	0.96	0.41	0.01	0.08	—	0.08	0.08	—	0.08	—	1,224	1,224	0.11	< 0.005	—	1,227
Strip Mall	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	10.2	10.2	< 0.005	< 0.005	—	10.2
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.11	0.06	0.97	0.42	0.01	0.08	—	0.08	0.08	—	0.08	—	1,234	1,234	0.11	< 0.005	—	1,238
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Apartments	0.02	0.01	0.18	0.07	< 0.005	0.01	—	0.01	0.01	—	0.01	—	203	203	0.02	< 0.005	—	203
Strip Mall	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.69	1.69	< 0.005	< 0.005	—	1.69
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.02	0.01	0.18	0.08	< 0.005	0.01	—	0.01	0.01	—	0.01	—	204	204	0.02	< 0.005	—	205

4.2.4. Natural Gas Emissions By Land Use - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	0.11	0.06	0.96	0.41	0.01	0.08	—	0.08	0.08	—	0.08	—	1,224	1,224	0.11	< 0.005	—	1,227
Strip Mall	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	10.2	10.2	< 0.005	< 0.005	—	10.2
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.11	0.06	0.97	0.42	0.01	0.08	—	0.08	0.08	—	0.08	—	1,234	1,234	0.11	< 0.005	—	1,238
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	0.11	0.06	0.96	0.41	0.01	0.08	—	0.08	0.08	—	0.08	—	1,224	1,224	0.11	< 0.005	—	1,227
Strip Mall	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	10.2	10.2	< 0.005	< 0.005	—	10.2
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00

Total	0.11	0.06	0.97	0.42	0.01	0.08	—	0.08	0.08	—	0.08	—	1,234	1,234	0.11	< 0.005	—	1,238
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	0.02	0.01	0.18	0.07	< 0.005	0.01	—	0.01	0.01	—	0.01	—	203	203	0.02	< 0.005	—	203
Strip Mall	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.69	1.69	< 0.005	< 0.005	—	1.69
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.02	0.01	0.18	0.08	< 0.005	0.01	—	0.01	0.01	—	0.01	—	204	204	0.02	< 0.005	—	205

4.3. Area Emissions by Source

4.3.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	1,168	1,168	0.11	0.01	—	1,175
Consumer Products	—	9.96	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.82	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	1.88	1.78	0.19	19.9	< 0.005	0.01	—	0.01	0.01	—	0.01	—	53.4	53.4	< 0.005	< 0.005	—	53.6
Total	1.88	12.6	0.19	19.9	< 0.005	0.01	—	0.01	0.01	—	0.01	0.00	1,221	1,221	0.11	0.01	—	1,228

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	1,168	1,168	0.11	0.01	—	1,175
Consumer Products	—	9.96	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.82	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	0.00	10.8	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	1,168	1,168	0.11	0.01	—	1,175
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	13.2	13.2	< 0.005	< 0.005	—	13.3
Consumer Products	—	1.82	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.15	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.23	0.22	0.02	2.48	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	6.06	6.06	< 0.005	< 0.005	—	6.08
Total	0.23	2.19	0.02	2.48	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.00	19.3	19.3	< 0.005	< 0.005	—	19.4

4.3.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	1,168	1,168	0.11	0.01	—	1,175

Consumer	—	9.96	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.82	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	1.88	1.78	0.19	19.9	< 0.005	0.01	—	0.01	0.01	—	0.01	—	53.4	53.4	< 0.005	< 0.005	—	53.6
Total	1.88	12.6	0.19	19.9	< 0.005	0.01	—	0.01	0.01	—	0.01	0.00	1,221	1,221	0.11	0.01	—	1,228
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	1,168	1,168	0.11	0.01	—	1,175
Consumer Products	—	9.96	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.82	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	0.00	10.8	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	1,168	1,168	0.11	0.01	—	1,175
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	13.2	13.2	< 0.005	< 0.005	—	13.3
Consumer Products	—	1.82	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.15	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.23	0.22	0.02	2.48	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	6.06	6.06	< 0.005	< 0.005	—	6.08
Total	0.23	2.19	0.02	2.48	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.00	19.3	19.3	< 0.005	< 0.005	—	19.4

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	27.6	96.1	124	2.84	0.07	—	215
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	0.77	2.58	3.35	0.08	< 0.005	—	5.89
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	28.4	98.7	127	2.92	0.07	—	221
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	27.6	96.1	124	2.84	0.07	—	215
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	0.77	2.58	3.35	0.08	< 0.005	—	5.89
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	28.4	98.7	127	2.92	0.07	—	221
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	4.58	15.9	20.5	0.47	0.01	—	35.6
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	0.13	0.43	0.55	0.01	< 0.005	—	0.07

Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	4.70	16.3	21.0	0.48	0.01	—	36.6

4.4.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	27.6	96.1	124	2.84	0.07	—	215
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	0.77	2.58	3.35	0.08	< 0.005	—	5.89
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	28.4	98.7	127	2.92	0.07	—	221
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	27.6	96.1	124	2.84	0.07	—	215
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	0.77	2.58	3.35	0.08	< 0.005	—	5.89
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	28.4	98.7	127	2.92	0.07	—	221
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Apartments	—	—	—	—	—	—	—	—	—	—	—	4.58	15.9	20.5	0.47	0.01	—	35.6
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	0.13	0.43	0.55	0.01	< 0.005	—	0.97
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	4.70	16.3	21.0	0.48	0.01	—	36.6

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	138	0.00	138	13.8	0.00	—	482
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	3.06	0.00	3.06	0.31	0.00	—	10.7
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	141	0.00	141	14.1	0.00	—	493
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	138	0.00	138	13.8	0.00	—	482
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	3.06	0.00	3.06	0.31	0.00	—	10.7

Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	141	0.00	141	14.1	0.00	—	493
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	22.8	0.00	22.8	2.28	0.00	—	79.9
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	0.51	0.00	0.51	0.05	0.00	—	1.77
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	23.3	0.00	23.3	2.33	0.00	—	81.6

4.5.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	138	0.00	138	13.8	0.00	—	482
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	3.06	0.00	3.06	0.31	0.00	—	10.7
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	141	0.00	141	14.1	0.00	—	493
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Apartments	—	—	—	—	—	—	—	—	—	—	—	138	0.00	138	13.8	0.00	—	482
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	3.06	0.00	3.06	0.31	0.00	—	10.7
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	141	0.00	141	14.1	0.00	—	493
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	22.8	0.00	22.8	2.28	0.00	—	79.9
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	0.51	0.00	0.51	0.05	0.00	—	1.77
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	23.3	0.00	23.3	2.33	0.00	—	81.6

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.29	3.29
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.03	0.03
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.32	3.32

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.29	3.29
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.03	0.03
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.32	3.32
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.54	0.54
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.01	0.01
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.55	0.55

4.6.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.29	3.29
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.03	0.03
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.32	3.32
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.29	3.29

Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.03	0.03
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.32	3.32
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.54	0.54
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.01	0.01
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.55	0.55

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.7.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.9.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Sequest	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.4. Soil Carbon Accumulation By Vegetation Type - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.5. Above and Belowground Carbon Accumulation by Land Use Type - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.6. Avoided and Sequestered Emissions by Species - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Remove	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Demolition	Demolition	6/1/2024	8/1/2024	5.00	44.0	—
Site Preparation	Site Preparation	7/1/2024	8/1/2024	5.00	24.0	—
Grading	Grading	7/24/2024	9/24/2024	5.00	45.0	—
Foundation	Building Construction	9/15/2024	3/15/2025	5.00	130	—
Vertical	Building Construction	10/15/2024	10/15/2025	5.00	262	—
MEP/Other	Building Construction	11/15/2024	11/15/2025	5.00	261	—
Paving	Paving	10/1/2025	11/1/2025	5.00	23.0	—
Coatings	Architectural Coating	11/1/2025	11/30/2025	5.00	20.0	—
Trenching	Trenching	9/1/2024	10/1/2024	5.00	22.0	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Demolition	Rubber Tired Dozers	Diesel	Average	2.00	8.00	367	0.40
Demolition	Excavators	Diesel	Average	3.00	8.00	36.0	0.38
Demolition	Concrete/Industrial Saws	Diesel	Average	1.00	8.00	33.0	0.73
Site Preparation	Rubber Tired Dozers	Diesel	Average	3.00	8.00	367	0.40

Site Preparation	Tractors/Loaders/Backh	Diesel	Average	4.00	8.00	84.0	0.37
Grading	Graders	Diesel	Average	1.00	8.00	148	0.41
Grading	Excavators	Diesel	Average	1.00	8.00	36.0	0.38
Grading	Tractors/Loaders/Backhoes	Diesel	Average	3.00	8.00	84.0	0.37
Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Foundation	Forklifts	Diesel	Average	3.00	8.00	82.0	0.20
Foundation	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Foundation	Cranes	Diesel	Average	1.00	7.00	367	0.29
Foundation	Welders	Diesel	Average	1.00	8.00	46.0	0.45
Foundation	Tractors/Loaders/Backhoes	Diesel	Average	3.00	7.00	84.0	0.37
Vertical	Forklifts	Diesel	Average	3.00	8.00	82.0	0.20
Vertical	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Vertical	Cranes	Diesel	Average	1.00	7.00	367	0.29
Vertical	Welders	Diesel	Average	1.00	8.00	46.0	0.45
Vertical	Tractors/Loaders/Backhoes	Diesel	Average	3.00	7.00	84.0	0.37
MEP/Other	Forklifts	Diesel	Average	3.00	8.00	82.0	0.20
MEP/Other	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
MEP/Other	Cranes	Diesel	Average	1.00	7.00	367	0.29
MEP/Other	Welders	Diesel	Average	1.00	8.00	46.0	0.45
MEP/Other	Tractors/Loaders/Backhoes	Diesel	Average	3.00	7.00	84.0	0.37
Paving	Pavers	Diesel	Average	2.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Average	2.00	8.00	89.0	0.36
Paving	Rollers	Diesel	Average	2.00	8.00	36.0	0.38
Coatings	Air Compressors	Diesel	Average	1.00	6.00	37.0	0.48
Trenching	Trenchers	Diesel	Average	1.00	8.00	40.0	0.50

Trenching	Tractors/Loaders/Backh	Diesel	Average	1.00	8.00	84.0	0.37
Trenching	Signal Boards	Diesel	Average	1.00	8.00	6.00	0.82

5.2.2. Mitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Demolition	Rubber Tired Dozers	Diesel	Average	2.00	8.00	367	0.40
Demolition	Excavators	Diesel	Average	3.00	8.00	36.0	0.38
Demolition	Concrete/Industrial Saws	Diesel	Average	1.00	8.00	33.0	0.73
Site Preparation	Rubber Tired Dozers	Diesel	Average	3.00	8.00	367	0.40
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Average	4.00	8.00	84.0	0.37
Grading	Graders	Diesel	Average	1.00	8.00	148	0.41
Grading	Excavators	Diesel	Average	1.00	8.00	36.0	0.38
Grading	Tractors/Loaders/Backhoes	Diesel	Average	3.00	8.00	84.0	0.37
Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Foundation	Forklifts	Diesel	Average	3.00	8.00	82.0	0.20
Foundation	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Foundation	Cranes	Diesel	Average	1.00	7.00	367	0.29
Foundation	Welders	Diesel	Average	1.00	8.00	46.0	0.45
Foundation	Tractors/Loaders/Backhoes	Diesel	Average	3.00	7.00	84.0	0.37
Vertical	Forklifts	Diesel	Average	3.00	8.00	82.0	0.20
Vertical	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Vertical	Cranes	Diesel	Average	1.00	7.00	367	0.29
Vertical	Welders	Diesel	Average	1.00	8.00	46.0	0.45
Vertical	Tractors/Loaders/Backhoes	Diesel	Average	3.00	7.00	84.0	0.37

MEP/Other	Forklifts	Diesel	Average	3.00	8.00	82.0	0.20
MEP/Other	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
MEP/Other	Cranes	Diesel	Average	1.00	7.00	367	0.29
MEP/Other	Welders	Diesel	Average	1.00	8.00	46.0	0.45
MEP/Other	Tractors/Loaders/Backhoes	Diesel	Average	3.00	7.00	84.0	0.37
Paving	Pavers	Diesel	Average	2.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Average	2.00	8.00	89.0	0.36
Paving	Rollers	Diesel	Average	2.00	8.00	36.0	0.38
Coatings	Air Compressors	Diesel	Average	1.00	6.00	37.0	0.48
Trenching	Trenchers	Diesel	Average	1.00	8.00	40.0	0.50
Trenching	Tractors/Loaders/Backhoes	Diesel	Average	1.00	8.00	84.0	0.37
Trenching	Signal Boards	Diesel	Average	1.00	8.00	6.00	0.82

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Demolition	—	—	—	—
Demolition	Worker	15.0	18.5	LDA,LDT1,LDT2
Demolition	Vendor	—	10.2	HHDT,MHDT
Demolition	Hauling	26.6	20.0	HHDT
Demolition	Onsite truck	—	—	HHDT
Site Preparation	—	—	—	—
Site Preparation	Worker	17.5	18.5	LDA,LDT1,LDT2
Site Preparation	Vendor	—	10.2	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT

Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	15.0	18.5	LDA,LDT1,LDT2
Grading	Vendor	—	10.2	HHDT,MHDT
Grading	Hauling	25.3	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Foundation	—	—	—	—
Foundation	Worker	251	18.5	LDA,LDT1,LDT2
Foundation	Vendor	37.9	10.2	HHDT,MHDT
Foundation	Hauling	0.00	20.0	HHDT
Foundation	Onsite truck	—	—	HHDT
Vertical	—	—	—	—
Vertical	Worker	251	18.5	LDA,LDT1,LDT2
Vertical	Vendor	37.9	10.2	HHDT,MHDT
Vertical	Hauling	0.00	20.0	HHDT
Vertical	Onsite truck	—	—	HHDT
MEP/Other	—	—	—	—
MEP/Other	Worker	251	18.5	LDA,LDT1,LDT2
MEP/Other	Vendor	37.9	10.2	HHDT,MHDT
MEP/Other	Hauling	0.00	20.0	HHDT
MEP/Other	Onsite truck	—	—	HHDT
Coatings	—	—	—	—
Coatings	Worker	151	18.5	LDA,LDT1,LDT2
Coatings	Vendor	—	10.2	HHDT,MHDT
Coatings	Hauling	0.00	20.0	HHDT
Coatings	Onsite truck	—	—	HHDT
Trenching	—	—	—	—

1415

Trenching	Worker	7.50	18.5	LDA,LDT1,LDT2
Trenching	Vendor	—	10.2	HHDT,MHDT
Trenching	Hauling	0.00	20.0	HHDT
Trenching	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	15.0	18.5	LDA,LDT1,LDT2
Paving	Vendor	—	10.2	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT

5.3.2. Mitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Demolition	—	—	—	—
Demolition	Worker	15.0	18.5	LDA,LDT1,LDT2
Demolition	Vendor	—	10.2	HHDT,MHDT
Demolition	Hauling	26.6	20.0	HHDT
Demolition	Onsite truck	—	—	HHDT
Site Preparation	—	—	—	—
Site Preparation	Worker	17.5	18.5	LDA,LDT1,LDT2
Site Preparation	Vendor	—	10.2	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	15.0	18.5	LDA,LDT1,LDT2
Grading	Vendor	—	10.2	HHDT,MHDT
Grading	Hauling	25.3	20.0	HHDT
Grading	Onsite truck	—	—	HHDT

Foundation	—	—	—	—
Foundation	Worker	251	18.5	LDA,LDT1,LDT2
Foundation	Vendor	37.9	10.2	HHDT,MHDT
Foundation	Hauling	0.00	20.0	HHDT
Foundation	Onsite truck	—	—	HHDT
Vertical	—	—	—	—
Vertical	Worker	251	18.5	LDA,LDT1,LDT2
Vertical	Vendor	37.9	10.2	HHDT,MHDT
Vertical	Hauling	0.00	20.0	HHDT
Vertical	Onsite truck	—	—	HHDT
MEP/Other	—	—	—	—
MEP/Other	Worker	251	18.5	LDA,LDT1,LDT2
MEP/Other	Vendor	37.9	10.2	HHDT,MHDT
MEP/Other	Hauling	0.00	20.0	HHDT
MEP/Other	Onsite truck	—	—	HHDT
Coatings	—	—	—	—
Coatings	Worker	151	18.5	LDA,LDT1,LDT2
Coatings	Vendor	—	10.2	HHDT,MHDT
Coatings	Hauling	0.00	20.0	HHDT
Coatings	Onsite truck	—	—	HHDT
Trenching	—	—	—	—
Trenching	Worker	7.50	18.5	LDA,LDT1,LDT2
Trenching	Vendor	—	10.2	HHDT,MHDT
Trenching	Hauling	0.00	20.0	HHDT
Trenching	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	15.0	18.5	LDA,LDT1,LDT2

Paving	Vendor	—	10.2	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
Coatings	929,422	309,807	8,100	2,700	16,624

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (Cubic Yards)	Material Exported (Cubic Yards)	Acres Graded (acres)	Material Demolished (Building Square Footage)	Acres Paved (acres)
Demolition	0.00	0.00	0.00	101,620	—
Site Preparation	0.00	0.00	33.0	0.00	—
Grading	9,105	0.00	44.0	0.00	—
Paving	0.00	0.00	0.00	0.00	6.36

5.6.2. Construction Earthmoving Control Strategies

Control Strategies Applied	Frequency (per day)	PM10 Reduction	PM2.5 Reduction
Water Exposed Area	2	61%	61%
Water Demolished Area	2	36%	36%

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
Apartments Mid Rise	—	0%
Strip Mall	0.00	0%
Other Asphalt Surfaces	6.36	100%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2024	0.00	532	0.03	< 0.005
2025	0.00	532	0.03	< 0.005

5.9. Operational Mobile Sources

5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Apartments Mid Rise	1,571	1,571	1,571	573,357	14,708	14,708	14,708	5,368,476
Strip Mall	294	294	294	107,321	3,449	3,449	3,449	1,258,840
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

5.9.2. Mitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Apartments Mid Rise	1,571	1,571	1,571	573,357	14,708	14,708	14,708	5,368,476
Strip Mall	294	294	294	107,321	3,449	3,449	3,449	1,258,840

Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

Hearth Type	Unmitigated (number)
Apartments Mid Rise	—
Wood Fireplaces	0
Gas Fireplaces	0
Propane Fireplaces	0
Electric Fireplaces	311
No Fireplaces	35
Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0

5.10.1.2. Mitigated

Hearth Type	Unmitigated (number)
Apartments Mid Rise	—
Wood Fireplaces	0
Gas Fireplaces	0
Propane Fireplaces	0
Electric Fireplaces	311
No Fireplaces	35

Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0

5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
929422.35	309,807	8,100	2,700	16,624

5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	250

5.10.4. Landscape Equipment - Mitigated

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	250

5.11. Operational Energy Consumption

5.11.1. Unmitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Apartments Mid Rise	1,493,392	346	0.0330	0.0040	3,818,864
Strip Mall	52,533	346	0.0330	0.0040	31,836

Other Asphalt Surfaces	0.00	346	0.0330	0.0040	0.00

5.11.2. Mitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Apartments Mid Rise	1,493,392	346	0.0330	0.0040	3,818,864
Strip Mall	52,533	346	0.0330	0.0040	31,836
Other Asphalt Surfaces	0.00	346	0.0330	0.0040	0.00

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Apartments Mid Rise	14,421,687	587,421
Strip Mall	399,992	0.00
Other Asphalt Surfaces	0.00	0.00

5.12.2. Mitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Apartments Mid Rise	14,421,687	587,421
Strip Mall	399,992	0.00
Other Asphalt Surfaces	0.00	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)

Apartments Mid Rise	256	—
Strip Mall	5.67	—
Other Asphalt Surfaces	0.00	—

5.13.2. Mitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Apartments Mid Rise	256	—
Strip Mall	5.67	—
Other Asphalt Surfaces	0.00	—

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Apartments Mid Rise	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Apartments Mid Rise	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
Strip Mall	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Strip Mall	Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00
Strip Mall	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0

5.14.2. Mitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced

Apartments Mid Rise	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Apartments Mid Rise	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
Strip Mall	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Strip Mall	Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00
Strip Mall	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor

5.15.2. Mitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

Equipment Type	Fuel Type	Number per Day	Hours per Day	Hours per Year	Horsepower	Load Factor

5.16.2. Process Boilers

Equipment Type	Fuel Type	Number	Boiler Rating (MMBtu/hr)	Daily Heat Input (MMBtu/day)	Annual Heat Input (MMBtu/yr)

5.17. User Defined

Equipment Type	Fuel Type

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

5.18.2.2. Mitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	19.8	annual days of extreme heat
Extreme Precipitation	4.05	annual days with precipitation above 20 mm
Sea Level Rise	0.00	meters of inundation depth
Wildfire	0.00	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider different increments of sea level rise coupled with extreme storm events. Users may select from four model simulations to view the range in potential inundation depth for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 50 meters (m) by 50 m, or about 164 feet (ft) by 164 ft.
Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	2	0	0	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	1	0	0	N/A

Wildfire	1	0	0	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	0	0	0	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	2	1	1	3
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	1	1	1	2
Wildfire	1	1	1	2
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	1	1	1	2

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	80.0
AQ-PM	95.0
AQ-DPM	96.7
Drinking Water	99.7
Lead Risk Housing	26.8
Pesticides	19.2
Toxic Releases	65.3
Traffic	91.1
Effect Indicators	—
CleanUp Sites	40.8
Groundwater	37.8
Haz Waste Facilities/Generators	26.7
Impaired Water Bodies	0.00
Solid Waste	35.7
Sensitive Population	—
Asthma	43.9
Cardio-vascular	72.2
Low Birth Weights	23.3
Socioeconomic Factor Indicators	—
Education	64.1
Housing	29.7
Linguistic	50.5
Poverty	41.0

Unemployment	33.6

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	52.03387656
Employed	54.83125882
Median HI	65.14820993
Education	—
Bachelor's or higher	49.15950212
High school enrollment	100
Preschool enrollment	14.78249711
Transportation	—
Auto Access	78.96830489
Active commuting	27.28089311
Social	—
2-parent households	81.31656615
Voting	64.17297575
Neighborhood	—
Alcohol availability	41.75542153
Park access	22.69985885
Retail density	45.77184653
Supermarket access	57.37200051
Tree canopy	18.41396125
Housing	—
Homeownership	86.56486591

Housing habitability	75.79879379
Low-inc homeowner severe housing cost burden	60.87514436
Low-inc renter severe housing cost burden	87.5914282
Uncrowded housing	53.4838958
Health Outcomes	—
Insured adults	49.96791993
Arthritis	31.2
Asthma ER Admissions	51.4
High Blood Pressure	43.5
Cancer (excluding skin)	42.8
Asthma	37.3
Coronary Heart Disease	47.4
Chronic Obstructive Pulmonary Disease	35.3
Diagnosed Diabetes	41.8
Life Expectancy at Birth	68.4
Cognitively Disabled	43.0
Physically Disabled	69.8
Heart Attack ER Admissions	19.3
Mental Health Not Good	43.4
Chronic Kidney Disease	55.3
Obesity	43.5
Pedestrian Injuries	65.5
Physical Health Not Good	42.2
Stroke	51.7
Health Risk Behaviors	—
Binge Drinking	47.1
Current Smoker	44.4

1430

No Leisure Time for Physical Activity	50.7
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	0.0
Children	33.8
Elderly	56.5
English Speaking	35.7
Foreign-born	48.2
Outdoor Workers	65.0
Climate Change Adaptive Capacity	—
Impervious Surface Cover	53.7
Traffic Density	89.6
Traffic Access	23.0
Other Indices	—
Hardship	57.1
Other Decision Support	—
2016 Voting	73.7

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	64.0
Healthy Places Index Score for Project Location (b)	52.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	No
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

1431

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Land Use	Updated lot acreage and building square feet based on project site plan received 6/29/23.
Construction: Construction Phases	Updated construction building construction phases and schedule based on data request response received 8/28/23.
Construction: Off-Road Equipment	Updated Trenching equipment to include one trencher, one backhoe and one signal board.
Construction: Architectural Coatings	—
Construction: Dust From Material Movement	Updated Grading soil import based on data request response received 8/28/23.
Operations: Vehicle Data	Updated trip rates and primary/pass-by trip percentages based on LLG traffic information received 7/31/23.
Operations: Hearths	Updated number of fireplaces based on data request response received 8/28/23. Removed wood stoves based on SCAQMD Rule 445.

This page intentionally left blank.

Attachment 3

Phase 2 CalEEMod Emissions Estimates and Fugitive Dust Calculations

This page intentionally left blank.

Legacy Ontario PUD Construction Phase 2 Detailed Report

Table of Contents

1. Basic Project Information

1.1. Basic Project Information

1.2. Land Use Types

1.3. User-Selected Emission Reduction Measures by Emissions Sector

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

2.2. Construction Emissions by Year, Unmitigated

2.4. Operations Emissions Compared Against Thresholds

2.5. Operations Emissions by Sector, Unmitigated

3. Construction Emissions Details

3.1. Demolition (2026) - Unmitigated

3.3. Site Preparation (2026) - Unmitigated

3.5. Grading (2026) - Unmitigated

3.7. Building Construction (2026) - Unmitigated

3.9. Paving (2026) - Unmitigated

3.11. Architectural Coating (2026) - Unmitigated

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

4.3. Area Emissions by Source

4.3.1. Unmitigated

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

5. Activity Data

5.1. Construction Schedule

5.2. Off-Road Equipment

5.2.1. Unmitigated

5.3. Construction Vehicles

5.3.1. Unmitigated

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

5.5. Architectural Coatings

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

5.6.2. Construction Earthmoving Control Strategies

5.7. Construction Paving

5.8. Construction Electricity Consumption and Emissions Factors

5.9. Operational Mobile Sources

5.9.1. Unmitigated

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

5.10.2. Architectural Coatings

5.10.3. Landscape Equipment

5.11. Operational Energy Consumption

5.11.1. Unmitigated

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

5.13. Operational Waste Generation

5.13.1. Unmitigated

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

5.16.2. Process Boilers

5.17. User Defined

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

5.18.2. Sequestration

5.18.2.1. Unmitigated

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

6.2. Initial Climate Risk Scores

6.3. Adjusted Climate Risk Scores

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

7.2. Healthy Places Index Scores

7.3. Overall Health & Equity Scores

7.4. Health & Equity Measures

7.5. Evaluation Scorecard

7.6. Health & Equity Custom Measures

8. User Changes to Default Data

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	Legacy Ontario PUD Construction Phase 2
Construction Start Date	1/1/2026
Operational Year	2027
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.60
Precipitation (days)	9.20
Location	34.0271018753637, -117.65141705846071
County	San Bernardino-South Coast
City	Ontario
Air District	South Coast AQMD
Air Basin	South Coast
TAZ	5251
EDFZ	10
Electric Utility	Southern California Edison
Gas Utility	Southern California Gas
App Version	2022.1.1.18

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description

1442

Apartments Mid Rise	23.0	Dwelling Unit	0.61	22,080	0.00	0.00	76.0	—
Strip Mall	6.60	1000sqft	0.15	6,600	0.00	0.00	—	—
Other Asphalt Surfaces	0.75	Acre	0.75	0.00	0.00	0.00	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.32	1.10	8.76	11.4	0.02	0.29	0.27	0.57	0.27	0.07	0.34	—	2,166	2,166	0.09	0.04	1.17	2,181
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.74	21.0	13.3	15.5	0.03	0.58	2.89	3.47	0.53	1.37	1.90	—	2,886	2,886	0.13	0.06	0.03	2,909
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.86	1.30	5.89	7.38	0.01	0.20	0.22	0.43	0.19	0.06	0.25	—	1,412	1,412	0.06	0.03	0.31	1,422
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.16	0.24	1.07	1.35	< 0.005	0.04	0.04	0.08	0.03	0.01	0.05	—	234	234	0.01	< 0.005	0.05	235

2.2. Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	1.32	1.10	8.76	11.4	0.02	0.29	0.27	0.57	0.27	0.07	0.34	—	2,166	2,166	0.09	0.04	1.17	2,181
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	1.74	21.0	13.3	15.5	0.03	0.58	2.89	3.47	0.53	1.37	1.90	—	2,886	2,886	0.13	0.06	0.03	2,909
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	0.86	1.30	5.89	7.38	0.01	0.20	0.22	0.43	0.19	0.06	0.25	—	1,412	1,412	0.06	0.03	0.31	1,422
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	0.16	0.24	1.07	1.35	< 0.005	0.04	0.04	0.08	0.03	0.01	0.05	—	234	234	0.01	< 0.005	0.05	235

2.4. Operations Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	2.10	2.57	1.73	17.7	0.04	0.03	3.68	3.72	0.03	0.94	0.97	15.7	4,589	4,605	1.79	0.20	13.4	4,722
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.82	2.30	1.84	13.4	0.04	0.03	3.68	3.72	0.03	0.94	0.97	15.7	4,319	4,335	1.79	0.20	0.54	4,441
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.92	2.39	1.88	15.0	0.04	0.03	3.66	3.70	0.03	0.93	0.96	15.7	4,291	4,307	1.79	0.20	5.89	4,419

Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.35	0.44	0.34	2.74	0.01	0.01	0.67	0.67	0.01	0.17	0.18	2.59	710	713	0.30	0.03	0.98	732

2.5. Operations Emissions by Sector, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	1.92	1.73	1.64	16.1	0.04	0.03	3.68	3.71	0.03	0.94	0.96	—	4,248	4,248	0.18	0.19	13.2	4,322
Area	0.17	0.84	0.01	1.59	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.00	82.3	82.3	0.01	< 0.005	—	82.8
Energy	0.01	< 0.005	0.07	0.04	< 0.005	0.01	—	0.01	0.01	—	0.01	—	249	249	0.02	< 0.005	—	250
Water	—	—	—	—	—	—	—	—	—	—	—	2.77	9.35	12.1	0.29	0.01	—	21.3
Waste	—	—	—	—	—	—	—	—	—	—	—	12.9	0.00	12.9	1.29	0.00	—	45.1
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.20	0.20
Total	2.10	2.57	1.73	17.7	0.04	0.03	3.68	3.72	0.03	0.94	0.97	15.7	4,589	4,605	1.79	0.20	13.4	4,722
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	1.81	1.62	1.77	13.4	0.04	0.03	3.68	3.71	0.03	0.94	0.96	—	3,983	3,983	0.19	0.19	0.34	4,047
Area	0.00	0.67	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	77.6	77.6	0.01	< 0.005	—	78.1
Energy	0.01	< 0.005	0.07	0.04	< 0.005	0.01	—	0.01	0.01	—	0.01	—	249	249	0.02	< 0.005	—	250
Water	—	—	—	—	—	—	—	—	—	—	—	2.77	9.35	12.1	0.29	0.01	—	21.3
Waste	—	—	—	—	—	—	—	—	—	—	—	12.9	0.00	12.9	1.29	0.00	—	45.1
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.20	0.20
Total	1.82	2.30	1.84	13.4	0.04	0.03	3.68	3.72	0.03	0.94	0.97	15.7	4,319	4,335	1.79	0.20	0.54	4,441
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Mobile	1.79	1.60	1.79	13.9	0.04	0.03	3.66	3.69	0.03	0.93	0.96	—	4,025	4,025	0.19	0.20	5.69	4,094
Area	0.12	0.78	0.01	1.09	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.00	8.52	8.52	< 0.005	< 0.005	—	8.56
Energy	0.01	< 0.005	0.07	0.04	< 0.005	0.01	—	0.01	0.01	—	0.01	—	249	249	0.02	< 0.005	—	250
Water	—	—	—	—	—	—	—	—	—	—	—	2.77	9.35	12.1	0.29	0.01	—	21.3
Waste	—	—	—	—	—	—	—	—	—	—	—	12.9	0.00	12.9	1.29	0.00	—	45.1
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.20	0.20
Total	1.92	2.39	1.88	15.0	0.04	0.03	3.66	3.70	0.03	0.93	0.96	15.7	4,291	4,307	1.79	0.20	5.89	4,419
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.33	0.29	0.33	2.53	0.01	< 0.005	0.67	0.67	< 0.005	0.17	0.17	—	666	666	0.03	0.03	0.94	678
Area	0.02	0.14	< 0.005	0.20	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.00	1.41	1.41	< 0.005	< 0.005	—	1.42
Energy	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	41.2	41.2	< 0.005	< 0.005	—	41.4
Water	—	—	—	—	—	—	—	—	—	—	—	0.46	1.55	2.01	0.05	< 0.005	—	3.53
Waste	—	—	—	—	—	—	—	—	—	—	—	2.13	0.00	2.13	0.21	0.00	—	7.46
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.03	0.03
Total	0.35	0.44	0.34	2.74	0.01	0.01	0.67	0.67	0.01	0.17	0.18	2.59	710	713	0.30	0.03	0.98	732

3. Construction Emissions Details

3.1. Demolition (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	1.66	1.39	12.9	14.6	0.02	0.51	—	0.51	0.47	—	0.47	—	2,494	2,494	0.10	0.02	—	2,503
Demolition	—	—	—	—	—	—	0.19	0.19	—	0.03	0.03	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.09	0.08	0.71	0.80	< 0.005	0.03	—	0.03	0.03	—	0.03	—	137	137	0.01	< 0.005	—	137
Demolition	—	—	—	—	—	—	0.01	0.01	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.01	0.13	0.15	< 0.005	0.01	—	0.01	< 0.005	—	< 0.005	—	22.6	22.6	< 0.005	< 0.005	—	22.7
Demolition	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.05	0.05	0.68	0.00	0.00	0.16	0.16	0.00	0.04	0.04	—	158	158	< 0.005	0.01	0.02	—
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Hauling	0.03	< 0.005	0.29	0.16	< 0.005	< 0.005	0.06	0.07	< 0.005	0.02	0.02	—	234	234	0.02	0.04	0.01	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	< 0.005	< 0.005	< 0.005	0.04	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	8.79	8.79	< 0.005	< 0.005	0.01	—
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Hauling	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	12.8	12.8	< 0.005	< 0.005	0.01	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.46	1.46	< 0.005	< 0.005	< 0.005	—
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	2.13	2.13	< 0.005	< 0.005	< 0.005	—

3.3. Site Preparation (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.47	1.24	11.0	11.7	0.02	0.51	—	0.51	0.47	—	0.47	—	2,065	2,065	0.08	0.02	—	2,072
Dust From Material Movement	—	—	—	—	—	—	2.44	2.44	—	1.17	1.17	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.06	0.06	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	11.3	11.3	< 0.005	< 0.005	—	11.4

Dust From Material Movement	—	—	—	—	—	—	0.01	0.01	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.87	1.87	< 0.005	< 0.005	—	1.88
Dust From Material Movement	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.03	0.41	0.00	0.00	0.10	0.10	0.00	0.02	0.02	—	94.9	94.9	< 0.005	< 0.005	0.01	—
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.53	0.53	< 0.005	< 0.005	< 0.005	—
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.09	0.09	< 0.005	< 0.005	< 0.005	—
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—

3.5. Grading (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.70	1.42	12.9	14.0	0.02	0.58	—	0.58	0.53	—	0.53	—	2,455	2,455	0.10	0.02	—	2,463
Dust From Material Movement	—	—	—	—	—	—	2.76	2.76	—	1.34	1.34	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.14	0.15	< 0.005	0.01	—	0.01	0.01	—	0.01	—	26.9	26.9	< 0.005	< 0.005	—	27.0
Dust From Material Movement	—	—	—	—	—	—	0.03	0.03	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.03	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	4.45	4.45	< 0.005	< 0.005	—	4.47

Dust From Material Movement	—	—	—	—	—	—	0.01	0.01	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.04	0.04	0.54	0.00	0.00	0.13	0.13	0.00	0.03	0.03	—	127	127	< 0.005	< 0.005	0.01	—
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.41	1.41	< 0.005	< 0.005	< 0.005	—
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.23	0.23	< 0.005	< 0.005	< 0.005	—
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—

3.7. Building Construction (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.22	1.01	8.57	9.96	0.02	0.29	—	0.29	0.27	—	0.27	—	1,801	1,801	0.07	0.01	—	1,807
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.22	1.01	8.57	9.96	0.02	0.29	—	0.29	0.27	—	0.27	—	1,801	1,801	0.07	0.01	—	1,807
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.67	0.56	4.70	5.46	0.01	0.16	—	0.16	0.15	—	0.15	—	987	987	0.04	0.01	—	990
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.12	0.10	0.86	1.00	< 0.005	0.03	—	0.03	0.03	—	0.03	—	163	163	0.01	< 0.005	—	164
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09	0.08	0.07	1.34	0.00	0.00	0.24	0.24	0.00	0.06	0.06	—	258	258	0.01	0.01	0.88	—
Vendor	0.01	< 0.005	0.12	0.06	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	107	107	0.01	0.02	0.28	—
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.08	0.08	1.02	0.00	0.00	0.24	0.24	0.00	0.06	0.06	—	236	236	< 0.005	0.01	0.02	—
Vendor	0.01	< 0.005	0.12	0.06	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	107	107	0.01	0.02	0.01	—
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.04	0.05	0.59	0.00	0.00	0.13	0.13	0.00	0.03	0.03	—	131	131	< 0.005	0.01	0.21	—
Vendor	0.01	< 0.005	0.07	0.03	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	0.01	—	58.9	58.9	< 0.005	0.01	0.07	—
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.11	0.00	0.00	0.02	0.02	0.00	0.01	0.01	—	21.7	21.7	< 0.005	< 0.005	0.03	—
Vendor	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	9.74	9.74	< 0.005	< 0.005	0.01	—
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—

3.9. Paving (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.56	0.47	4.41	6.48	0.01	0.18	—	0.18	0.17	—	0.17	—	991	991	0.04	0.01	—	995
Paving	—	0.20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.01	0.12	0.18	< 0.005	0.01	—	0.01	< 0.005	—	< 0.005	—	27.2	27.2	< 0.005	< 0.005	—	27.3
Paving	—	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.02	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	4.50	4.50	< 0.005	< 0.005	—	4.51
Paving	—	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.05	0.05	0.68	0.00	0.00	0.16	0.16	0.00	0.04	0.04	—	158	158	< 0.005	0.01	0.02	—
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	4.40	4.40	< 0.005	< 0.005	0.01	—
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.73	0.73	< 0.005	< 0.005	< 0.005	—

Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—

3.11. Architectural Coating (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.15	0.12	0.86	1.13	< 0.005	0.02	—	0.02	0.02	—	0.02	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	—	20.8	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.02	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	3.66	3.66	< 0.005	< 0.005	—	3.67
Architectural Coatings	—	0.57	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	< 0.005	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.61	0.61	< 0.005	< 0.005	—	0.61

Architect Coatings	—	0.10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.02	0.20	0.00	0.00	0.05	0.05	0.00	0.01	0.01	—	47.3	47.3	< 0.005	< 0.005	< 0.005	—
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.31	1.31	< 0.005	< 0.005	< 0.005	—
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.22	0.22	< 0.005	< 0.005	< 0.005	—
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	0.41	0.38	0.32	3.11	0.01	0.01	0.69	0.70	< 0.005	0.18	0.18	—	803	803	0.04	0.04	2.48	817
Strip Mall	1.51	1.36	1.32	12.9	0.03	0.02	2.99	3.01	0.02	0.76	0.78	—	3,445	3,445	0.15	0.15	10.7	3,505
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	1.92	1.73	1.64	16.1	0.04	0.03	3.68	3.71	0.03	0.94	0.96	—	4,248	4,248	0.18	0.19	13.2	4,322
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	0.39	0.35	0.35	2.63	0.01	0.01	0.69	0.70	< 0.005	0.18	0.18	—	753	753	0.04	0.04	0.06	766
Strip Mall	1.42	1.27	1.42	10.8	0.03	0.02	2.99	3.01	0.02	0.76	0.78	—	3,230	3,230	0.15	0.16	0.28	3,281
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	1.81	1.62	1.77	13.4	0.04	0.03	3.68	3.71	0.03	0.94	0.96	—	3,983	3,983	0.19	0.19	0.34	4,047
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	0.07	0.06	0.06	0.50	< 0.005	< 0.005	0.13	0.13	< 0.005	0.03	0.03	—	126	126	0.01	0.01	0.18	128
Strip Mall	0.26	0.23	0.26	2.04	0.01	< 0.005	0.54	0.55	< 0.005	0.14	0.14	—	540	540	0.03	0.03	0.77	550
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.33	0.29	0.33	2.53	0.01	< 0.005	0.67	0.67	< 0.005	0.17	0.17	—	666	666	0.03	0.03	0.94	678

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	94.2	94.2	0.01	< 0.005	—	94.7
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	60.9	60.9	0.01	< 0.005	—	61.3
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	155	155	0.01	< 0.005	—	156
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	94.2	94.2	0.01	< 0.005	—	94.7
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	60.9	60.9	0.01	< 0.005	—	61.3
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	155	155	0.01	< 0.005	—	156
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	15.6	15.6	< 0.005	< 0.005	—	15.7
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	10.1	10.1	< 0.005	< 0.005	—	1[illegible].1

Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	25.7	25.7	< 0.005	< 0.005	—	25.8

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	0.01	< 0.005	0.06	0.03	< 0.005	0.01	—	0.01	0.01	—	0.01	—	81.4	81.4	0.01	< 0.005	—	81.6
Strip Mall	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	12.5	12.5	< 0.005	< 0.005	—	12.5
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.01	< 0.005	0.07	0.04	< 0.005	0.01	—	0.01	0.01	—	0.01	—	93.8	93.8	0.01	< 0.005	—	94.1
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	0.01	< 0.005	0.06	0.03	< 0.005	0.01	—	0.01	0.01	—	0.01	—	81.4	81.4	0.01	< 0.005	—	81.6
Strip Mall	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	12.5	12.5	< 0.005	< 0.005	—	12.5
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.01	< 0.005	0.07	0.04	< 0.005	0.01	—	0.01	0.01	—	0.01	—	93.8	93.8	0.01	< 0.005	—	94.1
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Apartments	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	13.5	13.5	< 0.005	< 0.005	—	13.5
Strip Mall	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	2.06	2.06	< 0.005	< 0.005	—	2.07
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	15.5	15.5	< 0.005	< 0.005	—	15.6

4.3. Area Emissions by Source

4.3.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	77.6	77.6	0.01	< 0.005	—	78.1
Consumer Products	—	0.62	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.06	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.17	0.16	0.01	1.59	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	4.67	4.67	< 0.005	< 0.005	—	4.69
Total	0.17	0.84	0.01	1.59	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.00	82.3	82.3	0.01	< 0.005	—	82.8
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	77.6	77.6	0.01	< 0.005	—	78.1

Consumer	—	0.62	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.06	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	0.00	0.67	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	77.6	77.6	0.01	< 0.005	—	78.1
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	0.88	0.88	< 0.005	< 0.005	—	0.89
Consumer Products	—	0.11	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.02	0.02	< 0.005	0.20	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.53	0.53	< 0.005	< 0.005	—	0.53
Total	0.02	0.14	< 0.005	0.20	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.00	1.41	1.41	< 0.005	< 0.005	—	1.42

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	1.84	6.19	8.03	0.19	< 0.005	—	14.1
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	0.94	3.16	4.09	0.10	< 0.005	—	7.19

Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	2.77	9.35	12.1	0.29	0.01	—	21.3
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	1.84	6.19	8.03	0.19	< 0.005	—	14.1
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	0.94	3.16	4.09	0.10	< 0.005	—	7.19
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	2.77	9.35	12.1	0.29	0.01	—	21.3
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	0.30	1.02	1.33	0.03	< 0.005	—	2.34
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	0.16	0.52	0.68	0.02	< 0.005	—	1.19
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	0.46	1.55	2.01	0.05	< 0.005	—	3.53

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	9.15	0.00	9.15	0.91	0.00	—	32.0
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	3.73	0.00	3.73	0.37	0.00	—	13.1
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	12.9	0.00	12.9	1.29	0.00	—	45.1
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	9.15	0.00	9.15	0.91	0.00	—	32.0
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	3.73	0.00	3.73	0.37	0.00	—	13.1
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	12.9	0.00	12.9	1.29	0.00	—	45.1
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	1.51	0.00	1.51	0.15	0.00	—	5.30
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	0.62	0.00	0.62	0.06	0.00	—	2.16
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	2.13	0.00	2.13	0.21	0.00	—	7.46

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.16	0.16
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.04	0.04
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.20	0.20
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.16	0.16
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.04	0.04
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.20	0.20
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.03	0.03
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.01	0.01
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.03	0.03

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Remove	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Demolition	Demolition	1/1/2026	1/29/2026	5.00	20.0	—
Site Preparation	Site Preparation	1/30/2026	2/1/2026	5.00	2.00	—
Grading	Grading	2/2/2026	2/7/2026	5.00	4.00	—
Building Construction	Building Construction	2/8/2026	11/15/2026	5.00	200	—
Paving	Paving	11/16/2026	11/30/2026	5.00	10.0	—
Architectural Coating	Architectural Coating	12/1/2026	12/15/2026	5.00	10.0	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Demolition	Tractors/Loaders/Backhoes	Diesel	Average	3.00	8.00	84.0	0.37
Demolition	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Demolition	Concrete/Industrial Saws	Diesel	Average	1.00	8.00	33.0	0.73
Site Preparation	Graders	Diesel	Average	1.00	8.00	148	0.41
Site Preparation	Rubber Tired Dozers	Diesel	Average	1.00	7.00	367	0.40
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Average	1.00	8.00	84.0	0.37
Grading	Graders	Diesel	Average	1.00	8.00	148	0.41
Grading	Tractors/Loaders/Backhoes	Diesel	Average	2.00	7.00	84.0	0.37
Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Building Construction	Cranes	Diesel	Average	1.00	6.00	367	0.29
Building Construction	Forklifts	Diesel	Average	1.00	6.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74

Building Construction	Tractors/Loaders/Backhoes	Diesel	Average	1.00	6.00	84.0	0.37
Building Construction	Welders	Diesel	Average	3.00	8.00	46.0	0.45
Paving	Tractors/Loaders/Backhoes	Diesel	Average	1.00	8.00	84.0	0.37
Paving	Pavers	Diesel	Average	1.00	6.00	81.0	0.42
Paving	Paving Equipment	Diesel	Average	1.00	8.00	89.0	0.36
Paving	Rollers	Diesel	Average	1.00	7.00	36.0	0.38
Paving	Cement and Mortar Mixers	Diesel	Average	1.00	6.00	10.0	0.56
Architectural Coating	Air Compressors	Diesel	Average	1.00	6.00	37.0	0.48

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Demolition	—	—	—	—
Demolition	Worker	12.5	18.5	LDA,LDT1,LDT2
Demolition	Vendor	—	10.2	HHDT,MHDT
Demolition	Hauling	3.45	20.0	HHDT
Demolition	Onsite truck	—	—	HHDT
Site Preparation	—	—	—	—
Site Preparation	Worker	7.50	18.5	LDA,LDT1,LDT2
Site Preparation	Vendor	—	10.2	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	10.0	18.5	LDA,LDT1,LDT2

Grading	Vendor	—	10.2	HHDT,MHDT
Grading	Hauling	0.00	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	18.7	18.5	LDA,LDT1,LDT2
Building Construction	Vendor	3.54	10.2	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	12.5	18.5	LDA,LDT1,LDT2
Paving	Vendor	—	10.2	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	3.73	18.5	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	10.2	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
Architectural Coating	44,712	14,904	9,900	3,300	1,950

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (Cubic Yards)	Material Exported (Cubic Yards)	Acres Graded (acres)	Material Demolished (Building Square Footage)	Acres Paved (acres)
Demolition	0.00	0.00	0.00	6,000	—
Site Preparation	0.00	0.00	1.88	0.00	—
Grading	0.00	0.00	4.00	0.00	—
Paving	0.00	0.00	0.00	0.00	0.75

5.6.2. Construction Earthmoving Control Strategies

Control Strategies Applied	Frequency (per day)	PM10 Reduction	PM2.5 Reduction
Water Exposed Area	2	61%	61%
Water Demolished Area	2	36%	36%

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
Apartments Mid Rise	—	0%
Strip Mall	0.00	0%
Other Asphalt Surfaces	0.75	100%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2026	0.00	532	0.03	< 0.005

5.9. Operational Mobile Sources

5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Apartments Mid Rise	104	104	104	38,113	978	978	978	356,864
Strip Mall	359	359	359	131,170	4,215	4,215	4,215	1,538,582
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

Hearth Type	Unmitigated (number)
Apartments Mid Rise	—
Wood Fireplaces	0
Gas Fireplaces	0
Propane Fireplaces	0
Electric Fireplaces	21
No Fireplaces	2
Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0

5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
44712	14,904	9,900	3,300	1,950

5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	250

5.11. Operational Energy Consumption

5.11.1. Unmitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Apartments Mid Rise	99,272	346	0.0330	0.0040	253,855
Strip Mall	64,207	346	0.0330	0.0040	38,910
Other Asphalt Surfaces	0.00	346	0.0330	0.0040	0.00

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Apartments Mid Rise	958,667	0.00
Strip Mall	488,879	0.00
Other Asphalt Surfaces	0.00	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Apartments Mid Rise	17.0	—
Strip Mall	6.93	—
Other Asphalt Surfaces	0.00	—

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Apartments Mid Rise	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Apartments Mid Rise	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
Strip Mall	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Strip Mall	Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00
Strip Mall	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

Equipment Type	Fuel Type	Number per Day	Hours per Day	Hours per Year	Horsepower	Load Factor

5.16.2. Process Boilers

Equipment Type	Fuel Type	Number	Boiler Rating (MMBtu/hr)	Daily Heat Input (MMBtu/day)	Annual Heat Input (MMBtu/yr)

5.17. User Defined

Equipment Type	Fuel Type

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	19.8	annual days of extreme heat
Extreme Precipitation	4.05	annual days with precipitation above 20 mm
Sea Level Rise	0.00	meters of inundation depth
Wildfire	0.00	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider different increments of sea level rise coupled with extreme storm events. Users may select from four model simulations to view the range in potential inundation depth for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 50 meters (m) by 50 m, or about 164 feet (ft) by 164 ft.
Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	2	0	0	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	1	0	0	N/A
Wildfire	1	0	0	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A

Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	0	0	0	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	2	1	1	3
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	1	1	1	2
Wildfire	1	1	1	2
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	1	1	1	2

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
	1478

Exposure Indicators	—
AQ-Ozone	80.0
AQ-PM	95.0
AQ-DPM	96.7
Drinking Water	99.7
Lead Risk Housing	26.8
Pesticides	19.2
Toxic Releases	65.3
Traffic	91.1
Effect Indicators	—
CleanUp Sites	40.8
Groundwater	37.8
Haz Waste Facilities/Generators	26.7
Impaired Water Bodies	0.00
Solid Waste	35.7
Sensitive Population	—
Asthma	43.9
Cardio-vascular	72.2
Low Birth Weights	23.3
Socioeconomic Factor Indicators	—
Education	64.1
Housing	29.7
Linguistic	50.5
Poverty	41.0
Unemployment	33.6

7.2. Healthy Places Index Scores

1479

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	52.03387656
Employed	54.83125882
Median HI	65.14820993
Education	—
Bachelor's or higher	49.15950212
High school enrollment	100
Preschool enrollment	14.78249711
Transportation	—
Auto Access	78.96830489
Active commuting	27.28089311
Social	—
2-parent households	81.31656615
Voting	64.17297575
Neighborhood	—
Alcohol availability	41.75542153
Park access	22.69985885
Retail density	45.77184653
Supermarket access	57.37200051
Tree canopy	18.41396125
Housing	—
Homeownership	86.56486591
Housing habitability	75.79879379
Low-inc homeowner severe housing cost burden	60.87514436
Low-inc renter severe housing cost burden	87.5914282
Uncrowded housing	53.4838958

Health Outcomes	—
Insured adults	49.96791993
Arthritis	31.2
Asthma ER Admissions	51.4
High Blood Pressure	43.5
Cancer (excluding skin)	42.8
Asthma	37.3
Coronary Heart Disease	47.4
Chronic Obstructive Pulmonary Disease	35.3
Diagnosed Diabetes	41.8
Life Expectancy at Birth	68.4
Cognitively Disabled	43.0
Physically Disabled	69.8
Heart Attack ER Admissions	19.3
Mental Health Not Good	43.4
Chronic Kidney Disease	55.3
Obesity	43.5
Pedestrian Injuries	65.5
Physical Health Not Good	42.2
Stroke	51.7
Health Risk Behaviors	—
Binge Drinking	47.1
Current Smoker	44.4
No Leisure Time for Physical Activity	50.7
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	0.0

Children	33.8
Elderly	56.5
English Speaking	35.7
Foreign-born	48.2
Outdoor Workers	65.0
Climate Change Adaptive Capacity	—
Impervious Surface Cover	53.7
Traffic Density	89.6
Traffic Access	23.0
Other Indices	—
Hardship	57.1
Other Decision Support	—
2016 Voting	73.7

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	64.0
Healthy Places Index Score for Project Location (b)	52.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	No
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Operations: Vehicle Data	Updated trip rates and primary/pass-by trip percentages based on LLG traffic information received 7/31/23.
Operations: Hearths	Updated number of fireplaces based on data request response received 8/28/23. Removed wood stoves based on SCAQMD Rule 445.

1650 SPRUCE STREET, STE 106
RIVERSIDE, CA 92507
951.787.9222
WWW.MIGCOM.COM

Memo

To: David Pinto, Legacy Partners

CC: Benjamin Mount and Tim O'Brien, Legacy Partners; Dale Goldsmith, Armbruster Goldsmith & Delvac LLP

From: Chris Dugan and William Deeman

Date: September 8, 2023

SUBJECT: Technical Greenhouse Gas Assessment for PDEV22-027 Euclid/Walnut Planned Unit Development (PUD22-004) Project

MIG, Inc. (MIG) has prepared this memorandum at the request of Legacy Partners. This technical assessment estimates the potential greenhouse gas (GHG) emissions associated with the proposed Euclid/Walnut Planned Unit Development Project (proposed Project) in the City of Ontario, California (City) and determines whether the proposed Project's GHG impacts are within the envelope of impacts set forth in the certified The Ontario Plan Environmental Impact Report (TOP EIR) for City's The Ontario Plan (TOP). The TOP EIR found that the GHG impacts of the TOP would be less than significant with compliance with the applicable GHG reduction measures under state law and the City's Community Climate Action Plan (CCAP). This technical assessment is intended to show consistency between the proposed Project and the City's Community Climate Action Plan (CCAP).

EMISSIONS ESTIMATE METHODOLOGY

The proposed Project would generate both short-term construction emissions and long-term operational emissions. The Project's potential GHG emissions were estimated using the California Emissions Estimator Model (CalEEMod), Version (V.) 2022.1. CalEEMod is a computer program recommended for use by the South Coast Air Quality Management District (SCAQMD) for use in preparing emission estimates for land use and development projects. The proposed Project's construction and operational characteristics are based on the Project Description contained in the Project's California Environmental Quality Act (CEQA) Addendum. Emissions were generated using CalEEMod default assumptions, modified as follows to reflect the following Project-specific context, information, and details:

- Construction Phases: Phase 1 construction was modified to add a trenching phase and the building construction phase was changed to occur in three phases foundation, vertical, and mechanical electrical plumbing/other (MEP/other) based on project-specific information from the project construction team.
- Construction Schedule: Phase 1 was modeled as an 18 month project with overlapping site preparation, grading, trenching, building construction foundation, vertical, MEP/other, paving, and coating phases for consistency with the conservative approach taken in the Air Quality Memorandum.
- Hauling: 9,105 cubic yards of soil was added to Phase 1 construction grading activities. 101,620 square feet of demolition was added to Phase 1 construction and 6,000 square feet of demolition was added to Phase 2 construction, based on project-specific information from the project construction team.

- Fugitive Dust: Watering twice per day was added to Phase 1 construction and Phase 2 construction in accordance with SCAQMD Rule 403.
- Vehicle Trips: Vehicle trip rates and primary/pass-by trip percentages were updated based on the Projected Left-Turn Warrant for the Euclid Avenue Mixed-Use Apartment Project report (LLG 2023).
- Area Sources: All wood burning stoves were removed from Phase 1 and Phase 2 residential development in compliance with SCAQMD Rule 445. In addition, all fireplaces were updated to be electric as indicated by the Project Applicant.

Emissions estimates are presented for:

- Existing site operations of Carl's Jr. fast food restaurant, former Kmart Shopping Center, and a strip retail building.
- Combined Project Phase 1 and Phase 2 emissions (construction and operation).

MIG notes the emissions modeling conducted for the Project is considered very conservative (i.e., likely to substantially overestimate daily Project emissions) for the following reasons:

- Project modeled emissions do not account for applicable reduction measures as described in the City's CCAP Greenhouse Gas Emissions Screening Tables (City of Ontario, 2023, Table 3).
- Phase 2 construction was modeled to occur directly after Phase 1 construction was completed. The specific timing of development of Phase 2 has not yet been determined and due to existing long-term lease conditions may not actually occur for approximately 10 years or more. Emissions are expected to decrease in the future as construction fleets turnover with newer (i.e., less emissive) equipment and updated standards are adopted. Thus, modeling of Phase 2 after Phase 1 provides an overestimate of potential emissions.

Please refer to Attachments 1, 2, and 3 for detailed CalEEMod emissions estimates.

RESULTS

The proposed Project's total net GHG emissions are shown in Table 1 below:

Table 1: Project Greenhouse Gas Emissions

GHG Emissions Scenario	GHG Emissions ($MTCO_2e$ Per Year)
Proposed Project	
Phase 1 Operational and Construction GHG Emissions(A)	3,094
Phase 2 Operational and Construction GHG Emissions(A)	740
Subtotal Project Annual Emissions(B)	3,833
Existing Site Operations	
Operational Emissions	7,878
Net Change in GHG Emissions(B)	**-4,045**

Source: MIG 2023 (See Attachment 1, 2, and 3).
(A) Construction emissions averaged over a 30-year assumed project lifetime.
(B) Totals may not equal due to rounding.

As shown in Table 1, the proposed Project would result in the net reduction of approximately 4,405 $MTCO_2e$ per year.[1] It is probable that the proposed Project will replace at least some existing GHG emissions associated current operations at the site rather than displace them elsewhere.

CCAP CONSISTENCY

CEQA Guidelines Section 15183.5(b) provides:

(b) Plans for the Reduction of Greenhouse Gas Emissions. Public agencies may choose to analyze and mitigate significant greenhouse gas emissions in a plan for the reduction of greenhouse gas emissions or similar document. A plan to reduce greenhouse gas emissions may be used in a cumulative impacts analysis as set forth below. Pursuant to sections 15064(h)(3) and 15130(d), a lead agency may determine that a project's incremental contribution to a cumulative effect is not cumulatively considerable if the project complies with the requirements in a previously adopted plan or mitigation program under specified circumstances.

The City's CCAP qualifies as a GHG reduction plan under CEQA Guidelines Section 15183.5(b). The CCAP sets froth per capita GHG emissions targets, identifies GHG reduction strategies to achieve these targets, and quantifies the GHG reductions from implementing these strategies.

To implement the CCAP, the City has established GHG Emissions Screening Tables to provide guidance on how to analyze project level GHG emissions and determine the significance of those emissions during the discretionary review of proposed development projects in Ontario. The analysis, methodology, and significance determination (thresholds) presented in the Screening Tables and guidance are based on the CCAP. The Screening Tables provide a menu of options that ensures both implementation of the reduction strategies and flexibility on how development projects would implement the reduction strategies to achieve an overall reduction of emissions, consistent with the reduction targets of the 2022 CCAP.

In accordance with the City's CCAP GHG Emissions Screening Tables document, the proposed Project is subject to the City's Development Plan Review (DPR) and is required to demonstrate consistency with the CCAP. As the Project includes both residential and non-residential spaces, these components are assessed separately against their respective applicable thresholds. The City's CCAP GHG Emissions Screening Tables document states that multi-family residential projects less than 20 units in size would be exempt from the Screening Table requirements and would therefore be consistent with the CCAP. It also states retail projects less than 20,000 square feet in size would be exempt from the Screening Table requirements and would therefore be consistent with the CCAP. The proposed Project would include 12,000 square feet of retail space, thus GHG emissions associated with this retail space would be less than the CCAP non-residential exemption size threshold (20,000 square feet) and may be presumed to be less than significant. Since the proposed Project would have more than 20 units, the Applicant has used the CCAP's Screening Table 3 checklist to evaluate consistency with the CCAP. The CCAP GHG Emissions Screening Tables document requires a project to achieve at least 100 points per applicable Screening Table to be found consistent with the CCAP. As shown in detail in Attachment 4, the Project would include features such as electric space heaters and appliances, installation of Level 2 electric vehicle (EV) or higher charging stations,

[1] Kmart has been substantially downsizing and has closed most of its stores in recent years. It is reasonable to assume that this store will not reopen elsewhere, and therefore GHG emissions will not be displaced from the Project site.

space for storage and collection of green waste, organic waste, and recyclables, solar photovoltaic (PV) energy generation, and other GHG reduction measures that reduce area and mobile source GHG emissions. Based on the completed checklist, the Project's multi-family residential component would achieve approximately 100 points, as required to be consistent with the CCAP. Thus, the GHG emissions associated with the Project's residential space would be consistent with the CCAP and may be presumed to be less than significant.

CONCLUSION

As described in this memo, the proposed Project would be consistent with the City's qualified CCAP. The proposed Project would also likely result in a net reduction in GHG emissions compared to existing operations at the site. The proposed Project, therefore, would not result in a new or substantially more adverse GHG impact than identified in the TOP EIR or CCAP.

PREPARERS AND REFERENCES

This memorandum was prepared by MIG under contract to Legacy Partners. This report reflects the independent, objective, professional opinion of MIG. The following individuals were involved in the preparation and review of this Report:

MIG

Chris Dugan, Director of Air Quality, GHG, and Noise Services 1650 Spruce Street, Suite 106
cdugan@migcom.com / 916-956-3802 Riverside, California 92507

William Deeman, Environmental Analyst I

The following references were used to prepare this memorandum:

City of Ontario 2022. Ontario Community Climate Action Plan. August 2022. https://www.ontarioca.gov/sites/default/files/Ontario-Files/Planning/The%20Ontario%20Plann/CCAP/Ontario-CCAP_Adopted_20220816.pdf

_____2023. Ontario Community Climate Action Plan Greenhouse Gas Emissions Screening Tables. March 2023. https://www.ontarioca.gov/sites/default/files/Ontario-Files/Planning/CCAP/Screening%20Table/Ontario-CCAP_Screening-Tables-MARCH%202023.pdf

Linscott Law & Greenspan (LLG). 2023. Protected Left-Turn Warrant for the Euclid Avenue Mixed-Use Apartment Project. July 31, 2023.

This page was intentionally left blank.

Attachment 1

Phase 1 CalEEMod Project File Outputs

This page was intentionally left blank.

Legacy Ontario PUD Construction Phase 1 Mitigated Detailed Report

Table of Contents

1. Basic Project Information

1.1. Basic Project Information

1.2. Land Use Types

1.3. User-Selected Emission Reduction Measures by Emissions Sector

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

2.2. Construction Emissions by Year, Unmitigated

2.3. Construction Emissions by Year, Mitigated

2.4. Operations Emissions Compared Against Thresholds

2.5. Operations Emissions by Sector, Unmitigated

2.6. Operations Emissions by Sector, Mitigated

3. Construction Emissions Details

3.1. Demolition (2024) - Unmitigated

3.2. Demolition (2024) - Mitigated

3.3. Site Preparation (2024) - Unmitigated

3.4. Site Preparation (2024) - Mitigated

3.5. Grading (2024) - Unmitigated

3.6. Grading (2024) - Mitigated

3.7. Foundation (2024) - Unmitigated

3.8. Foundation (2024) - Mitigated

3.9. Foundation (2025) - Unmitigated

3.10. Foundation (2025) - Mitigated

3.11. Vertical (2024) - Unmitigated

3.12. Vertical (2024) - Mitigated

3.13. Vertical (2025) - Unmitigated

3.14. Vertical (2025) - Mitigated

3.15. MEP/Other (2024) - Unmitigated

3.16. MEP/Other (2024) - Mitigated

3.17. MEP/Other (2025) - Unmitigated

3.18. MEP/Other (2025) - Mitigated

3.19. Paving (2025) - Unmitigated

3.20. Paving (2025) - Mitigated

3.21. Coatings (2025) - Unmitigated

3.22. Coatings (2025) - Mitigated

3.23. Trenching (2024) - Unmitigated

3.24. Trenching (2024) - Mitigated

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

4.1.2. Mitigated

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

4.2.2. Electricity Emissions By Land Use - Mitigated

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

4.2.4. Natural Gas Emissions By Land Use - Mitigated

4.3. Area Emissions by Source

4.3.1. Unmitigated

4.3.2. Mitigated

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

4.4.2. Mitigated

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

4.5.2. Mitigated

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

4.6.2. Mitigated

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

4.7.2. Mitigated

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

4.8.2. Mitigated

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

4.9.2. Mitigated

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

4.10.4. Soil Carbon Accumulation By Vegetation Type - Mitigated

4.10.5. Above and Belowground Carbon Accumulation by Land Use Type - Mitigated

4.10.6. Avoided and Sequestered Emissions by Species - Mitigated

5. Activity Data

5.1. Construction Schedule

5.2. Off-Road Equipment

5.2.1. Unmitigated

5.2.2. Mitigated

5.3. Construction Vehicles

5.3.1. Unmitigated

5.3.2. Mitigated

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

5.5. Architectural Coatings

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

5.6.2. Construction Earthmoving Control Strategies

5.7. Construction Paving

5.8. Construction Electricity Consumption and Emissions Factors

5.9. Operational Mobile Sources

5.9.1. Unmitigated

5.9.2. Mitigated

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

5.10.1.2. Mitigated

5.10.2. Architectural Coatings

5.10.3. Landscape Equipment

5.10.4. Landscape Equipment - Mitigated

5.11. Operational Energy Consumption

5.11.1. Unmitigated

5.11.2. Mitigated

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

5.12.2. Mitigated

5.13. Operational Waste Generation

5.13.1. Unmitigated

5.13.2. Mitigated

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

5.14.2. Mitigated

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

5.15.2. Mitigated

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

5.16.2. Process Boilers

5.17. User Defined

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

5.18.1.2. Mitigated

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

5.18.1.2. Mitigated

5.18.2. Sequestration

5.18.2.1. Unmitigated

5.18.2.2. Mitigated

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

6.2. Initial Climate Risk Scores

6.3. Adjusted Climate Risk Scores

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

7.2. Healthy Places Index Scores

7.3. Overall Health & Equity Scores

7.4. Health & Equity Measures

7.5. Evaluation Scorecard

7.6. Health & Equity Custom Measures

8. User Changes to Default Data

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	Legacy Ontario PUD Construction Phase 1 Mitigated
Construction Start Date	6/1/2024
Operational Year	2026
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.60
Precipitation (days)	9.20
Location	34.02755638431904, -117.65236816489812
County	San Bernardino-South Coast
City	Ontario
Air District	South Coast AQMD
Air Basin	South Coast
TAZ	5251
EDFZ	10
Electric Utility	Southern California Edison
Gas Utility	Southern California Gas
App Version	2022.1.1.19

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description

1500

Apartments Mid Rise	346	Dwelling Unit	2.92	458,974	29,928	0.00	1,145	—
Strip Mall	5.40	1000sqft	0.12	5,400	0.00	0.00	—	—
Other Asphalt Surfaces	6.36	Acre	6.36	0.00	0.00	0.00	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

Sector	#	Measure Title
Construction	C-13	Use Low-VOC Paints for Construction

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	10.5	8.48	83.8	80.0	0.13	3.57	13.5	17.1	3.26	5.91	9.17	—	16,016	16,016	0.91	0.71	32.8	16,259
Mit.	10.5	8.48	83.8	80.0	0.13	3.57	13.5	17.1	3.26	5.91	9.17	—	16,016	16,016	0.91	0.71	32.8	16,259
% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	8.78	155	42.2	89.7	0.10	1.54	10.8	12.4	1.42	2.57	4.00	—	20,687	20,687	1.04	0.96	1.38	21,001
Mit.	8.78	39.7	42.2	89.7	0.10	1.54	10.8	12.4	1.42	2.57	4.00	—	20,687	20,687	1.04	0.96	1.38	21,001
% Reduced	—	74%	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	3.65	11.3	18.1	40.3	0.04	0.62	4.89	5.51	0.57	1.16	1.74	—	9,355	9,355	0.46	0.43	9.65	9,506
Mit.	3.65	5.02	18.1	40.3	0.04	0.62	4.89	5.51	0.57	1.16	1.74	—	9,355	9,355	0.46	0.43	9.65	9,506
% Reduced	—	56%	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.67	2.07	3.30	7.35	0.01	0.11	0.89	1.01	0.10	0.21	0.32	—	1,549	1,549	0.08	0.07	1.60	1,574
Mit.	0.67	0.92	3.30	7.35	0.01	0.11	0.89	1.01	0.10	0.21	0.32	—	1,549	1,549	0.08	0.07	1.60	1,574
% Reduced	—	56%	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

2.2. Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	10.5	8.48	83.8	80.0	0.13	3.57	13.5	17.1	3.26	5.91	9.17	—	16,016	16,016	0.91	0.71	22.8	16,259
2025	5.47	4.62	25.7	66.6	0.06	0.90	7.21	8.10	0.83	1.72	2.54	—	14,201	14,201	0.67	0.64	32.8	14,442
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	8.78	7.41	42.2	89.7	0.10	1.54	10.8	12.4	1.42	2.57	4.00	—	20,687	20,687	1.04	0.96	1.38	21,001
2025	7.99	155	39.0	85.4	0.10	1.35	10.8	12.2	1.24	2.57	3.82	—	20,422	20,422	1.02	0.96	1.27	20,735
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	2.38	1.97	14.8	22.0	0.03	0.59	2.84	3.43	0.54	0.89	1.43	—	4,840	4,840	0.26	0.23	4.02	4,919
2025	3.65	11.3	18.1	40.3	0.04	0.62	4.89	5.51	0.57	1.16	1.74	—	9,355	9,355	0.46	0.43	9.65	9

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	0.43	0.36	2.70	4.01	0.01	0.11	0.52	0.63	0.10	0.16	0.26	—	801	801	0.04	0.04	0.67	814
2025	0.67	2.07	3.30	7.35	0.01	0.11	0.89	1.01	0.10	0.21	0.32	—	1,549	1,549	0.08	0.07	1.60	1,574

2.3. Construction Emissions by Year, Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	10.5	8.48	83.8	80.0	0.13	3.57	13.5	17.1	3.26	5.91	9.17	—	16,016	16,016	0.91	0.71	22.8	16,259
2025	5.47	4.62	25.7	66.6	0.06	0.90	7.21	8.10	0.83	1.72	2.54	—	14,201	14,201	0.67	0.64	32.8	14,442
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	8.78	7.41	42.2	89.7	0.10	1.54	10.8	12.4	1.42	2.57	4.00	—	20,687	20,687	1.04	0.96	1.38	21,001
2025	7.99	39.7	39.0	85.4	0.10	1.35	10.8	12.2	1.24	2.57	3.82	—	20,422	20,422	1.02	0.96	1.27	20,735
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	2.38	1.97	14.8	22.0	0.03	0.59	2.84	3.43	0.54	0.89	1.43	—	4,840	4,840	0.26	0.23	4.02	4,919
2025	3.65	5.02	18.1	40.3	0.04	0.62	4.89	5.51	0.57	1.16	1.74	—	9,355	9,355	0.46	0.43	9.65	9,506
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	0.43	0.36	2.70	4.01	0.01	0.11	0.52	0.63	0.10	0.16	0.26	—	801	801	0.04	0.04	0.67	814
2025	0.67	0.92	3.30	7.35	0.01	0.11	0.89	1.01	0.10	0.21	0.32	—	1,549	1,549	0.08	0.07	1.60	1,574

2.4. Operations Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	9.81	19.7	7.51	80.7	0.16	0.19	12.9	13.1	0.18	3.27	3.45	169	19,223	19,392	18.1	0.80	55.1	20,136
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	7.44	17.4	7.79	51.2	0.14	0.18	12.9	13.1	0.17	3.27	3.44	169	18,221	18,390	18.1	0.82	4.66	19,092
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	8.68	18.6	8.03	66.6	0.15	0.19	12.8	13.0	0.18	3.25	3.43	169	17,317	17,487	18.0	0.81	25.7	18,204
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.58	3.40	1.47	12.2	0.03	0.03	2.34	2.37	0.03	0.59	0.63	28.0	2,867	2,895	2.98	0.13	4.25	3,014

2.5. Operations Emissions by Sector, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	7.82	7.11	6.35	60.4	0.15	0.10	12.9	13.0	0.09	3.27	3.36	—	15,202	15,202	0.71	0.69	51.8	15,478
Area	1.88	12.6	0.19	19.9	< 0.005	0.01	—	0.01	0.01	—	0.01	0.00	1,221	1,221	0.11	0.01	—	1,228
Energy	0.11	0.06	0.97	0.42	0.01	0.08	—	0.08	0.08	—	0.08	—	2,700	2,700	0.25	0.02	—	2,712
Water	—	—	—	—	—	—	—	—	—	—	—	28.4	98.7	127	2.92	0.07	—	221
Waste	—	—	—	—	—	—	—	—	—	—	—	141	0.00	141	14.1	0.00	—	493
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.32	3.32
Total	9.81	19.7	7.51	80.7	0.16	0.19	12.9	13.1	0.18	3.27	3.45	169	19,223	19,392	18.1	0.80	55.1	20,136

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	7.33	6.61	6.81	50.7	0.14	0.10	12.9	13.0	0.09	3.27	3.36	—	14,254	14,254	0.73	0.72	1.34	14,487
Area	0.00	10.8	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	1,168	1,168	0.11	0.01	—	1,175
Energy	0.11	0.06	0.97	0.42	0.01	0.08	—	0.08	0.08	—	0.08	—	2,700	2,700	0.25	0.02	—	2,712
Water	—	—	—	—	—	—	—	—	—	—	—	28.4	98.7	127	2.92	0.07	—	221
Waste	—	—	—	—	—	—	—	—	—	—	—	141	0.00	141	14.1	0.00	—	493
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.32	3.32
Total	7.44	17.4	7.79	51.2	0.14	0.18	12.9	13.1	0.17	3.27	3.44	169	18,221	18,390	18.1	0.82	4.66	19,092
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	7.28	6.56	6.93	52.6	0.14	0.10	12.8	12.9	0.09	3.25	3.35	—	14,402	14,402	0.73	0.72	22.4	14,657
Area	1.29	12.0	0.13	13.6	< 0.005	0.01	—	0.01	0.01	—	0.01	0.00	117	117	0.01	< 0.005	—	117
Energy	0.11	0.06	0.97	0.42	0.01	0.08	—	0.08	0.08	—	0.08	—	2,700	2,700	0.25	0.02	—	2,712
Water	—	—	—	—	—	—	—	—	—	—	—	28.4	98.7	127	2.92	0.07	—	221
Waste	—	—	—	—	—	—	—	—	—	—	—	141	0.00	141	14.1	0.00	—	493
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.32	3.32
Total	8.68	18.6	8.03	66.6	0.15	0.19	12.8	13.0	0.18	3.25	3.43	169	17,317	17,487	18.0	0.81	25.7	18,204
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	1.33	1.20	1.26	9.60	0.03	0.02	2.34	2.35	0.02	0.59	0.61	—	2,384	2,384	0.12	0.12	3.70	2,427
Area	0.23	2.19	0.02	2.48	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.00	19.3	19.3	< 0.005	< 0.005	—	19.4
Energy	0.02	0.01	0.18	0.08	< 0.005	0.01	—	0.01	0.01	—	0.01	—	447	447	0.04	< 0.005	—	449
Water	—	—	—	—	—	—	—	—	—	—	—	4.70	16.3	21.0	0.48	0.01	—	36.6
Waste	—	—	—	—	—	—	—	—	—	—	—	23.3	0.00	23.3	2.33	0.00	—	81.6
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.55	0.55
Total	1.58	3.40	1.47	12.2	0.03	0.03	2.34	2.37	0.03	0.59	0.63	28.0	2,867	2,895	2.98	0.13	4.25	3,014

2.6. Operations Emissions by Sector, Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	7.82	7.11	6.35	60.4	0.15	0.10	12.9	13.0	0.09	3.27	3.36	—	15,202	15,202	0.71	0.69	51.8	15,478
Area	1.88	12.6	0.19	19.9	< 0.005	0.01	—	0.01	0.01	—	0.01	0.00	1,221	1,221	0.11	0.01	—	1,228
Energy	0.11	0.06	0.97	0.42	0.01	0.08	—	0.08	0.08	—	0.08	—	2,700	2,700	0.25	0.02	—	2,712
Water	—	—	—	—	—	—	—	—	—	—	—	28.4	98.7	127	2.92	0.07	—	221
Waste	—	—	—	—	—	—	—	—	—	—	—	141	0.00	141	14.1	0.00	—	493
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.32	3.32
Total	9.81	19.7	7.51	80.7	0.16	0.19	12.9	13.1	0.18	3.27	3.45	169	19,223	19,392	18.1	0.80	55.1	20,136
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	7.33	6.61	6.81	50.7	0.14	0.10	12.9	13.0	0.09	3.27	3.36	—	14,254	14,254	0.73	0.72	1.34	14,487
Area	0.00	10.8	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	1,168	1,168	0.11	0.01	—	1,175
Energy	0.11	0.06	0.97	0.42	0.01	0.08	—	0.08	0.08	—	0.08	—	2,700	2,700	0.25	0.02	—	2,712
Water	—	—	—	—	—	—	—	—	—	—	—	28.4	98.7	127	2.92	0.07	—	221
Waste	—	—	—	—	—	—	—	—	—	—	—	141	0.00	141	14.1	0.00	—	493
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.32	3.32
Total	7.44	17.4	7.79	51.2	0.14	0.18	12.9	13.1	0.17	3.27	3.44	169	18,221	18,390	18.1	0.82	4.66	19,092
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	7.28	6.56	6.93	52.6	0.14	0.10	12.8	12.9	0.09	3.25	3.35	—	14,402	14,402	0.73	0.72	22.4	14,657
Area	1.29	12.0	0.13	13.6	< 0.005	0.01	—	0.01	0.01	—	0.01	0.00	117	117	0.01	< 0.005	—	117
Energy	0.11	0.06	0.97	0.42	0.01	0.08	—	0.08	0.08	—	0.08	—	2,700	2,700	0.25	0.02	—	2,712
Water	—	—	—	—	—	—	—	—	—	—	—	28.4	98.7	127	2.92	0.07	—	2

Waste	—	—	—	—	—	—	—	—	—	—	—	141	0.00	141	14.1	0.00	—	493
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.32	3.32
Total	8.68	18.6	8.03	66.6	0.15	0.19	12.8	13.0	0.18	3.25	3.43	169	17,317	17,487	18.0	0.81	25.7	18,204
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	1.33	1.20	1.26	9.60	0.03	0.02	2.34	2.35	0.02	0.59	0.61	—	2,384	2,384	0.12	0.12	3.70	2,427
Area	0.23	2.19	0.02	2.48	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.00	19.3	19.3	< 0.005	< 0.005	—	19.4
Energy	0.02	0.01	0.18	0.08	< 0.005	0.01	—	0.01	0.01	—	0.01	—	447	447	0.04	< 0.005	—	449
Water	—	—	—	—	—	—	—	—	—	—	—	4.70	16.3	21.0	0.48	0.01	—	36.6
Waste	—	—	—	—	—	—	—	—	—	—	—	23.3	0.00	23.3	2.33	0.00	—	81.6
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.55	0.55
Total	1.58	3.40	1.47	12.2	0.03	0.03	2.34	2.37	0.03	0.59	0.63	28.0	2,867	2,895	2.98	0.13	4.25	3,014

3. Construction Emissions Details

3.1. Demolition (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.12	2.62	24.9	21.7	0.03	1.06	—	1.06	0.98	—	0.98	—	3,425	3,425	0.14	0.03	—	3,437
Demolition	—	—	—	—	—	—	1.47	1.47	—	0.22	0.22	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.38	0.32	3.00	2.62	< 0.005	0.13	—	0.13	0.12	—	0.12	—	413	413	0.02	< 0.005	—	414
Demolition	—	—	—	—	—	—	0.18	0.18	—	0.03	0.03	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.07	0.06	0.55	0.48	< 0.005	0.02	—	0.02	0.02	—	0.02	—	68.4	68.4	< 0.005	< 0.005	—	68.6
Demolition	—	—	—	—	—	—	0.03	0.03	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09	0.08	0.07	1.27	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	216	216	0.01	0.01	0.86	219
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.25	0.04	2.30	1.29	0.01	0.04	0.49	0.53	0.02	0.13	0.16	—	1,870	1,870	0.21	0.30	3.94	1,969
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.12	0.00	0.00	0.02	0.02	0.00	0.01	0.01	—	24.2	24.2	< 0.005	< 0.005	0.04	24.5
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.03	< 0.005	0.29	0.16	< 0.005	< 0.005	0.06	0.06	< 0.005	0.02	0.02	—	226	226	0.02	0.04	0.20	237
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	4.01	4.01	< 0.005	< 0.005	0.01	4.06

Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.01	< 0.005	0.05	0.03	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	37.3	37.3	< 0.005	0.01	0.03	39.3

3.2. Demolition (2024) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.12	2.62	24.9	21.7	0.03	1.06	—	1.06	0.98	—	0.98	—	3,425	3,425	0.14	0.03	—	3,437
Demolition	—	—	—	—	—	—	1.47	1.47	—	0.22	0.22	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.38	0.32	3.00	2.62	< 0.005	0.13	—	0.13	0.12	—	0.12	—	413	413	0.02	< 0.005	—	414
Demolition	—	—	—	—	—	—	0.18	0.18	—	0.03	0.03	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.07	0.06	0.55	0.48	< 0.005	0.02	—	0.02	0.02	—	0.02	—	68.4	68.4	< 0.005	< 0.005	—	68.6
Demolition	—	—	—	—	—	—	0.03	0.03	—	< 0.005	< 0.005	—	—	—	—	—	—	—

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09	0.08	0.07	1.27	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	216	216	0.01	0.01	0.86	219
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.25	0.04	2.30	1.29	0.01	0.04	0.49	0.53	0.02	0.13	0.16	—	1,870	1,870	0.21	0.30	3.94	1,969
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.12	0.00	0.00	0.02	0.02	0.00	0.01	0.01	—	24.2	24.2	< 0.005	< 0.005	0.04	24.5
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.03	< 0.005	0.29	0.16	< 0.005	< 0.005	0.06	0.06	< 0.005	0.02	0.02	—	226	226	0.02	0.04	0.20	237
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	4.01	4.01	< 0.005	< 0.005	0.01	4.06
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.01	< 0.005	0.05	0.03	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	37.3	37.3	< 0.005	0.01	0.03	39.3

3.3. Site Preparation (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	4.34	3.65	36.0	32.9	0.05	1.60	—	1.60	1.47	—	1.47	—	5,296	5,296	0.21	0.04	—	5,314
Dust From Material Movement	—	—	—	—	—	—	7.67	7.67	—	3.94	3.94	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.29	0.24	2.36	2.17	< 0.005	0.11	—	0.11	0.10	—	0.10	—	348	348	0.01	< 0.005	—	349
Dust From Material Movement	—	—	—	—	—	—	0.50	0.50	—	0.26	0.26	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05	0.04	0.43	0.40	< 0.005	0.02	—	0.02	0.02	—	0.02	—	57.7	57.7	< 0.005	< 0.005	—	57.8
Dust From Material Movement	—	—	—	—	—	—	0.09	0.09	—	0.05	0.05	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.10	0.09	0.08	1.48	0.00	0.00	0.23	0.23	0.00	0.05	0.05	—	252	252	0.01	0.01	1.01	256

Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.08	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	15.4	15.4	< 0.005	< 0.005	0.03	15.6
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	2.55	2.55	< 0.005	< 0.005	< 0.005	2.59
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.4. Site Preparation (2024) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	4.34	3.65	36.0	32.9	0.05	1.60	—	1.60	1.47	—	1.47	—	5,296	5,296	0.21	0.04	—	5,314
Dust From Material Movement	—	—	—	—	—	—	7.67	7.67	—	3.94	3.94	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.29	0.24	2.36	2.17	< 0.005	0.11	—	0.11	0.10	—	0.10	—	348	348	0.01	< 0.005	—	349
Dust From Material Movement	—	—	—	—	—	—	0.50	0.50	—	0.26	0.26	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05	0.04	0.43	0.40	< 0.005	0.02	—	0.02	0.02	—	0.02	—	57.7	57.7	< 0.005	< 0.005	—	57.8
Dust From Material Movement	—	—	—	—	—	—	0.09	0.09	—	0.05	0.05	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.10	0.09	0.08	1.48	0.00	0.00	0.23	0.23	0.00	0.05	0.05	—	252	252	0.01	0.01	1.01	256
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	0.01	0.01	0.01	0.08	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	15.4	15.4	< 0.005	< 0.005	0.03	15.6
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	2.55	2.55	< 0.005	< 0.005	< 0.005	2.59
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.5. Grading (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.26	1.90	18.2	18.8	0.03	0.84	—	0.84	0.77	—	0.77	—	2,958	2,958	0.12	0.02	—	2,969
Dust From Material Movement	—	—	—	—	—	—	2.77	2.77	—	1.34	1.34	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.28	0.23	2.25	2.32	< 0.005	0.10	—	0.10	0.10	—	0.10	—	365	365	0.01	< 0.005	—	366

Dust From Material Movement	—	—	—	—	—	—	0.34	0.34	—	0.16	0.16	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05	0.04	0.41	0.42	< 0.005	0.02	—	0.02	0.02	—	0.02	—	60.4	60.4	< 0.005	< 0.005	—	60.6
Dust From Material Movement	—	—	—	—	—	—	0.06	0.06	—	0.03	0.03	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09	0.08	0.07	1.27	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	216	216	0.01	0.01	0.86	219
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.24	0.04	2.19	1.22	0.01	0.03	0.47	0.50	0.02	0.13	0.15	—	1,782	1,782	0.20	0.29	3.75	1,876
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.12	0.00	0.00	0.02	0.02	0.00	0.01	0.01	—	24.7	24.7	< 0.005	< 0.005	0.05	25.1
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.03	< 0.005	0.28	0.15	< 0.005	< 0.005	0.06	0.06	< 0.005	0.02	0.02	—	220	220	0.02	0.04	0.20	231
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	4.10	4.10	< 0.005	< 0.005	0.01	4.15
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0

Hauling	0.01	< 0.005	0.05	0.03	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	36.4	36.4	< 0.005	0.01	0.03	38.3

3.6. Grading (2024) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.26	1.90	18.2	18.8	0.03	0.84	—	0.84	0.77	—	0.77	—	2,958	2,958	0.12	0.02	—	2,969
Dust From Material Movement	—	—	—	—	—	—	2.77	2.77	—	1.34	1.34	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.28	0.23	2.25	2.32	< 0.005	0.10	—	0.10	0.10	—	0.10	—	365	365	0.01	< 0.005	—	366
Dust From Material Movement	—	—	—	—	—	—	0.34	0.34	—	0.16	0.16	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05	0.04	0.41	0.42	< 0.005	0.02	—	0.02	0.02	—	0.02	—	60.4	60.4	< 0.005	< 0.005	—	60.6

Dust From Material Movement	—	—	—	—	—	—	0.06	0.06	—	0.03	0.03	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09	0.08	0.07	1.27	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	216	216	0.01	0.01	0.86	219
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.24	0.04	2.19	1.22	0.01	0.03	0.47	0.50	0.02	0.13	0.15	—	1,782	1,782	0.20	0.29	3.75	1,876
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.12	0.00	0.00	0.02	0.02	0.00	0.01	0.01	—	24.7	24.7	< 0.005	< 0.005	0.05	25.1
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.03	< 0.005	0.28	0.15	< 0.005	< 0.005	0.06	0.06	< 0.005	0.02	0.02	—	220	220	0.02	0.04	0.20	231
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	4.10	4.10	< 0.005	< 0.005	0.01	4.15
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.01	< 0.005	0.05	0.03	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	36.4	36.4	< 0.005	0.01	0.03	38.3

3.7. Foundation (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.44	1.20	11.2	13.1	0.02	0.50	—	0.50	0.46	—	0.46	—	2,398	2,398	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.44	1.20	11.2	13.1	0.02	0.50	—	0.50	0.46	—	0.46	—	2,398	2,398	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.30	0.25	2.37	2.77	< 0.005	0.11	—	0.11	0.10	—	0.10	—	507	507	0.02	< 0.005	—	508
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.06	0.05	0.43	0.51	< 0.005	0.02	—	0.02	0.02	—	0.02	—	83.9	83.9	< 0.005	< 0.005	—	84.2
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.44	1.31	1.22	21.2	0.00	0.00	3.28	3.28	0.00	0.77	0.77	—	3,611	3,611	0.15	0.12	14.4	3,667
Vendor	0.13	0.03	1.36	0.73	0.01	0.02	0.32	0.34	0.02	0.09	0.11	—	1,187	1,187	0.09	0.18	3.31	1,246
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.37	1.24	1.43	16.0	0.00	0.00	3.28	3.28	0.00	0.77	0.77	—	3,310	3,310	0.16	0.12	0.37	3,351
Vendor	0.12	0.03	1.42	0.74	0.01	0.02	0.32	0.34	0.02	0.09	0.11	—	1,188	1,188	0.09	0.18	0.09	1,243
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.29	0.26	0.30	3.56	0.00	0.00	0.69	0.69	0.00	0.16	0.16	—	709	709	0.03	0.03	1.32	719
Vendor	0.03	0.01	0.30	0.16	< 0.005	< 0.005	0.07	0.07	< 0.005	0.02	0.02	—	251	251	0.02	0.04	0.30	263
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.05	0.06	0.65	0.00	0.00	0.13	0.13	0.00	0.03	0.03	—	117	117	0.01	< 0.005	0.22	119
Vendor	< 0.005	< 0.005	0.06	0.03	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	41.6	41.6	< 0.005	0.01	0.05	43.5
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.8. Foundation (2024) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.44	1.20	11.2	13.1	0.02	0.50	—	0.50	0.46	—	0.46	—	2,398	2,398	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	1.44	1.20	11.2	13.1	0.02	0.50	—	0.50	0.46	—	0.46	—	2,398	2,398	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.30	0.25	2.37	2.77	< 0.005	0.11	—	0.11	0.10	—	0.10	—	507	507	0.02	< 0.005	—	508
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.06	0.05	0.43	0.51	< 0.005	0.02	—	0.02	0.02	—	0.02	—	83.9	83.9	< 0.005	< 0.005	—	84.2
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.44	1.31	1.22	21.2	0.00	0.00	3.28	3.28	0.00	0.77	0.77	—	3,611	3,611	0.15	0.12	14.4	3,667
Vendor	0.13	0.03	1.36	0.73	0.01	0.02	0.32	0.34	0.02	0.09	0.11	—	1,187	1,187	0.09	0.18	3.31	1,246
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.37	1.24	1.43	16.0	0.00	0.00	3.28	3.28	0.00	0.77	0.77	—	3,310	3,310	0.16	0.12	0.37	3,351
Vendor	0.12	0.03	1.42	0.74	0.01	0.02	0.32	0.34	0.02	0.09	0.11	—	1,188	1,188	0.09	0.18	0.09	1,243
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.29	0.26	0.30	3.56	0.00	0.00	0.69	0.69	0.00	0.16	0.16	—	709	709	0.03	0.03	1.32	719
Vendor	0.03	0.01	0.30	0.16	< 0.005	< 0.005	0.07	0.07	< 0.005	0.02	0.02	—	251	251	0.02	0.04	0.30	263

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.05	0.06	0.65	0.00	0.00	0.13	0.13	0.00	0.03	0.03	—	117	117	0.01	< 0.005	0.22	119
Vendor	< 0.005	< 0.005	0.06	0.03	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	41.6	41.6	< 0.005	0.01	0.05	43.5
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.9. Foundation (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.35	1.13	10.4	13.0	0.02	0.43	—	0.43	0.40	—	0.40	—	2,398	2,398	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.20	0.16	1.51	1.89	< 0.005	0.06	—	0.06	0.06	—	0.06	—	347	347	0.01	< 0.005	—	348
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.03	0.28	0.34	< 0.005	0.01	—	0.01	0.01	—	0.01	—	57.5	57.5	< 0.005	< 0.005	—	57.7
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.20	1.08	1.22	14.7	0.00	0.00	3.28	3.28	0.00	0.77	0.77	—	3,241	3,241	0.15	0.12	0.34	3,282
Vendor	0.11	0.03	1.36	0.70	0.01	0.02	0.32	0.34	0.02	0.09	0.11	—	1,169	1,169	0.09	0.18	0.09	1,224
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.17	0.15	0.19	2.25	0.00	0.00	0.47	0.47	0.00	0.11	0.11	—	476	476	0.02	0.02	0.82	483
Vendor	0.02	< 0.005	0.20	0.10	< 0.005	< 0.005	0.05	0.05	< 0.005	0.01	0.02	—	169	169	0.01	0.03	0.21	177
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.03	0.41	0.00	0.00	0.09	0.09	0.00	0.02	0.02	—	78.8	78.8	< 0.005	< 0.005	0.14	79.9
Vendor	< 0.005	< 0.005	0.04	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	28.0	28.0	< 0.005	< 0.005	0.03	29.4
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.10. Foundation (2025) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

1522

Off-Road Equipment	1.35	1.13	10.4	13.0	0.02	0.43	—	0.43	0.40	—	0.40	—	2,398	2,398	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.20	0.16	1.51	1.89	< 0.005	0.06	—	0.06	0.06	—	0.06	—	347	347	0.01	< 0.005	—	348
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.03	0.28	0.34	< 0.005	0.01	—	0.01	0.01	—	0.01	—	57.5	57.5	< 0.005	< 0.005	—	57.7
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.20	1.08	1.22	14.7	0.00	0.00	3.28	3.28	0.00	0.77	0.77	—	3,241	3,241	0.15	0.12	0.34	3,282
Vendor	0.11	0.03	1.36	0.70	0.01	0.02	0.32	0.34	0.02	0.09	0.11	—	1,169	1,169	0.09	0.18	0.09	1,224
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.17	0.15	0.19	2.25	0.00	0.00	0.47	0.47	0.00	0.11	0.11	—	476	476	0.02	0.02	0.82	483
Vendor	0.02	< 0.005	0.20	0.10	< 0.005	< 0.005	0.05	0.05	< 0.005	0.01	0.02	—	169	169	0.01	0.03	0.21	177
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.03	0.41	0.00	0.00	0.09	0.09	0.00	0.02	0.02	—	78.8	78.8	< 0.005	< 0.005	0.14	79.9

Vendor	< 0.005	< 0.005	0.04	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	28.0	28.0	< 0.005	< 0.005	0.03	29.4
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.11. Vertical (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.44	1.20	11.2	13.1	0.02	0.50	—	0.50	0.46	—	0.46	—	2,398	2,398	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.22	0.18	1.71	2.00	< 0.005	0.08	—	0.08	0.07	—	0.07	—	366	366	0.01	< 0.005	—	367
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.03	0.31	0.37	< 0.005	0.01	—	0.01	0.01	—	0.01	—	60.6	60.6	< 0.005	< 0.005	—	60.8
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.37	1.24	1.43	16.0	0.00	0.00	3.28	3.28	0.00	0.77	0.77	—	3,310	3,310	0.16	0.12	0.37	3,351
Vendor	0.12	0.03	1.42	0.74	0.01	0.02	0.32	0.34	0.02	0.09	0.11	—	1,188	1,188	0.09	0.18	0.09	1,243
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.21	0.19	0.22	2.57	0.00	0.00	0.50	0.50	0.00	0.12	0.12	—	512	512	0.02	0.02	0.95	520
Vendor	0.02	< 0.005	0.22	0.11	< 0.005	< 0.005	0.05	0.05	< 0.005	0.01	0.02	—	181	181	0.01	0.03	0.22	190
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.03	0.04	0.47	0.00	0.00	0.09	0.09	0.00	0.02	0.02	—	84.8	84.8	< 0.005	< 0.005	0.16	86.0
Vendor	< 0.005	< 0.005	0.04	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	30.0	30.0	< 0.005	< 0.005	0.04	31.4
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.12. Vertical (2024) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.44	1.20	11.2	13.1	0.02	0.50	—	0.50	0.46	—	0.46	—	2,398	2,398	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.22	0.18	1.71	2.00	< 0.005	0.08	—	0.08	0.07	—	0.07	—	366	366	0.01	< 0.005	—	367
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.03	0.31	0.37	< 0.005	0.01	—	0.01	0.01	—	0.01	—	60.6	60.6	< 0.005	< 0.005	—	60.8
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.37	1.24	1.43	16.0	0.00	0.00	3.28	3.28	0.00	0.77	0.77	—	3,310	3,310	0.16	0.12	0.37	3,351
Vendor	0.12	0.03	1.42	0.74	0.01	0.02	0.32	0.34	0.02	0.09	0.11	—	1,188	1,188	0.09	0.18	0.09	1,243
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.21	0.19	0.22	2.57	0.00	0.00	0.50	0.50	0.00	0.12	0.12	—	512	512	0.02	0.02	0.95	520
Vendor	0.02	< 0.005	0.22	0.11	< 0.005	< 0.005	0.05	0.05	< 0.005	0.01	0.02	—	181	181	0.01	0.03	0.22	190
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.03	0.04	0.47	0.00	0.00	0.09	0.09	0.00	0.02	0.02	—	84.8	84.8	< 0.005	< 0.005	0.16	86.0
Vendor	< 0.005	< 0.005	0.04	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	30.0	30.0	< 0.005	< 0.005	0.04	31.4
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.13. Vertical (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.35	1.13	10.4	13.0	0.02	0.43	—	0.43	0.40	—	0.40	—	2,398	2,398	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.35	1.13	10.4	13.0	0.02	0.43	—	0.43	0.40	—	0.40	—	2,398	2,398	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.76	0.64	5.89	7.35	0.01	0.24	—	0.24	0.22	—	0.22	—	1,351	1,351	0.05	0.01	—	1,356
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.14	0.12	1.07	1.34	< 0.005	0.04	—	0.04	0.04	—	0.04	—	224	224	0.01	< 0.005	—	224
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.27	1.15	1.10	19.5	0.00	0.00	3.28	3.28	0.00	0.77	0.77	—	3,535	3,535	0.15	0.12	13.1	3,588
Vendor	0.12	0.03	1.30	0.70	0.01	0.02	0.32	0.34	0.02	0.09	0.11	—	1,168	1,168	0.09	0.18	3.29	1,227
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.20	1.08	1.22	14.7	0.00	0.00	3.28	3.28	0.00	0.77	0.77	—	3,241	3,241	0.15	0.12	0.34	3,282
Vendor	0.11	0.03	1.36	0.70	0.01	0.02	0.32	0.34	0.02	0.09	0.11	—	1,169	1,169	0.09	0.18	0.09	1,224
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.67	0.60	0.74	8.76	0.00	0.00	1.84	1.84	0.00	0.43	0.43	—	1,852	1,852	0.09	0.07	3.19	1,878
Vendor	0.06	0.02	0.77	0.39	< 0.005	0.01	0.18	0.19	0.01	0.05	0.06	—	659	659	0.05	0.10	0.80	690
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.12	0.11	0.14	1.60	0.00	0.00	0.34	0.34	0.00	0.08	0.08	—	307	307	0.01	0.01	0.53	311
Vendor	0.01	< 0.005	0.14	0.07	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	109	109	0.01	0.02	0.13	114
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.14. Vertical (2025) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	1.35	1.13	10.4	13.0	0.02	0.43	—	0.43	0.40	—	0.40	—	2,398	2,398	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.35	1.13	10.4	13.0	0.02	0.43	—	0.43	0.40	—	0.40	—	2,398	2,398	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.76	0.64	5.89	7.35	0.01	0.24	—	0.24	0.22	—	0.22	—	1,351	1,351	0.05	0.01	—	1,356
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.14	0.12	1.07	1.34	< 0.005	0.04	—	0.04	0.04	—	0.04	—	224	224	0.01	< 0.005	—	224
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.27	1.15	1.10	19.5	0.00	0.00	3.28	3.28	0.00	0.77	0.77	—	3,535	3,535	0.15	0.12	13.1	3,588
Vendor	0.12	0.03	1.30	0.70	0.01	0.02	0.32	0.34	0.02	0.09	0.11	—	1,168	1,168	0.09	0.18	3.29	1,227
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.20	1.08	1.22	14.7	0.00	0.00	3.28	3.28	0.00	0.77	0.77	—	3,241	3,241	0.15	0.12	0.34	3,282

Vendor	0.11	0.03	1.36	0.70	0.01	0.02	0.32	0.34	0.02	0.09	0.11	—	1,169	1,169	0.09	0.18	0.09	1,224
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.67	0.60	0.74	8.76	0.00	0.00	1.84	1.84	0.00	0.43	0.43	—	1,852	1,852	0.09	0.07	3.19	1,878
Vendor	0.06	0.02	0.77	0.39	< 0.005	0.01	0.18	0.19	0.01	0.05	0.06	—	659	659	0.05	0.10	0.80	690
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.12	0.11	0.14	1.60	0.00	0.00	0.34	0.34	0.00	0.08	0.08	—	307	307	0.01	0.01	0.53	311
Vendor	0.01	< 0.005	0.14	0.07	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	109	109	0.01	0.02	0.13	114
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.15. MEP/Other (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.44	1.20	11.2	13.1	0.02	0.50	—	0.50	0.46	—	0.46	—	2,398	2,398	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.13	0.11	1.03	1.21	< 0.005	0.05	—	0.05	0.04	—	0.04	—	221	221	0.01	< 0.005	—	221

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.19	0.22	< 0.005	0.01	—	0.01	0.01	—	0.01	—	36.5	36.5	< 0.005	< 0.005	—	36.6
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.37	1.24	1.43	16.0	0.00	0.00	3.28	3.28	0.00	0.77	0.77	—	3,310	3,310	0.16	0.12	0.37	3,351
Vendor	0.12	0.03	1.42	0.74	0.01	0.02	0.32	0.34	0.02	0.09	0.11	—	1,188	1,188	0.09	0.18	0.09	1,243
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.12	0.11	0.13	1.55	0.00	0.00	0.30	0.30	0.00	0.07	0.07	—	309	309	0.01	0.01	0.57	313
Vendor	0.01	< 0.005	0.13	0.07	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	109	109	0.01	0.02	0.13	114
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.02	0.28	0.00	0.00	0.05	0.05	0.00	0.01	0.01	—	51.1	51.1	< 0.005	< 0.005	0.09	51.8
Vendor	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	18.1	18.1	< 0.005	< 0.005	0.02	18.9
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.16. MEP/Other (2024) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.44	1.20	11.2	13.1	0.02	0.50	—	0.50	0.46	—	0.46	—	2,398	2,398	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.13	0.11	1.03	1.21	< 0.005	0.05	—	0.05	0.04	—	0.04	—	221	221	0.01	< 0.005	—	221
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.19	0.22	< 0.005	0.01	—	0.01	0.01	—	0.01	—	36.5	36.5	< 0.005	< 0.005	—	36.6
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.37	1.24	1.43	16.0	0.00	0.00	3.28	3.28	0.00	0.77	0.77	—	3,310	3,310	0.16	0.12	0.37	3,351
Vendor	0.12	0.03	1.42	0.74	0.01	0.02	0.32	0.34	0.02	0.09	0.11	—	1,188	1,188	0.09	0.18	0.09	1,243
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.12	0.11	0.13	1.55	0.00	0.00	0.30	0.30	0.00	0.07	0.07	—	309	309	0.01	0.01	0.57	313
Vendor	0.01	< 0.005	0.13	0.07	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	109	109	0.01	0.02	0.13	114
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.02	0.28	0.00	0.00	0.05	0.05	0.00	0.01	0.01	—	51.1	51.1	< 0.005	< 0.005	0.09	51.8
Vendor	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	18.1	18.1	< 0.005	< 0.005	0.02	18.9
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.17. MEP/Other (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.35	1.13	10.4	13.0	0.02	0.43	—	0.43	0.40	—	0.40	—	2,398	2,398	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.35	1.13	10.4	13.0	0.02	0.43	—	0.43	0.40	—	0.40	—	2,398	2,398	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.84	0.70	6.52	8.14	0.01	0.27	—	0.27	0.25	—	0.25	—	1,497	1,497	0.06	0.01	—	1,502
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.15	0.13	1.19	1.49	< 0.005	0.05	—	0.05	0.05	—	0.05	—	248	248	0.01	< 0.005	—	249
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.27	1.15	1.10	19.5	0.00	0.00	3.28	3.28	0.00	0.77	0.77	—	3,535	3,535	0.15	0.12	13.1	3,588
Vendor	0.12	0.03	1.30	0.70	0.01	0.02	0.32	0.34	0.02	0.09	0.11	—	1,168	1,168	0.09	0.18	3.29	1,227
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.20	1.08	1.22	14.7	0.00	0.00	3.28	3.28	0.00	0.77	0.77	—	3,241	3,241	0.15	0.12	0.34	3,282
Vendor	0.11	0.03	1.36	0.70	0.01	0.02	0.32	0.34	0.02	0.09	0.11	—	1,169	1,169	0.09	0.18	0.09	1,224
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.74	0.66	0.82	9.70	0.00	0.00	2.03	2.03	0.00	0.48	0.48	—	2,052	2,052	0.09	0.08	3.53	2,081
Vendor	0.07	0.02	0.85	0.44	0.01	0.01	0.20	0.21	0.01	0.06	0.07	—	730	730	0.06	0.11	0.89	765
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.14	0.12	0.15	1.77	0.00	0.00	0.37	0.37	0.00	0.09	0.09	—	340	340	0.02	0.01	0.59	344
Vendor	0.01	< 0.005	0.16	0.08	< 0.005	< 0.005	0.04	0.04	< 0.005	0.01	0.01	—	121	121	0.01	0.02	0.15	127
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.18. MEP/Other (2025) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.35	1.13	10.4	13.0	0.02	0.43	—	0.43	0.40	—	0.40	—	2,398	2,398	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.35	1.13	10.4	13.0	0.02	0.43	—	0.43	0.40	—	0.40	—	2,398	2,398	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.84	0.70	6.52	8.14	0.01	0.27	—	0.27	0.25	—	0.25	—	1,497	1,497	0.06	0.01	—	1,502
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.15	0.13	1.19	1.49	< 0.005	0.05	—	0.05	0.05	—	0.05	—	248	248	0.01	< 0.005	—	249
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.27	1.15	1.10	19.5	0.00	0.00	3.28	3.28	0.00	0.77	0.77	—	3,535	3,535	0.15	0.12	13.1	3,588
Vendor	0.12	0.03	1.30	0.70	0.01	0.02	0.32	0.34	0.02	0.09	0.11	—	1,168	1,168	0.09	0.18	3.29	1,227
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.20	1.08	1.22	14.7	0.00	0.00	3.28	3.28	0.00	0.77	0.77	—	3,241	3,241	0.15	0.12	0.34	3,282
Vendor	0.11	0.03	1.36	0.70	0.01	0.02	0.32	0.34	0.02	0.09	0.11	—	1,169	1,169	0.09	0.18	0.09	1,224
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.74	0.66	0.82	9.70	0.00	0.00	2.03	2.03	0.00	0.48	0.48	—	2,052	2,052	0.09	0.08	3.53	2,081
Vendor	0.07	0.02	0.85	0.44	0.01	0.01	0.20	0.21	0.01	0.06	0.07	—	730	730	0.06	0.11	0.89	765
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.14	0.12	0.15	1.77	0.00	0.00	0.37	0.37	0.00	0.09	0.09	—	340	340	0.02	0.01	0.59	344
Vendor	0.01	< 0.005	0.16	0.08	< 0.005	< 0.005	0.04	0.04	< 0.005	0.01	0.01	—	121	121	0.01	0.02	0.15	127
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.19. Paving (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.95	0.80	7.45	9.98	0.01	0.35	—	0.35	0.32	—	0.32	—	1,511	1,511	0.06	0.01	—	1,517
Paving	—	0.72	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.06	0.05	0.47	0.63	< 0.005	0.02	—	0.02	0.02	—	0.02	—	95.2	95.2	< 0.005	< 0.005	—	95.6
Paving	—	0.05	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.09	0.11	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	15.8	15.8	< 0.005	< 0.005	—	15.8
Paving	—	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.06	0.07	0.88	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	194	194	0.01	0.01	0.02	196
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	< 0.005	< 0.005	< 0.005	0.06	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	12.4	12.4	< 0.005	< 0.005	0.02	12.6
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	2.05	2.05	< 0.005	< 0.005	< 0.005	2.08
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.20. Paving (2025) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.95	0.80	7.45	9.98	0.01	0.35	—	0.35	0.32	—	0.32	—	1,511	1,511	0.06	0.01	—	1,517
Paving	—	0.72	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.06	0.05	0.47	0.63	< 0.005	0.02	—	0.02	0.02	—	0.02	—	95.2	95.2	< 0.005	< 0.005	—	95.6
Paving	—	0.05	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.09	0.11	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	15.8	15.8	< 0.005	< 0.005	—	15.8
Paving	—	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.06	0.07	0.88	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	194	194	0.01	0.01	0.02	196
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.06	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	12.4	12.4	< 0.005	< 0.005	0.02	12.6
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	2.05	2.05	< 0.005	< 0.005	< 0.005	2.08
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.21. Coatings (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.15	0.13	0.88	1.14	< 0.005	0.03	—	0.03	0.03	—	0.03	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	—	150	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.05	0.06	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	7.32	7.32	< 0.005	< 0.005	—	7.34
Architectural Coatings	—	8.22	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.21	1.21	< 0.005	< 0.005	—	1.22
Architectural Coatings	—	1.50	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.72	0.65	0.73	8.84	0.00	0.00	1.97	1.97	0.00	0.46	0.46	—	1,944	1,944	0.09	0.07	0.20	1,969
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.03	0.04	0.51	0.00	0.00	0.11	0.11	0.00	0.03	0.03	—	108	108	< 0.005	< 0.005	0.19	110
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.09	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	17.9	17.9	< 0.005	< 0.005	0.03	18.1
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.22. Coatings (2025) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.15	0.13	0.88	1.14	< 0.005	0.03	—	0.03	0.03	—	0.03	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	—	35.1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.05	0.06	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	7.32	7.32	< 0.005	< 0.005	—	7.34
Architectural Coatings	—	1.92	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.21	1.21	< 0.005	< 0.005	—	1.22
Architectural Coatings	—	0.35	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.72	0.65	0.73	8.84	0.00	0.00	1.97	1.97	0.00	0.46	0.46	—	1,944	1,944	0.09	0.07	0.20	1,969
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.03	0.04	0.51	0.00	0.00	0.11	0.11	0.00	0.03	0.03	—	108	108	< 0.005	< 0.005	0.19	110
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.09	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	17.9	17.9	< 0.005	< 0.005	0.03	18.1
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.23. Trenching (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.45	0.38	2.91	3.71	0.01	0.14	—	0.14	0.13	—	0.13	—	547	547	0.02	< 0.005	—	549
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.45	0.38	2.91	3.71	0.01	0.14	—	0.14	0.13	—	0.13	—	547	547	0.02	< 0.005	—	549
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.02	0.18	0.22	< 0.005	0.01	—	0.01	0.01	—	0.01	—	33.0	33.0	< 0.005	< 0.005	—	33.1
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	< 0.005	< 0.005	0.03	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	5.46	5.46	< 0.005	< 0.005	—	5.48
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.04	0.04	0.63	0.00	0.00	0.10	0.10	0.00	0.02	0.02	—	108	108	< 0.005	< 0.005	0.43	110
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.04	0.04	0.48	0.00	0.00	0.10	0.10	0.00	0.02	0.02	—	99.0	99.0	< 0.005	< 0.005	0.01	100
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	6.05	6.05	< 0.005	< 0.005	0.01	6.13
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.00	1.00	< 0.005	< 0.005	< 0.005	1.02
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.24. Trenching (2024) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	C

Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.45	0.38	2.91	3.71	0.01	0.14	—	0.14	0.13	—	0.13	—	547	547	0.02	< 0.005	—	549
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.45	0.38	2.91	3.71	0.01	0.14	—	0.14	0.13	—	0.13	—	547	547	0.02	< 0.005	—	549
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.02	0.18	0.22	< 0.005	0.01	—	0.01	0.01	—	0.01	—	33.0	33.0	< 0.005	< 0.005	—	33.1
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.03	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	5.46	5.46	< 0.005	< 0.005	—	5.48
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.04	0.04	0.63	0.00	0.00	0.10	0.10	0.00	0.02	0.02	—	108	108	< 0.005	< 0.005	0.43	110
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.04	0.04	0.48	0.00	0.00	0.10	0.10	0.00	0.02	0.02	—	99.0	99.0	< 0.005	< 0.005	0.01	100
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	6.05	6.05	< 0.005	< 0.005	0.01	6.13
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.00	1.00	< 0.005	< 0.005	< 0.005	1.02
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	6.52	5.94	5.19	49.3	0.12	0.08	10.4	10.5	0.08	2.65	2.73	—	12,326	12,326	0.58	0.57	41.9	12,551

Strip Mall	1.29	1.16	1.15	11.1	0.03	0.02	2.45	2.47	0.02	0.62	0.64	—	2,876	2,876	0.13	0.13	9.84	2,927
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	7.82	7.11	6.35	60.4	0.15	0.10	12.9	13.0	0.09	3.27	3.36	—	15,202	15,202	0.71	0.69	51.8	15,478
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	6.11	5.53	5.57	41.5	0.11	0.08	10.4	10.5	0.08	2.65	2.73	—	11,558	11,558	0.61	0.58	1.09	11,749
Strip Mall	1.22	1.09	1.24	9.24	0.03	0.02	2.45	2.47	0.02	0.62	0.64	—	2,696	2,696	0.13	0.13	0.26	2,739
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	7.33	6.61	6.81	50.7	0.14	0.10	12.9	13.0	0.09	3.27	3.36	—	14,254	14,254	0.73	0.72	1.34	14,487
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	1.11	1.00	1.03	7.85	0.02	0.01	1.89	1.91	0.01	0.48	0.49	—	1,933	1,933	0.10	0.10	3.00	1,968
Strip Mall	0.22	0.20	0.23	1.75	< 0.005	< 0.005	0.44	0.45	< 0.005	0.11	0.12	—	451	451	0.02	0.02	0.70	459
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	1.33	1.20	1.26	9.60	0.03	0.02	2.34	2.35	0.02	0.59	0.61	—	2,384	2,384	0.12	0.12	3.70	2,427

4.1.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Apartme Mid Rise	6.52	5.94	5.19	49.3	0.12	0.08	10.4	10.5	0.08	2.65	2.73	—	12,326	12,326	0.58	0.57	41.9	12,551
Strip Mall	1.29	1.16	1.15	11.1	0.03	0.02	2.45	2.47	0.02	0.62	0.64	—	2,876	2,876	0.13	0.13	9.84	2,927
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	7.82	7.11	6.35	60.4	0.15	0.10	12.9	13.0	0.09	3.27	3.36	—	15,202	15,202	0.71	0.69	51.8	15,478
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	6.11	5.53	5.57	41.5	0.11	0.08	10.4	10.5	0.08	2.65	2.73	—	11,558	11,558	0.61	0.58	1.09	11,749
Strip Mall	1.22	1.09	1.24	9.24	0.03	0.02	2.45	2.47	0.02	0.62	0.64	—	2,696	2,696	0.13	0.13	0.26	2,739
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	7.33	6.61	6.81	50.7	0.14	0.10	12.9	13.0	0.09	3.27	3.36	—	14,254	14,254	0.73	0.72	1.34	14,487
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	1.11	1.00	1.03	7.85	0.02	0.01	1.89	1.91	0.01	0.48	0.49	—	1,933	1,933	0.10	0.10	3.00	1,968
Strip Mall	0.22	0.20	0.23	1.75	< 0.005	< 0.005	0.44	0.45	< 0.005	0.11	0.12	—	451	451	0.02	0.02	0.70	459
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	1.33	1.20	1.26	9.60	0.03	0.02	2.34	2.35	0.02	0.59	0.61	—	2,384	2,384	0.12	0.12	3.70	2,427

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

1548

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	1,416	1,416	0.14	0.02	—	1,425
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	49.8	49.8	< 0.005	< 0.005	—	50.1
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	1,466	1,466	0.14	0.02	—	1,475
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	1,416	1,416	0.14	0.02	—	1,425
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	49.8	49.8	< 0.005	< 0.005	—	50.1
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	1,466	1,466	0.14	0.02	—	1,475
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	235	235	0.02	< 0.005	—	236
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	8.25	8.25	< 0.005	< 0.005	—	8.30
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	243	243	0.02	< 0.005	—	244

1549

4.2.2. Electricity Emissions By Land Use - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	1,416	1,416	0.14	0.02	—	1,425
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	49.8	49.8	< 0.005	< 0.005	—	50.1
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	1,466	1,466	0.14	0.02	—	1,475
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	1,416	1,416	0.14	0.02	—	1,425
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	49.8	49.8	< 0.005	< 0.005	—	50.1
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	1,466	1,466	0.14	0.02	—	1,475
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	235	235	0.02	< 0.005	—	236
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	8.25	8.25	< 0.005	< 0.005	—	8.30

Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	243	243	0.02	< 0.005	—	244

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	0.11	0.06	0.96	0.41	0.01	0.08	—	0.08	0.08	—	0.08	—	1,224	1,224	0.11	< 0.005	—	1,227
Strip Mall	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	10.2	10.2	< 0.005	< 0.005	—	10.2
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.11	0.06	0.97	0.42	0.01	0.08	—	0.08	0.08	—	0.08	—	1,234	1,234	0.11	< 0.005	—	1,238
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	0.11	0.06	0.96	0.41	0.01	0.08	—	0.08	0.08	—	0.08	—	1,224	1,224	0.11	< 0.005	—	1,227
Strip Mall	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	10.2	10.2	< 0.005	< 0.005	—	10.2
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.11	0.06	0.97	0.42	0.01	0.08	—	0.08	0.08	—	0.08	—	1,234	1,234	0.11	< 0.005	—	1,238
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Apartments	0.02	0.01	0.18	0.07	< 0.005	0.01	—	0.01	0.01	—	0.01	—	203	203	0.02	< 0.005	—	203
Strip Mall	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.69	1.69	< 0.005	< 0.005	—	1.69
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.02	0.01	0.18	0.08	< 0.005	0.01	—	0.01	0.01	—	0.01	—	204	204	0.02	< 0.005	—	205

4.2.4. Natural Gas Emissions By Land Use - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	0.11	0.06	0.96	0.41	0.01	0.08	—	0.08	0.08	—	0.08	—	1,224	1,224	0.11	< 0.005	—	1,227
Strip Mall	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	10.2	10.2	< 0.005	< 0.005	—	10.2
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.11	0.06	0.97	0.42	0.01	0.08	—	0.08	0.08	—	0.08	—	1,234	1,234	0.11	< 0.005	—	1,238
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	0.11	0.06	0.96	0.41	0.01	0.08	—	0.08	0.08	—	0.08	—	1,224	1,224	0.11	< 0.005	—	1,227
Strip Mall	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	10.2	10.2	< 0.005	< 0.005	—	10.2
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00

Total	0.11	0.06	0.97	0.42	0.01	0.08	—	0.08	0.08	—	0.08	—	1,234	1,234	0.11	< 0.005	—	1,238
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	0.02	0.01	0.18	0.07	< 0.005	0.01	—	0.01	0.01	—	0.01	—	203	203	0.02	< 0.005	—	203
Strip Mall	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.69	1.69	< 0.005	< 0.005	—	1.69
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.02	0.01	0.18	0.08	< 0.005	0.01	—	0.01	0.01	—	0.01	—	204	204	0.02	< 0.005	—	205

4.3. Area Emissions by Source

4.3.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	1,168	1,168	0.11	0.01	—	1,175
Consumer Products	—	9.96	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.82	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	1.88	1.78	0.19	19.9	< 0.005	0.01	—	0.01	0.01	—	0.01	—	53.4	53.4	< 0.005	< 0.005	—	53.6
Total	1.88	12.6	0.19	19.9	< 0.005	0.01	—	0.01	0.01	—	0.01	0.00	1,221	1,221	0.11	0.01	—	1,228

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	1,168	1,168	0.11	0.01	—	1,175
Consumer Products	—	9.96	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.82	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	0.00	10.8	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	1,168	1,168	0.11	0.01	—	1,175
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	13.2	13.2	< 0.005	< 0.005	—	13.3
Consumer Products	—	1.82	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.15	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.23	0.22	0.02	2.48	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	6.06	6.06	< 0.005	< 0.005	—	6.08
Total	0.23	2.19	0.02	2.48	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.00	19.3	19.3	< 0.005	< 0.005	—	19.4

4.3.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	1,168	1,168	0.11	0.01	—	1,175

Consumer	—	9.96	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.82	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	1.88	1.78	0.19	19.9	< 0.005	0.01	—	0.01	0.01	—	0.01	—	53.4	53.4	< 0.005	< 0.005	—	53.6
Total	1.88	12.6	0.19	19.9	< 0.005	0.01	—	0.01	0.01	—	0.01	0.00	1,221	1,221	0.11	0.01	—	1,228
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	1,168	1,168	0.11	0.01	—	1,175
Consumer Products	—	9.96	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.82	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	0.00	10.8	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	1,168	1,168	0.11	0.01	—	1,175
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	13.2	13.2	< 0.005	< 0.005	—	13.3
Consumer Products	—	1.82	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.15	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.23	0.22	0.02	2.48	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	6.06	6.06	< 0.005	< 0.005	—	6.08
Total	0.23	2.19	0.02	2.48	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.00	19.3	19.3	< 0.005	< 0.005	—	19.4

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	27.6	96.1	124	2.84	0.07	—	215
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	0.77	2.58	3.35	0.08	< 0.005	—	5.89
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	28.4	98.7	127	2.92	0.07	—	221
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	27.6	96.1	124	2.84	0.07	—	215
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	0.77	2.58	3.35	0.08	< 0.005	—	5.89
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	28.4	98.7	127	2.92	0.07	—	221
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	4.58	15.9	20.5	0.47	0.01	—	35.6
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	0.13	0.43	0.55	0.01	< 0.005	—	0.07

Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	4.70	16.3	21.0	0.48	0.01	—	36.6

4.4.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	27.6	96.1	124	2.84	0.07	—	215
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	0.77	2.58	3.35	0.08	< 0.005	—	5.89
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	28.4	98.7	127	2.92	0.07	—	221
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	27.6	96.1	124	2.84	0.07	—	215
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	0.77	2.58	3.35	0.08	< 0.005	—	5.89
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	28.4	98.7	127	2.92	0.07	—	221
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Apartments	—	—	—	—	—	—	—	—	—	—	—	4.58	15.9	20.5	0.47	0.01	—	35.6
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	0.13	0.43	0.55	0.01	< 0.005	—	0.97
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	4.70	16.3	21.0	0.48	0.01	—	36.6

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	138	0.00	138	13.8	0.00	—	482
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	3.06	0.00	3.06	0.31	0.00	—	10.7
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	141	0.00	141	14.1	0.00	—	493
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	138	0.00	138	13.8	0.00	—	482
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	3.06	0.00	3.06	0.31	0.00	—	10.7

Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	141	0.00	141	14.1	0.00	—	493
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	22.8	0.00	22.8	2.28	0.00	—	79.9
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	0.51	0.00	0.51	0.05	0.00	—	1.77
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	23.3	0.00	23.3	2.33	0.00	—	81.6

4.5.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	138	0.00	138	13.8	0.00	—	482
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	3.06	0.00	3.06	0.31	0.00	—	10.7
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	141	0.00	141	14.1	0.00	—	493
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Apartments	—	—	—	—	—	—	—	—	—	—	—	138	0.00	138	13.8	0.00	—	482
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	3.06	0.00	3.06	0.31	0.00	—	10.7
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	141	0.00	141	14.1	0.00	—	493
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	22.8	0.00	22.8	2.28	0.00	—	79.9
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	0.51	0.00	0.51	0.05	0.00	—	1.77
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	23.3	0.00	23.3	2.33	0.00	—	81.6

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.29	3.29
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.03	0.03
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.32	3.32

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.29	3.29
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.03	0.03
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.32	3.32
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.54	0.54
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.01	0.01
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.55	0.55

4.6.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.29	3.29
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.03	0.03
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.32	3.32
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.29	3.29

Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.03	0.03
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.32	3.32
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.54	0.54
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.01	0.01
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.55	0.55

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.7.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.9.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Sequest	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.4. Soil Carbon Accumulation By Vegetation Type - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.5. Above and Belowground Carbon Accumulation by Land Use Type - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.6. Avoided and Sequestered Emissions by Species - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Remove	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Demolition	Demolition	6/1/2024	8/1/2024	5.00	44.0	—
Site Preparation	Site Preparation	7/1/2024	8/1/2024	5.00	24.0	—
Grading	Grading	7/24/2024	9/24/2024	5.00	45.0	—
Foundation	Building Construction	9/15/2024	3/15/2025	5.00	130	—
Vertical	Building Construction	10/15/2024	10/15/2025	5.00	262	—
MEP/Other	Building Construction	11/15/2024	11/15/2025	5.00	261	—
Paving	Paving	10/1/2025	11/1/2025	5.00	23.0	—
Coatings	Architectural Coating	11/1/2025	11/30/2025	5.00	20.0	—
Trenching	Trenching	9/1/2024	10/1/2024	5.00	22.0	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Demolition	Rubber Tired Dozers	Diesel	Average	2.00	8.00	367	0.40
Demolition	Excavators	Diesel	Average	3.00	8.00	36.0	0.38
Demolition	Concrete/Industrial Saws	Diesel	Average	1.00	8.00	33.0	0.73
Site Preparation	Rubber Tired Dozers	Diesel	Average	3.00	8.00	367	0.40

Site Preparation	Tractors/Loaders/Backh	Diesel	Average	4.00	8.00	84.0	0.37
Grading	Graders	Diesel	Average	1.00	8.00	148	0.41
Grading	Excavators	Diesel	Average	1.00	8.00	36.0	0.38
Grading	Tractors/Loaders/Backhoes	Diesel	Average	3.00	8.00	84.0	0.37
Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Foundation	Forklifts	Diesel	Average	3.00	8.00	82.0	0.20
Foundation	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Foundation	Cranes	Diesel	Average	1.00	7.00	367	0.29
Foundation	Welders	Diesel	Average	1.00	8.00	46.0	0.45
Foundation	Tractors/Loaders/Backhoes	Diesel	Average	3.00	7.00	84.0	0.37
Vertical	Forklifts	Diesel	Average	3.00	8.00	82.0	0.20
Vertical	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Vertical	Cranes	Diesel	Average	1.00	7.00	367	0.29
Vertical	Welders	Diesel	Average	1.00	8.00	46.0	0.45
Vertical	Tractors/Loaders/Backhoes	Diesel	Average	3.00	7.00	84.0	0.37
MEP/Other	Forklifts	Diesel	Average	3.00	8.00	82.0	0.20
MEP/Other	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
MEP/Other	Cranes	Diesel	Average	1.00	7.00	367	0.29
MEP/Other	Welders	Diesel	Average	1.00	8.00	46.0	0.45
MEP/Other	Tractors/Loaders/Backhoes	Diesel	Average	3.00	7.00	84.0	0.37
Paving	Pavers	Diesel	Average	2.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Average	2.00	8.00	89.0	0.36
Paving	Rollers	Diesel	Average	2.00	8.00	36.0	0.38
Coatings	Air Compressors	Diesel	Average	1.00	6.00	37.0	0.48
Trenching	Trenchers	Diesel	Average	1.00	8.00	40.0	0.50

Trenching	Tractors/Loaders/Backh	Diesel	Average	1.00	8.00	84.0	0.37
Trenching	Signal Boards	Diesel	Average	1.00	8.00	6.00	0.82

5.2.2. Mitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Demolition	Rubber Tired Dozers	Diesel	Average	2.00	8.00	367	0.40
Demolition	Excavators	Diesel	Average	3.00	8.00	36.0	0.38
Demolition	Concrete/Industrial Saws	Diesel	Average	1.00	8.00	33.0	0.73
Site Preparation	Rubber Tired Dozers	Diesel	Average	3.00	8.00	367	0.40
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Average	4.00	8.00	84.0	0.37
Grading	Graders	Diesel	Average	1.00	8.00	148	0.41
Grading	Excavators	Diesel	Average	1.00	8.00	36.0	0.38
Grading	Tractors/Loaders/Backhoes	Diesel	Average	3.00	8.00	84.0	0.37
Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Foundation	Forklifts	Diesel	Average	3.00	8.00	82.0	0.20
Foundation	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Foundation	Cranes	Diesel	Average	1.00	7.00	367	0.29
Foundation	Welders	Diesel	Average	1.00	8.00	46.0	0.45
Foundation	Tractors/Loaders/Backhoes	Diesel	Average	3.00	7.00	84.0	0.37
Vertical	Forklifts	Diesel	Average	3.00	8.00	82.0	0.20
Vertical	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Vertical	Cranes	Diesel	Average	1.00	7.00	367	0.29
Vertical	Welders	Diesel	Average	1.00	8.00	46.0	0.45
Vertical	Tractors/Loaders/Backhoes	Diesel	Average	3.00	7.00	84.0	0.37

MEP/Other	Forklifts	Diesel	Average	3.00	8.00	82.0	0.20
MEP/Other	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
MEP/Other	Cranes	Diesel	Average	1.00	7.00	367	0.29
MEP/Other	Welders	Diesel	Average	1.00	8.00	46.0	0.45
MEP/Other	Tractors/Loaders/Backhoes	Diesel	Average	3.00	7.00	84.0	0.37
Paving	Pavers	Diesel	Average	2.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Average	2.00	8.00	89.0	0.36
Paving	Rollers	Diesel	Average	2.00	8.00	36.0	0.38
Coatings	Air Compressors	Diesel	Average	1.00	6.00	37.0	0.48
Trenching	Trenchers	Diesel	Average	1.00	8.00	40.0	0.50
Trenching	Tractors/Loaders/Backhoes	Diesel	Average	1.00	8.00	84.0	0.37
Trenching	Signal Boards	Diesel	Average	1.00	8.00	6.00	0.82

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Demolition	—	—	—	—
Demolition	Worker	15.0	18.5	LDA,LDT1,LDT2
Demolition	Vendor	—	10.2	HHDT,MHDT
Demolition	Hauling	26.6	20.0	HHDT
Demolition	Onsite truck	—	—	HHDT
Site Preparation	—	—	—	—
Site Preparation	Worker	17.5	18.5	LDA,LDT1,LDT2
Site Preparation	Vendor	—	10.2	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT

Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	15.0	18.5	LDA,LDT1,LDT2
Grading	Vendor	—	10.2	HHDT,MHDT
Grading	Hauling	25.3	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Foundation	—	—	—	—
Foundation	Worker	251	18.5	LDA,LDT1,LDT2
Foundation	Vendor	37.9	10.2	HHDT,MHDT
Foundation	Hauling	0.00	20.0	HHDT
Foundation	Onsite truck	—	—	HHDT
Vertical	—	—	—	—
Vertical	Worker	251	18.5	LDA,LDT1,LDT2
Vertical	Vendor	37.9	10.2	HHDT,MHDT
Vertical	Hauling	0.00	20.0	HHDT
Vertical	Onsite truck	—	—	HHDT
MEP/Other	—	—	—	—
MEP/Other	Worker	251	18.5	LDA,LDT1,LDT2
MEP/Other	Vendor	37.9	10.2	HHDT,MHDT
MEP/Other	Hauling	0.00	20.0	HHDT
MEP/Other	Onsite truck	—	—	HHDT
Coatings	—	—	—	—
Coatings	Worker	151	18.5	LDA,LDT1,LDT2
Coatings	Vendor	—	10.2	HHDT,MHDT
Coatings	Hauling	0.00	20.0	HHDT
Coatings	Onsite truck	—	—	HHDT
Trenching	—	—	—	—

Trenching	Worker	7.50	18.5	LDA,LDT1,LDT2
Trenching	Vendor	—	10.2	HHDT,MHDT
Trenching	Hauling	0.00	20.0	HHDT
Trenching	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	15.0	18.5	LDA,LDT1,LDT2
Paving	Vendor	—	10.2	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT

5.3.2. Mitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Demolition	—	—	—	—
Demolition	Worker	15.0	18.5	LDA,LDT1,LDT2
Demolition	Vendor	—	10.2	HHDT,MHDT
Demolition	Hauling	26.6	20.0	HHDT
Demolition	Onsite truck	—	—	HHDT
Site Preparation	—	—	—	—
Site Preparation	Worker	17.5	18.5	LDA,LDT1,LDT2
Site Preparation	Vendor	—	10.2	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	15.0	18.5	LDA,LDT1,LDT2
Grading	Vendor	—	10.2	HHDT,MHDT
Grading	Hauling	25.3	20.0	HHDT
Grading	Onsite truck	—	—	HHDT

Foundation	—	—	—	—
Foundation	Worker	251	18.5	LDA,LDT1,LDT2
Foundation	Vendor	37.9	10.2	HHDT,MHDT
Foundation	Hauling	0.00	20.0	HHDT
Foundation	Onsite truck	—	—	HHDT
Vertical	—	—	—	—
Vertical	Worker	251	18.5	LDA,LDT1,LDT2
Vertical	Vendor	37.9	10.2	HHDT,MHDT
Vertical	Hauling	0.00	20.0	HHDT
Vertical	Onsite truck	—	—	HHDT
MEP/Other	—	—	—	—
MEP/Other	Worker	251	18.5	LDA,LDT1,LDT2
MEP/Other	Vendor	37.9	10.2	HHDT,MHDT
MEP/Other	Hauling	0.00	20.0	HHDT
MEP/Other	Onsite truck	—	—	HHDT
Coatings	—	—	—	—
Coatings	Worker	151	18.5	LDA,LDT1,LDT2
Coatings	Vendor	—	10.2	HHDT,MHDT
Coatings	Hauling	0.00	20.0	HHDT
Coatings	Onsite truck	—	—	HHDT
Trenching	—	—	—	—
Trenching	Worker	7.50	18.5	LDA,LDT1,LDT2
Trenching	Vendor	—	10.2	HHDT,MHDT
Trenching	Hauling	0.00	20.0	HHDT
Trenching	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	15.0	18.5	LDA,LDT1,LDT2

Paving	Vendor	—	10.2	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
Coatings	929,422	309,807	8,100	2,700	16,624

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (Cubic Yards)	Material Exported (Cubic Yards)	Acres Graded (acres)	Material Demolished (Building Square Footage)	Acres Paved (acres)
Demolition	0.00	0.00	0.00	101,620	—
Site Preparation	0.00	0.00	33.0	0.00	—
Grading	9,105	0.00	44.0	0.00	—
Paving	0.00	0.00	0.00	0.00	6.36

5.6.2. Construction Earthmoving Control Strategies

Control Strategies Applied	Frequency (per day)	PM10 Reduction	PM2.5 Reduction
Water Exposed Area	2	61%	61%
Water Demolished Area	2	36%	36%

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
Apartments Mid Rise	—	0%
Strip Mall	0.00	0%
Other Asphalt Surfaces	6.36	100%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2024	0.00	532	0.03	< 0.005
2025	0.00	532	0.03	< 0.005

5.9. Operational Mobile Sources

5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Apartments Mid Rise	1,571	1,571	1,571	573,357	14,708	14,708	14,708	5,368,476
Strip Mall	294	294	294	107,321	3,449	3,449	3,449	1,258,840
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

5.9.2. Mitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Apartments Mid Rise	1,571	1,571	1,571	573,357	14,708	14,708	14,708	5,368,476
Strip Mall	294	294	294	107,321	3,449	3,449	3,449	1,258,840

Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

Hearth Type	Unmitigated (number)
Apartments Mid Rise	—
Wood Fireplaces	0
Gas Fireplaces	0
Propane Fireplaces	0
Electric Fireplaces	311
No Fireplaces	35
Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0

5.10.1.2. Mitigated

Hearth Type	Unmitigated (number)
Apartments Mid Rise	—
Wood Fireplaces	0
Gas Fireplaces	0
Propane Fireplaces	0
Electric Fireplaces	311
No Fireplaces	35

Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0

5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
929422.35	309,807	8,100	2,700	16,624

5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	250

5.10.4. Landscape Equipment - Mitigated

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	250

5.11. Operational Energy Consumption

5.11.1. Unmitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Apartments Mid Rise	1,493,392	346	0.0330	0.0040	3,818,864
Strip Mall	52,533	346	0.0330	0.0040	31,836

Other Asphalt Surfaces	0.00	346	0.0330	0.0040	0.00

5.11.2. Mitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Apartments Mid Rise	1,493,392	346	0.0330	0.0040	3,818,864
Strip Mall	52,533	346	0.0330	0.0040	31,836
Other Asphalt Surfaces	0.00	346	0.0330	0.0040	0.00

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Apartments Mid Rise	14,421,687	587,421
Strip Mall	399,992	0.00
Other Asphalt Surfaces	0.00	0.00

5.12.2. Mitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Apartments Mid Rise	14,421,687	587,421
Strip Mall	399,992	0.00
Other Asphalt Surfaces	0.00	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)

Apartments Mid Rise	256	—
Strip Mall	5.67	—
Other Asphalt Surfaces	0.00	—

5.13.2. Mitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Apartments Mid Rise	256	—
Strip Mall	5.67	—
Other Asphalt Surfaces	0.00	—

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Apartments Mid Rise	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Apartments Mid Rise	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
Strip Mall	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Strip Mall	Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00
Strip Mall	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0

5.14.2. Mitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced

Apartments Mid Rise	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Apartments Mid Rise	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
Strip Mall	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Strip Mall	Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00
Strip Mall	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor

5.15.2. Mitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

Equipment Type	Fuel Type	Number per Day	Hours per Day	Hours per Year	Horsepower	Load Factor

5.16.2. Process Boilers

Equipment Type	Fuel Type	Number	Boiler Rating (MMBtu/hr)	Daily Heat Input (MMBtu/day)	Annual Heat Input (MMBtu/yr)

5.17. User Defined

Equipment Type	Fuel Type

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

5.18.2.2. Mitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	19.8	annual days of extreme heat
Extreme Precipitation	4.05	annual days with precipitation above 20 mm
Sea Level Rise	0.00	meters of inundation depth
Wildfire	0.00	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider different increments of sea level rise coupled with extreme storm events. Users may select from four model simulations to view the range in potential inundation depth for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 50 meters (m) by 50 m, or about 164 feet (ft) by 164 ft.
Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	2	0	0	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	1	0	0	N/A

Wildfire	1	0	0	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	0	0	0	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	2	1	1	3
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	1	1	1	2
Wildfire	1	1	1	2
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	1	1	1	2

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	80.0
AQ-PM	95.0
AQ-DPM	96.7
Drinking Water	99.7
Lead Risk Housing	26.8
Pesticides	19.2
Toxic Releases	65.3
Traffic	91.1
Effect Indicators	—
CleanUp Sites	40.8
Groundwater	37.8
Haz Waste Facilities/Generators	26.7
Impaired Water Bodies	0.00
Solid Waste	35.7
Sensitive Population	—
Asthma	43.9
Cardio-vascular	72.2
Low Birth Weights	23.3
Socioeconomic Factor Indicators	—
Education	64.1
Housing	29.7
Linguistic	50.5
Poverty	41.0

Unemployment	33.6

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	52.03387656
Employed	54.83125882
Median HI	65.14820993
Education	—
Bachelor's or higher	49.15950212
High school enrollment	100
Preschool enrollment	14.78249711
Transportation	—
Auto Access	78.96830489
Active commuting	27.28089311
Social	—
2-parent households	81.31656615
Voting	64.17297575
Neighborhood	—
Alcohol availability	41.75542153
Park access	22.69985885
Retail density	45.77184653
Supermarket access	57.37200051
Tree canopy	18.41396125
Housing	—
Homeownership	86.56486591

Housing habitability	75.79879379
Low-inc homeowner severe housing cost burden	60.87514436
Low-inc renter severe housing cost burden	87.5914282
Uncrowded housing	53.4838958
Health Outcomes	—
Insured adults	49.96791993
Arthritis	31.2
Asthma ER Admissions	51.4
High Blood Pressure	43.5
Cancer (excluding skin)	42.8
Asthma	37.3
Coronary Heart Disease	47.4
Chronic Obstructive Pulmonary Disease	35.3
Diagnosed Diabetes	41.8
Life Expectancy at Birth	68.4
Cognitively Disabled	43.0
Physically Disabled	69.8
Heart Attack ER Admissions	19.3
Mental Health Not Good	43.4
Chronic Kidney Disease	55.3
Obesity	43.5
Pedestrian Injuries	65.5
Physical Health Not Good	42.2
Stroke	51.7
Health Risk Behaviors	—
Binge Drinking	47.1
Current Smoker	44.4

1589

No Leisure Time for Physical Activity	50.7
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	0.0
Children	33.8
Elderly	56.5
English Speaking	35.7
Foreign-born	48.2
Outdoor Workers	65.0
Climate Change Adaptive Capacity	—
Impervious Surface Cover	53.7
Traffic Density	89.6
Traffic Access	23.0
Other Indices	—
Hardship	57.1
Other Decision Support	—
2016 Voting	73.7

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	64.0
Healthy Places Index Score for Project Location (b)	52.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	No
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

1590

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Land Use	Updated lot acreage and building square feet based on project site plan received 6/29/23.
Construction: Construction Phases	Updated construction building construction phases and schedule based on data request response received 8/28/23.
Construction: Off-Road Equipment	Updated Trenching equipment to include one trencher, one backhoe and one signal board.
Construction: Architectural Coatings	—
Construction: Dust From Material Movement	Updated Grading soil import based on data request response received 8/28/23.
Operations: Vehicle Data	Updated trip rates and primary/pass-by trip percentages based on LLG traffic information received 7/31/23.
Operations: Hearths	Updated number of fireplaces based on data request response received 8/28/23. Removed wood stoves based on SCAQMD Rule 445.

This page was intentionally left blank.

Attachment 2

Phase 2 CalEEMod Project File Outputs

This page was intentionally left blank.

Legacy Ontario PUD Construction Phase 2 Detailed Report

Table of Contents

1. Basic Project Information

1.1. Basic Project Information

1.2. Land Use Types

1.3. User-Selected Emission Reduction Measures by Emissions Sector

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

2.2. Construction Emissions by Year, Unmitigated

2.4. Operations Emissions Compared Against Thresholds

2.5. Operations Emissions by Sector, Unmitigated

3. Construction Emissions Details

3.1. Demolition (2026) - Unmitigated

3.3. Site Preparation (2026) - Unmitigated

3.5. Grading (2026) - Unmitigated

3.7. Building Construction (2026) - Unmitigated

3.9. Paving (2026) - Unmitigated

3.11. Architectural Coating (2026) - Unmitigated

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

4.3. Area Emissions by Source

4.3.1. Unmitigated

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

5. Activity Data

5.1. Construction Schedule

5.2. Off-Road Equipment

5.2.1. Unmitigated

5.3. Construction Vehicles

5.3.1. Unmitigated

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

5.5. Architectural Coatings

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

5.6.2. Construction Earthmoving Control Strategies

5.7. Construction Paving

5.8. Construction Electricity Consumption and Emissions Factors

5.9. Operational Mobile Sources

5.9.1. Unmitigated

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

5.10.2. Architectural Coatings

5.10.3. Landscape Equipment

5.11. Operational Energy Consumption

5.11.1. Unmitigated

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

5.13. Operational Waste Generation

5.13.1. Unmitigated

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

5.16.2. Process Boilers

5.17. User Defined

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

5.18.2. Sequestration

5.18.2.1. Unmitigated

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

6.2. Initial Climate Risk Scores

6.3. Adjusted Climate Risk Scores

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

7.2. Healthy Places Index Scores

7.3. Overall Health & Equity Scores

7.4. Health & Equity Measures

7.5. Evaluation Scorecard

7.6. Health & Equity Custom Measures

8. User Changes to Default Data

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	Legacy Ontario PUD Construction Phase 2
Construction Start Date	1/1/2026
Operational Year	2027
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.60
Precipitation (days)	9.20
Location	34.0271018753637, -117.65141705846071
County	San Bernardino-South Coast
City	Ontario
Air District	South Coast AQMD
Air Basin	South Coast
TAZ	5251
EDFZ	10
Electric Utility	Southern California Edison
Gas Utility	Southern California Gas
App Version	2022.1.1.18

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
								1601

Apartments Mid Rise	23.0	Dwelling Unit	0.61	22,080	0.00	0.00	76.0	—
Strip Mall	6.60	1000sqft	0.15	6,600	0.00	0.00	—	—
Other Asphalt Surfaces	0.75	Acre	0.75	0.00	0.00	0.00	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.32	1.10	8.76	11.4	0.02	0.29	0.27	0.57	0.27	0.07	0.34	—	2,166	2,166	0.09	0.04	1.17	2,181
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.74	21.0	13.3	15.5	0.03	0.58	2.89	3.47	0.53	1.37	1.90	—	2,886	2,886	0.13	0.06	0.03	2,909
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.86	1.30	5.89	7.38	0.01	0.20	0.22	0.43	0.19	0.06	0.25	—	1,412	1,412	0.06	0.03	0.31	1,422
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.16	0.24	1.07	1.35	< 0.005	0.04	0.04	0.08	0.03	0.01	0.05	—	234	234	0.01	< 0.005	0.05	235

2.2. Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	1.32	1.10	8.76	11.4	0.02	0.29	0.27	0.57	0.27	0.07	0.34	—	2,166	2,166	0.09	0.04	1.17	2,181
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	1.74	21.0	13.3	15.5	0.03	0.58	2.89	3.47	0.53	1.37	1.90	—	2,886	2,886	0.13	0.06	0.03	2,909
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	0.86	1.30	5.89	7.38	0.01	0.20	0.22	0.43	0.19	0.06	0.25	—	1,412	1,412	0.06	0.03	0.31	1,422
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	0.16	0.24	1.07	1.35	< 0.005	0.04	0.04	0.08	0.03	0.01	0.05	—	234	234	0.01	< 0.005	0.05	235

2.4. Operations Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	2.10	2.57	1.73	17.7	0.04	0.03	3.68	3.72	0.03	0.94	0.97	15.7	4,589	4,605	1.79	0.20	13.4	4,722
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.82	2.30	1.84	13.4	0.04	0.03	3.68	3.72	0.03	0.94	0.97	15.7	4,319	4,335	1.79	0.20	0.54	4,441
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.92	2.39	1.88	15.0	0.04	0.03	3.66	3.70	0.03	0.93	0.96	15.7	4,291	4,307	1.79	0.20	5.89	4,419

Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.35	0.44	0.34	2.74	0.01	0.01	0.67	0.67	0.01	0.17	0.18	2.59	710	713	0.30	0.03	0.98	732

2.5. Operations Emissions by Sector, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	1.92	1.73	1.64	16.1	0.04	0.03	3.68	3.71	0.03	0.94	0.96	—	4,248	4,248	0.18	0.19	13.2	4,322
Area	0.17	0.84	0.01	1.59	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.00	82.3	82.3	0.01	< 0.005	—	82.8
Energy	0.01	< 0.005	0.07	0.04	< 0.005	0.01	—	0.01	0.01	—	0.01	—	249	249	0.02	< 0.005	—	250
Water	—	—	—	—	—	—	—	—	—	—	—	2.77	9.35	12.1	0.29	0.01	—	21.3
Waste	—	—	—	—	—	—	—	—	—	—	—	12.9	0.00	12.9	1.29	0.00	—	45.1
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.20	0.20
Total	2.10	2.57	1.73	17.7	0.04	0.03	3.68	3.72	0.03	0.94	0.97	15.7	4,589	4,605	1.79	0.20	13.4	4,722
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	1.81	1.62	1.77	13.4	0.04	0.03	3.68	3.71	0.03	0.94	0.96	—	3,983	3,983	0.19	0.19	0.34	4,047
Area	0.00	0.67	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	77.6	77.6	0.01	< 0.005	—	78.1
Energy	0.01	< 0.005	0.07	0.04	< 0.005	0.01	—	0.01	0.01	—	0.01	—	249	249	0.02	< 0.005	—	250
Water	—	—	—	—	—	—	—	—	—	—	—	2.77	9.35	12.1	0.29	0.01	—	21.3
Waste	—	—	—	—	—	—	—	—	—	—	—	12.9	0.00	12.9	1.29	0.00	—	45.1
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.20	0.20
Total	1.82	2.30	1.84	13.4	0.04	0.03	3.68	3.72	0.03	0.94	0.97	15.7	4,319	4,335	1.79	0.20	0.54	4,441
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Mobile	1.79	1.60	1.79	13.9	0.04	0.03	3.66	3.69	0.03	0.93	0.96	—	4,025	4,025	0.19	0.20	5.69	4,094
Area	0.12	0.78	0.01	1.09	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.00	8.52	8.52	< 0.005	< 0.005	—	8.56
Energy	0.01	< 0.005	0.07	0.04	< 0.005	0.01	—	0.01	0.01	—	0.01	—	249	249	0.02	< 0.005	—	250
Water	—	—	—	—	—	—	—	—	—	—	—	2.77	9.35	12.1	0.29	0.01	—	21.3
Waste	—	—	—	—	—	—	—	—	—	—	—	12.9	0.00	12.9	1.29	0.00	—	45.1
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.20	0.20
Total	1.92	2.39	1.88	15.0	0.04	0.03	3.66	3.70	0.03	0.93	0.96	15.7	4,291	4,307	1.79	0.20	5.89	4,419
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.33	0.29	0.33	2.53	0.01	< 0.005	0.67	0.67	< 0.005	0.17	0.17	—	666	666	0.03	0.03	0.94	678
Area	0.02	0.14	< 0.005	0.20	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.00	1.41	1.41	< 0.005	< 0.005	—	1.42
Energy	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	41.2	41.2	< 0.005	< 0.005	—	41.4
Water	—	—	—	—	—	—	—	—	—	—	—	0.46	1.55	2.01	0.05	< 0.005	—	3.53
Waste	—	—	—	—	—	—	—	—	—	—	—	2.13	0.00	2.13	0.21	0.00	—	7.46
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.03	0.03
Total	0.35	0.44	0.34	2.74	0.01	0.01	0.67	0.67	0.01	0.17	0.18	2.59	710	713	0.30	0.03	0.98	732

3. Construction Emissions Details

3.1. Demolition (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	1.66	1.39	12.9	14.6	0.02	0.51	—	0.51	0.47	—	0.47	—	2,494	2,494	0.10	0.02	—	2,503
Demolition	—	—	—	—	—	—	0.19	0.19	—	0.03	0.03	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.09	0.08	0.71	0.80	< 0.005	0.03	—	0.03	0.03	—	0.03	—	137	137	0.01	< 0.005	—	137
Demolition	—	—	—	—	—	—	0.01	0.01	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.01	0.13	0.15	< 0.005	0.01	—	0.01	< 0.005	—	< 0.005	—	22.6	22.6	< 0.005	< 0.005	—	22.7
Demolition	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.05	0.05	0.68	0.00	0.00	0.16	0.16	0.00	0.04	0.04	—	158	158	< 0.005	0.01	0.02	—
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Hauling	0.03	< 0.005	0.29	0.16	< 0.005	< 0.005	0.06	0.07	< 0.005	0.02	0.02	—	234	234	0.02	0.04	0.01	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	< 0.005	< 0.005	< 0.005	0.04	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	8.79	8.79	< 0.005	< 0.005	0.01	—
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Hauling	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	12.8	12.8	< 0.005	< 0.005	0.01	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.46	1.46	< 0.005	< 0.005	< 0.005	—
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	2.13	2.13	< 0.005	< 0.005	< 0.005	—

3.3. Site Preparation (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.47	1.24	11.0	11.7	0.02	0.51	—	0.51	0.47	—	0.47	—	2,065	2,065	0.08	0.02	—	2,072
Dust From Material Movement	—	—	—	—	—	—	2.44	2.44	—	1.17	1.17	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.06	0.06	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	11.3	11.3	< 0.005	< 0.005	—	11.4

Dust From Material Movement	—	—	—	—	—	—	0.01	0.01	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.87	1.87	< 0.005	< 0.005	—	1.88
Dust From Material Movement	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.03	0.41	0.00	0.00	0.10	0.10	0.00	0.02	0.02	—	94.9	94.9	< 0.005	< 0.005	0.01	—
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.53	0.53	< 0.005	< 0.005	< 0.005	—
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.09	0.09	< 0.005	< 0.005	< 0.005	—
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—

3.5. Grading (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.70	1.42	12.9	14.0	0.02	0.58	—	0.58	0.53	—	0.53	—	2,455	2,455	0.10	0.02	—	2,463
Dust From Material Movement	—	—	—	—	—	—	2.76	2.76	—	1.34	1.34	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.14	0.15	< 0.005	0.01	—	0.01	0.01	—	0.01	—	26.9	26.9	< 0.005	< 0.005	—	27.0
Dust From Material Movement	—	—	—	—	—	—	0.03	0.03	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.03	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	4.45	4.45	< 0.005	< 0.005	—	4.47

Dust From Material Movement	—	—	—	—	—	—	0.01	0.01	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.04	0.04	0.54	0.00	0.00	0.13	0.13	0.00	0.03	0.03	—	127	127	< 0.005	< 0.005	0.01	—
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.41	1.41	< 0.005	< 0.005	< 0.005	—
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.23	0.23	< 0.005	< 0.005	< 0.005	—
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—

3.7. Building Construction (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

1610

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.22	1.01	8.57	9.96	0.02	0.29	—	0.29	0.27	—	0.27	—	1,801	1,801	0.07	0.01	—	1,807
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.22	1.01	8.57	9.96	0.02	0.29	—	0.29	0.27	—	0.27	—	1,801	1,801	0.07	0.01	—	1,807
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.67	0.56	4.70	5.46	0.01	0.16	—	0.16	0.15	—	0.15	—	987	987	0.04	0.01	—	990
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.12	0.10	0.86	1.00	< 0.005	0.03	—	0.03	0.03	—	0.03	—	163	163	0.01	< 0.005	—	164
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09	0.08	0.07	1.34	0.00	0.00	0.24	0.24	0.00	0.06	0.06	—	258	258	0.01	0.01	0.88	—
Vendor	0.01	< 0.005	0.12	0.06	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	107	107	0.01	0.02	0.28	—
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.08	0.08	1.02	0.00	0.00	0.24	0.24	0.00	0.06	0.06	—	236	236	< 0.005	0.01	0.02	—
Vendor	0.01	< 0.005	0.12	0.06	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	107	107	0.01	0.02	0.01	—
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.04	0.05	0.59	0.00	0.00	0.13	0.13	0.00	0.03	0.03	—	131	131	< 0.005	0.01	0.21	—
Vendor	0.01	< 0.005	0.07	0.03	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	0.01	—	58.9	58.9	< 0.005	0.01	0.07	—
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.11	0.00	0.00	0.02	0.02	0.00	0.01	0.01	—	21.7	21.7	< 0.005	< 0.005	0.03	—
Vendor	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	9.74	9.74	< 0.005	< 0.005	0.01	—
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—

3.9. Paving (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.56	0.47	4.41	6.48	0.01	0.18	—	0.18	0.17	—	0.17	—	991	991	0.04	0.01	—	995
Paving	—	0.20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.01	0.12	0.18	< 0.005	0.01	—	0.01	< 0.005	—	< 0.005	—	27.2	27.2	< 0.005	< 0.005	—	27.3
Paving	—	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.02	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	4.50	4.50	< 0.005	< 0.005	—	4.51
Paving	—	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.05	0.05	0.68	0.00	0.00	0.16	0.16	0.00	0.04	0.04	—	158	158	< 0.005	0.01	0.02	—
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	4.40	4.40	< 0.005	< 0.005	0.01	—
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.73	0.73	< 0.005	< 0.005	< 0.005	—

Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—

3.11. Architectural Coating (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.15	0.12	0.86	1.13	< 0.005	0.02	—	0.02	0.02	—	0.02	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	—	20.8	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.02	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	3.66	3.66	< 0.005	< 0.005	—	3.67
Architectural Coatings	—	0.57	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	< 0.005	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.61	0.61	< 0.005	< 0.005	—	0.61

Architect Coatings	—	0.10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.02	0.20	0.00	0.00	0.05	0.05	0.00	0.01	0.01	—	47.3	47.3	< 0.005	< 0.005	< 0.005	—
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.31	1.31	< 0.005	< 0.005	< 0.005	—
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.22	0.22	< 0.005	< 0.005	< 0.005	—
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	0.41	0.38	0.32	3.11	0.01	0.01	0.69	0.70	< 0.005	0.18	0.18	—	803	803	0.04	0.04	2.48	817
Strip Mall	1.51	1.36	1.32	12.9	0.03	0.02	2.99	3.01	0.02	0.76	0.78	—	3,445	3,445	0.15	0.15	10.7	3,505
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	1.92	1.73	1.64	16.1	0.04	0.03	3.68	3.71	0.03	0.94	0.96	—	4,248	4,248	0.18	0.19	13.2	4,322
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	0.39	0.35	0.35	2.63	0.01	0.01	0.69	0.70	< 0.005	0.18	0.18	—	753	753	0.04	0.04	0.06	766
Strip Mall	1.42	1.27	1.42	10.8	0.03	0.02	2.99	3.01	0.02	0.76	0.78	—	3,230	3,230	0.15	0.16	0.28	3,281
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	1.81	1.62	1.77	13.4	0.04	0.03	3.68	3.71	0.03	0.94	0.96	—	3,983	3,983	0.19	0.19	0.34	4,047
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	0.07	0.06	0.06	0.50	< 0.005	< 0.005	0.13	0.13	< 0.005	0.03	0.03	—	126	126	0.01	0.01	0.18	128
Strip Mall	0.26	0.23	0.26	2.04	0.01	< 0.005	0.54	0.55	< 0.005	0.14	0.14	—	540	540	0.03	0.03	0.77	550
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.33	0.29	0.33	2.53	0.01	< 0.005	0.67	0.67	< 0.005	0.17	0.17	—	666	666	0.03	0.03	0.94	678

1616

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	94.2	94.2	0.01	< 0.005	—	94.7
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	60.9	60.9	0.01	< 0.005	—	61.3
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	155	155	0.01	< 0.005	—	156
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	94.2	94.2	0.01	< 0.005	—	94.7
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	60.9	60.9	0.01	< 0.005	—	61.3
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	155	155	0.01	< 0.005	—	156
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	15.6	15.6	< 0.005	< 0.005	—	15.7
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	10.1	10.1	< 0.005	< 0.005	—	1[illegible].1

Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	25.7	25.7	< 0.005	< 0.005	—	25.8

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	0.01	< 0.005	0.06	0.03	< 0.005	0.01	—	0.01	0.01	—	0.01	—	81.4	81.4	0.01	< 0.005	—	81.6
Strip Mall	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	12.5	12.5	< 0.005	< 0.005	—	12.5
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.01	< 0.005	0.07	0.04	< 0.005	0.01	—	0.01	0.01	—	0.01	—	93.8	93.8	0.01	< 0.005	—	94.1
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	0.01	< 0.005	0.06	0.03	< 0.005	0.01	—	0.01	0.01	—	0.01	—	81.4	81.4	0.01	< 0.005	—	81.6
Strip Mall	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	12.5	12.5	< 0.005	< 0.005	—	12.5
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.01	< 0.005	0.07	0.04	< 0.005	0.01	—	0.01	0.01	—	0.01	—	93.8	93.8	0.01	< 0.005	—	94.1
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Apartments	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	13.5	13.5	< 0.005	< 0.005	—	13.5
Strip Mall	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	2.06	2.06	< 0.005	< 0.005	—	2.07
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	15.5	15.5	< 0.005	< 0.005	—	15.6

4.3. Area Emissions by Source

4.3.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	77.6	77.6	0.01	< 0.005	—	78.1
Consumer Products	—	0.62	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.06	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.17	0.16	0.01	1.59	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	4.67	4.67	< 0.005	< 0.005	—	4.69
Total	0.17	0.84	0.01	1.59	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.00	82.3	82.3	0.01	< 0.005	—	82.8
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	77.6	77.6	0.01	< 0.005	—	78.1

Consumer	—	0.62	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.06	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	0.00	0.67	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	77.6	77.6	0.01	< 0.005	—	78.1
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	0.88	0.88	< 0.005	< 0.005	—	0.89
Consumer Products	—	0.11	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.02	0.02	< 0.005	0.20	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.53	0.53	< 0.005	< 0.005	—	0.53
Total	0.02	0.14	< 0.005	0.20	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.00	1.41	1.41	< 0.005	< 0.005	—	1.42

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	1.84	6.19	8.03	0.19	< 0.005	—	14.1
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	0.94	3.16	4.09	0.10	< 0.005	—	7.19

Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	2.77	9.35	12.1	0.29	0.01	—	21.3
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	1.84	6.19	8.03	0.19	< 0.005	—	14.1
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	0.94	3.16	4.09	0.10	< 0.005	—	7.19
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	2.77	9.35	12.1	0.29	0.01	—	21.3
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	0.30	1.02	1.33	0.03	< 0.005	—	2.34
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	0.16	0.52	0.68	0.02	< 0.005	—	1.19
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	0.46	1.55	2.01	0.05	< 0.005	—	3.53

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	9.15	0.00	9.15	0.91	0.00	—	32.0
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	3.73	0.00	3.73	0.37	0.00	—	13.1
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	12.9	0.00	12.9	1.29	0.00	—	45.1
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	9.15	0.00	9.15	0.91	0.00	—	32.0
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	3.73	0.00	3.73	0.37	0.00	—	13.1
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	12.9	0.00	12.9	1.29	0.00	—	45.1
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	1.51	0.00	1.51	0.15	0.00	—	5.30
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	0.62	0.00	0.62	0.06	0.00	—	2.16
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	2.13	0.00	2.13	0.21	0.00	—	7.46

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.16	0.16
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.04	0.04
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.20	0.20
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.16	0.16
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.04	0.04
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.20	0.20
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.03	0.03
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.01	0.01
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.03	0.03

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Remove	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Demolition	Demolition	1/1/2026	1/29/2026	5.00	20.0	—
Site Preparation	Site Preparation	1/30/2026	2/1/2026	5.00	2.00	—
Grading	Grading	2/2/2026	2/7/2026	5.00	4.00	—
Building Construction	Building Construction	2/8/2026	11/15/2026	5.00	200	—
Paving	Paving	11/16/2026	11/30/2026	5.00	10.0	—
Architectural Coating	Architectural Coating	12/1/2026	12/15/2026	5.00	10.0	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Demolition	Tractors/Loaders/Backhoes	Diesel	Average	3.00	8.00	84.0	0.37
Demolition	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Demolition	Concrete/Industrial Saws	Diesel	Average	1.00	8.00	33.0	0.73
Site Preparation	Graders	Diesel	Average	1.00	8.00	148	0.41
Site Preparation	Rubber Tired Dozers	Diesel	Average	1.00	7.00	367	0.40
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Average	1.00	8.00	84.0	0.37
Grading	Graders	Diesel	Average	1.00	8.00	148	0.41
Grading	Tractors/Loaders/Backhoes	Diesel	Average	2.00	7.00	84.0	0.37
Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Building Construction	Cranes	Diesel	Average	1.00	6.00	367	0.29
Building Construction	Forklifts	Diesel	Average	1.00	6.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74

Building Construction	Tractors/Loaders/Backhoes	Diesel	Average	1.00	6.00	84.0	0.37
Building Construction	Welders	Diesel	Average	3.00	8.00	46.0	0.45
Paving	Tractors/Loaders/Backhoes	Diesel	Average	1.00	8.00	84.0	0.37
Paving	Pavers	Diesel	Average	1.00	6.00	81.0	0.42
Paving	Paving Equipment	Diesel	Average	1.00	8.00	89.0	0.36
Paving	Rollers	Diesel	Average	1.00	7.00	36.0	0.38
Paving	Cement and Mortar Mixers	Diesel	Average	1.00	6.00	10.0	0.56
Architectural Coating	Air Compressors	Diesel	Average	1.00	6.00	37.0	0.48

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Demolition	—	—	—	—
Demolition	Worker	12.5	18.5	LDA,LDT1,LDT2
Demolition	Vendor	—	10.2	HHDT,MHDT
Demolition	Hauling	3.45	20.0	HHDT
Demolition	Onsite truck	—	—	HHDT
Site Preparation	—	—	—	—
Site Preparation	Worker	7.50	18.5	LDA,LDT1,LDT2
Site Preparation	Vendor	—	10.2	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	10.0	18.5	LDA,LDT1,LDT2

Grading	Vendor	—	10.2	HHDT,MHDT
Grading	Hauling	0.00	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	18.7	18.5	LDA,LDT1,LDT2
Building Construction	Vendor	3.54	10.2	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	12.5	18.5	LDA,LDT1,LDT2
Paving	Vendor	—	10.2	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	3.73	18.5	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	10.2	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
Architectural Coating	44,712	14,904	9,900	3,300	1,950

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (Cubic Yards)	Material Exported (Cubic Yards)	Acres Graded (acres)	Material Demolished (Building Square Footage)	Acres Paved (acres)
Demolition	0.00	0.00	0.00	6,000	—
Site Preparation	0.00	0.00	1.88	0.00	—
Grading	0.00	0.00	4.00	0.00	—
Paving	0.00	0.00	0.00	0.00	0.75

5.6.2. Construction Earthmoving Control Strategies

Control Strategies Applied	Frequency (per day)	PM10 Reduction	PM2.5 Reduction
Water Exposed Area	2	61%	61%
Water Demolished Area	2	36%	36%

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
Apartments Mid Rise	—	0%
Strip Mall	0.00	0%
Other Asphalt Surfaces	0.75	100%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2026	0.00	532	0.03	< 0.005

5.9. Operational Mobile Sources

5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Apartments Mid Rise	104	104	104	38,113	978	978	978	356,864
Strip Mall	359	359	359	131,170	4,215	4,215	4,215	1,538,582
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

Hearth Type	Unmitigated (number)
Apartments Mid Rise	—
Wood Fireplaces	0
Gas Fireplaces	0
Propane Fireplaces	0
Electric Fireplaces	21
No Fireplaces	2
Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0

5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
44712	14,904	9,900	3,300	1,950

5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	250

5.11. Operational Energy Consumption

5.11.1. Unmitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Apartments Mid Rise	99,272	346	0.0330	0.0040	253,855
Strip Mall	64,207	346	0.0330	0.0040	38,910
Other Asphalt Surfaces	0.00	346	0.0330	0.0040	0.00

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Apartments Mid Rise	958,667	0.00
Strip Mall	488,879	0.00
Other Asphalt Surfaces	0.00	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Apartments Mid Rise	17.0	—
Strip Mall	6.93	—
Other Asphalt Surfaces	0.00	—

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Apartments Mid Rise	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Apartments Mid Rise	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
Strip Mall	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Strip Mall	Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00
Strip Mall	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

Equipment Type	Fuel Type	Number per Day	Hours per Day	Hours per Year	Horsepower	Load Factor

5.16.2. Process Boilers

Equipment Type	Fuel Type	Number	Boiler Rating (MMBtu/hr)	Daily Heat Input (MMBtu/day)	Annual Heat Input (MMBtu/yr)

5.17. User Defined

Equipment Type	Fuel Type

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	19.8	annual days of extreme heat
Extreme Precipitation	4.05	annual days with precipitation above 20 mm
Sea Level Rise	0.00	meters of inundation depth
Wildfire	0.00	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider different increments of sea level rise coupled with extreme storm events. Users may select from four model simulations to view the range in potential inundation depth for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 50 meters (m) by 50 m, or about 164 feet (ft) by 164 ft.
Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	2	0	0	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	1	0	0	N/A
Wildfire	1	0	0	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A

Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	0	0	0	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	2	1	1	3
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	1	1	1	2
Wildfire	1	1	1	2
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	1	1	1	2

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
	1637

Exposure Indicators	—
AQ-Ozone	80.0
AQ-PM	95.0
AQ-DPM	96.7
Drinking Water	99.7
Lead Risk Housing	26.8
Pesticides	19.2
Toxic Releases	65.3
Traffic	91.1
Effect Indicators	—
CleanUp Sites	40.8
Groundwater	37.8
Haz Waste Facilities/Generators	26.7
Impaired Water Bodies	0.00
Solid Waste	35.7
Sensitive Population	—
Asthma	43.9
Cardio-vascular	72.2
Low Birth Weights	23.3
Socioeconomic Factor Indicators	—
Education	64.1
Housing	29.7
Linguistic	50.5
Poverty	41.0
Unemployment	33.6

7.2. Healthy Places Index Scores

1638

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	52.03387656
Employed	54.83125882
Median HI	65.14820993
Education	—
Bachelor's or higher	49.15950212
High school enrollment	100
Preschool enrollment	14.78249711
Transportation	—
Auto Access	78.96830489
Active commuting	27.28089311
Social	—
2-parent households	81.31656615
Voting	64.17297575
Neighborhood	—
Alcohol availability	41.75542153
Park access	22.69985885
Retail density	45.77184653
Supermarket access	57.37200051
Tree canopy	18.41396125
Housing	—
Homeownership	86.56486591
Housing habitability	75.79879379
Low-inc homeowner severe housing cost burden	60.87514436
Low-inc renter severe housing cost burden	87.5914282
Uncrowded housing	53.4838958

Health Outcomes	—
Insured adults	49.96791993
Arthritis	31.2
Asthma ER Admissions	51.4
High Blood Pressure	43.5
Cancer (excluding skin)	42.8
Asthma	37.3
Coronary Heart Disease	47.4
Chronic Obstructive Pulmonary Disease	35.3
Diagnosed Diabetes	41.8
Life Expectancy at Birth	68.4
Cognitively Disabled	43.0
Physically Disabled	69.8
Heart Attack ER Admissions	19.3
Mental Health Not Good	43.4
Chronic Kidney Disease	55.3
Obesity	43.5
Pedestrian Injuries	65.5
Physical Health Not Good	42.2
Stroke	51.7
Health Risk Behaviors	—
Binge Drinking	47.1
Current Smoker	44.4
No Leisure Time for Physical Activity	50.7
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	0.0

1640

Children	33.8
Elderly	56.5
English Speaking	35.7
Foreign-born	48.2
Outdoor Workers	65.0
Climate Change Adaptive Capacity	—
Impervious Surface Cover	53.7
Traffic Density	89.6
Traffic Access	23.0
Other Indices	—
Hardship	57.1
Other Decision Support	—
2016 Voting	73.7

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	64.0
Healthy Places Index Score for Project Location (b)	52.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	No
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

1641

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Operations: Vehicle Data	Updated trip rates and primary/pass-by trip percentages based on LLG traffic information received 7/31/23.
Operations: Hearths	Updated number of fireplaces based on data request response received 8/28/23. Removed wood stoves based on SCAQMD Rule 445.

This page was intentionally left blank.

Attachment 3

Existing CalEEMod Project File Outputs

This page was intentionally left blank.

Legacy Ontario PUD Existing Detailed Report

Table of Contents

1. Basic Project Information

1.1. Basic Project Information

1.2. Land Use Types

1.3. User-Selected Emission Reduction Measures by Emissions Sector

2. Emissions Summary

2.4. Operations Emissions Compared Against Thresholds

2.5. Operations Emissions by Sector, Unmitigated

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

4.3. Area Emissions by Source

4.3.1. Unmitigated

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

5. Activity Data

5.9. Operational Mobile Sources

5.9.1. Unmitigated

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

5.10.2. Architectural Coatings

5.10.3. Landscape Equipment

5.11. Operational Energy Consumption

5.11.1. Unmitigated

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

5.13. Operational Waste Generation

5.13.1. Unmitigated

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

5.16.2. Process Boilers

5.17. User Defined

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

5.18.2. Sequestration

5.18.2.1. Unmitigated

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

6.2. Initial Climate Risk Scores

6.3. Adjusted Climate Risk Scores

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

7.2. Healthy Places Index Scores

7.3. Overall Health & Equity Scores

7.4. Health & Equity Measures

7.5. Evaluation Scorecard

7.6. Health & Equity Custom Measures

8. User Changes to Default Data

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	Legacy Ontario PUD Existing
Operational Year	2023
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.60
Precipitation (days)	9.20
Location	34.02752151699114, -117.65230679839047
County	San Bernardino-South Coast
City	Ontario
Air District	South Coast AQMD
Air Basin	South Coast
TAZ	5251
EDFZ	10
Electric Utility	Southern California Edison
Gas Utility	Southern California Gas
App Version	2022.1.1.18

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
Strip Mall	11.4	1000sqft	0.26	11,450	0.00	0.00	—	—

1651

Regional Shopping Center	89.5	1000sqft	2.05	89,500	30,000	0.00	—	—
Fast Food Restaurant with Drive Thru	4.10	1000sqft	0.09	4,100	0.00	0.00	—	—
Other Asphalt Surfaces	8.19	Acre	8.19	0.00	0.00	0.00	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

2. Emissions Summary

2.4. Operations Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	25.4	25.5	22.5	213	0.46	0.36	37.4	37.8	0.33	9.50	9.83	99.3	48,925	49,024	12.4	2.18	207	50,191
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	22.8	23.0	24.2	173	0.43	0.35	37.4	37.8	0.33	9.50	9.83	99.3	45,921	46,021	12.4	2.26	12.1	47,018
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	23.3	23.4	24.7	183	0.43	0.35	37.2	37.5	0.33	9.45	9.78	99.3	46,399	46,498	12.5	2.28	93.3	47,583
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	4.25	4.27	4.50	33.4	0.08	0.06	6.79	6.85	0.06	1.72	1.78	16.4	7,682	7,698	2.06	0.38	15.4	7,878

2.5. Operations Emissions by Sector, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	24.5	22.2	22.2	209	0.46	0.33	37.4	37.7	0.31	9.50	9.81	—	46,834	46,834	2.26	2.13	200	47,725
Area	0.81	3.32	0.04	4.57	< 0.005	0.01	—	0.01	0.01	—	0.01	—	18.8	18.8	< 0.005	< 0.005	—	18.9
Energy	0.03	0.02	0.29	0.24	< 0.005	0.02	—	0.02	0.02	—	0.02	—	1,982	1,982	0.13	0.01	—	1,989
Water	—	—	—	—	—	—	—	—	—	—	—	16.7	90.3	107	1.72	0.04	—	162
Waste	—	—	—	—	—	—	—	—	—	—	—	82.6	0.00	82.6	8.25	0.00	—	289
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	6.91	6.91
Total	25.4	25.5	22.5	213	0.46	0.36	37.4	37.8	0.33	9.50	9.83	99.3	48,925	49,024	12.4	2.18	207	50,191
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	22.8	20.4	23.9	173	0.43	0.33	37.4	37.7	0.31	9.50	9.81	—	43,849	43,849	2.35	2.21	5.18	44,571
Area	—	2.57	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.03	0.02	0.29	0.24	< 0.005	0.02	—	0.02	0.02	—	0.02	—	1,982	1,982	0.13	0.01	—	1,989
Water	—	—	—	—	—	—	—	—	—	—	—	16.7	90.3	107	1.72	0.04	—	162
Waste	—	—	—	—	—	—	—	—	—	—	—	82.6	0.00	82.6	8.25	0.00	—	289
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	6.91	6.91
Total	22.8	23.0	24.2	173	0.43	0.35	37.4	37.8	0.33	9.50	9.83	99.3	45,921	46,021	12.4	2.26	12.1	47,018
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	22.7	20.3	24.4	180	0.43	0.33	37.2	37.5	0.31	9.45	9.75	—	44,314	44,314	2.35	2.23	86.3	45,123
Area	0.56	3.08	0.03	3.13	< 0.005	0.01	—	0.01	< 0.005	—	< 0.005	—	12.9	12.9	< 0.005	< 0.005	—	12.9
Energy	0.03	0.02	0.29	0.24	< 0.005	0.02	—	0.02	0.02	—	0.02	—	1,982	1,982	0.13	0.01	—	1,989
Water	—	—	—	—	—	—	—	—	—	—	—	16.7	90.3	107	1.72	0.04	—	1

Waste	—	—	—	—	—	—	—	—	—	—	—	82.6	0.00	82.6	8.25	0.00	—	289
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	6.91	6.91
Total	23.3	23.4	24.7	183	0.43	0.35	37.2	37.5	0.33	9.45	9.78	99.3	46,399	46,498	12.5	2.28	93.3	47,583
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	4.14	3.70	4.45	32.8	0.08	0.06	6.79	6.85	0.06	1.72	1.78	—	7,337	7,337	0.39	0.37	14.3	7,471
Area	0.10	0.56	< 0.005	0.57	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	2.13	2.13	< 0.005	< 0.005	—	2.14
Energy	0.01	< 0.005	0.05	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	328	328	0.02	< 0.005	—	329
Water	—	—	—	—	—	—	—	—	—	—	—	2.77	14.9	17.7	0.28	0.01	—	26.9
Waste	—	—	—	—	—	—	—	—	—	—	—	13.7	0.00	13.7	1.37	0.00	—	47.8
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.14	1.14
Total	4.25	4.27	4.50	33.4	0.08	0.06	6.79	6.85	0.06	1.72	1.78	16.4	7,682	7,698	2.06	0.38	15.4	7,878

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Strip Mall	3.24	2.91	3.04	28.6	0.06	0.04	5.19	5.23	0.04	1.32	1.36	—	6,488	6,488	0.31	0.29	27.7	6,611
Regional Shopping Center	11.8	10.6	11.1	104	0.23	0.16	18.9	19.1	0.15	4.80	4.95	—	23,631	23,631	1.11	1.06	101	24,076

Fast Food Restaurant with Drive Thru	9.48	8.62	8.10	75.6	0.16	0.12	13.3	13.4	0.11	3.38	3.49	—	16,715	16,715	0.84	0.77	71.2	17,038
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	24.5	22.2	22.2	209	0.46	0.33	37.4	37.7	0.31	9.50	9.81	—	46,834	46,834	2.26	2.13	200	47,725
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Strip Mall	3.02	2.69	3.27	23.7	0.06	0.05	5.19	5.23	0.04	1.32	1.36	—	6,074	6,074	0.32	0.30	0.72	6,173
Regional Shopping Center	11.0	9.80	11.9	86.2	0.22	0.16	18.9	19.1	0.15	4.80	4.95	—	22,122	22,122	1.15	1.10	2.62	22,482
Fast Food Restaurant with Drive Thru	8.80	7.94	8.72	63.2	0.15	0.12	13.3	13.4	0.11	3.38	3.49	—	15,653	15,653	0.88	0.80	1.85	15,916
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	22.8	20.4	23.9	173	0.43	0.33	37.4	37.7	0.31	9.50	9.81	—	43,849	43,849	2.35	2.21	5.18	44,571
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Strip Mall	0.55	0.49	0.61	4.49	0.01	0.01	0.94	0.95	0.01	0.24	0.25	—	1,016	1,016	0.05	0.05	1.98	1,035
Regional Shopping Center	1.99	1.78	2.22	16.3	0.04	0.03	3.43	3.46	0.03	0.87	0.90	—	3,701	3,701	0.19	0.18	7.22	3,768
Fast Food Restaurant with Drive Thru	1.60	1.44	1.62	12.0	0.03	0.02	2.42	2.44	0.02	0.61	0.63	—	2,619	2,619	0.14	0.13	5.09	2,668

Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	4.14	3.70	4.45	32.8	0.08	0.06	6.79	6.85	0.06	1.72	1.78	—	7,337	7,337	0.39	0.37	14.3	7,471

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	162	162	0.01	< 0.005	—	163
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	—	1,269	1,269	0.08	0.01	—	1,274
Fast Food Restaurant with Drive Thru	—	—	—	—	—	—	—	—	—	—	—	—	210	210	0.01	< 0.005	—	210
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	1,641	1,641	0.10	0.01	—	1,647
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	162	162	0.01	< 0.005	—	163
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	—	1,269	1,269	0.08	0.01	—	1,274

Fast Food Restaurant with Drive Thru	—	—	—	—	—	—	—	—	—	—	—	—	210	210	0.01	< 0.005	—	210
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	1,641	1,641	0.10	0.01	—	1,647
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	26.9	26.9	< 0.005	< 0.005	—	27.0
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	—	210	210	0.01	< 0.005	—	211
Fast Food Restaurant with Drive Thru	—	—	—	—	—	—	—	—	—	—	—	—	34.7	34.7	< 0.005	< 0.005	—	34.8
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	272	272	0.02	< 0.005	—	273

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Strip Mall	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	21.6	21.6	< 0.005	< 0.005	—	21.7

Regional Shopping Center	0.02	0.01	0.14	0.12	< 0.005	0.01	—	0.01	0.01	—	0.01	—	169	169	0.01	< 0.005	—	170
Fast Food Restaurant with Drive Thru	0.01	0.01	0.13	0.11	< 0.005	0.01	—	0.01	0.01	—	0.01	—	150	150	0.01	< 0.005	—	151
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.03	0.02	0.29	0.24	< 0.005	0.02	—	0.02	0.02	—	0.02	—	341	341	0.03	< 0.005	—	342
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Strip Mall	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	21.6	21.6	< 0.005	< 0.005	—	21.7
Regional Shopping Center	0.02	0.01	0.14	0.12	< 0.005	0.01	—	0.01	0.01	—	0.01	—	169	169	0.01	< 0.005	—	170
Fast Food Restaurant with Drive Thru	0.01	0.01	0.13	0.11	< 0.005	0.01	—	0.01	0.01	—	0.01	—	150	150	0.01	< 0.005	—	151
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.03	0.02	0.29	0.24	< 0.005	0.02	—	0.02	0.02	—	0.02	—	341	341	0.03	< 0.005	—	342
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Strip Mall	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	3.58	3.58	< 0.005	< 0.005	—	3.59
Regional Shopping Center	< 0.005	< 0.005	0.03	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	28.0	28.0	< 0.005	< 0.005	—	28.1

Fast Food Restaurant with Drive Thru	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	24.9	24.9	< 0.005	< 0.005	—	24.9
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.01	< 0.005	0.05	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	56.4	56.4	< 0.005	< 0.005	—	56.6

4.3. Area Emissions by Source

4.3.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	2.28	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.29	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.81	0.75	0.04	4.57	< 0.005	0.01	—	0.01	0.01	—	0.01	—	18.8	18.8	< 0.005	< 0.005	—	18.9
Total	0.81	3.32	0.04	4.57	< 0.005	0.01	—	0.01	0.01	—	0.01	—	18.8	18.8	< 0.005	< 0.005	—	18.9
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	2.28	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Architect Coatings	—	0.29	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	2.57	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	0.42	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.05	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.10	0.09	< 0.005	0.57	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	2.13	2.13	< 0.005	< 0.005	—	2.14
Total	0.10	0.56	< 0.005	0.57	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	2.13	2.13	< 0.005	< 0.005	—	2.14

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	1.63	8.41	10.0	0.17	< 0.005	—	15.4
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	12.7	69.5	82.2	1.31	0.03	—	124
Fast Food Restaurant with Drive Thru	—	—	—	—	—	—	—	—	—	—	—	2.38	12.3	14.7	0.25	0.01	—	22.6

Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	16.7	90.3	107	1.72	0.04	—	162
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	1.63	8.41	10.0	0.17	< 0.005	—	15.4
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	12.7	69.5	82.2	1.31	0.03	—	124
Fast Food Restaurant with Drive Thru	—	—	—	—	—	—	—	—	—	—	—	2.38	12.3	14.7	0.25	0.01	—	22.6
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	16.7	90.3	107	1.72	0.04	—	162
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	0.27	1.39	1.66	0.03	< 0.005	—	2.55
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	2.10	11.5	13.6	0.22	0.01	—	20.6
Fast Food Restaurant with Drive Thru	—	—	—	—	—	—	—	—	—	—	—	0.39	2.04	2.44	0.04	< 0.005	—	3.75
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	2.77	14.9	17.7	0.28	0.01	—	26.9

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	6.48	0.00	6.48	0.65	0.00	—	22.7
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	50.6	0.00	50.6	5.06	0.00	—	177
Fast Food Restaurant with Drive Thru	—	—	—	—	—	—	—	—	—	—	—	25.5	0.00	25.5	2.54	0.00	—	89.1
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	82.6	0.00	82.6	8.25	0.00	—	289
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	6.48	0.00	6.48	0.65	0.00	—	22.7
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	50.6	0.00	50.6	5.06	0.00	—	177
Fast Food Restaurant with Drive Thru	—	—	—	—	—	—	—	—	—	—	—	25.5	0.00	25.5	2.54	0.00	—	89.1

Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	82.6	0.00	82.6	8.25	0.00	—	289
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	1.07	0.00	1.07	0.11	0.00	—	3.75
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	8.39	0.00	8.39	0.84	0.00	—	29.3
Fast Food Restaurant with Drive Thru	—	—	—	—	—	—	—	—	—	—	—	4.21	0.00	4.21	0.42	0.00	—	14.7
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	13.7	0.00	13.7	1.37	0.00	—	47.8

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.07	0.07
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.43	0.43

Fast Food Restaurant with Drive Thru	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	6.41	6.41
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	6.91	6.91
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.07	0.07
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.43	0.43
Fast Food Restaurant with Drive Thru	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	6.41	6.41
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	6.91	6.91
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.01	0.01
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.07	0.07
Fast Food Restaurant with Drive Thru	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.06	1.06
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.14	1.14

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Remove	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.9. Operational Mobile Sources

1668

5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Strip Mall	623	623	623	227,560	7,313	7,313	7,313	2,669,206
Regional Shopping Center	2,271	2,271	2,271	828,774	26,634	26,634	26,634	9,721,254
Fast Food Restaurant with Drive Thru	1,917	1,917	1,917	699,584	18,767	18,767	18,767	6,849,901
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
0	0.00	157,575	52,525	21,401

5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	250

5.11. Operational Energy Consumption

5.11.1. Unmitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Strip Mall	111,389	532	0.0330	0.0040	67,503
Regional Shopping Center	870,686	532	0.0330	0.0040	527,646
Fast Food Restaurant with Drive Thru	143,773	532	0.0330	0.0040	468,511
Other Asphalt Surfaces	0.00	532	0.0330	0.0040	0.00

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Strip Mall	848,130	0.00
Regional Shopping Center	6,629,491	481,774
Fast Food Restaurant with Drive Thru	1,244,488	0.00
Other Asphalt Surfaces	0.00	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Strip Mall	12.0	—
Regional Shopping Center	94.0	—
Fast Food Restaurant with Drive Thru	47.2	—
Other Asphalt Surfaces	0.00	—

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Strip Mall	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Strip Mall	Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00
Strip Mall	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0
Regional Shopping Center	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Regional Shopping Center	Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00
Fast Food Restaurant with Drive Thru	Household refrigerators and/or freezers	R-134a	1,430	0.00	0.60	0.00	1.00
Fast Food Restaurant with Drive Thru	Other commercial A/C and heat pumps	R-410A	2,088	1.80	4.00	4.00	18.0
Fast Food Restaurant with Drive Thru	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

Equipment Type	Fuel Type	Number per Day	Hours per Day	Hours per Year	Horsepower	Load Factor

5.16.2. Process Boilers

Equipment Type	Fuel Type	Number	Boiler Rating (MMBtu/hr)	Daily Heat Input (MMBtu/day)	Annual Heat Input (MMBtu/yr)

5.17. User Defined

Equipment Type	Fuel Type

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	19.8	annual days of extreme heat
Extreme Precipitation	4.05	annual days with precipitation above 20 mm
Sea Level Rise	0.00	meters of inundation depth
Wildfire	0.00	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider different increments of sea level rise coupled with extreme storm events. Users may select from four model simulations to view the range in potential inundation depth for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 50 meters (m) by 50 m, or about 164 feet (ft) by 164 ft.
Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	2	0	0	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	1	0	0	N/A
Wildfire	1	0	0	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	0	0	0	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	2	1	1	3
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	1	1	1	2
Wildfire	1	1	1	2
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	1	1	1	2

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	80.0

AQ-PM	95.0
AQ-DPM	96.7
Drinking Water	99.7
Lead Risk Housing	26.8
Pesticides	19.2
Toxic Releases	65.3
Traffic	91.1
Effect Indicators	—
CleanUp Sites	40.8
Groundwater	37.8
Haz Waste Facilities/Generators	26.7
Impaired Water Bodies	0.00
Solid Waste	35.7
Sensitive Population	—
Asthma	43.9
Cardio-vascular	72.2
Low Birth Weights	23.3
Socioeconomic Factor Indicators	—
Education	64.1
Housing	29.7
Linguistic	50.5
Poverty	41.0
Unemployment	33.6

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract

1675

Economic	—
Above Poverty	52.03387656
Employed	54.83125882
Median HI	65.14820993
Education	—
Bachelor's or higher	49.15950212
High school enrollment	100
Preschool enrollment	14.78249711
Transportation	—
Auto Access	78.96830489
Active commuting	27.28089311
Social	—
2-parent households	81.31656615
Voting	64.17297575
Neighborhood	—
Alcohol availability	41.75542153
Park access	22.69985885
Retail density	45.77184653
Supermarket access	57.37200051
Tree canopy	18.41396125
Housing	—
Homeownership	86.56486591
Housing habitability	75.79879379
Low-inc homeowner severe housing cost burden	60.87514436
Low-inc renter severe housing cost burden	87.5914282
Uncrowded housing	53.4838958
Health Outcomes	—

1676

Insured adults	49.96791993
Arthritis	31.2
Asthma ER Admissions	51.4
High Blood Pressure	43.5
Cancer (excluding skin)	42.8
Asthma	37.3
Coronary Heart Disease	47.4
Chronic Obstructive Pulmonary Disease	35.3
Diagnosed Diabetes	41.8
Life Expectancy at Birth	68.4
Cognitively Disabled	43.0
Physically Disabled	69.8
Heart Attack ER Admissions	19.3
Mental Health Not Good	43.4
Chronic Kidney Disease	55.3
Obesity	43.5
Pedestrian Injuries	65.5
Physical Health Not Good	42.2
Stroke	51.7
Health Risk Behaviors	—
Binge Drinking	47.1
Current Smoker	44.4
No Leisure Time for Physical Activity	50.7
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	0.0
Children	33.8

1677

Elderly	56.5
English Speaking	35.7
Foreign-born	48.2
Outdoor Workers	65.0
Climate Change Adaptive Capacity	—
Impervious Surface Cover	53.7
Traffic Density	89.6
Traffic Access	23.0
Other Indices	—
Hardship	57.1
Other Decision Support	—
2016 Voting	73.7

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	64.0
Healthy Places Index Score for Project Location (b)	52.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	No
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

1678

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Operations: Vehicle Data	Updated trip rate and pass-by trip percentages based on Protected Left-Turn Warrant for the Euclid Avenue Mixed-Use Apartment Project report prepared by LLG 7/31/2023.

Table 3. Screening Table for Implementing GHG Performance Standards for Multi-family Residential Development 2030 (Circle Applicable Project Points, 100 points minimum)

Description	Feature	Project Points
Reduction Measure 1: Building Electrification		
Replacement of gas appliance with efficient electric appliance (select all that apply)	Electric space heater	6
	Electric water heater	8
	Electric stove	5
	Electric dryer	1
Additional electric appliance measures, if applicable (select all that apply)	Electric pool heater (if applicable)	1
	Electric spa heater (if applicable)	1
Lack of natural gas infrastructure	Project site does not have any natural gas infrastructure.	10
	Total for measure	*32*
Reduction Measure 2: Green Roofs		
Installation of a roof with a planted layer of vegetation over a waterproof surface for multi-family residential buildings	Medium Green Roof – Total vegetated area makes up 25% or more of combined multi-family residential unit area (in square feet).	3
	Total for measure	*3*
Reduction Measure 3: Urban Cooling		
On-site tree planting (select one option)[2]	1 tree per each required on-site vehicle parking space.	6
	2 trees per each required on-site vehicle parking space.	12
	3 trees per each required on-site vehicle parking space.	18
	Total for measure	*18*

[2] This strategy specifies the ratio of additional trees per required vehicle parking spaces. Based upon total on-site vehicle parking spaces required per the City of Ontario Development Code for the project, the Applicant will calculate the number of trees required to meet this measure and obtain points. The landscape plan will show onsite trees and the tree matrix shall identify all trees associated with the Urban Cooling Measure compliance. The City code requires trees onsite and within paved areas to reduce the associated heat build-up from development. The Landscape Planning Division will consider these trees in the calculation to be counted toward the Urban Cooling Measure.

Description	Feature	Project Points
Reduction Measure 4: Transit Oriented Communities (TOCs)		
New development is located in a transit-oriented community (TOC)	Development site is located within ½ mile radius of one or more of the following: a Bus Rapid Transit (BRT) stop, bus transit center, light rail station, the intersection of two or more major bus routes with a frequency of service interval of 15 minutes or less during the morning and afternoon peak commute periods, and/or High-Quality Transit Corridor defined as a corridor with fixed route bus service with service intervals no longer than 15 minutes during peak commute hours.[3]	10
	Total for measure	*10*
Reduction Measure 5: Increase Transit Ridership		
Provision of free transit passes for onsite residents or tenants for a period of 5 years after completion of construction[4] (select one option)	One 50% discounted annual transit pass for every two parking spaces, or one per residential unit, whichever is greater.	2
	One 100% discounted (free) annual transit pass for every two parking spaces or one per residential unit, whichever is greater.	6
	One 100% discounted (free) annual transit pass per parking space or one per residential bedroom, whichever is greater.	12
	Total for measure	*12*
Reduction Measure 6: Vehicle Electrification[5]		
Installation of EV charging stations for resident vehicle parking spaces (select one option)	Installation of Level 2 EV or higher charging stations at a rate of 5-10% of required vehicle parking spaces.	10
	Installation of Level 2 EV or higher charging stations at a rate of 11-29% of required vehicle parking spaces.	20
	Installation of Level 2 EV or higher charging stations at a rate of 30% or more of required vehicle parking spaces.	30
	Total for measure	*30*

[3] A project shall be considered to be within one-half mile of a major transit stop or high-quality transit corridor if all parcels within the project have no more than 25 percent of their area farther than one-half mile from the stop or corridor and if not more than 10 percent of the residential units or 100 units, whichever is less, in the project are farther than one-half mile from the stop or corridor.

[4] Provision for annual transit passes to be incorporated into CC&R's/HOA bylaws, as appropriate.

[5] EV charging station levels are defined in the California Green Building Standards or CALGreen Code, accessed at https://www.dgs.ca.gov/BSC/CALGreen. Charging stations also refer to charging ports.

Description	Feature	Project Points
Reduction Measure 7: Active Transportation		
Installation or improvement of bicycle facilities (select all that apply)	Bicycle parking facilities with 1:1 ratio of bicycle parking to guest vehicle parking space.	3
	Construct or improve a single bicycle lane facility (only Class I, II, or IV) that 1) connects to a larger existing bikeway network or 2) closes an existing bikeway network gap that is at least 0.5 miles long.	6
Installation or improvement of pedestrian facilities (select one option)	Two or three pedestrian infrastructure improvements to street design on private streets, including, but not limited to curb extensions, raised crosswalks, speed humps/bumps, street tree plantings in parkways or street medians, and elevated pavement markings.	3
	Four or more pedestrian infrastructure improvements to street design, including, but not limited to curb extensions, raised crosswalks, speed humps/bumps, street tree plantings in parkways or street medians, and elevated pavement markings.	6
	Total for measure	*15*
Reduction Measure 8: Parking Policy		
Require that some or all of resident vehicle parking spaces be purchased at an additional cost. This does not include guest vehicle parking spaces (select one option) [6]	Unbundle, or separate, half (50%) of parking costs of a residential project from property costs, requiring those who wish to purchase an additional parking space to do so at an additional cost.	1
	Unbundle, or separate, 100% of residential project's parking costs from property costs, requiring those who wish to purchase parking spaces to do so at an additional cost.	2
	Total for measure	*2*
Reduction Measure 9: Electric construction equipment[7]		
Use zero emission or electric construction equipment (select one option)	One-third (33%) of construction equipment used for construction (during building phase, not including grading phase), measured by number of hours of operation, is zero emission equipment.	4

[6] Provision for unbundled parking to be incorporated into CC&R's bylaws or separate parking agreement, as appropriate.

[7] Electric construction equipment includes electric compact excavators, electric motors, electric generators, and mobile charging equipment.

Description	Feature	Project Points
	Half (50%) of construction equipment used for construction (during the building phase, not including the grading phase), measured by the number of hours of operation, is zero emission equipment.	8
	Two-thirds (66%) or more of construction equipment used for construction (during the building phase, not including the grading phase), measured by number of hours of operation, is zero emission equipment.	12
	Total for measure	*12*
Reduction Measure 10: Waste diversion		
Design and plan multi-family housing developments to include onsite areas for municipal compost/green waste and recycling bins/containers	Site design allocates sufficient space for storage and collection of green waste, organic waste, and recyclables.	33
	Total for measure	*33*
Reduction Measure 11: Water conservation		
Implement indoor water efficiency measures (select all that apply)	Implement water efficient showerheads and faucets.	1
	Install on-demand water circulators on all showers/baths[8].	2
Incorporate outdoor water efficiency measures	Design and plan outdoor landscapes planted with drought-tolerant, low maintenance plants with a 1) drip irrigation system or 2) sprinkler irrigation system with a weather-based irrigation controller.	4
	Total for measure	*7*
	Multi-family Total for all measures	***174***
	Multi-family Project Points Subtotal	77
Additional Recommended Measures		
AR-1: Meet CalGreen	CalGreen Tier 1 compliance.	5
	CalGreen Tier 2 compliance.	10

[8] According to CALGreen, a hot water recirculation system is one which includes "a thermostat that will automatically shut off the recirculation pump when the water temperature reaches a preset level at the point of use."

Description	Feature	Project Points
voluntary tiers (select one option)		
AR-2: Generate energy from on-site solar PV (4 stories and higher buildings only, select one option)	Solar PV that generates 30%-49% of residential energy needs on multifamily residential buildings that are 4 stories in height or taller.	5
	Solar PV that generates 50%-79% of residential energy needs on multifamily residential buildings that are 4 stories in height or taller.	10
	Solar PV that generates 80% or more of residential energy needs on multifamily residential buildings that are 4 stories in height or taller.	15
AR-3: Energy Storage	If the building is 3 stories in height or less, install battery energy storage systems that meet the same performance standards as an energy storage system that would be required by the building code in a comparable building 4 stories in height or taller.	5
AR-4: Recycled Water	Use recycled water for at least 80% of outdoor water needs.	2
AR-5: Reflective Paving	Use high-reflectivity pavement for all hardscaped areas, including parking areas, walking paths, and patios.	4
AR-6: Building Orientation	Orient the building along a north-south alignment.	3
AR-7: Building Shading	Shade at least 90% of south-facing glazing by vegetation or overhangs at noon on June 21.	2
AR-8: Building Daylight	Provide daylighting in all rooms.	1
	Total additional recommended measures	***44***
	Multi-family Project Points Subtotal	23
	Total Multi-family Points Possible	***218***
	MULTI-FAMILY PROJECT POINTS TOTAL	100

Appendix B
AERMOD Output

This page intentionally left blank.

```
** Lakes Environmental AERMOD MPI
**
**************************************
**
** AERMOD Input Produced by:
** AERMOD View Ver. 10.2.1
** Lakes Environmental Software Inc.
** Date: 10/5/2022
** File: C:\Lakes\Ontario_PUD-Legacy_Ops-HRA-TOG_20221005
\Ontario_PUD-Legacy_Ops-HRA-TOG_20221005.ADI
**
**************************************
**
**
**************************************
** AERMOD Control Pathway
**************************************
**
**
CO STARTING
   TITLEONE C:\Lakes\Ontario_PUD-Legacy_Ops-HRA_20221004
\Ontario_PUD-Legacy_Ops-
   MODELOPT CONC FLAT
   AVERTIME 1 PERIOD
   URBANOPT 2035210 San_Bernardio_County
   POLLUTID PM_2.5
   RUNORNOT RUN
   ERRORFIL Ontario_PUD-Legacy_Ops-HRA-TOG_20221005.err
CO FINISHED
**
**************************************
** AERMOD Source Pathway
**************************************
**
**
SO STARTING
** Source Location **
** Source ID - Type - X Coord. - Y Coord. **
** ---------------------------------------------------------------
-------
** Line Source Represented by Area Sources
** LINE AREA Source ID = ARLN01
** DESCRSRC SR 60 WB Freeway TOG Ex
** PREFIX
** Length of Side = 18.29
** Ratio = 10
** Vertical Dimension = 1.20
** Emission Rate = 0.0000307319
** Nodes = 5
** 440650.044, 3765727.326, 260.07, 1.30
** 440119.780, 3765731.800, 261.41, 1.30
** 439661.922, 3765732.944, 260.96, 1.30
```

```
** 439171.250, 3765734.039, 252.11, 1.30
** 438870.985, 3765732.123, 258.88, 1.30
** ------------------------------------------------------------
-------
   LOCATION A0000012     AREA     440650.121 3765736.471 0.0
   LOCATION A0000013     AREA     440473.366 3765737.962 0.0
   LOCATION A0000014     AREA     440296.612 3765739.454 0.0
   LOCATION A0000015     AREA     440119.803 3765740.945 0.0
   LOCATION A0000016     AREA     439967.184 3765741.327 0.0
   LOCATION A0000017     AREA     439814.564 3765741.708 0.0
   LOCATION A0000018     AREA     439661.942 3765742.089 0.0
   LOCATION A0000019     AREA     439498.385 3765742.454 0.0
   LOCATION A0000020     AREA     439334.828 3765742.819 0.0
   LOCATION A0000021     AREA     439171.191 3765743.184 0.0
   LOCATION A0000022     AREA     439021.059 3765742.226 0.0
** End of LINE AREA Source ID = ARLN01
** ------------------------------------------------------------
-------
** Line Source Represented by Area Sources
** LINE AREA Source ID = ARLN02
** DESCRSRC SR 60 EB Freeway TOG Ex
** PREFIX
** Length of Side = 18.29
** Ratio = 10
** Vertical Dimension = 1.20
** Emission Rate = 0.0000307481
** Nodes = 6
** 438872.217, 3765713.798, 258.90, 1.30
** 439571.019, 3765709.354, 260.53, 1.30
** 439744.944, 3765708.790, 261.20, 1.30
** 440090.503, 3765708.356, 261.51, 1.30
** 440405.345, 3765708.356, 260.60, 1.30
** 440650.831, 3765711.094, 260.06, 1.30
** ------------------------------------------------------------
-------
   LOCATION A0000001     AREA     438872.159 3765704.654 0.0
   LOCATION A0000002     AREA     439046.860 3765703.543 0.0
   LOCATION A0000003     AREA     439221.560 3765702.432 0.0
   LOCATION A0000004     AREA     439396.261 3765701.321 0.0
   LOCATION A0000005     AREA     439570.990 3765700.210 0.0
   LOCATION A0000006     AREA     439744.932 3765699.646 0.0
   LOCATION A0000007     AREA     439917.712 3765699.429 0.0
   LOCATION A0000008     AREA     440090.503 3765699.212 0.0
   LOCATION A0000009     AREA     440247.924 3765699.212 0.0
   LOCATION A0000010     AREA     440405.447 3765699.212 0.0
   LOCATION A0000011     AREA     440528.190 3765700.581 0.0
** End of LINE AREA Source ID = ARLN02
** ------------------------------------------------------------
-------
** Line Source Represented by Area Sources
** LINE AREA Source ID = ARLN03
** DESCRSRC SR 60 WB On-Ramp TOG Ex
```

```
** PREFIX
** Length of Side = 3.96
** Ratio = 10
** Vertical Dimension = 1.20
** Emission Rate = 0.0005311802
** Nodes = 6
** 439895.137, 3765792.036, 254.44, 1.30
** 439830.262, 3765782.314, 255.62, 1.30
** 439602.637, 3765750.155, 260.12, 1.30
** 439556.367, 3765746.633, 260.49, 1.30
** 439478.285, 3765744.597, 260.25, 1.30
** 439423.199, 3765742.703, 260.08, 1.30
** ----------------------------------------------------------------
-------
   LOCATION A0000023     AREA     439894.844 3765793.995 0.0
   LOCATION A0000024     AREA     439862.406 3765789.134 0.0
   LOCATION A0000025     AREA     439829.985 3765784.276 0.0
   LOCATION A0000026     AREA     439792.048 3765778.916 0.0
   LOCATION A0000027     AREA     439754.110 3765773.556 0.0
   LOCATION A0000028     AREA     439716.172 3765768.196 0.0
   LOCATION A0000029     AREA     439678.235 3765762.836 0.0
   LOCATION A0000030     AREA     439640.297 3765757.477 0.0
   LOCATION A0000031     AREA     439602.486 3765752.131 0.0
   LOCATION A0000032     AREA     439579.352 3765750.369 0.0
   LOCATION A0000033     AREA     439556.316 3765748.613 0.0
   LOCATION A0000034     AREA     439517.274 3765747.595 0.0
   LOCATION A0000035     AREA     439478.217 3765746.577 0.0
   LOCATION A0000036     AREA     439450.674 3765745.630 0.0
** End of LINE AREA Source ID = ARLN03
** ----------------------------------------------------------------
-------
** Line Source Represented by Area Sources
** LINE AREA Source ID = ARLN04
** DESCRSRC SR 60 EB Offramp TOG Ex
** PREFIX
** Length of Side = 7.62
** Ratio = 10
** Vertical Dimension = 1.20
** Emission Rate = 0.0003007914
** Nodes = 5
** 439895.389, 3765645.743, 252.80, 1.30
** 439818.641, 3765660.066, 254.56, 1.30
** 439755.474, 3765672.004, 257.06, 1.30
** 439662.806, 3765681.323, 259.67, 1.30
** 439463.024, 3765701.522, 260.17, 1.30
** ----------------------------------------------------------------
-------
   LOCATION A0000037     AREA     439896.088 3765649.489 0.0
   LOCATION A0000038     AREA     439857.714 3765656.650 0.0
   LOCATION A0000039     AREA     439819.349 3765663.810 0.0
   LOCATION A0000040     AREA     439755.856 3765675.795 0.0
   LOCATION A0000041     AREA     439709.522 3765680.454 0.0
```

```
   LOCATION A0000042     AREA     439663.190 3765685.113 0.0
   LOCATION A0000043     AREA     439596.595 3765691.846 0.0
   LOCATION A0000044     AREA     439530.001 3765698.580 0.0
** End of LINE AREA Source ID = ARLN04
** ------------------------------------------------------------
-------
** Line Source Represented by Area Sources
** LINE AREA Source ID = ARLN05
** DESCRSRC SR 60 EB On-Ramp TOG Ex
** PREFIX
** Length of Side = 3.96
** Ratio = 10
** Vertical Dimension = 1.20
** Emission Rate = 0.000496591
** Nodes = 7
** 439941.297, 3765645.292, 253.26, 1.30
** 439993.010, 3765652.773, 253.93, 1.30
** 440155.834, 3765673.927, 258.66, 1.30
** 440268.609, 3765688.074, 259.90, 1.30
** 440322.372, 3765691.635, 260.22, 1.30
** 440354.630, 3765692.689, 260.13, 1.30
** 440446.541, 3765695.419, 259.97, 1.30
** ------------------------------------------------------------
-------
   LOCATION A0000045     AREA     439941.581 3765643.331 0.0
   LOCATION A0000046     AREA     439967.437 3765647.072 0.0
   LOCATION A0000047     AREA     439993.265 3765650.809 0.0
   LOCATION A0000048     AREA     440025.830 3765655.039 0.0
   LOCATION A0000049     AREA     440058.395 3765659.270 0.0
   LOCATION A0000050     AREA     440090.960 3765663.501 0.0
   LOCATION A0000051     AREA     440123.524 3765667.732 0.0
   LOCATION A0000052     AREA     440156.081 3765671.961 0.0
   LOCATION A0000053     AREA     440193.672 3765676.677 0.0
   LOCATION A0000054     AREA     440231.264 3765681.392 0.0
   LOCATION A0000055     AREA     440268.740 3765686.097 0.0
   LOCATION A0000056     AREA     440295.621 3765687.877 0.0
   LOCATION A0000057     AREA     440322.437 3765689.655 0.0
   LOCATION A0000058     AREA     440354.688 3765690.708 0.0
   LOCATION A0000059     AREA     440385.325 3765691.619 0.0
   LOCATION A0000060     AREA     440415.962 3765692.529 0.0
** End of LINE AREA Source ID = ARLN05
** ------------------------------------------------------------
-------
** Line Source Represented by Area Sources
** LINE AREA Source ID = ARLN06
** DESCRSRC SR 60 WB Off-ramp TOG Ex
** PREFIX
** Length of Side = 11.58
** Ratio = 10
** Vertical Dimension = 1.20
** Emission Rate = 0.0001897523
** Nodes = 6
```

```
** 440392.606, 3765738.840, 260.54, 1.30
** 440310.837, 3765747.261, 260.35, 1.30
** 440224.880, 3765756.031, 259.69, 1.30
** 440137.544, 3765763.271, 258.13, 1.30
** 440102.580, 3765767.415, 257.28, 1.30
** 439940.966, 3765792.538, 254.87, 1.30
** ----------------------------------------------------------------
-------
   LOCATION A0000061     AREA     440393.199 3765744.601 0.0
   LOCATION A0000062     AREA     440311.425 3765753.022 0.0
   LOCATION A0000063     AREA     440225.359 3765761.802 0.0
   LOCATION A0000064     AREA     440138.226 3765769.022 0.0
   LOCATION A0000065     AREA     440103.469 3765773.137 0.0
   LOCATION A0000066     AREA     440022.663 3765785.699 0.0
** End of LINE AREA Source ID = ARLN06
** ----------------------------------------------------------------
-------
** Line Source Represented by Area Sources
** LINE AREA Source ID = ARLN07
** DESCRSRC SR 60 WB Freeway TOG Evap
** PREFIX
** Length of Side = 18.29
** Ratio = 10
** Vertical Dimension = 1.20
** Emission Rate = 0.0000307319
** Nodes = 5
** 440650.040, 3765727.330, 260.07, 1.30
** 440119.780, 3765731.800, 261.41, 1.30
** 439661.920, 3765732.940, 260.96, 1.30
** 439171.250, 3765734.040, 252.11, 1.30
** 438870.980, 3765732.120, 258.88, 1.30
** ----------------------------------------------------------------
-------
   LOCATION A0000067     AREA     440650.117 3765736.475 0.0
   LOCATION A0000068     AREA     440473.364 3765737.965 0.0
   LOCATION A0000069     AREA     440296.610 3765739.455 0.0
   LOCATION A0000070     AREA     440119.803 3765740.945 0.0
   LOCATION A0000071     AREA     439967.183 3765741.325 0.0
   LOCATION A0000072     AREA     439814.563 3765741.705 0.0
   LOCATION A0000073     AREA     439661.941 3765742.085 0.0
   LOCATION A0000074     AREA     439498.384 3765742.452 0.0
   LOCATION A0000075     AREA     439334.827 3765742.818 0.0
   LOCATION A0000076     AREA     439171.192 3765743.185 0.0
   LOCATION A0000077     AREA     439021.057 3765742.225 0.0
** End of LINE AREA Source ID = ARLN07
** ----------------------------------------------------------------
-------
** Line Source Represented by Area Sources
** LINE AREA Source ID = ARLN08
** DESCRSRC SR EB Freeway TOG Evap
** PREFIX
** Length of Side = 18.29
```

```
** Ratio = 10
** Vertical Dimension = 1.20
** Emission Rate = 0.0000307396
** Nodes = 6
** 438872.220, 3765713.800, 258.90, 1.30
** 439571.020, 3765709.350, 260.53, 1.30
** 439744.940, 3765708.790, 261.20, 1.30
** 440090.500, 3765708.360, 261.51, 1.30
** 440405.350, 3765708.360, 260.60, 1.30
** 440650.830, 3765711.090, 260.06, 1.30
** ----------------------------------------------------------------
-------
   LOCATION A0000078     AREA     438872.162 3765704.655 0.0
   LOCATION A0000079     AREA     439046.862 3765703.543 0.0
   LOCATION A0000080     AREA     439221.562 3765702.430 0.0
   LOCATION A0000081     AREA     439396.262 3765701.318 0.0
   LOCATION A0000082     AREA     439570.991 3765700.205 0.0
   LOCATION A0000083     AREA     439744.929 3765699.645 0.0
   LOCATION A0000084     AREA     439917.709 3765699.430 0.0
   LOCATION A0000085     AREA     440090.500 3765699.215 0.0
   LOCATION A0000086     AREA     440247.925 3765699.215 0.0
   LOCATION A0000087     AREA     440405.452 3765699.216 0.0
   LOCATION A0000088     AREA     440528.192 3765700.581 0.0
** End of LINE AREA Source ID = ARLN08
** ----------------------------------------------------------------
-------
** Line Source Represented by Area Sources
** LINE AREA Source ID = ARLN09
** DESCRSRC SR 60 WB On-ramp TOG Evap
** PREFIX
** Length of Side = 3.96
** Ratio = 10
** Vertical Dimension = 1.20
** Emission Rate = 0.0005314996
** Nodes = 6
** 439895.140, 3765792.040, 254.44, 1.30
** 439830.260, 3765782.310, 255.62, 1.30
** 439602.640, 3765750.160, 260.12, 1.30
** 439556.370, 3765746.630, 260.49, 1.30
** 439478.280, 3765744.600, 260.25, 1.30
** 439423.200, 3765742.700, 260.08, 1.30
** ----------------------------------------------------------------
-------
   LOCATION A0000089     AREA     439894.846 3765793.998 0.0
   LOCATION A0000090     AREA     439862.406 3765789.133 0.0
   LOCATION A0000091     AREA     439829.983 3765784.271 0.0
   LOCATION A0000092     AREA     439792.046 3765778.912 0.0
   LOCATION A0000093     AREA     439754.110 3765773.554 0.0
   LOCATION A0000094     AREA     439716.173 3765768.196 0.0
   LOCATION A0000095     AREA     439678.236 3765762.837 0.0
   LOCATION A0000096     AREA     439640.300 3765757.479 0.0
   LOCATION A0000097     AREA     439602.489 3765752.134 0.0
```

```
   LOCATION A0000098     AREA     439579.354 3765750.369 0.0
   LOCATION A0000099     AREA     439556.319 3765748.609 0.0
   LOCATION A0000100     AREA     439517.274 3765747.594 0.0
   LOCATION A0000101     AREA     439478.212 3765746.579 0.0
   LOCATION A0000102     AREA     439450.672 3765745.629 0.0
** End of LINE AREA Source ID = ARLN09
** ------------------------------------------------------------
-------
** Line Source Represented by Area Sources
** LINE AREA Source ID = ARLN10
** DESCRSRC SR 60 EB Off-ramp TOG Evap
** PREFIX
** Length of Side = 7.62
** Ratio = 10
** Vertical Dimension = 1.20
** Emission Rate = 0.0003007882
** Nodes = 5
** 439895.390, 3765645.740, 252.80, 1.30
** 439818.640, 3765660.070, 254.55, 1.30
** 439755.470, 3765672.000, 257.06, 1.30
** 439662.810, 3765681.320, 259.67, 1.30
** 439463.020, 3765701.520, 260.17, 1.30
** ------------------------------------------------------------
-------
   LOCATION A0000103     AREA     439896.089 3765649.485 0.0
   LOCATION A0000104     AREA     439857.714 3765656.650 0.0
   LOCATION A0000105     AREA     439819.347 3765663.814 0.0
   LOCATION A0000106     AREA     439755.851 3765675.791 0.0
   LOCATION A0000107     AREA     439709.521 3765680.451 0.0
   LOCATION A0000108     AREA     439663.193 3765685.111 0.0
   LOCATION A0000109     AREA     439596.597 3765691.844 0.0
   LOCATION A0000110     AREA     439530.000 3765698.577 0.0
** End of LINE AREA Source ID = ARLN10
** ------------------------------------------------------------
-------
** Line Source Represented by Area Sources
** LINE AREA Source ID = ARLN11
** DESCRSRC SR 60 EB On-ramp TOG Evap
** PREFIX
** Length of Side = 3.96
** Ratio = 10
** Vertical Dimension = 1.20
** Emission Rate = 0.0004968954
** Nodes = 7
** 439941.300, 3765645.290, 253.26, 1.30
** 439993.010, 3765652.770, 253.93, 1.30
** 440155.830, 3765673.930, 258.66, 1.30
** 440268.610, 3765688.070, 259.90, 1.30
** 440322.370, 3765691.630, 260.22, 1.30
** 440354.630, 3765692.690, 260.13, 1.30
** 440446.540, 3765695.420, 259.97, 1.30
** ------------------------------------------------------------
```

```
-------
   LOCATION A0000111     AREA     439941.583 3765643.330 0.0
   LOCATION A0000112     AREA     439967.438 3765647.070 0.0
   LOCATION A0000113     AREA     439993.265 3765650.807 0.0
   LOCATION A0000114     AREA     440025.829 3765655.039 0.0
   LOCATION A0000115     AREA     440058.393 3765659.271 0.0
   LOCATION A0000116     AREA     440090.957 3765663.503 0.0
   LOCATION A0000117     AREA     440123.521 3765667.735 0.0
   LOCATION A0000118     AREA     440156.076 3765671.965 0.0
   LOCATION A0000119     AREA     440193.670 3765676.679 0.0
   LOCATION A0000120     AREA     440231.263 3765681.392 0.0
   LOCATION A0000121     AREA     440268.741 3765686.094 0.0
   LOCATION A0000122     AREA     440295.621 3765687.874 0.0
   LOCATION A0000123     AREA     440322.435 3765689.651 0.0
   LOCATION A0000124     AREA     440354.689 3765690.711 0.0
   LOCATION A0000125     AREA     440385.325 3765691.621 0.0
   LOCATION A0000126     AREA     440415.962 3765692.531 0.0
** End of LINE AREA Source ID = ARLN11
** ------------------------------------------------------------
-------
** Line Source Represented by Area Sources
** LINE AREA Source ID = ARLN12
** DESCRSRC SR 60 WB Off-ramp TOG Evap
** PREFIX
** Length of Side = 11.58
** Ratio = 10
** Vertical Dimension = 1.20
** Emission Rate = 0.000189791
** Nodes = 6
** 440392.610, 3765738.840, 260.54, 1.30
** 440310.840, 3765747.260, 260.35, 1.30
** 440224.880, 3765756.030, 259.69, 1.30
** 440137.540, 3765763.270, 258.13, 1.30
** 440102.580, 3765767.410, 257.28, 1.30
** 439940.970, 3765792.540, 254.87, 1.30
** ------------------------------------------------------------
-------
   LOCATION A0000127     AREA     440393.203 3765744.600 0.0
   LOCATION A0000128     AREA     440311.428 3765753.020 0.0
   LOCATION A0000129     AREA     440225.358 3765761.800 0.0
   LOCATION A0000130     AREA     440138.221 3765769.020 0.0
   LOCATION A0000131     AREA     440103.470 3765773.131 0.0
   LOCATION A0000132     AREA     440022.665 3765785.696 0.0
** End of LINE AREA Source ID = ARLN12
** Source Parameters **
** LINE AREA Source ID = ARLN01
   SRCPARAM A0000012     0.0000307319     1.300   176.761
18.290  -179.517     1.200
   SRCPARAM A0000013     0.0000307319     1.300   176.761
18.290  -179.517     1.200
   SRCPARAM A0000014     0.0000307319     1.300   176.761
18.290  -179.517     1.200
```

```
   SRCPARAM A0000015     0.0000307319     1.300   152.620
18.290  -179.857     1.200
   SRCPARAM A0000016     0.0000307319     1.300   152.620
18.290  -179.857     1.200
   SRCPARAM A0000017     0.0000307319     1.300   152.620
18.290  -179.857     1.200
   SRCPARAM A0000018     0.0000307319     1.300   163.558
18.290  -179.872     1.200
   SRCPARAM A0000019     0.0000307319     1.300   163.558
18.290  -179.872     1.200
   SRCPARAM A0000020     0.0000307319     1.300   163.558
18.290  -179.872     1.200
   SRCPARAM A0000021     0.0000307319     1.300   150.135
18.290   179.634     1.200
   SRCPARAM A0000022     0.0000307319     1.300   150.135
18.290   179.634     1.200
** ------------------------------------------------------------
-------
** LINE AREA Source ID = ARLN02
   SRCPARAM A0000001     0.0000307481     1.300   174.704
18.288     0.364     1.200
   SRCPARAM A0000002     0.0000307481     1.300   174.704
18.288     0.364     1.200
   SRCPARAM A0000003     0.0000307481     1.300   174.704
18.288     0.364     1.200
   SRCPARAM A0000004     0.0000307481     1.300   174.704
18.288     0.364     1.200
   SRCPARAM A0000005     0.0000307481     1.300   173.925
18.288     0.186     1.200
   SRCPARAM A0000006     0.0000307481     1.300   172.780
18.288     0.072     1.200
   SRCPARAM A0000007     0.0000307481     1.300   172.780
18.288     0.072     1.200
   SRCPARAM A0000008     0.0000307481     1.300   157.421
18.288     0.000     1.200
   SRCPARAM A0000009     0.0000307481     1.300   157.421
18.288     0.000     1.200
   SRCPARAM A0000010     0.0000307481     1.300   122.750
18.288    -0.639     1.200
   SRCPARAM A0000011     0.0000307481     1.300   122.750
18.288    -0.639     1.200
** ------------------------------------------------------------
-------
** LINE AREA Source ID = ARLN03
   SRCPARAM A0000023     0.0005311802     1.300    32.800
3.962   171.477     1.200
   SRCPARAM A0000024     0.0005311802     1.300    32.800
3.962   171.477     1.200
   SRCPARAM A0000025     0.0005311802     1.300    38.314
3.962   171.958     1.200
   SRCPARAM A0000026     0.0005311802     1.300    38.314
3.962   171.958     1.200
```

```
   SRCPARAM A0000027     0.0005311802     1.300    38.314
3.962   171.958     1.200
   SRCPARAM A0000028     0.0005311802     1.300    38.314
3.962   171.958     1.200
   SRCPARAM A0000029     0.0005311802     1.300    38.314
3.962   171.958     1.200
   SRCPARAM A0000030     0.0005311802     1.300    38.314
3.962   171.958     1.200
   SRCPARAM A0000031     0.0005311802     1.300    23.202
3.962   175.647     1.200
   SRCPARAM A0000032     0.0005311802     1.300    23.202
3.962   175.647     1.200
   SRCPARAM A0000033     0.0005311802     1.300    39.055
3.962   178.506     1.200
   SRCPARAM A0000034     0.0005311802     1.300    39.055
3.962   178.506     1.200
   SRCPARAM A0000035     0.0005311802     1.300    27.559
3.962   178.031     1.200
   SRCPARAM A0000036     0.0005311802     1.300    27.559
3.962   178.031     1.200
** ------------------------------------------------------------
-------
** LINE AREA Source ID = ARLN04
   SRCPARAM A0000037     0.0003007914     1.300    39.036
7.620  -169.429     1.200
   SRCPARAM A0000038     0.0003007914     1.300    39.036
7.620  -169.429     1.200
   SRCPARAM A0000039     0.0003007914     1.300    64.285
7.620  -169.298     1.200
   SRCPARAM A0000040     0.0003007914     1.300    46.568
7.620  -174.258     1.200
   SRCPARAM A0000041     0.0003007914     1.300    46.568
7.620  -174.258     1.200
   SRCPARAM A0000042     0.0003007914     1.300    66.934
7.620  -174.227     1.200
   SRCPARAM A0000043     0.0003007914     1.300    66.934
7.620  -174.227     1.200
   SRCPARAM A0000044     0.0003007914     1.300    66.934
7.620  -174.227     1.200
** ------------------------------------------------------------
-------
** LINE AREA Source ID = ARLN05
   SRCPARAM A0000045     0.000496591     1.300    26.125
3.962    -8.232     1.200
   SRCPARAM A0000046     0.000496591     1.300    26.125
3.962    -8.232     1.200
   SRCPARAM A0000047     0.000496591     1.300    32.839
3.962    -7.402     1.200
   SRCPARAM A0000048     0.000496591     1.300    32.839
3.962    -7.402     1.200
   SRCPARAM A0000049     0.000496591     1.300    32.839
3.962    -7.402     1.200
```

```
   SRCPARAM A0000050     0.000496591     1.300    32.839
3.962    -7.402     1.200
   SRCPARAM A0000051     0.000496591     1.300    32.839
3.962    -7.402     1.200
   SRCPARAM A0000052     0.000496591     1.300    37.886
3.962    -7.150     1.200
   SRCPARAM A0000053     0.000496591     1.300    37.886
3.962    -7.150     1.200
   SRCPARAM A0000054     0.000496591     1.300    37.886
3.962    -7.150     1.200
   SRCPARAM A0000055     0.000496591     1.300    26.940
3.962    -3.790     1.200
   SRCPARAM A0000056     0.000496591     1.300    26.940
3.962    -3.790     1.200
   SRCPARAM A0000057     0.000496591     1.300    32.275
3.962    -1.871     1.200
   SRCPARAM A0000058     0.000496591     1.300    30.651
3.962    -1.702     1.200
   SRCPARAM A0000059     0.000496591     1.300    30.651
3.962    -1.702     1.200
   SRCPARAM A0000060     0.000496591     1.300    30.651
3.962    -1.702     1.200
** ------------------------------------------------------------
-------
** LINE AREA Source ID = ARLN06
   SRCPARAM A0000061     0.0001897523     1.300    82.201
11.582  -174.121     1.200
   SRCPARAM A0000062     0.0001897523     1.300    86.403
11.582  -174.174     1.200
   SRCPARAM A0000063     0.0001897523     1.300    87.635
11.582  -175.261     1.200
   SRCPARAM A0000064     0.0001897523     1.300    35.209
11.582  -173.241     1.200
   SRCPARAM A0000065     0.0001897523     1.300    81.777
11.582  -171.164     1.200
   SRCPARAM A0000066     0.0001897523     1.300    81.777
11.582  -171.164     1.200
** ------------------------------------------------------------
-------
** LINE AREA Source ID = ARLN07
   SRCPARAM A0000067     0.0000307319     1.300   176.760
18.290  -179.517     1.200
   SRCPARAM A0000068     0.0000307319     1.300   176.760
18.290  -179.517     1.200
   SRCPARAM A0000069     0.0000307319     1.300   176.760
18.290  -179.517     1.200
   SRCPARAM A0000070     0.0000307319     1.300   152.620
18.290  -179.857     1.200
   SRCPARAM A0000071     0.0000307319     1.300   152.620
18.290  -179.857     1.200
   SRCPARAM A0000072     0.0000307319     1.300   152.620
18.290  -179.857     1.200
```

```
   SRCPARAM A0000073     0.0000307319     1.300   163.557
18.290  -179.872     1.200
   SRCPARAM A0000074     0.0000307319     1.300   163.557
18.290  -179.872     1.200
   SRCPARAM A0000075     0.0000307319     1.300   163.557
18.290  -179.872     1.200
   SRCPARAM A0000076     0.0000307319     1.300   150.138
18.290   179.634     1.200
   SRCPARAM A0000077     0.0000307319     1.300   150.138
18.290   179.634     1.200
** ------------------------------------------------------------
-------
** LINE AREA Source ID = ARLN08
   SRCPARAM A0000078     0.0000307396     1.300   174.704
18.290     0.365     1.200
   SRCPARAM A0000079     0.0000307396     1.300   174.704
18.290     0.365     1.200
   SRCPARAM A0000080     0.0000307396     1.300   174.704
18.290     0.365     1.200
   SRCPARAM A0000081     0.0000307396     1.300   174.704
18.290     0.365     1.200
   SRCPARAM A0000082     0.0000307396     1.300   173.921
18.290     0.184     1.200
   SRCPARAM A0000083     0.0000307396     1.300   172.780
18.290     0.071     1.200
   SRCPARAM A0000084     0.0000307396     1.300   172.780
18.290     0.071     1.200
   SRCPARAM A0000085     0.0000307396     1.300   157.425
18.290     0.000     1.200
   SRCPARAM A0000086     0.0000307396     1.300   157.425
18.290     0.000     1.200
   SRCPARAM A0000087     0.0000307396     1.300   122.748
18.290    -0.637     1.200
   SRCPARAM A0000088     0.0000307396     1.300   122.748
18.290    -0.637     1.200
** ------------------------------------------------------------
-------
** LINE AREA Source ID = ARLN09
   SRCPARAM A0000089     0.0005314996     1.300    32.803
3.960   171.471     1.200
   SRCPARAM A0000090     0.0005314996     1.300    32.803
3.960   171.471     1.200
   SRCPARAM A0000091     0.0005314996     1.300    38.313
3.960   171.960     1.200
   SRCPARAM A0000092     0.0005314996     1.300    38.313
3.960   171.960     1.200
   SRCPARAM A0000093     0.0005314996     1.300    38.313
3.960   171.960     1.200
   SRCPARAM A0000094     0.0005314996     1.300    38.313
3.960   171.960     1.200
   SRCPARAM A0000095     0.0005314996     1.300    38.313
3.960   171.960     1.200
```

```
   SRCPARAM A0000096     0.0005314996     1.300    38.313
3.960   171.960     1.200
   SRCPARAM A0000097     0.0005314996     1.300    23.202
3.960   175.637     1.200
   SRCPARAM A0000098     0.0005314996     1.300    23.202
3.960   175.637     1.200
   SRCPARAM A0000099     0.0005314996     1.300    39.058
3.960   178.511     1.200
   SRCPARAM A0000100     0.0005314996     1.300    39.058
3.960   178.511     1.200
   SRCPARAM A0000101     0.0005314996     1.300    27.556
3.960   178.024     1.200
   SRCPARAM A0000102     0.0005314996     1.300    27.556
3.960   178.024     1.200
** ------------------------------------------------------------
-------
** LINE AREA Source ID = ARLN10
   SRCPARAM A0000103     0.0003007882     1.300    39.038
7.620  -169.424     1.200
   SRCPARAM A0000104     0.0003007882     1.300    39.038
7.620  -169.424     1.200
   SRCPARAM A0000105     0.0003007882     1.300    64.287
7.620  -169.305     1.200
   SRCPARAM A0000106     0.0003007882     1.300    46.564
7.620  -174.256     1.200
   SRCPARAM A0000107     0.0003007882     1.300    46.564
7.620  -174.256     1.200
   SRCPARAM A0000108     0.0003007882     1.300    66.936
7.620  -174.227     1.200
   SRCPARAM A0000109     0.0003007882     1.300    66.936
7.620  -174.227     1.200
   SRCPARAM A0000110     0.0003007882     1.300    66.936
7.620  -174.227     1.200
** ------------------------------------------------------------
-------
** LINE AREA Source ID = ARLN11
   SRCPARAM A0000111     0.0004968954     1.300    26.124
3.960    -8.231     1.200
   SRCPARAM A0000112     0.0004968954     1.300    26.124
3.960    -8.231     1.200
   SRCPARAM A0000113     0.0004968954     1.300    32.838
3.960    -7.405     1.200
   SRCPARAM A0000114     0.0004968954     1.300    32.838
3.960    -7.405     1.200
   SRCPARAM A0000115     0.0004968954     1.300    32.838
3.960    -7.405     1.200
   SRCPARAM A0000116     0.0004968954     1.300    32.838
3.960    -7.405     1.200
   SRCPARAM A0000117     0.0004968954     1.300    32.838
3.960    -7.405     1.200
   SRCPARAM A0000118     0.0004968954     1.300    37.888
3.960    -7.146     1.200
```

```
   SRCPARAM A0000119     0.0004968954     1.300    37.888
3.960    -7.146     1.200
   SRCPARAM A0000120     0.0004968954     1.300    37.888
3.960    -7.146     1.200
   SRCPARAM A0000121     0.0004968954     1.300    26.939
3.960    -3.789     1.200
   SRCPARAM A0000122     0.0004968954     1.300    26.939
3.960    -3.789     1.200
   SRCPARAM A0000123     0.0004968954     1.300    32.277
3.960    -1.882     1.200
   SRCPARAM A0000124     0.0004968954     1.300    30.650
3.960    -1.701     1.200
   SRCPARAM A0000125     0.0004968954     1.300    30.650
3.960    -1.701     1.200
   SRCPARAM A0000126     0.0004968954     1.300    30.650
3.960    -1.701     1.200
** ------------------------------------------------------------
-------
** LINE AREA Source ID = ARLN12
   SRCPARAM A0000127     0.000189791     1.300    82.202
11.580  -174.121     1.200
   SRCPARAM A0000128     0.000189791     1.300    86.406
11.580  -174.175     1.200
   SRCPARAM A0000129     0.000189791     1.300    87.640
11.580  -175.261     1.200
   SRCPARAM A0000130     0.000189791     1.300    35.204
11.580  -173.246     1.200
   SRCPARAM A0000131     0.000189791     1.300    81.776
11.580  -171.161     1.200
   SRCPARAM A0000132     0.000189791     1.300    81.776
11.580  -171.161     1.200
** ------------------------------------------------------------
-------
   URBANSRC ALL

** Variable Emissions Type: "By Hour-of-Day (HROFDY)"
** Variable Emission Scenario: "ARLN01"
   EMISFACT A0000012     HROFDY 0.0144 0.0199 0.0203 0.0312
0.0647 0.0749
   EMISFACT A0000012     HROFDY 0.0843 0.0915 0.0901 0.0889 0.09
0.0923
   EMISFACT A0000012     HROFDY 0.0943 0.0964 0.0998 0.102 0.103
0.1
   EMISFACT A0000012     HROFDY 0.0886 0.0729 0.0626 0.0593
0.0491 0.0361
   EMISFACT A0000013     HROFDY 0.0144 0.0199 0.0203 0.0312
0.0647 0.0749
   EMISFACT A0000013     HROFDY 0.0843 0.0915 0.0901 0.0889 0.09
0.0923
   EMISFACT A0000013     HROFDY 0.0943 0.0964 0.0998 0.102 0.103
0.1
   EMISFACT A0000013     HROFDY 0.0886 0.0729 0.0626 0.0593
```

```
0.0491 0.0361
   EMISFACT A0000014     HROFDY 0.0144 0.0199 0.0203 0.0312
0.0647 0.0749
   EMISFACT A0000014     HROFDY 0.0843 0.0915 0.0901 0.0889 0.09
0.0923
   EMISFACT A0000014     HROFDY 0.0943 0.0964 0.0998 0.102 0.103
0.1
   EMISFACT A0000014     HROFDY 0.0886 0.0729 0.0626 0.0593
0.0491 0.0361
   EMISFACT A0000015     HROFDY 0.0144 0.0199 0.0203 0.0312
0.0647 0.0749
   EMISFACT A0000015     HROFDY 0.0843 0.0915 0.0901 0.0889 0.09
0.0923
   EMISFACT A0000015     HROFDY 0.0943 0.0964 0.0998 0.102 0.103
0.1
   EMISFACT A0000015     HROFDY 0.0886 0.0729 0.0626 0.0593
0.0491 0.0361
   EMISFACT A0000016     HROFDY 0.0144 0.0199 0.0203 0.0312
0.0647 0.0749
   EMISFACT A0000016     HROFDY 0.0843 0.0915 0.0901 0.0889 0.09
0.0923
   EMISFACT A0000016     HROFDY 0.0943 0.0964 0.0998 0.102 0.103
0.1
   EMISFACT A0000016     HROFDY 0.0886 0.0729 0.0626 0.0593
0.0491 0.0361
   EMISFACT A0000017     HROFDY 0.0144 0.0199 0.0203 0.0312
0.0647 0.0749
   EMISFACT A0000017     HROFDY 0.0843 0.0915 0.0901 0.0889 0.09
0.0923
   EMISFACT A0000017     HROFDY 0.0943 0.0964 0.0998 0.102 0.103
0.1
   EMISFACT A0000017     HROFDY 0.0886 0.0729 0.0626 0.0593
0.0491 0.0361
   EMISFACT A0000018     HROFDY 0.0144 0.0199 0.0203 0.0312
0.0647 0.0749
   EMISFACT A0000018     HROFDY 0.0843 0.0915 0.0901 0.0889 0.09
0.0923
   EMISFACT A0000018     HROFDY 0.0943 0.0964 0.0998 0.102 0.103
0.1
   EMISFACT A0000018     HROFDY 0.0886 0.0729 0.0626 0.0593
0.0491 0.0361
   EMISFACT A0000019     HROFDY 0.0144 0.0199 0.0203 0.0312
0.0647 0.0749
   EMISFACT A0000019     HROFDY 0.0843 0.0915 0.0901 0.0889 0.09
0.0923
   EMISFACT A0000019     HROFDY 0.0943 0.0964 0.0998 0.102 0.103
0.1
   EMISFACT A0000019     HROFDY 0.0886 0.0729 0.0626 0.0593
0.0491 0.0361
   EMISFACT A0000020     HROFDY 0.0144 0.0199 0.0203 0.0312
0.0647 0.0749
   EMISFACT A0000020     HROFDY 0.0843 0.0915 0.0901 0.0889 0.09
```

```
0.0923
   EMISFACT A0000020     HROFDY 0.0943 0.0964 0.0998 0.102 0.103
0.1
   EMISFACT A0000020     HROFDY 0.0886 0.0729 0.0626 0.0593
0.0491 0.0361
   EMISFACT A0000021     HROFDY 0.0144 0.0199 0.0203 0.0312
0.0647 0.0749
   EMISFACT A0000021     HROFDY 0.0843 0.0915 0.0901 0.0889 0.09
0.0923
   EMISFACT A0000021     HROFDY 0.0943 0.0964 0.0998 0.102 0.103
0.1
   EMISFACT A0000021     HROFDY 0.0886 0.0729 0.0626 0.0593
0.0491 0.0361
   EMISFACT A0000022     HROFDY 0.0144 0.0199 0.0203 0.0312
0.0647 0.0749
   EMISFACT A0000022     HROFDY 0.0843 0.0915 0.0901 0.0889 0.09
0.0923
   EMISFACT A0000022     HROFDY 0.0943 0.0964 0.0998 0.102 0.103
0.1
   EMISFACT A0000022     HROFDY 0.0886 0.0729 0.0626 0.0593
0.0491 0.0361

** Variable Emissions Type: "By Hour-of-Day (HROFDY)"
** Variable Emission Scenario: "ARLN02"
   EMISFACT A0000001     HROFDY 0.0172 0.0124 0.0108 0.0126
0.0203 0.034
   EMISFACT A0000001     HROFDY 0.0431 0.0457 0.0439 0.0414 0.042
0.0439
   EMISFACT A0000001     HROFDY 0.0463 0.0483 0.0501 0.0491
0.0508 0.0506
   EMISFACT A0000001     HROFDY 0.0472 0.0459 0.0417 0.0408
0.0334 0.0248
   EMISFACT A0000002     HROFDY 0.0172 0.0124 0.0108 0.0126
0.0203 0.034
   EMISFACT A0000002     HROFDY 0.0431 0.0457 0.0439 0.0414 0.042
0.0439
   EMISFACT A0000002     HROFDY 0.0463 0.0483 0.0501 0.0491
0.0508 0.0506
   EMISFACT A0000002     HROFDY 0.0472 0.0459 0.0417 0.0408
0.0334 0.0248
   EMISFACT A0000003     HROFDY 0.0172 0.0124 0.0108 0.0126
0.0203 0.034
   EMISFACT A0000003     HROFDY 0.0431 0.0457 0.0439 0.0414 0.042
0.0439
   EMISFACT A0000003     HROFDY 0.0463 0.0483 0.0501 0.0491
0.0508 0.0506
   EMISFACT A0000003     HROFDY 0.0472 0.0459 0.0417 0.0408
0.0334 0.0248
   EMISFACT A0000004     HROFDY 0.0172 0.0124 0.0108 0.0126
0.0203 0.034
   EMISFACT A0000004     HROFDY 0.0431 0.0457 0.0439 0.0414 0.042
0.0439
```

```
   EMISFACT A0000004     HROFDY 0.0463 0.0483 0.0501 0.0491
0.0508 0.0506
   EMISFACT A0000004     HROFDY 0.0472 0.0459 0.0417 0.0408
0.0334 0.0248
   EMISFACT A0000005     HROFDY 0.0172 0.0124 0.0108 0.0126
0.0203 0.034
   EMISFACT A0000005     HROFDY 0.0431 0.0457 0.0439 0.0414 0.042
0.0439
   EMISFACT A0000005     HROFDY 0.0463 0.0483 0.0501 0.0491
0.0508 0.0506
   EMISFACT A0000005     HROFDY 0.0472 0.0459 0.0417 0.0408
0.0334 0.0248
   EMISFACT A0000006     HROFDY 0.0172 0.0124 0.0108 0.0126
0.0203 0.034
   EMISFACT A0000006     HROFDY 0.0431 0.0457 0.0439 0.0414 0.042
0.0439
   EMISFACT A0000006     HROFDY 0.0463 0.0483 0.0501 0.0491
0.0508 0.0506
   EMISFACT A0000006     HROFDY 0.0472 0.0459 0.0417 0.0408
0.0334 0.0248
   EMISFACT A0000007     HROFDY 0.0172 0.0124 0.0108 0.0126
0.0203 0.034
   EMISFACT A0000007     HROFDY 0.0431 0.0457 0.0439 0.0414 0.042
0.0439
   EMISFACT A0000007     HROFDY 0.0463 0.0483 0.0501 0.0491
0.0508 0.0506
   EMISFACT A0000007     HROFDY 0.0472 0.0459 0.0417 0.0408
0.0334 0.0248
   EMISFACT A0000008     HROFDY 0.0172 0.0124 0.0108 0.0126
0.0203 0.034
   EMISFACT A0000008     HROFDY 0.0431 0.0457 0.0439 0.0414 0.042
0.0439
   EMISFACT A0000008     HROFDY 0.0463 0.0483 0.0501 0.0491
0.0508 0.0506
   EMISFACT A0000008     HROFDY 0.0472 0.0459 0.0417 0.0408
0.0334 0.0248
   EMISFACT A0000009     HROFDY 0.0172 0.0124 0.0108 0.0126
0.0203 0.034
   EMISFACT A0000009     HROFDY 0.0431 0.0457 0.0439 0.0414 0.042
0.0439
   EMISFACT A0000009     HROFDY 0.0463 0.0483 0.0501 0.0491
0.0508 0.0506
   EMISFACT A0000009     HROFDY 0.0472 0.0459 0.0417 0.0408
0.0334 0.0248
   EMISFACT A0000010     HROFDY 0.0172 0.0124 0.0108 0.0126
0.0203 0.034
   EMISFACT A0000010     HROFDY 0.0431 0.0457 0.0439 0.0414 0.042
0.0439
   EMISFACT A0000010     HROFDY 0.0463 0.0483 0.0501 0.0491
0.0508 0.0506
   EMISFACT A0000010     HROFDY 0.0472 0.0459 0.0417 0.0408
0.0334 0.0248
```

```
   EMISFACT A0000011     HROFDY 0.0172 0.0124 0.0108 0.0126
0.0203 0.034
   EMISFACT A0000011     HROFDY 0.0431 0.0457 0.0439 0.0414 0.042
0.0439
   EMISFACT A0000011     HROFDY 0.0463 0.0483 0.0501 0.0491
0.0508 0.0506
   EMISFACT A0000011     HROFDY 0.0472 0.0459 0.0417 0.0408
0.0334 0.0248

** Variable Emissions Type: "By Hour-of-Day (HROFDY)"
** Variable Emission Scenario: "ARLN03"
   EMISFACT A0000023     HROFDY 0.00251 0.00197 0.00201 0.00309
0.00642 0.00758
   EMISFACT A0000023     HROFDY 0.00854 0.00911 0.00896 0.00884
0.00896 0.00918
   EMISFACT A0000023     HROFDY 0.00938 0.00959 0.00993 0.0101
0.0102 0.0101
   EMISFACT A0000023     HROFDY 0.00897 0.00724 0.00634 0.00589
0.00487 0.00358
   EMISFACT A0000024     HROFDY 0.00251 0.00197 0.00201 0.00309
0.00642 0.00758
   EMISFACT A0000024     HROFDY 0.00854 0.00911 0.00896 0.00884
0.00896 0.00918
   EMISFACT A0000024     HROFDY 0.00938 0.00959 0.00993 0.0101
0.0102 0.0101
   EMISFACT A0000024     HROFDY 0.00897 0.00724 0.00634 0.00589
0.00487 0.00358
   EMISFACT A0000025     HROFDY 0.00251 0.00197 0.00201 0.00309
0.00642 0.00758
   EMISFACT A0000025     HROFDY 0.00854 0.00911 0.00896 0.00884
0.00896 0.00918
   EMISFACT A0000025     HROFDY 0.00938 0.00959 0.00993 0.0101
0.0102 0.0101
   EMISFACT A0000025     HROFDY 0.00897 0.00724 0.00634 0.00589
0.00487 0.00358
   EMISFACT A0000026     HROFDY 0.00251 0.00197 0.00201 0.00309
0.00642 0.00758
   EMISFACT A0000026     HROFDY 0.00854 0.00911 0.00896 0.00884
0.00896 0.00918
   EMISFACT A0000026     HROFDY 0.00938 0.00959 0.00993 0.0101
0.0102 0.0101
   EMISFACT A0000026     HROFDY 0.00897 0.00724 0.00634 0.00589
0.00487 0.00358
   EMISFACT A0000027     HROFDY 0.00251 0.00197 0.00201 0.00309
0.00642 0.00758
   EMISFACT A0000027     HROFDY 0.00854 0.00911 0.00896 0.00884
0.00896 0.00918
   EMISFACT A0000027     HROFDY 0.00938 0.00959 0.00993 0.0101
0.0102 0.0101
   EMISFACT A0000027     HROFDY 0.00897 0.00724 0.00634 0.00589
0.00487 0.00358
   EMISFACT A0000028     HROFDY 0.00251 0.00197 0.00201 0.00309
```

```
0.00642 0.00758
   EMISFACT A0000028     HROFDY 0.00854 0.00911 0.00896 0.00884
0.00896 0.00918
   EMISFACT A0000028     HROFDY 0.00938 0.00959 0.00993 0.0101
0.0102 0.0101
   EMISFACT A0000028     HROFDY 0.00897 0.00724 0.00634 0.00589
0.00487 0.00358
   EMISFACT A0000029     HROFDY 0.00251 0.00197 0.00201 0.00309
0.00642 0.00758
   EMISFACT A0000029     HROFDY 0.00854 0.00911 0.00896 0.00884
0.00896 0.00918
   EMISFACT A0000029     HROFDY 0.00938 0.00959 0.00993 0.0101
0.0102 0.0101
   EMISFACT A0000029     HROFDY 0.00897 0.00724 0.00634 0.00589
0.00487 0.00358
   EMISFACT A0000030     HROFDY 0.00251 0.00197 0.00201 0.00309
0.00642 0.00758
   EMISFACT A0000030     HROFDY 0.00854 0.00911 0.00896 0.00884
0.00896 0.00918
   EMISFACT A0000030     HROFDY 0.00938 0.00959 0.00993 0.0101
0.0102 0.0101
   EMISFACT A0000030     HROFDY 0.00897 0.00724 0.00634 0.00589
0.00487 0.00358
   EMISFACT A0000031     HROFDY 0.00251 0.00197 0.00201 0.00309
0.00642 0.00758
   EMISFACT A0000031     HROFDY 0.00854 0.00911 0.00896 0.00884
0.00896 0.00918
   EMISFACT A0000031     HROFDY 0.00938 0.00959 0.00993 0.0101
0.0102 0.0101
   EMISFACT A0000031     HROFDY 0.00897 0.00724 0.00634 0.00589
0.00487 0.00358
   EMISFACT A0000032     HROFDY 0.00251 0.00197 0.00201 0.00309
0.00642 0.00758
   EMISFACT A0000032     HROFDY 0.00854 0.00911 0.00896 0.00884
0.00896 0.00918
   EMISFACT A0000032     HROFDY 0.00938 0.00959 0.00993 0.0101
0.0102 0.0101
   EMISFACT A0000032     HROFDY 0.00897 0.00724 0.00634 0.00589
0.00487 0.00358
   EMISFACT A0000033     HROFDY 0.00251 0.00197 0.00201 0.00309
0.00642 0.00758
   EMISFACT A0000033     HROFDY 0.00854 0.00911 0.00896 0.00884
0.00896 0.00918
   EMISFACT A0000033     HROFDY 0.00938 0.00959 0.00993 0.0101
0.0102 0.0101
   EMISFACT A0000033     HROFDY 0.00897 0.00724 0.00634 0.00589
0.00487 0.00358
   EMISFACT A0000034     HROFDY 0.00251 0.00197 0.00201 0.00309
0.00642 0.00758
   EMISFACT A0000034     HROFDY 0.00854 0.00911 0.00896 0.00884
0.00896 0.00918
   EMISFACT A0000034     HROFDY 0.00938 0.00959 0.00993 0.0101
```

```
0.0102 0.0101
   EMISFACT A0000034     HROFDY 0.00897 0.00724 0.00634 0.00589
0.00487 0.00358
   EMISFACT A0000035     HROFDY 0.00251 0.00197 0.00201 0.00309
0.00642 0.00758
   EMISFACT A0000035     HROFDY 0.00854 0.00911 0.00896 0.00884
0.00896 0.00918
   EMISFACT A0000035     HROFDY 0.00938 0.00959 0.00993 0.0101
0.0102 0.0101
   EMISFACT A0000035     HROFDY 0.00897 0.00724 0.00634 0.00589
0.00487 0.00358
   EMISFACT A0000036     HROFDY 0.00251 0.00197 0.00201 0.00309
0.00642 0.00758
   EMISFACT A0000036     HROFDY 0.00854 0.00911 0.00896 0.00884
0.00896 0.00918
   EMISFACT A0000036     HROFDY 0.00938 0.00959 0.00993 0.0101
0.0102 0.0101
   EMISFACT A0000036     HROFDY 0.00897 0.00724 0.00634 0.00589
0.00487 0.00358

** Variable Emissions Type: "By Hour-of-Day (HROFDY)"
** Variable Emission Scenario: "ARLN04"
   EMISFACT A0000037     HROFDY 0.00261 0.00188 0.00165 0.00192
0.00309 0.00518
   EMISFACT A0000037     HROFDY 0.00727 0.00811 0.0078 0.00734
0.00745 0.00779
   EMISFACT A0000037     HROFDY 0.00822 0.00857 0.00885 0.00868
0.00852 0.00849
   EMISFACT A0000037     HROFDY 0.00837 0.00775 0.00703 0.00621
0.00508 0.00378
   EMISFACT A0000038     HROFDY 0.00261 0.00188 0.00165 0.00192
0.00309 0.00518
   EMISFACT A0000038     HROFDY 0.00727 0.00811 0.0078 0.00734
0.00745 0.00779
   EMISFACT A0000038     HROFDY 0.00822 0.00857 0.00885 0.00868
0.00852 0.00849
   EMISFACT A0000038     HROFDY 0.00837 0.00775 0.00703 0.00621
0.00508 0.00378
   EMISFACT A0000039     HROFDY 0.00261 0.00188 0.00165 0.00192
0.00309 0.00518
   EMISFACT A0000039     HROFDY 0.00727 0.00811 0.0078 0.00734
0.00745 0.00779
   EMISFACT A0000039     HROFDY 0.00822 0.00857 0.00885 0.00868
0.00852 0.00849
   EMISFACT A0000039     HROFDY 0.00837 0.00775 0.00703 0.00621
0.00508 0.00378
   EMISFACT A0000040     HROFDY 0.00261 0.00188 0.00165 0.00192
0.00309 0.00518
   EMISFACT A0000040     HROFDY 0.00727 0.00811 0.0078 0.00734
0.00745 0.00779
   EMISFACT A0000040     HROFDY 0.00822 0.00857 0.00885 0.00868
0.00852 0.00849
```

```
   EMISFACT A0000040     HROFDY 0.00837 0.00775 0.00703 0.00621
0.00508 0.00378
   EMISFACT A0000041     HROFDY 0.00261 0.00188 0.00165 0.00192
0.00309 0.00518
   EMISFACT A0000041     HROFDY 0.00727 0.00811 0.0078 0.00734
0.00745 0.00779
   EMISFACT A0000041     HROFDY 0.00822 0.00857 0.00885 0.00868
0.00852 0.00849
   EMISFACT A0000041     HROFDY 0.00837 0.00775 0.00703 0.00621
0.00508 0.00378
   EMISFACT A0000042     HROFDY 0.00261 0.00188 0.00165 0.00192
0.00309 0.00518
   EMISFACT A0000042     HROFDY 0.00727 0.00811 0.0078 0.00734
0.00745 0.00779
   EMISFACT A0000042     HROFDY 0.00822 0.00857 0.00885 0.00868
0.00852 0.00849
   EMISFACT A0000042     HROFDY 0.00837 0.00775 0.00703 0.00621
0.00508 0.00378
   EMISFACT A0000043     HROFDY 0.00261 0.00188 0.00165 0.00192
0.00309 0.00518
   EMISFACT A0000043     HROFDY 0.00727 0.00811 0.0078 0.00734
0.00745 0.00779
   EMISFACT A0000043     HROFDY 0.00822 0.00857 0.00885 0.00868
0.00852 0.00849
   EMISFACT A0000043     HROFDY 0.00837 0.00775 0.00703 0.00621
0.00508 0.00378
   EMISFACT A0000044     HROFDY 0.00261 0.00188 0.00165 0.00192
0.00309 0.00518
   EMISFACT A0000044     HROFDY 0.00727 0.00811 0.0078 0.00734
0.00745 0.00779
   EMISFACT A0000044     HROFDY 0.00822 0.00857 0.00885 0.00868
0.00852 0.00849
   EMISFACT A0000044     HROFDY 0.00837 0.00775 0.00703 0.00621
0.00508 0.00378

** Variable Emissions Type: "By Hour-of-Day (HROFDY)"
** Variable Emission Scenario: "ARLN05"
   EMISFACT A0000045     HROFDY 0.00401 0.00288 0.00253 0.00294
0.00474 0.00794
   EMISFACT A0000045     HROFDY 0.0111 0.0124 0.012 0.0113 0.0114
0.0119
   EMISFACT A0000045     HROFDY 0.0126 0.0131 0.0136 0.0133
0.0131 0.013
   EMISFACT A0000045     HROFDY 0.0128 0.0119 0.0108 0.00951
0.00779 0.0058
   EMISFACT A0000046     HROFDY 0.00401 0.00288 0.00253 0.00294
0.00474 0.00794
   EMISFACT A0000046     HROFDY 0.0111 0.0124 0.012 0.0113 0.0114
0.0119
   EMISFACT A0000046     HROFDY 0.0126 0.0131 0.0136 0.0133
0.0131 0.013
   EMISFACT A0000046     HROFDY 0.0128 0.0119 0.0108 0.00951
```

```
0.00779 0.0058
   EMISFACT A0000047     HROFDY 0.00401 0.00288 0.00253 0.00294
0.00474 0.00794
   EMISFACT A0000047     HROFDY 0.0111 0.0124 0.012 0.0113 0.0114
0.0119
   EMISFACT A0000047     HROFDY 0.0126 0.0131 0.0136 0.0133
0.0131 0.013
   EMISFACT A0000047     HROFDY 0.0128 0.0119 0.0108 0.00951
0.00779 0.0058
   EMISFACT A0000048     HROFDY 0.00401 0.00288 0.00253 0.00294
0.00474 0.00794
   EMISFACT A0000048     HROFDY 0.0111 0.0124 0.012 0.0113 0.0114
0.0119
   EMISFACT A0000048     HROFDY 0.0126 0.0131 0.0136 0.0133
0.0131 0.013
   EMISFACT A0000048     HROFDY 0.0128 0.0119 0.0108 0.00951
0.00779 0.0058
   EMISFACT A0000049     HROFDY 0.00401 0.00288 0.00253 0.00294
0.00474 0.00794
   EMISFACT A0000049     HROFDY 0.0111 0.0124 0.012 0.0113 0.0114
0.0119
   EMISFACT A0000049     HROFDY 0.0126 0.0131 0.0136 0.0133
0.0131 0.013
   EMISFACT A0000049     HROFDY 0.0128 0.0119 0.0108 0.00951
0.00779 0.0058
   EMISFACT A0000050     HROFDY 0.00401 0.00288 0.00253 0.00294
0.00474 0.00794
   EMISFACT A0000050     HROFDY 0.0111 0.0124 0.012 0.0113 0.0114
0.0119
   EMISFACT A0000050     HROFDY 0.0126 0.0131 0.0136 0.0133
0.0131 0.013
   EMISFACT A0000050     HROFDY 0.0128 0.0119 0.0108 0.00951
0.00779 0.0058
   EMISFACT A0000051     HROFDY 0.00401 0.00288 0.00253 0.00294
0.00474 0.00794
   EMISFACT A0000051     HROFDY 0.0111 0.0124 0.012 0.0113 0.0114
0.0119
   EMISFACT A0000051     HROFDY 0.0126 0.0131 0.0136 0.0133
0.0131 0.013
   EMISFACT A0000051     HROFDY 0.0128 0.0119 0.0108 0.00951
0.00779 0.0058
   EMISFACT A0000052     HROFDY 0.00401 0.00288 0.00253 0.00294
0.00474 0.00794
   EMISFACT A0000052     HROFDY 0.0111 0.0124 0.012 0.0113 0.0114
0.0119
   EMISFACT A0000052     HROFDY 0.0126 0.0131 0.0136 0.0133
0.0131 0.013
   EMISFACT A0000052     HROFDY 0.0128 0.0119 0.0108 0.00951
0.00779 0.0058
   EMISFACT A0000053     HROFDY 0.00401 0.00288 0.00253 0.00294
0.00474 0.00794
   EMISFACT A0000053     HROFDY 0.0111 0.0124 0.012 0.0113 0.0114
```

```
0.0119
   EMISFACT A0000053     HROFDY 0.0126 0.0131 0.0136 0.0133
0.0131 0.013
   EMISFACT A0000053     HROFDY 0.0128 0.0119 0.0108 0.00951
0.00779 0.0058
   EMISFACT A0000054     HROFDY 0.00401 0.00288 0.00253 0.00294
0.00474 0.00794
   EMISFACT A0000054     HROFDY 0.0111 0.0124 0.012 0.0113 0.0114
0.0119
   EMISFACT A0000054     HROFDY 0.0126 0.0131 0.0136 0.0133
0.0131 0.013
   EMISFACT A0000054     HROFDY 0.0128 0.0119 0.0108 0.00951
0.00779 0.0058
   EMISFACT A0000055     HROFDY 0.00401 0.00288 0.00253 0.00294
0.00474 0.00794
   EMISFACT A0000055     HROFDY 0.0111 0.0124 0.012 0.0113 0.0114
0.0119
   EMISFACT A0000055     HROFDY 0.0126 0.0131 0.0136 0.0133
0.0131 0.013
   EMISFACT A0000055     HROFDY 0.0128 0.0119 0.0108 0.00951
0.00779 0.0058
   EMISFACT A0000056     HROFDY 0.00401 0.00288 0.00253 0.00294
0.00474 0.00794
   EMISFACT A0000056     HROFDY 0.0111 0.0124 0.012 0.0113 0.0114
0.0119
   EMISFACT A0000056     HROFDY 0.0126 0.0131 0.0136 0.0133
0.0131 0.013
   EMISFACT A0000056     HROFDY 0.0128 0.0119 0.0108 0.00951
0.00779 0.0058
   EMISFACT A0000057     HROFDY 0.00401 0.00288 0.00253 0.00294
0.00474 0.00794
   EMISFACT A0000057     HROFDY 0.0111 0.0124 0.012 0.0113 0.0114
0.0119
   EMISFACT A0000057     HROFDY 0.0126 0.0131 0.0136 0.0133
0.0131 0.013
   EMISFACT A0000057     HROFDY 0.0128 0.0119 0.0108 0.00951
0.00779 0.0058
   EMISFACT A0000058     HROFDY 0.00401 0.00288 0.00253 0.00294
0.00474 0.00794
   EMISFACT A0000058     HROFDY 0.0111 0.0124 0.012 0.0113 0.0114
0.0119
   EMISFACT A0000058     HROFDY 0.0126 0.0131 0.0136 0.0133
0.0131 0.013
   EMISFACT A0000058     HROFDY 0.0128 0.0119 0.0108 0.00951
0.00779 0.0058
   EMISFACT A0000059     HROFDY 0.00401 0.00288 0.00253 0.00294
0.00474 0.00794
   EMISFACT A0000059     HROFDY 0.0111 0.0124 0.012 0.0113 0.0114
0.0119
   EMISFACT A0000059     HROFDY 0.0126 0.0131 0.0136 0.0133
0.0131 0.013
   EMISFACT A0000059     HROFDY 0.0128 0.0119 0.0108 0.00951
```

```
0.00779 0.0058
   EMISFACT A0000060     HROFDY 0.00401 0.00288 0.00253 0.00294
0.00474 0.00794
   EMISFACT A0000060     HROFDY 0.0111 0.0124 0.012 0.0113 0.0114
0.0119
   EMISFACT A0000060     HROFDY 0.0126 0.0131 0.0136 0.0133
0.0131 0.013
   EMISFACT A0000060     HROFDY 0.0128 0.0119 0.0108 0.00951
0.00779 0.0058

** Variable Emissions Type: "By Hour-of-Day (HROFDY)"
** Variable Emission Scenario: "ARLN06"
   EMISFACT A0000061     HROFDY 0.000402 0.000316 0.000322
0.000495 0.00103 0.00121
   EMISFACT A0000061     HROFDY 0.00137 0.00146 0.00144 0.00142
0.00143 0.00147
   EMISFACT A0000061     HROFDY 0.0015 0.00154 0.00159 0.00162
0.00164 0.00162
   EMISFACT A0000061     HROFDY 0.00144 0.00116 0.00102 0.000942
0.000781 0.000574
   EMISFACT A0000062     HROFDY 0.000402 0.000316 0.000322
0.000495 0.00103 0.00121
   EMISFACT A0000062     HROFDY 0.00137 0.00146 0.00144 0.00142
0.00143 0.00147
   EMISFACT A0000062     HROFDY 0.0015 0.00154 0.00159 0.00162
0.00164 0.00162
   EMISFACT A0000062     HROFDY 0.00144 0.00116 0.00102 0.000942
0.000781 0.000574
   EMISFACT A0000063     HROFDY 0.000402 0.000316 0.000322
0.000495 0.00103 0.00121
   EMISFACT A0000063     HROFDY 0.00137 0.00146 0.00144 0.00142
0.00143 0.00147
   EMISFACT A0000063     HROFDY 0.0015 0.00154 0.00159 0.00162
0.00164 0.00162
   EMISFACT A0000063     HROFDY 0.00144 0.00116 0.00102 0.000942
0.000781 0.000574
   EMISFACT A0000064     HROFDY 0.000402 0.000316 0.000322
0.000495 0.00103 0.00121
   EMISFACT A0000064     HROFDY 0.00137 0.00146 0.00144 0.00142
0.00143 0.00147
   EMISFACT A0000064     HROFDY 0.0015 0.00154 0.00159 0.00162
0.00164 0.00162
   EMISFACT A0000064     HROFDY 0.00144 0.00116 0.00102 0.000942
0.000781 0.000574
   EMISFACT A0000065     HROFDY 0.000402 0.000316 0.000322
0.000495 0.00103 0.00121
   EMISFACT A0000065     HROFDY 0.00137 0.00146 0.00144 0.00142
0.00143 0.00147
   EMISFACT A0000065     HROFDY 0.0015 0.00154 0.00159 0.00162
0.00164 0.00162
   EMISFACT A0000065     HROFDY 0.00144 0.00116 0.00102 0.000942
0.000781 0.000574
```

```
   EMISFACT A0000066     HROFDY 0.000402 0.000316 0.000322
0.000495 0.00103 0.00121
   EMISFACT A0000066     HROFDY 0.00137 0.00146 0.00144 0.00142
0.00143 0.00147
   EMISFACT A0000066     HROFDY 0.0015 0.00154 0.00159 0.00162
0.00164 0.00162
   EMISFACT A0000066     HROFDY 0.00144 0.00116 0.00102 0.000942
0.000781 0.000574

** Variable Emissions Type: "By Hour-of-Day (HROFDY)"
** Variable Emission Scenario: "ARLN07"
   EMISFACT A0000067     HROFDY 0.0109 0.00855 0.00871 0.0134
0.0278 0.0356
   EMISFACT A0000067     HROFDY 0.0401 0.0467 0.0459 0.0453
0.0459 0.047
   EMISFACT A0000067     HROFDY 0.0481 0.0491 0.0509 0.0519
0.0524 0.0476
   EMISFACT A0000067     HROFDY 0.0421 0.0314 0.0298 0.0255
0.0211 0.0155
   EMISFACT A0000068     HROFDY 0.0109 0.00855 0.00871 0.0134
0.0278 0.0356
   EMISFACT A0000068     HROFDY 0.0401 0.0467 0.0459 0.0453
0.0459 0.047
   EMISFACT A0000068     HROFDY 0.0481 0.0491 0.0509 0.0519
0.0524 0.0476
   EMISFACT A0000068     HROFDY 0.0421 0.0314 0.0298 0.0255
0.0211 0.0155
   EMISFACT A0000069     HROFDY 0.0109 0.00855 0.00871 0.0134
0.0278 0.0356
   EMISFACT A0000069     HROFDY 0.0401 0.0467 0.0459 0.0453
0.0459 0.047
   EMISFACT A0000069     HROFDY 0.0481 0.0491 0.0509 0.0519
0.0524 0.0476
   EMISFACT A0000069     HROFDY 0.0421 0.0314 0.0298 0.0255
0.0211 0.0155
   EMISFACT A0000070     HROFDY 0.0109 0.00855 0.00871 0.0134
0.0278 0.0356
   EMISFACT A0000070     HROFDY 0.0401 0.0467 0.0459 0.0453
0.0459 0.047
   EMISFACT A0000070     HROFDY 0.0481 0.0491 0.0509 0.0519
0.0524 0.0476
   EMISFACT A0000070     HROFDY 0.0421 0.0314 0.0298 0.0255
0.0211 0.0155
   EMISFACT A0000071     HROFDY 0.0109 0.00855 0.00871 0.0134
0.0278 0.0356
   EMISFACT A0000071     HROFDY 0.0401 0.0467 0.0459 0.0453
0.0459 0.047
   EMISFACT A0000071     HROFDY 0.0481 0.0491 0.0509 0.0519
0.0524 0.0476
   EMISFACT A0000071     HROFDY 0.0421 0.0314 0.0298 0.0255
0.0211 0.0155
   EMISFACT A0000072     HROFDY 0.0109 0.00855 0.00871 0.0134
```

```
0.0278 0.0356
   EMISFACT A0000072     HROFDY 0.0401 0.0467 0.0459 0.0453
0.0459 0.047
   EMISFACT A0000072     HROFDY 0.0481 0.0491 0.0509 0.0519
0.0524 0.0476
   EMISFACT A0000072     HROFDY 0.0421 0.0314 0.0298 0.0255
0.0211 0.0155
   EMISFACT A0000073     HROFDY 0.0109 0.00855 0.00871 0.0134
0.0278 0.0356
   EMISFACT A0000073     HROFDY 0.0401 0.0467 0.0459 0.0453
0.0459 0.047
   EMISFACT A0000073     HROFDY 0.0481 0.0491 0.0509 0.0519
0.0524 0.0476
   EMISFACT A0000073     HROFDY 0.0421 0.0314 0.0298 0.0255
0.0211 0.0155
   EMISFACT A0000074     HROFDY 0.0109 0.00855 0.00871 0.0134
0.0278 0.0356
   EMISFACT A0000074     HROFDY 0.0401 0.0467 0.0459 0.0453
0.0459 0.047
   EMISFACT A0000074     HROFDY 0.0481 0.0491 0.0509 0.0519
0.0524 0.0476
   EMISFACT A0000074     HROFDY 0.0421 0.0314 0.0298 0.0255
0.0211 0.0155
   EMISFACT A0000075     HROFDY 0.0109 0.00855 0.00871 0.0134
0.0278 0.0356
   EMISFACT A0000075     HROFDY 0.0401 0.0467 0.0459 0.0453
0.0459 0.047
   EMISFACT A0000075     HROFDY 0.0481 0.0491 0.0509 0.0519
0.0524 0.0476
   EMISFACT A0000075     HROFDY 0.0421 0.0314 0.0298 0.0255
0.0211 0.0155
   EMISFACT A0000076     HROFDY 0.0109 0.00855 0.00871 0.0134
0.0278 0.0356
   EMISFACT A0000076     HROFDY 0.0401 0.0467 0.0459 0.0453
0.0459 0.047
   EMISFACT A0000076     HROFDY 0.0481 0.0491 0.0509 0.0519
0.0524 0.0476
   EMISFACT A0000076     HROFDY 0.0421 0.0314 0.0298 0.0255
0.0211 0.0155
   EMISFACT A0000077     HROFDY 0.0109 0.00855 0.00871 0.0134
0.0278 0.0356
   EMISFACT A0000077     HROFDY 0.0401 0.0467 0.0459 0.0453
0.0459 0.047
   EMISFACT A0000077     HROFDY 0.0481 0.0491 0.0509 0.0519
0.0524 0.0476
   EMISFACT A0000077     HROFDY 0.0421 0.0314 0.0298 0.0255
0.0211 0.0155

** Variable Emissions Type: "By Hour-of-Day (HROFDY)"
** Variable Emission Scenario: "ARLN08"
   EMISFACT A0000078     HROFDY 0.013 0.00932 0.00817 0.00951
0.0153 0.0257
```

```
   EMISFACT A0000078     HROFDY 0.039 0.0475 0.0456 0.043 0.0436
0.0456
   EMISFACT A0000078     HROFDY 0.0481 0.0502 0.057 0.0559 0.061
0.0608
   EMISFACT A0000078     HROFDY 0.049 0.0416 0.0377 0.0307 0.0252
0.0187
   EMISFACT A0000079     HROFDY 0.013 0.00932 0.00817 0.00951
0.0153 0.0257
   EMISFACT A0000079     HROFDY 0.039 0.0475 0.0456 0.043 0.0436
0.0456
   EMISFACT A0000079     HROFDY 0.0481 0.0502 0.057 0.0559 0.061
0.0608
   EMISFACT A0000079     HROFDY 0.049 0.0416 0.0377 0.0307 0.0252
0.0187
   EMISFACT A0000080     HROFDY 0.013 0.00932 0.00817 0.00951
0.0153 0.0257
   EMISFACT A0000080     HROFDY 0.039 0.0475 0.0456 0.043 0.0436
0.0456
   EMISFACT A0000080     HROFDY 0.0481 0.0502 0.057 0.0559 0.061
0.0608
   EMISFACT A0000080     HROFDY 0.049 0.0416 0.0377 0.0307 0.0252
0.0187
   EMISFACT A0000081     HROFDY 0.013 0.00932 0.00817 0.00951
0.0153 0.0257
   EMISFACT A0000081     HROFDY 0.039 0.0475 0.0456 0.043 0.0436
0.0456
   EMISFACT A0000081     HROFDY 0.0481 0.0502 0.057 0.0559 0.061
0.0608
   EMISFACT A0000081     HROFDY 0.049 0.0416 0.0377 0.0307 0.0252
0.0187
   EMISFACT A0000082     HROFDY 0.013 0.00932 0.00817 0.00951
0.0153 0.0257
   EMISFACT A0000082     HROFDY 0.039 0.0475 0.0456 0.043 0.0436
0.0456
   EMISFACT A0000082     HROFDY 0.0481 0.0502 0.057 0.0559 0.061
0.0608
   EMISFACT A0000082     HROFDY 0.049 0.0416 0.0377 0.0307 0.0252
0.0187
   EMISFACT A0000083     HROFDY 0.013 0.00932 0.00817 0.00951
0.0153 0.0257
   EMISFACT A0000083     HROFDY 0.039 0.0475 0.0456 0.043 0.0436
0.0456
   EMISFACT A0000083     HROFDY 0.0481 0.0502 0.057 0.0559 0.061
0.0608
   EMISFACT A0000083     HROFDY 0.049 0.0416 0.0377 0.0307 0.0252
0.0187
   EMISFACT A0000084     HROFDY 0.013 0.00932 0.00817 0.00951
0.0153 0.0257
   EMISFACT A0000084     HROFDY 0.039 0.0475 0.0456 0.043 0.0436
0.0456
   EMISFACT A0000084     HROFDY 0.0481 0.0502 0.057 0.0559 0.061
0.0608
```

```
   EMISFACT A0000084     HROFDY 0.049 0.0416 0.0377 0.0307 0.0252
0.0187
   EMISFACT A0000085     HROFDY 0.013 0.00932 0.00817 0.00951
0.0153 0.0257
   EMISFACT A0000085     HROFDY 0.039 0.0475 0.0456 0.043 0.0436
0.0456
   EMISFACT A0000085     HROFDY 0.0481 0.0502 0.057 0.0559 0.061
0.0608
   EMISFACT A0000085     HROFDY 0.049 0.0416 0.0377 0.0307 0.0252
0.0187
   EMISFACT A0000086     HROFDY 0.013 0.00932 0.00817 0.00951
0.0153 0.0257
   EMISFACT A0000086     HROFDY 0.039 0.0475 0.0456 0.043 0.0436
0.0456
   EMISFACT A0000086     HROFDY 0.0481 0.0502 0.057 0.0559 0.061
0.0608
   EMISFACT A0000086     HROFDY 0.049 0.0416 0.0377 0.0307 0.0252
0.0187
   EMISFACT A0000087     HROFDY 0.013 0.00932 0.00817 0.00951
0.0153 0.0257
   EMISFACT A0000087     HROFDY 0.039 0.0475 0.0456 0.043 0.0436
0.0456
   EMISFACT A0000087     HROFDY 0.0481 0.0502 0.057 0.0559 0.061
0.0608
   EMISFACT A0000087     HROFDY 0.049 0.0416 0.0377 0.0307 0.0252
0.0187
   EMISFACT A0000088     HROFDY 0.013 0.00932 0.00817 0.00951
0.0153 0.0257
   EMISFACT A0000088     HROFDY 0.039 0.0475 0.0456 0.043 0.0436
0.0456
   EMISFACT A0000088     HROFDY 0.0481 0.0502 0.057 0.0559 0.061
0.0608
   EMISFACT A0000088     HROFDY 0.049 0.0416 0.0377 0.0307 0.0252
0.0187

** Variable Emissions Type: "By Hour-of-Day (HROFDY)"
** Variable Emission Scenario: "ARLN09"
   EMISFACT A0000089     HROFDY 0.00341 0.00268 0.00273 0.0042
0.00872 0.00114
   EMISFACT A0000089     HROFDY 0.0116 0.0124 0.0122 0.012 0.0122
0.0125
   EMISFACT A0000089     HROFDY 0.0127 0.013 0.0135 0.0138 0.0139
0.0138
   EMISFACT A0000089     HROFDY 0.0122 0.00983 0.00861 0.008
0.00662 0.00487
   EMISFACT A0000090     HROFDY 0.00341 0.00268 0.00273 0.0042
0.00872 0.00114
   EMISFACT A0000090     HROFDY 0.0116 0.0124 0.0122 0.012 0.0122
0.0125
   EMISFACT A0000090     HROFDY 0.0127 0.013 0.0135 0.0138 0.0139
0.0138
   EMISFACT A0000090     HROFDY 0.0122 0.00983 0.00861 0.008
```

```
0.00662 0.00487
   EMISFACT A0000091     HROFDY 0.00341 0.00268 0.00273 0.0042
0.00872 0.00114
   EMISFACT A0000091     HROFDY 0.0116 0.0124 0.0122 0.012 0.0122
0.0125
   EMISFACT A0000091     HROFDY 0.0127 0.013 0.0135 0.0138 0.0139
0.0138
   EMISFACT A0000091     HROFDY 0.0122 0.00983 0.00861 0.008
0.00662 0.00487
   EMISFACT A0000092     HROFDY 0.00341 0.00268 0.00273 0.0042
0.00872 0.00114
   EMISFACT A0000092     HROFDY 0.0116 0.0124 0.0122 0.012 0.0122
0.0125
   EMISFACT A0000092     HROFDY 0.0127 0.013 0.0135 0.0138 0.0139
0.0138
   EMISFACT A0000092     HROFDY 0.0122 0.00983 0.00861 0.008
0.00662 0.00487
   EMISFACT A0000093     HROFDY 0.00341 0.00268 0.00273 0.0042
0.00872 0.00114
   EMISFACT A0000093     HROFDY 0.0116 0.0124 0.0122 0.012 0.0122
0.0125
   EMISFACT A0000093     HROFDY 0.0127 0.013 0.0135 0.0138 0.0139
0.0138
   EMISFACT A0000093     HROFDY 0.0122 0.00983 0.00861 0.008
0.00662 0.00487
   EMISFACT A0000094     HROFDY 0.00341 0.00268 0.00273 0.0042
0.00872 0.00114
   EMISFACT A0000094     HROFDY 0.0116 0.0124 0.0122 0.012 0.0122
0.0125
   EMISFACT A0000094     HROFDY 0.0127 0.013 0.0135 0.0138 0.0139
0.0138
   EMISFACT A0000094     HROFDY 0.0122 0.00983 0.00861 0.008
0.00662 0.00487
   EMISFACT A0000095     HROFDY 0.00341 0.00268 0.00273 0.0042
0.00872 0.00114
   EMISFACT A0000095     HROFDY 0.0116 0.0124 0.0122 0.012 0.0122
0.0125
   EMISFACT A0000095     HROFDY 0.0127 0.013 0.0135 0.0138 0.0139
0.0138
   EMISFACT A0000095     HROFDY 0.0122 0.00983 0.00861 0.008
0.00662 0.00487
   EMISFACT A0000096     HROFDY 0.00341 0.00268 0.00273 0.0042
0.00872 0.00114
   EMISFACT A0000096     HROFDY 0.0116 0.0124 0.0122 0.012 0.0122
0.0125
   EMISFACT A0000096     HROFDY 0.0127 0.013 0.0135 0.0138 0.0139
0.0138
   EMISFACT A0000096     HROFDY 0.0122 0.00983 0.00861 0.008
0.00662 0.00487
   EMISFACT A0000097     HROFDY 0.00341 0.00268 0.00273 0.0042
0.00872 0.00114
   EMISFACT A0000097     HROFDY 0.0116 0.0124 0.0122 0.012 0.0122
```

```
0.0125
   EMISFACT A0000097     HROFDY 0.0127 0.013 0.0135 0.0138 0.0139
0.0138
   EMISFACT A0000097     HROFDY 0.0122 0.00983 0.00861 0.008
0.00662 0.00487
   EMISFACT A0000098     HROFDY 0.00341 0.00268 0.00273 0.0042
0.00872 0.00114
   EMISFACT A0000098     HROFDY 0.0116 0.0124 0.0122 0.012 0.0122
0.0125
   EMISFACT A0000098     HROFDY 0.0127 0.013 0.0135 0.0138 0.0139
0.0138
   EMISFACT A0000098     HROFDY 0.0122 0.00983 0.00861 0.008
0.00662 0.00487
   EMISFACT A0000099     HROFDY 0.00341 0.00268 0.00273 0.0042
0.00872 0.00114
   EMISFACT A0000099     HROFDY 0.0116 0.0124 0.0122 0.012 0.0122
0.0125
   EMISFACT A0000099     HROFDY 0.0127 0.013 0.0135 0.0138 0.0139
0.0138
   EMISFACT A0000099     HROFDY 0.0122 0.00983 0.00861 0.008
0.00662 0.00487
   EMISFACT A0000100     HROFDY 0.00341 0.00268 0.00273 0.0042
0.00872 0.00114
   EMISFACT A0000100     HROFDY 0.0116 0.0124 0.0122 0.012 0.0122
0.0125
   EMISFACT A0000100     HROFDY 0.0127 0.013 0.0135 0.0138 0.0139
0.0138
   EMISFACT A0000100     HROFDY 0.0122 0.00983 0.00861 0.008
0.00662 0.00487
   EMISFACT A0000101     HROFDY 0.00341 0.00268 0.00273 0.0042
0.00872 0.00114
   EMISFACT A0000101     HROFDY 0.0116 0.0124 0.0122 0.012 0.0122
0.0125
   EMISFACT A0000101     HROFDY 0.0127 0.013 0.0135 0.0138 0.0139
0.0138
   EMISFACT A0000101     HROFDY 0.0122 0.00983 0.00861 0.008
0.00662 0.00487
   EMISFACT A0000102     HROFDY 0.00341 0.00268 0.00273 0.0042
0.00872 0.00114
   EMISFACT A0000102     HROFDY 0.0116 0.0124 0.0122 0.012 0.0122
0.0125
   EMISFACT A0000102     HROFDY 0.0127 0.013 0.0135 0.0138 0.0139
0.0138
   EMISFACT A0000102     HROFDY 0.0122 0.00983 0.00861 0.008
0.00662 0.00487

** Variable Emissions Type: "By Hour-of-Day (HROFDY)"
** Variable Emission Scenario: "ARLN10"
   EMISFACT A0000103     HROFDY 0.000395 0.000284 0.000249
0.00029 0.000466 0.000782
   EMISFACT A0000103     HROFDY 0.0011 0.00122 0.00118 0.00111
0.00112 0.00118
```

```
   EMISFACT A0000103     HROFDY 0.00124 0.00129 0.00134 0.00131
0.00129 0.00128
   EMISFACT A0000103     HROFDY 0.00126 0.00117 0.00106 0.000937
0.000767 0.000571
   EMISFACT A0000104     HROFDY 0.000395 0.000284 0.000249
0.00029 0.000466 0.000782
   EMISFACT A0000104     HROFDY 0.0011 0.00122 0.00118 0.00111
0.00112 0.00118
   EMISFACT A0000104     HROFDY 0.00124 0.00129 0.00134 0.00131
0.00129 0.00128
   EMISFACT A0000104     HROFDY 0.00126 0.00117 0.00106 0.000937
0.000767 0.000571
   EMISFACT A0000105     HROFDY 0.000395 0.000284 0.000249
0.00029 0.000466 0.000782
   EMISFACT A0000105     HROFDY 0.0011 0.00122 0.00118 0.00111
0.00112 0.00118
   EMISFACT A0000105     HROFDY 0.00124 0.00129 0.00134 0.00131
0.00129 0.00128
   EMISFACT A0000105     HROFDY 0.00126 0.00117 0.00106 0.000937
0.000767 0.000571
   EMISFACT A0000106     HROFDY 0.000395 0.000284 0.000249
0.00029 0.000466 0.000782
   EMISFACT A0000106     HROFDY 0.0011 0.00122 0.00118 0.00111
0.00112 0.00118
   EMISFACT A0000106     HROFDY 0.00124 0.00129 0.00134 0.00131
0.00129 0.00128
   EMISFACT A0000106     HROFDY 0.00126 0.00117 0.00106 0.000937
0.000767 0.000571
   EMISFACT A0000107     HROFDY 0.000395 0.000284 0.000249
0.00029 0.000466 0.000782
   EMISFACT A0000107     HROFDY 0.0011 0.00122 0.00118 0.00111
0.00112 0.00118
   EMISFACT A0000107     HROFDY 0.00124 0.00129 0.00134 0.00131
0.00129 0.00128
   EMISFACT A0000107     HROFDY 0.00126 0.00117 0.00106 0.000937
0.000767 0.000571
   EMISFACT A0000108     HROFDY 0.000395 0.000284 0.000249
0.00029 0.000466 0.000782
   EMISFACT A0000108     HROFDY 0.0011 0.00122 0.00118 0.00111
0.00112 0.00118
   EMISFACT A0000108     HROFDY 0.00124 0.00129 0.00134 0.00131
0.00129 0.00128
   EMISFACT A0000108     HROFDY 0.00126 0.00117 0.00106 0.000937
0.000767 0.000571
   EMISFACT A0000109     HROFDY 0.000395 0.000284 0.000249
0.00029 0.000466 0.000782
   EMISFACT A0000109     HROFDY 0.0011 0.00122 0.00118 0.00111
0.00112 0.00118
   EMISFACT A0000109     HROFDY 0.00124 0.00129 0.00134 0.00131
0.00129 0.00128
   EMISFACT A0000109     HROFDY 0.00126 0.00117 0.00106 0.000937
0.000767 0.000571
```

```
   EMISFACT A0000110     HROFDY 0.000395 0.000284 0.000249
0.00029 0.000466 0.000782
   EMISFACT A0000110     HROFDY 0.0011 0.00122 0.00118 0.00111
0.00112 0.00118
   EMISFACT A0000110     HROFDY 0.00124 0.00129 0.00134 0.00131
0.00129 0.00128
   EMISFACT A0000110     HROFDY 0.00126 0.00117 0.00106 0.000937
0.000767 0.000571

** Variable Emissions Type: "By Hour-of-Day (HROFDY)"
** Variable Emission Scenario: "ARLN11"
   EMISFACT A0000111     HROFDY 0.00545 0.00392 0.00343 0.004
0.00644 0.0012
   EMISFACT A0000111     HROFDY 0.0151 0.0169 0.0162 0.0153
0.0155 0.0162
   EMISFACT A0000111     HROFDY 0.0171 0.0178 0.0184 0.0181
0.0177 0.0177
   EMISFACT A0000111     HROFDY 0.0174 0.0161 0.0146 0.0129
0.0106 0.00788
   EMISFACT A0000112     HROFDY 0.00545 0.00392 0.00343 0.004
0.00644 0.0012
   EMISFACT A0000112     HROFDY 0.0151 0.0169 0.0162 0.0153
0.0155 0.0162
   EMISFACT A0000112     HROFDY 0.0171 0.0178 0.0184 0.0181
0.0177 0.0177
   EMISFACT A0000112     HROFDY 0.0174 0.0161 0.0146 0.0129
0.0106 0.00788
   EMISFACT A0000113     HROFDY 0.00545 0.00392 0.00343 0.004
0.00644 0.0012
   EMISFACT A0000113     HROFDY 0.0151 0.0169 0.0162 0.0153
0.0155 0.0162
   EMISFACT A0000113     HROFDY 0.0171 0.0178 0.0184 0.0181
0.0177 0.0177
   EMISFACT A0000113     HROFDY 0.0174 0.0161 0.0146 0.0129
0.0106 0.00788
   EMISFACT A0000114     HROFDY 0.00545 0.00392 0.00343 0.004
0.00644 0.0012
   EMISFACT A0000114     HROFDY 0.0151 0.0169 0.0162 0.0153
0.0155 0.0162
   EMISFACT A0000114     HROFDY 0.0171 0.0178 0.0184 0.0181
0.0177 0.0177
   EMISFACT A0000114     HROFDY 0.0174 0.0161 0.0146 0.0129
0.0106 0.00788
   EMISFACT A0000115     HROFDY 0.00545 0.00392 0.00343 0.004
0.00644 0.0012
   EMISFACT A0000115     HROFDY 0.0151 0.0169 0.0162 0.0153
0.0155 0.0162
   EMISFACT A0000115     HROFDY 0.0171 0.0178 0.0184 0.0181
0.0177 0.0177
   EMISFACT A0000115     HROFDY 0.0174 0.0161 0.0146 0.0129
0.0106 0.00788
   EMISFACT A0000116     HROFDY 0.00545 0.00392 0.00343 0.004
```

```
0.00644 0.0012
   EMISFACT A0000116     HROFDY 0.0151 0.0169 0.0162 0.0153
0.0155 0.0162
   EMISFACT A0000116     HROFDY 0.0171 0.0178 0.0184 0.0181
0.0177 0.0177
   EMISFACT A0000116     HROFDY 0.0174 0.0161 0.0146 0.0129
0.0106 0.00788
   EMISFACT A0000117     HROFDY 0.00545 0.00392 0.00343 0.004
0.00644 0.0012
   EMISFACT A0000117     HROFDY 0.0151 0.0169 0.0162 0.0153
0.0155 0.0162
   EMISFACT A0000117     HROFDY 0.0171 0.0178 0.0184 0.0181
0.0177 0.0177
   EMISFACT A0000117     HROFDY 0.0174 0.0161 0.0146 0.0129
0.0106 0.00788
   EMISFACT A0000118     HROFDY 0.00545 0.00392 0.00343 0.004
0.00644 0.0012
   EMISFACT A0000118     HROFDY 0.0151 0.0169 0.0162 0.0153
0.0155 0.0162
   EMISFACT A0000118     HROFDY 0.0171 0.0178 0.0184 0.0181
0.0177 0.0177
   EMISFACT A0000118     HROFDY 0.0174 0.0161 0.0146 0.0129
0.0106 0.00788
   EMISFACT A0000119     HROFDY 0.00545 0.00392 0.00343 0.004
0.00644 0.0012
   EMISFACT A0000119     HROFDY 0.0151 0.0169 0.0162 0.0153
0.0155 0.0162
   EMISFACT A0000119     HROFDY 0.0171 0.0178 0.0184 0.0181
0.0177 0.0177
   EMISFACT A0000119     HROFDY 0.0174 0.0161 0.0146 0.0129
0.0106 0.00788
   EMISFACT A0000120     HROFDY 0.00545 0.00392 0.00343 0.004
0.00644 0.0012
   EMISFACT A0000120     HROFDY 0.0151 0.0169 0.0162 0.0153
0.0155 0.0162
   EMISFACT A0000120     HROFDY 0.0171 0.0178 0.0184 0.0181
0.0177 0.0177
   EMISFACT A0000120     HROFDY 0.0174 0.0161 0.0146 0.0129
0.0106 0.00788
   EMISFACT A0000121     HROFDY 0.00545 0.00392 0.00343 0.004
0.00644 0.0012
   EMISFACT A0000121     HROFDY 0.0151 0.0169 0.0162 0.0153
0.0155 0.0162
   EMISFACT A0000121     HROFDY 0.0171 0.0178 0.0184 0.0181
0.0177 0.0177
   EMISFACT A0000121     HROFDY 0.0174 0.0161 0.0146 0.0129
0.0106 0.00788
   EMISFACT A0000122     HROFDY 0.00545 0.00392 0.00343 0.004
0.00644 0.0012
   EMISFACT A0000122     HROFDY 0.0151 0.0169 0.0162 0.0153
0.0155 0.0162
   EMISFACT A0000122     HROFDY 0.0171 0.0178 0.0184 0.0181
```

```
0.0177 0.0177
   EMISFACT A0000122     HROFDY 0.0174 0.0161 0.0146 0.0129
0.0106 0.00788
   EMISFACT A0000123     HROFDY 0.00545 0.00392 0.00343 0.004
0.00644 0.0012
   EMISFACT A0000123     HROFDY 0.0151 0.0169 0.0162 0.0153
0.0155 0.0162
   EMISFACT A0000123     HROFDY 0.0171 0.0178 0.0184 0.0181
0.0177 0.0177
   EMISFACT A0000123     HROFDY 0.0174 0.0161 0.0146 0.0129
0.0106 0.00788
   EMISFACT A0000124     HROFDY 0.00545 0.00392 0.00343 0.004
0.00644 0.0012
   EMISFACT A0000124     HROFDY 0.0151 0.0169 0.0162 0.0153
0.0155 0.0162
   EMISFACT A0000124     HROFDY 0.0171 0.0178 0.0184 0.0181
0.0177 0.0177
   EMISFACT A0000124     HROFDY 0.0174 0.0161 0.0146 0.0129
0.0106 0.00788
   EMISFACT A0000125     HROFDY 0.00545 0.00392 0.00343 0.004
0.00644 0.0012
   EMISFACT A0000125     HROFDY 0.0151 0.0169 0.0162 0.0153
0.0155 0.0162
   EMISFACT A0000125     HROFDY 0.0171 0.0178 0.0184 0.0181
0.0177 0.0177
   EMISFACT A0000125     HROFDY 0.0174 0.0161 0.0146 0.0129
0.0106 0.00788
   EMISFACT A0000126     HROFDY 0.00545 0.00392 0.00343 0.004
0.00644 0.0012
   EMISFACT A0000126     HROFDY 0.0151 0.0169 0.0162 0.0153
0.0155 0.0162
   EMISFACT A0000126     HROFDY 0.0171 0.0178 0.0184 0.0181
0.0177 0.0177
   EMISFACT A0000126     HROFDY 0.0174 0.0161 0.0146 0.0129
0.0106 0.00788

** Variable Emissions Type: "By Hour-of-Day (HROFDY)"
** Variable Emission Scenario: "ARLN12"
   EMISFACT A0000127     HROFDY 0.000482 0.000379 0.000386
0.000594 0.00123 0.00146
   EMISFACT A0000127     HROFDY 0.00164 0.00175 0.00172 0.0017
0.00172 0.00176
   EMISFACT A0000127     HROFDY 0.0018 0.00184 0.00191 0.00194
0.00196 0.00195
   EMISFACT A0000127     HROFDY 0.00172 0.00139 0.00122 0.00113
0.000937 0.000689
   EMISFACT A0000128     HROFDY 0.000482 0.000379 0.000386
0.000594 0.00123 0.00146
   EMISFACT A0000128     HROFDY 0.00164 0.00175 0.00172 0.0017
0.00172 0.00176
   EMISFACT A0000128     HROFDY 0.0018 0.00184 0.00191 0.00194
0.00196 0.00195
```

```
   EMISFACT A0000128     HROFDY 0.00172 0.00139 0.00122 0.00113
0.000937 0.000689
   EMISFACT A0000129     HROFDY 0.000482 0.000379 0.000386
0.000594 0.00123 0.00146
   EMISFACT A0000129     HROFDY 0.00164 0.00175 0.00172 0.0017
0.00172 0.00176
   EMISFACT A0000129     HROFDY 0.0018 0.00184 0.00191 0.00194
0.00196 0.00195
   EMISFACT A0000129     HROFDY 0.00172 0.00139 0.00122 0.00113
0.000937 0.000689
   EMISFACT A0000130     HROFDY 0.000482 0.000379 0.000386
0.000594 0.00123 0.00146
   EMISFACT A0000130     HROFDY 0.00164 0.00175 0.00172 0.0017
0.00172 0.00176
   EMISFACT A0000130     HROFDY 0.0018 0.00184 0.00191 0.00194
0.00196 0.00195
   EMISFACT A0000130     HROFDY 0.00172 0.00139 0.00122 0.00113
0.000937 0.000689
   EMISFACT A0000131     HROFDY 0.000482 0.000379 0.000386
0.000594 0.00123 0.00146
   EMISFACT A0000131     HROFDY 0.00164 0.00175 0.00172 0.0017
0.00172 0.00176
   EMISFACT A0000131     HROFDY 0.0018 0.00184 0.00191 0.00194
0.00196 0.00195
   EMISFACT A0000131     HROFDY 0.00172 0.00139 0.00122 0.00113
0.000937 0.000689
   EMISFACT A0000132     HROFDY 0.000482 0.000379 0.000386
0.000594 0.00123 0.00146
   EMISFACT A0000132     HROFDY 0.00164 0.00175 0.00172 0.0017
0.00172 0.00176
   EMISFACT A0000132     HROFDY 0.0018 0.00184 0.00191 0.00194
0.00196 0.00195
   EMISFACT A0000132     HROFDY 0.00172 0.00139 0.00122 0.00113
0.000937 0.000689
   SRCGROUP Exh      A0000012 A0000013 A0000014 A0000015 A0000016
A0000017
   SRCGROUP Exh      A0000018 A0000019 A0000020 A0000021 A0000022
A0000001
   SRCGROUP Exh      A0000002 A0000003 A0000004 A0000005 A0000006
A0000007
   SRCGROUP Exh      A0000008 A0000009 A0000010 A0000011 A0000023
A0000024
   SRCGROUP Exh      A0000025 A0000026 A0000027 A0000028 A0000029
A0000030
   SRCGROUP Exh      A0000031 A0000032 A0000033 A0000034 A0000035
A0000036
   SRCGROUP Exh      A0000037 A0000038 A0000039 A0000040 A0000041
A0000042
   SRCGROUP Exh      A0000043 A0000044 A0000045 A0000046 A0000047
A0000048
   SRCGROUP Exh      A0000049 A0000050 A0000051 A0000052 A0000053
A0000054
```

```
   SRCGROUP Exh      A0000055 A0000056 A0000057 A0000058 A0000059
A0000060
   SRCGROUP Exh      A0000061 A0000062 A0000063 A0000064 A0000065
A0000066
   SRCGROUP Evap     A0000067 A0000068 A0000069 A0000070 A0000071
A0000072
   SRCGROUP Evap     A0000073 A0000074 A0000075 A0000076 A0000077
A0000078
   SRCGROUP Evap     A0000079 A0000080 A0000081 A0000082 A0000083
A0000084
   SRCGROUP Evap     A0000085 A0000086 A0000087 A0000088 A0000089
A0000090
   SRCGROUP Evap     A0000091 A0000092 A0000093 A0000094 A0000095
A0000096
   SRCGROUP Evap     A0000097 A0000098 A0000099 A0000100 A0000101
A0000102
   SRCGROUP Evap     A0000103 A0000104 A0000105 A0000106 A0000107
A0000108
   SRCGROUP Evap     A0000109 A0000110 A0000111 A0000112 A0000113
A0000114
   SRCGROUP Evap     A0000115 A0000116 A0000117 A0000118 A0000119
A0000120
   SRCGROUP Evap     A0000121 A0000122 A0000123 A0000124 A0000125
A0000126
   SRCGROUP Evap     A0000127 A0000128 A0000129 A0000130 A0000131
A0000132
   SRCGROUP FreeExh  A0000012 A0000013 A0000014 A0000015 A0000016
A0000017
   SRCGROUP FreeExh  A0000018 A0000019 A0000020 A0000021 A0000022
A0000001
   SRCGROUP FreeExh  A0000002 A0000003 A0000004 A0000005 A0000006
A0000007
   SRCGROUP FreeExh  A0000008 A0000009 A0000010 A0000011
   SRCGROUP OnOffExh A0000023 A0000024 A0000025 A0000026 A0000027
A0000028
   SRCGROUP OnOffExh A0000029 A0000030 A0000031 A0000032 A0000033
A0000034
   SRCGROUP OnOffExh A0000035 A0000036 A0000037 A0000038 A0000039
A0000040
   SRCGROUP OnOffExh A0000041 A0000042 A0000043 A0000044 A0000045
A0000046
   SRCGROUP OnOffExh A0000047 A0000048 A0000049 A0000050 A0000051
A0000052
   SRCGROUP OnOffExh A0000053 A0000054 A0000055 A0000056 A0000057
A0000058
   SRCGROUP OnOffExh A0000059 A0000060 A0000061 A0000062 A0000063
A0000064
   SRCGROUP OnOffExh A0000065 A0000066
   SRCGROUP FreeEvap A0000067 A0000068 A0000069 A0000070 A0000071
A0000072
   SRCGROUP FreeEvap A0000073 A0000074 A0000075 A0000076 A0000077
A0000078
```

```
   SRCGROUP FreeEvap A0000079 A0000080 A0000081 A0000082 A0000083
A0000084
   SRCGROUP FreeEvap A0000085 A0000086 A0000087 A0000088
   SRCGROUP OnOffEva A0000089 A0000090 A0000091 A0000092 A0000093
A0000094
   SRCGROUP OnOffEva A0000095 A0000096 A0000097 A0000098 A0000099
A0000100
   SRCGROUP OnOffEva A0000101 A0000102 A0000103 A0000104 A0000105
A0000106
   SRCGROUP OnOffEva A0000107 A0000108 A0000109 A0000110 A0000111
A0000112
   SRCGROUP OnOffEva A0000113 A0000114 A0000115 A0000116 A0000117
A0000118
   SRCGROUP OnOffEva A0000119 A0000120 A0000121 A0000122 A0000123
A0000124
   SRCGROUP OnOffEva A0000125 A0000126 A0000127 A0000128 A0000129
A0000130
   SRCGROUP OnOffEva A0000131 A0000132
   SRCGROUP ALL
SO FINISHED
**
**********************************
** AERMOD Receptor Pathway
**********************************
**
**
RE STARTING
** DESCRREC "UCART01" "Receptors generated from Uniform Cartesian
Grid"
   DISCCART    439674.00   3765310.00
   DISCCART    439679.00   3765310.00
   DISCCART    439684.00   3765310.00
   DISCCART    439689.00   3765310.00
   DISCCART    439694.00   3765310.00
   DISCCART    439699.00   3765310.00
   DISCCART    439704.00   3765310.00
   DISCCART    439709.00   3765310.00
   DISCCART    439714.00   3765310.00
   DISCCART    439719.00   3765310.00
   DISCCART    439729.00   3765310.00
   DISCCART    439734.00   3765310.00
   DISCCART    439739.00   3765310.00
   DISCCART    439744.00   3765310.00
   DISCCART    439749.00   3765310.00
   DISCCART    439764.00   3765310.00
   DISCCART    439769.00   3765310.00
   DISCCART    439774.00   3765310.00
   DISCCART    439779.00   3765310.00
   DISCCART    439784.00   3765310.00
   DISCCART    439789.00   3765310.00
   DISCCART    439794.00   3765310.00
   DISCCART    439799.00   3765310.00
```

DISCCART	439804.00	3765310.00
DISCCART	439809.00	3765310.00
DISCCART	439814.00	3765310.00
DISCCART	439819.00	3765310.00
DISCCART	439824.00	3765310.00
DISCCART	439829.00	3765310.00
DISCCART	439839.00	3765310.00
DISCCART	439844.00	3765310.00
DISCCART	439849.00	3765310.00
DISCCART	439854.00	3765310.00
DISCCART	439859.00	3765310.00
DISCCART	439864.00	3765310.00
DISCCART	439869.00	3765310.00
DISCCART	439874.00	3765310.00
DISCCART	439879.00	3765310.00
DISCCART	439884.00	3765310.00
DISCCART	439674.00	3765315.00
DISCCART	439679.00	3765315.00
DISCCART	439684.00	3765315.00
DISCCART	439689.00	3765315.00
DISCCART	439694.00	3765315.00
DISCCART	439699.00	3765315.00
DISCCART	439704.00	3765315.00
DISCCART	439709.00	3765315.00
DISCCART	439714.00	3765315.00
DISCCART	439719.00	3765315.00
DISCCART	439729.00	3765315.00
DISCCART	439734.00	3765315.00
DISCCART	439739.00	3765315.00
DISCCART	439744.00	3765315.00
DISCCART	439749.00	3765315.00
DISCCART	439764.00	3765315.00
DISCCART	439769.00	3765315.00
DISCCART	439774.00	3765315.00
DISCCART	439779.00	3765315.00
DISCCART	439784.00	3765315.00
DISCCART	439789.00	3765315.00
DISCCART	439794.00	3765315.00
DISCCART	439799.00	3765315.00
DISCCART	439804.00	3765315.00
DISCCART	439809.00	3765315.00
DISCCART	439814.00	3765315.00
DISCCART	439819.00	3765315.00
DISCCART	439824.00	3765315.00
DISCCART	439829.00	3765315.00
DISCCART	439839.00	3765315.00
DISCCART	439844.00	3765315.00
DISCCART	439849.00	3765315.00
DISCCART	439854.00	3765315.00
DISCCART	439859.00	3765315.00
DISCCART	439864.00	3765315.00
DISCCART	439869.00	3765315.00

DISCCART	439874.00	3765315.00
DISCCART	439879.00	3765315.00
DISCCART	439884.00	3765315.00
DISCCART	439674.00	3765320.00
DISCCART	439679.00	3765320.00
DISCCART	439684.00	3765320.00
DISCCART	439689.00	3765320.00
DISCCART	439694.00	3765320.00
DISCCART	439699.00	3765320.00
DISCCART	439704.00	3765320.00
DISCCART	439709.00	3765320.00
DISCCART	439714.00	3765320.00
DISCCART	439719.00	3765320.00
DISCCART	439729.00	3765320.00
DISCCART	439734.00	3765320.00
DISCCART	439739.00	3765320.00
DISCCART	439744.00	3765320.00
DISCCART	439749.00	3765320.00
DISCCART	439764.00	3765320.00
DISCCART	439769.00	3765320.00
DISCCART	439774.00	3765320.00
DISCCART	439779.00	3765320.00
DISCCART	439784.00	3765320.00
DISCCART	439789.00	3765320.00
DISCCART	439794.00	3765320.00
DISCCART	439799.00	3765320.00
DISCCART	439804.00	3765320.00
DISCCART	439809.00	3765320.00
DISCCART	439814.00	3765320.00
DISCCART	439819.00	3765320.00
DISCCART	439824.00	3765320.00
DISCCART	439829.00	3765320.00
DISCCART	439839.00	3765320.00
DISCCART	439844.00	3765320.00
DISCCART	439849.00	3765320.00
DISCCART	439854.00	3765320.00
DISCCART	439859.00	3765320.00
DISCCART	439864.00	3765320.00
DISCCART	439869.00	3765320.00
DISCCART	439874.00	3765320.00
DISCCART	439879.00	3765320.00
DISCCART	439884.00	3765320.00
DISCCART	439674.00	3765325.00
DISCCART	439679.00	3765325.00
DISCCART	439684.00	3765325.00
DISCCART	439689.00	3765325.00
DISCCART	439694.00	3765325.00
DISCCART	439699.00	3765325.00
DISCCART	439704.00	3765325.00
DISCCART	439709.00	3765325.00
DISCCART	439714.00	3765325.00
DISCCART	439719.00	3765325.00

DISCCART	439729.00	3765325.00
DISCCART	439734.00	3765325.00
DISCCART	439739.00	3765325.00
DISCCART	439744.00	3765325.00
DISCCART	439749.00	3765325.00
DISCCART	439754.00	3765325.00
DISCCART	439769.00	3765325.00
DISCCART	439774.00	3765325.00
DISCCART	439779.00	3765325.00
DISCCART	439784.00	3765325.00
DISCCART	439789.00	3765325.00
DISCCART	439794.00	3765325.00
DISCCART	439799.00	3765325.00
DISCCART	439804.00	3765325.00
DISCCART	439809.00	3765325.00
DISCCART	439814.00	3765325.00
DISCCART	439819.00	3765325.00
DISCCART	439824.00	3765325.00
DISCCART	439829.00	3765325.00
DISCCART	439839.00	3765325.00
DISCCART	439844.00	3765325.00
DISCCART	439849.00	3765325.00
DISCCART	439854.00	3765325.00
DISCCART	439859.00	3765325.00
DISCCART	439864.00	3765325.00
DISCCART	439869.00	3765325.00
DISCCART	439874.00	3765325.00
DISCCART	439879.00	3765325.00
DISCCART	439884.00	3765325.00
DISCCART	439674.00	3765330.00
DISCCART	439679.00	3765330.00
DISCCART	439684.00	3765330.00
DISCCART	439689.00	3765330.00
DISCCART	439694.00	3765330.00
DISCCART	439699.00	3765330.00
DISCCART	439704.00	3765330.00
DISCCART	439709.00	3765330.00
DISCCART	439714.00	3765330.00
DISCCART	439719.00	3765330.00
DISCCART	439729.00	3765330.00
DISCCART	439734.00	3765330.00
DISCCART	439739.00	3765330.00
DISCCART	439744.00	3765330.00
DISCCART	439749.00	3765330.00
DISCCART	439754.00	3765330.00
DISCCART	439774.00	3765330.00
DISCCART	439779.00	3765330.00
DISCCART	439784.00	3765330.00
DISCCART	439789.00	3765330.00
DISCCART	439794.00	3765330.00
DISCCART	439799.00	3765330.00
DISCCART	439804.00	3765330.00

DISCCART	439809.00	3765330.00
DISCCART	439814.00	3765330.00
DISCCART	439819.00	3765330.00
DISCCART	439824.00	3765330.00
DISCCART	439829.00	3765330.00
DISCCART	439839.00	3765330.00
DISCCART	439844.00	3765330.00
DISCCART	439849.00	3765330.00
DISCCART	439854.00	3765330.00
DISCCART	439859.00	3765330.00
DISCCART	439864.00	3765330.00
DISCCART	439869.00	3765330.00
DISCCART	439874.00	3765330.00
DISCCART	439879.00	3765330.00
DISCCART	439884.00	3765330.00
DISCCART	439674.00	3765335.00
DISCCART	439679.00	3765335.00
DISCCART	439684.00	3765335.00
DISCCART	439689.00	3765335.00
DISCCART	439694.00	3765335.00
DISCCART	439699.00	3765335.00
DISCCART	439704.00	3765335.00
DISCCART	439709.00	3765335.00
DISCCART	439714.00	3765335.00
DISCCART	439719.00	3765335.00
DISCCART	439729.00	3765335.00
DISCCART	439734.00	3765335.00
DISCCART	439739.00	3765335.00
DISCCART	439744.00	3765335.00
DISCCART	439749.00	3765335.00
DISCCART	439774.00	3765335.00
DISCCART	439779.00	3765335.00
DISCCART	439784.00	3765335.00
DISCCART	439789.00	3765335.00
DISCCART	439794.00	3765335.00
DISCCART	439839.00	3765335.00
DISCCART	439844.00	3765335.00
DISCCART	439849.00	3765335.00
DISCCART	439854.00	3765335.00
DISCCART	439859.00	3765335.00
DISCCART	439864.00	3765335.00
DISCCART	439869.00	3765335.00
DISCCART	439874.00	3765335.00
DISCCART	439879.00	3765335.00
DISCCART	439884.00	3765335.00
DISCCART	439674.00	3765340.00
DISCCART	439679.00	3765340.00
DISCCART	439684.00	3765340.00
DISCCART	439689.00	3765340.00
DISCCART	439694.00	3765340.00
DISCCART	439699.00	3765340.00
DISCCART	439704.00	3765340.00

DISCCART	439709.00	3765340.00
DISCCART	439714.00	3765340.00
DISCCART	439719.00	3765340.00
DISCCART	439729.00	3765340.00
DISCCART	439734.00	3765340.00
DISCCART	439739.00	3765340.00
DISCCART	439744.00	3765340.00
DISCCART	439749.00	3765340.00
DISCCART	439774.00	3765340.00
DISCCART	439779.00	3765340.00
DISCCART	439784.00	3765340.00
DISCCART	439789.00	3765340.00
DISCCART	439794.00	3765340.00
DISCCART	439839.00	3765340.00
DISCCART	439844.00	3765340.00
DISCCART	439849.00	3765340.00
DISCCART	439854.00	3765340.00
DISCCART	439859.00	3765340.00
DISCCART	439864.00	3765340.00
DISCCART	439869.00	3765340.00
DISCCART	439874.00	3765340.00
DISCCART	439879.00	3765340.00
DISCCART	439884.00	3765340.00
DISCCART	439674.00	3765345.00
DISCCART	439679.00	3765345.00
DISCCART	439684.00	3765345.00
DISCCART	439689.00	3765345.00
DISCCART	439694.00	3765345.00
DISCCART	439699.00	3765345.00
DISCCART	439704.00	3765345.00
DISCCART	439709.00	3765345.00
DISCCART	439714.00	3765345.00
DISCCART	439719.00	3765345.00
DISCCART	439729.00	3765345.00
DISCCART	439734.00	3765345.00
DISCCART	439739.00	3765345.00
DISCCART	439744.00	3765345.00
DISCCART	439749.00	3765345.00
DISCCART	439774.00	3765345.00
DISCCART	439779.00	3765345.00
DISCCART	439784.00	3765345.00
DISCCART	439789.00	3765345.00
DISCCART	439794.00	3765345.00
DISCCART	439839.00	3765345.00
DISCCART	439844.00	3765345.00
DISCCART	439849.00	3765345.00
DISCCART	439854.00	3765345.00
DISCCART	439859.00	3765345.00
DISCCART	439864.00	3765345.00
DISCCART	439869.00	3765345.00
DISCCART	439874.00	3765345.00
DISCCART	439879.00	3765345.00

```
DISCCART    439884.00   3765345.00
DISCCART    439674.00   3765350.00
DISCCART    439679.00   3765350.00
DISCCART    439684.00   3765350.00
DISCCART    439689.00   3765350.00
DISCCART    439694.00   3765350.00
DISCCART    439699.00   3765350.00
DISCCART    439704.00   3765350.00
DISCCART    439709.00   3765350.00
DISCCART    439714.00   3765350.00
DISCCART    439719.00   3765350.00
DISCCART    439729.00   3765350.00
DISCCART    439734.00   3765350.00
DISCCART    439739.00   3765350.00
DISCCART    439744.00   3765350.00
DISCCART    439749.00   3765350.00
DISCCART    439774.00   3765350.00
DISCCART    439779.00   3765350.00
DISCCART    439784.00   3765350.00
DISCCART    439789.00   3765350.00
DISCCART    439794.00   3765350.00
DISCCART    439839.00   3765350.00
DISCCART    439844.00   3765350.00
DISCCART    439849.00   3765350.00
DISCCART    439854.00   3765350.00
DISCCART    439859.00   3765350.00
DISCCART    439864.00   3765350.00
DISCCART    439869.00   3765350.00
DISCCART    439874.00   3765350.00
DISCCART    439879.00   3765350.00
DISCCART    439884.00   3765350.00
DISCCART    439674.00   3765355.00
DISCCART    439679.00   3765355.00
DISCCART    439684.00   3765355.00
DISCCART    439689.00   3765355.00
DISCCART    439694.00   3765355.00
DISCCART    439699.00   3765355.00
DISCCART    439704.00   3765355.00
DISCCART    439709.00   3765355.00
DISCCART    439714.00   3765355.00
DISCCART    439719.00   3765355.00
DISCCART    439729.00   3765355.00
DISCCART    439734.00   3765355.00
DISCCART    439739.00   3765355.00
DISCCART    439744.00   3765355.00
DISCCART    439749.00   3765355.00
DISCCART    439774.00   3765355.00
DISCCART    439779.00   3765355.00
DISCCART    439784.00   3765355.00
DISCCART    439789.00   3765355.00
DISCCART    439794.00   3765355.00
DISCCART    439839.00   3765355.00
```

DISCCART	439844.00	3765355.00
DISCCART	439849.00	3765355.00
DISCCART	439854.00	3765355.00
DISCCART	439859.00	3765355.00
DISCCART	439864.00	3765355.00
DISCCART	439869.00	3765355.00
DISCCART	439874.00	3765355.00
DISCCART	439879.00	3765355.00
DISCCART	439884.00	3765355.00
DISCCART	439674.00	3765360.00
DISCCART	439679.00	3765360.00
DISCCART	439684.00	3765360.00
DISCCART	439689.00	3765360.00
DISCCART	439694.00	3765360.00
DISCCART	439699.00	3765360.00
DISCCART	439704.00	3765360.00
DISCCART	439709.00	3765360.00
DISCCART	439714.00	3765360.00
DISCCART	439719.00	3765360.00
DISCCART	439729.00	3765360.00
DISCCART	439734.00	3765360.00
DISCCART	439739.00	3765360.00
DISCCART	439744.00	3765360.00
DISCCART	439749.00	3765360.00
DISCCART	439774.00	3765360.00
DISCCART	439779.00	3765360.00
DISCCART	439784.00	3765360.00
DISCCART	439789.00	3765360.00
DISCCART	439794.00	3765360.00
DISCCART	439799.00	3765360.00
DISCCART	439804.00	3765360.00
DISCCART	439809.00	3765360.00
DISCCART	439814.00	3765360.00
DISCCART	439839.00	3765360.00
DISCCART	439844.00	3765360.00
DISCCART	439849.00	3765360.00
DISCCART	439854.00	3765360.00
DISCCART	439859.00	3765360.00
DISCCART	439864.00	3765360.00
DISCCART	439869.00	3765360.00
DISCCART	439874.00	3765360.00
DISCCART	439879.00	3765360.00
DISCCART	439884.00	3765360.00
DISCCART	439674.00	3765365.00
DISCCART	439679.00	3765365.00
DISCCART	439684.00	3765365.00
DISCCART	439689.00	3765365.00
DISCCART	439694.00	3765365.00
DISCCART	439699.00	3765365.00
DISCCART	439704.00	3765365.00
DISCCART	439709.00	3765365.00
DISCCART	439714.00	3765365.00

DISCCART	439719.00	3765365.00
DISCCART	439729.00	3765365.00
DISCCART	439734.00	3765365.00
DISCCART	439739.00	3765365.00
DISCCART	439744.00	3765365.00
DISCCART	439749.00	3765365.00
DISCCART	439774.00	3765365.00
DISCCART	439779.00	3765365.00
DISCCART	439784.00	3765365.00
DISCCART	439789.00	3765365.00
DISCCART	439794.00	3765365.00
DISCCART	439799.00	3765365.00
DISCCART	439804.00	3765365.00
DISCCART	439809.00	3765365.00
DISCCART	439814.00	3765365.00
DISCCART	439839.00	3765365.00
DISCCART	439844.00	3765365.00
DISCCART	439849.00	3765365.00
DISCCART	439854.00	3765365.00
DISCCART	439859.00	3765365.00
DISCCART	439864.00	3765365.00
DISCCART	439869.00	3765365.00
DISCCART	439874.00	3765365.00
DISCCART	439879.00	3765365.00
DISCCART	439884.00	3765365.00
DISCCART	439674.00	3765370.00
DISCCART	439679.00	3765370.00
DISCCART	439684.00	3765370.00
DISCCART	439689.00	3765370.00
DISCCART	439694.00	3765370.00
DISCCART	439699.00	3765370.00
DISCCART	439704.00	3765370.00
DISCCART	439709.00	3765370.00
DISCCART	439714.00	3765370.00
DISCCART	439719.00	3765370.00
DISCCART	439729.00	3765370.00
DISCCART	439734.00	3765370.00
DISCCART	439739.00	3765370.00
DISCCART	439744.00	3765370.00
DISCCART	439749.00	3765370.00
DISCCART	439774.00	3765370.00
DISCCART	439779.00	3765370.00
DISCCART	439784.00	3765370.00
DISCCART	439789.00	3765370.00
DISCCART	439794.00	3765370.00
DISCCART	439799.00	3765370.00
DISCCART	439804.00	3765370.00
DISCCART	439809.00	3765370.00
DISCCART	439814.00	3765370.00
DISCCART	439839.00	3765370.00
DISCCART	439844.00	3765370.00
DISCCART	439849.00	3765370.00

DISCCART	439854.00	3765370.00
DISCCART	439859.00	3765370.00
DISCCART	439864.00	3765370.00
DISCCART	439869.00	3765370.00
DISCCART	439874.00	3765370.00
DISCCART	439879.00	3765370.00
DISCCART	439884.00	3765370.00
DISCCART	439674.00	3765375.00
DISCCART	439679.00	3765375.00
DISCCART	439684.00	3765375.00
DISCCART	439689.00	3765375.00
DISCCART	439694.00	3765375.00
DISCCART	439699.00	3765375.00
DISCCART	439704.00	3765375.00
DISCCART	439709.00	3765375.00
DISCCART	439714.00	3765375.00
DISCCART	439719.00	3765375.00
DISCCART	439729.00	3765375.00
DISCCART	439734.00	3765375.00
DISCCART	439739.00	3765375.00
DISCCART	439744.00	3765375.00
DISCCART	439749.00	3765375.00
DISCCART	439754.00	3765375.00
DISCCART	439774.00	3765375.00
DISCCART	439779.00	3765375.00
DISCCART	439784.00	3765375.00
DISCCART	439789.00	3765375.00
DISCCART	439794.00	3765375.00
DISCCART	439799.00	3765375.00
DISCCART	439804.00	3765375.00
DISCCART	439809.00	3765375.00
DISCCART	439814.00	3765375.00
DISCCART	439839.00	3765375.00
DISCCART	439844.00	3765375.00
DISCCART	439849.00	3765375.00
DISCCART	439854.00	3765375.00
DISCCART	439859.00	3765375.00
DISCCART	439864.00	3765375.00
DISCCART	439869.00	3765375.00
DISCCART	439874.00	3765375.00
DISCCART	439879.00	3765375.00
DISCCART	439884.00	3765375.00
DISCCART	439774.00	3765380.00
DISCCART	439779.00	3765380.00
DISCCART	439784.00	3765380.00
DISCCART	439789.00	3765380.00
DISCCART	439794.00	3765380.00
DISCCART	439799.00	3765380.00
DISCCART	439804.00	3765380.00
DISCCART	439809.00	3765380.00
DISCCART	439814.00	3765380.00
DISCCART	439769.00	3765385.00

```
DISCCART    439819.00   3765385.00
DISCCART    439769.00   3765400.00
DISCCART    439844.00   3765400.00
DISCCART    439849.00   3765400.00
DISCCART    439674.00   3765405.00
DISCCART    439714.00   3765405.00
DISCCART    439719.00   3765405.00
DISCCART    439734.00   3765405.00
DISCCART    439749.00   3765405.00
DISCCART    439754.00   3765405.00
DISCCART    439774.00   3765405.00
DISCCART    439779.00   3765405.00
DISCCART    439784.00   3765405.00
DISCCART    439789.00   3765405.00
DISCCART    439794.00   3765405.00
DISCCART    439799.00   3765405.00
DISCCART    439804.00   3765405.00
DISCCART    439809.00   3765405.00
DISCCART    439814.00   3765405.00
DISCCART    439819.00   3765405.00
DISCCART    439824.00   3765405.00
DISCCART    439829.00   3765405.00
DISCCART    439834.00   3765405.00
DISCCART    439839.00   3765405.00
DISCCART    439844.00   3765405.00
DISCCART    439849.00   3765405.00
DISCCART    439854.00   3765405.00
DISCCART    439859.00   3765405.00
DISCCART    439674.00   3765410.00
DISCCART    439679.00   3765410.00
DISCCART    439684.00   3765410.00
DISCCART    439689.00   3765410.00
DISCCART    439694.00   3765410.00
DISCCART    439699.00   3765410.00
DISCCART    439704.00   3765410.00
DISCCART    439709.00   3765410.00
DISCCART    439714.00   3765410.00
DISCCART    439719.00   3765410.00
DISCCART    439729.00   3765410.00
DISCCART    439734.00   3765410.00
DISCCART    439739.00   3765410.00
DISCCART    439744.00   3765410.00
DISCCART    439749.00   3765410.00
DISCCART    439774.00   3765410.00
DISCCART    439779.00   3765410.00
DISCCART    439784.00   3765410.00
DISCCART    439789.00   3765410.00
DISCCART    439794.00   3765410.00
DISCCART    439799.00   3765410.00
DISCCART    439804.00   3765410.00
DISCCART    439809.00   3765410.00
DISCCART    439814.00   3765410.00
```

DISCCART	439819.00	3765410.00
DISCCART	439824.00	3765410.00
DISCCART	439829.00	3765410.00
DISCCART	439834.00	3765410.00
DISCCART	439839.00	3765410.00
DISCCART	439844.00	3765410.00
DISCCART	439849.00	3765410.00
DISCCART	439854.00	3765410.00
DISCCART	439859.00	3765410.00
DISCCART	439674.00	3765415.00
DISCCART	439679.00	3765415.00
DISCCART	439684.00	3765415.00
DISCCART	439689.00	3765415.00
DISCCART	439694.00	3765415.00
DISCCART	439699.00	3765415.00
DISCCART	439704.00	3765415.00
DISCCART	439709.00	3765415.00
DISCCART	439714.00	3765415.00
DISCCART	439719.00	3765415.00
DISCCART	439729.00	3765415.00
DISCCART	439734.00	3765415.00
DISCCART	439739.00	3765415.00
DISCCART	439744.00	3765415.00
DISCCART	439749.00	3765415.00
DISCCART	439774.00	3765415.00
DISCCART	439779.00	3765415.00
DISCCART	439784.00	3765415.00
DISCCART	439789.00	3765415.00
DISCCART	439794.00	3765415.00
DISCCART	439799.00	3765415.00
DISCCART	439804.00	3765415.00
DISCCART	439809.00	3765415.00
DISCCART	439814.00	3765415.00
DISCCART	439819.00	3765415.00
DISCCART	439824.00	3765415.00
DISCCART	439829.00	3765415.00
DISCCART	439834.00	3765415.00
DISCCART	439839.00	3765415.00
DISCCART	439844.00	3765415.00
DISCCART	439849.00	3765415.00
DISCCART	439854.00	3765415.00
DISCCART	439859.00	3765415.00
DISCCART	439674.00	3765420.00
DISCCART	439679.00	3765420.00
DISCCART	439684.00	3765420.00
DISCCART	439689.00	3765420.00
DISCCART	439694.00	3765420.00
DISCCART	439699.00	3765420.00
DISCCART	439704.00	3765420.00
DISCCART	439709.00	3765420.00
DISCCART	439714.00	3765420.00
DISCCART	439719.00	3765420.00

DISCCART	439729.00	3765420.00
DISCCART	439734.00	3765420.00
DISCCART	439739.00	3765420.00
DISCCART	439744.00	3765420.00
DISCCART	439749.00	3765420.00
DISCCART	439774.00	3765420.00
DISCCART	439779.00	3765420.00
DISCCART	439784.00	3765420.00
DISCCART	439789.00	3765420.00
DISCCART	439794.00	3765420.00
DISCCART	439799.00	3765420.00
DISCCART	439804.00	3765420.00
DISCCART	439809.00	3765420.00
DISCCART	439814.00	3765420.00
DISCCART	439819.00	3765420.00
DISCCART	439824.00	3765420.00
DISCCART	439829.00	3765420.00
DISCCART	439834.00	3765420.00
DISCCART	439839.00	3765420.00
DISCCART	439844.00	3765420.00
DISCCART	439849.00	3765420.00
DISCCART	439854.00	3765420.00
DISCCART	439859.00	3765420.00
DISCCART	439674.00	3765425.00
DISCCART	439679.00	3765425.00
DISCCART	439684.00	3765425.00
DISCCART	439689.00	3765425.00
DISCCART	439694.00	3765425.00
DISCCART	439699.00	3765425.00
DISCCART	439704.00	3765425.00
DISCCART	439709.00	3765425.00
DISCCART	439714.00	3765425.00
DISCCART	439719.00	3765425.00
DISCCART	439729.00	3765425.00
DISCCART	439734.00	3765425.00
DISCCART	439739.00	3765425.00
DISCCART	439744.00	3765425.00
DISCCART	439749.00	3765425.00
DISCCART	439774.00	3765425.00
DISCCART	439779.00	3765425.00
DISCCART	439784.00	3765425.00
DISCCART	439789.00	3765425.00
DISCCART	439794.00	3765425.00
DISCCART	439799.00	3765425.00
DISCCART	439804.00	3765425.00
DISCCART	439809.00	3765425.00
DISCCART	439814.00	3765425.00
DISCCART	439819.00	3765425.00
DISCCART	439824.00	3765425.00
DISCCART	439829.00	3765425.00
DISCCART	439834.00	3765425.00
DISCCART	439839.00	3765425.00

DISCCART	439844.00	3765425.00
DISCCART	439849.00	3765425.00
DISCCART	439854.00	3765425.00
DISCCART	439859.00	3765425.00
DISCCART	439674.00	3765430.00
DISCCART	439679.00	3765430.00
DISCCART	439684.00	3765430.00
DISCCART	439689.00	3765430.00
DISCCART	439694.00	3765430.00
DISCCART	439699.00	3765430.00
DISCCART	439704.00	3765430.00
DISCCART	439709.00	3765430.00
DISCCART	439714.00	3765430.00
DISCCART	439719.00	3765430.00
DISCCART	439729.00	3765430.00
DISCCART	439734.00	3765430.00
DISCCART	439739.00	3765430.00
DISCCART	439744.00	3765430.00
DISCCART	439749.00	3765430.00
DISCCART	439774.00	3765430.00
DISCCART	439779.00	3765430.00
DISCCART	439784.00	3765430.00
DISCCART	439789.00	3765430.00
DISCCART	439794.00	3765430.00
DISCCART	439799.00	3765430.00
DISCCART	439804.00	3765430.00
DISCCART	439809.00	3765430.00
DISCCART	439814.00	3765430.00
DISCCART	439819.00	3765430.00
DISCCART	439824.00	3765430.00
DISCCART	439829.00	3765430.00
DISCCART	439834.00	3765430.00
DISCCART	439839.00	3765430.00
DISCCART	439844.00	3765430.00
DISCCART	439849.00	3765430.00
DISCCART	439854.00	3765430.00
DISCCART	439859.00	3765430.00
DISCCART	439674.00	3765435.00
DISCCART	439679.00	3765435.00
DISCCART	439684.00	3765435.00
DISCCART	439689.00	3765435.00
DISCCART	439694.00	3765435.00
DISCCART	439699.00	3765435.00
DISCCART	439704.00	3765435.00
DISCCART	439709.00	3765435.00
DISCCART	439714.00	3765435.00
DISCCART	439719.00	3765435.00
DISCCART	439729.00	3765435.00
DISCCART	439734.00	3765435.00
DISCCART	439739.00	3765435.00
DISCCART	439744.00	3765435.00
DISCCART	439749.00	3765435.00

```
DISCCART    439774.00   3765435.00
DISCCART    439779.00   3765435.00
DISCCART    439784.00   3765435.00
DISCCART    439789.00   3765435.00
DISCCART    439794.00   3765435.00
DISCCART    439799.00   3765435.00
DISCCART    439804.00   3765435.00
DISCCART    439809.00   3765435.00
DISCCART    439814.00   3765435.00
DISCCART    439819.00   3765435.00
DISCCART    439824.00   3765435.00
DISCCART    439829.00   3765435.00
DISCCART    439834.00   3765435.00
DISCCART    439839.00   3765435.00
DISCCART    439844.00   3765435.00
DISCCART    439849.00   3765435.00
DISCCART    439854.00   3765435.00
DISCCART    439859.00   3765435.00
DISCCART    439674.00   3765440.00
DISCCART    439679.00   3765440.00
DISCCART    439684.00   3765440.00
DISCCART    439689.00   3765440.00
DISCCART    439694.00   3765440.00
DISCCART    439699.00   3765440.00
DISCCART    439704.00   3765440.00
DISCCART    439709.00   3765440.00
DISCCART    439714.00   3765440.00
DISCCART    439719.00   3765440.00
DISCCART    439729.00   3765440.00
DISCCART    439734.00   3765440.00
DISCCART    439739.00   3765440.00
DISCCART    439744.00   3765440.00
DISCCART    439749.00   3765440.00
DISCCART    439774.00   3765440.00
DISCCART    439779.00   3765440.00
DISCCART    439784.00   3765440.00
DISCCART    439789.00   3765440.00
DISCCART    439794.00   3765440.00
DISCCART    439799.00   3765440.00
DISCCART    439804.00   3765440.00
DISCCART    439809.00   3765440.00
DISCCART    439814.00   3765440.00
DISCCART    439819.00   3765440.00
DISCCART    439824.00   3765440.00
DISCCART    439829.00   3765440.00
DISCCART    439834.00   3765440.00
DISCCART    439839.00   3765440.00
DISCCART    439844.00   3765440.00
DISCCART    439849.00   3765440.00
DISCCART    439854.00   3765440.00
DISCCART    439859.00   3765440.00
DISCCART    439674.00   3765445.00
```

DISCCART	439679.00	3765445.00
DISCCART	439684.00	3765445.00
DISCCART	439689.00	3765445.00
DISCCART	439694.00	3765445.00
DISCCART	439699.00	3765445.00
DISCCART	439704.00	3765445.00
DISCCART	439709.00	3765445.00
DISCCART	439714.00	3765445.00
DISCCART	439719.00	3765445.00
DISCCART	439729.00	3765445.00
DISCCART	439734.00	3765445.00
DISCCART	439739.00	3765445.00
DISCCART	439744.00	3765445.00
DISCCART	439749.00	3765445.00
DISCCART	439774.00	3765445.00
DISCCART	439779.00	3765445.00
DISCCART	439784.00	3765445.00
DISCCART	439789.00	3765445.00
DISCCART	439794.00	3765445.00
DISCCART	439799.00	3765445.00
DISCCART	439804.00	3765445.00
DISCCART	439809.00	3765445.00
DISCCART	439814.00	3765445.00
DISCCART	439819.00	3765445.00
DISCCART	439824.00	3765445.00
DISCCART	439829.00	3765445.00
DISCCART	439834.00	3765445.00
DISCCART	439839.00	3765445.00
DISCCART	439844.00	3765445.00
DISCCART	439849.00	3765445.00
DISCCART	439854.00	3765445.00
DISCCART	439859.00	3765445.00
DISCCART	439674.00	3765450.00
DISCCART	439679.00	3765450.00
DISCCART	439684.00	3765450.00
DISCCART	439689.00	3765450.00
DISCCART	439694.00	3765450.00
DISCCART	439699.00	3765450.00
DISCCART	439704.00	3765450.00
DISCCART	439709.00	3765450.00
DISCCART	439714.00	3765450.00
DISCCART	439719.00	3765450.00
DISCCART	439729.00	3765450.00
DISCCART	439734.00	3765450.00
DISCCART	439739.00	3765450.00
DISCCART	439744.00	3765450.00
DISCCART	439749.00	3765450.00
DISCCART	439774.00	3765450.00
DISCCART	439844.00	3765450.00
DISCCART	439849.00	3765450.00
DISCCART	439854.00	3765450.00
DISCCART	439859.00	3765450.00

```
DISCCART    439674.00   3765455.00
DISCCART    439679.00   3765455.00
DISCCART    439684.00   3765455.00
DISCCART    439689.00   3765455.00
DISCCART    439694.00   3765455.00
DISCCART    439699.00   3765455.00
DISCCART    439704.00   3765455.00
DISCCART    439709.00   3765455.00
DISCCART    439714.00   3765455.00
DISCCART    439719.00   3765455.00
DISCCART    439729.00   3765455.00
DISCCART    439734.00   3765455.00
DISCCART    439739.00   3765455.00
DISCCART    439744.00   3765455.00
DISCCART    439749.00   3765455.00
DISCCART    439844.00   3765455.00
DISCCART    439849.00   3765455.00
DISCCART    439854.00   3765455.00
DISCCART    439859.00   3765455.00
DISCCART    439674.00   3765460.00
DISCCART    439679.00   3765460.00
DISCCART    439684.00   3765460.00
DISCCART    439689.00   3765460.00
DISCCART    439694.00   3765460.00
DISCCART    439699.00   3765460.00
DISCCART    439704.00   3765460.00
DISCCART    439709.00   3765460.00
DISCCART    439714.00   3765460.00
DISCCART    439719.00   3765460.00
DISCCART    439729.00   3765460.00
DISCCART    439734.00   3765460.00
DISCCART    439739.00   3765460.00
DISCCART    439744.00   3765460.00
DISCCART    439749.00   3765460.00
DISCCART    439789.00   3765460.00
DISCCART    439794.00   3765460.00
DISCCART    439799.00   3765460.00
DISCCART    439804.00   3765460.00
DISCCART    439809.00   3765460.00
DISCCART    439814.00   3765460.00
DISCCART    439819.00   3765460.00
DISCCART    439824.00   3765460.00
DISCCART    439829.00   3765460.00
DISCCART    439844.00   3765460.00
DISCCART    439849.00   3765460.00
DISCCART    439854.00   3765460.00
DISCCART    439859.00   3765460.00
DISCCART    439674.00   3765465.00
DISCCART    439679.00   3765465.00
DISCCART    439684.00   3765465.00
DISCCART    439689.00   3765465.00
DISCCART    439694.00   3765465.00
```

```
DISCCART    439699.00   3765465.00
DISCCART    439704.00   3765465.00
DISCCART    439709.00   3765465.00
DISCCART    439714.00   3765465.00
DISCCART    439719.00   3765465.00
DISCCART    439729.00   3765465.00
DISCCART    439734.00   3765465.00
DISCCART    439739.00   3765465.00
DISCCART    439744.00   3765465.00
DISCCART    439749.00   3765465.00
DISCCART    439789.00   3765465.00
DISCCART    439794.00   3765465.00
DISCCART    439799.00   3765465.00
DISCCART    439804.00   3765465.00
DISCCART    439809.00   3765465.00
DISCCART    439814.00   3765465.00
DISCCART    439819.00   3765465.00
DISCCART    439824.00   3765465.00
DISCCART    439829.00   3765465.00
DISCCART    439844.00   3765465.00
DISCCART    439849.00   3765465.00
DISCCART    439854.00   3765465.00
DISCCART    439859.00   3765465.00
DISCCART    439674.00   3765470.00
DISCCART    439679.00   3765470.00
DISCCART    439684.00   3765470.00
DISCCART    439689.00   3765470.00
DISCCART    439694.00   3765470.00
DISCCART    439699.00   3765470.00
DISCCART    439704.00   3765470.00
DISCCART    439709.00   3765470.00
DISCCART    439714.00   3765470.00
DISCCART    439719.00   3765470.00
DISCCART    439729.00   3765470.00
DISCCART    439734.00   3765470.00
DISCCART    439739.00   3765470.00
DISCCART    439744.00   3765470.00
DISCCART    439749.00   3765470.00
DISCCART    439789.00   3765470.00
DISCCART    439794.00   3765470.00
DISCCART    439799.00   3765470.00
DISCCART    439804.00   3765470.00
DISCCART    439809.00   3765470.00
DISCCART    439814.00   3765470.00
DISCCART    439819.00   3765470.00
DISCCART    439824.00   3765470.00
DISCCART    439829.00   3765470.00
DISCCART    439844.00   3765470.00
DISCCART    439849.00   3765470.00
DISCCART    439854.00   3765470.00
DISCCART    439859.00   3765470.00
DISCCART    439674.00   3765475.00
```

```
   DISCCART    439679.00   3765475.00
   DISCCART    439684.00   3765475.00
   DISCCART    439689.00   3765475.00
   DISCCART    439694.00   3765475.00
   DISCCART    439699.00   3765475.00
   DISCCART    439704.00   3765475.00
   DISCCART    439709.00   3765475.00
   DISCCART    439714.00   3765475.00
   DISCCART    439719.00   3765475.00
   DISCCART    439729.00   3765475.00
   DISCCART    439734.00   3765475.00
   DISCCART    439739.00   3765475.00
   DISCCART    439744.00   3765475.00
   DISCCART    439749.00   3765475.00
   DISCCART    439754.00   3765475.00
   DISCCART    439789.00   3765475.00
   DISCCART    439794.00   3765475.00
   DISCCART    439799.00   3765475.00
   DISCCART    439804.00   3765475.00
   DISCCART    439809.00   3765475.00
   DISCCART    439814.00   3765475.00
   DISCCART    439819.00   3765475.00
   DISCCART    439824.00   3765475.00
   DISCCART    439829.00   3765475.00
** DESCRREC "UCART03" "Receptors generated from Uniform Cartesian
Grid"
   DISCCART    439269.00   3764900.00
   DISCCART    439369.00   3764900.00
   DISCCART    439469.00   3764900.00
   DISCCART    439569.00   3764900.00
   DISCCART    439669.00   3764900.00
   DISCCART    439769.00   3764900.00
   DISCCART    439869.00   3764900.00
   DISCCART    439969.00   3764900.00
   DISCCART    440069.00   3764900.00
   DISCCART    440169.00   3764900.00
   DISCCART    440269.00   3764900.00
   DISCCART    439269.00   3765000.00
   DISCCART    439369.00   3765000.00
   DISCCART    439469.00   3765000.00
   DISCCART    439569.00   3765000.00
   DISCCART    439669.00   3765000.00
   DISCCART    439769.00   3765000.00
   DISCCART    439869.00   3765000.00
   DISCCART    439969.00   3765000.00
   DISCCART    440069.00   3765000.00
   DISCCART    440169.00   3765000.00
   DISCCART    440269.00   3765000.00
   DISCCART    439269.00   3765100.00
   DISCCART    439369.00   3765100.00
   DISCCART    439469.00   3765100.00
   DISCCART    439569.00   3765100.00
```

```
DISCCART    439669.00   3765100.00
DISCCART    439769.00   3765100.00
DISCCART    439869.00   3765100.00
DISCCART    439969.00   3765100.00
DISCCART    440069.00   3765100.00
DISCCART    440169.00   3765100.00
DISCCART    440269.00   3765100.00
DISCCART    439269.00   3765200.00
DISCCART    439369.00   3765200.00
DISCCART    439469.00   3765200.00
DISCCART    439569.00   3765200.00
DISCCART    439669.00   3765200.00
DISCCART    439769.00   3765200.00
DISCCART    439869.00   3765200.00
DISCCART    439969.00   3765200.00
DISCCART    440069.00   3765200.00
DISCCART    440169.00   3765200.00
DISCCART    440269.00   3765200.00
DISCCART    439269.00   3765300.00
DISCCART    439369.00   3765300.00
DISCCART    439469.00   3765300.00
DISCCART    439569.00   3765300.00
DISCCART    439669.00   3765300.00
DISCCART    439769.00   3765300.00
DISCCART    439869.00   3765300.00
DISCCART    439969.00   3765300.00
DISCCART    440069.00   3765300.00
DISCCART    440169.00   3765300.00
DISCCART    440269.00   3765300.00
DISCCART    439269.00   3765400.00
DISCCART    439369.00   3765400.00
DISCCART    439469.00   3765400.00
DISCCART    439569.00   3765400.00
DISCCART    439669.00   3765400.00
DISCCART    439769.00   3765400.00
DISCCART    439869.00   3765400.00
DISCCART    439969.00   3765400.00
DISCCART    440069.00   3765400.00
DISCCART    440169.00   3765400.00
DISCCART    440269.00   3765400.00
DISCCART    439269.00   3765500.00
DISCCART    439369.00   3765500.00
DISCCART    439469.00   3765500.00
DISCCART    439569.00   3765500.00
DISCCART    439669.00   3765500.00
DISCCART    439769.00   3765500.00
DISCCART    439869.00   3765500.00
DISCCART    439969.00   3765500.00
DISCCART    440069.00   3765500.00
DISCCART    440169.00   3765500.00
DISCCART    440269.00   3765500.00
DISCCART    439269.00   3765600.00
```

```
   DISCCART    439369.00   3765600.00
   DISCCART    439469.00   3765600.00
   DISCCART    439569.00   3765600.00
   DISCCART    439669.00   3765600.00
   DISCCART    439769.00   3765600.00
   DISCCART    439869.00   3765600.00
   DISCCART    439969.00   3765600.00
   DISCCART    440069.00   3765600.00
   DISCCART    440169.00   3765600.00
   DISCCART    440269.00   3765600.00
   DISCCART    439269.00   3765700.00
   DISCCART    439369.00   3765700.00
   DISCCART    439469.00   3765700.00
   DISCCART    439569.00   3765700.00
   DISCCART    439669.00   3765700.00
   DISCCART    439769.00   3765700.00
   DISCCART    439869.00   3765700.00
   DISCCART    439969.00   3765700.00
   DISCCART    440069.00   3765700.00
   DISCCART    440169.00   3765700.00
   DISCCART    440269.00   3765700.00
   DISCCART    439269.00   3765800.00
   DISCCART    439369.00   3765800.00
   DISCCART    439469.00   3765800.00
   DISCCART    439569.00   3765800.00
   DISCCART    439669.00   3765800.00
   DISCCART    439769.00   3765800.00
   DISCCART    439869.00   3765800.00
   DISCCART    439969.00   3765800.00
   DISCCART    440069.00   3765800.00
   DISCCART    440169.00   3765800.00
   DISCCART    440269.00   3765800.00
   DISCCART    439269.00   3765900.00
   DISCCART    439369.00   3765900.00
   DISCCART    439469.00   3765900.00
   DISCCART    439569.00   3765900.00
   DISCCART    439669.00   3765900.00
   DISCCART    439769.00   3765900.00
   DISCCART    439869.00   3765900.00
   DISCCART    439969.00   3765900.00
   DISCCART    440069.00   3765900.00
   DISCCART    440169.00   3765900.00
   DISCCART    440269.00   3765900.00
** DESCRREC "UCART02" "Receptors generated from Uniform Cartesian
Grid"
   DISCCART    439649.00   3765310.00
   DISCCART    439679.00   3765310.00
   DISCCART    439709.00   3765310.00
   DISCCART    439739.00   3765310.00
   DISCCART    439769.00   3765310.00
   DISCCART    439799.00   3765310.00
   DISCCART    439829.00   3765310.00
```

DISCCART	439859.00	3765310.00
DISCCART	439889.00	3765310.00
DISCCART	439649.00	3765340.00
DISCCART	439679.00	3765340.00
DISCCART	439709.00	3765340.00
DISCCART	439739.00	3765340.00
DISCCART	439769.00	3765340.00
DISCCART	439799.00	3765340.00
DISCCART	439829.00	3765340.00
DISCCART	439859.00	3765340.00
DISCCART	439889.00	3765340.00
DISCCART	439649.00	3765370.00
DISCCART	439679.00	3765370.00
DISCCART	439709.00	3765370.00
DISCCART	439739.00	3765370.00
DISCCART	439769.00	3765370.00
DISCCART	439799.00	3765370.00
DISCCART	439829.00	3765370.00
DISCCART	439859.00	3765370.00
DISCCART	439889.00	3765370.00
DISCCART	439649.00	3765400.00
DISCCART	439679.00	3765400.00
DISCCART	439709.00	3765400.00
DISCCART	439739.00	3765400.00
DISCCART	439769.00	3765400.00
DISCCART	439799.00	3765400.00
DISCCART	439829.00	3765400.00
DISCCART	439859.00	3765400.00
DISCCART	439889.00	3765400.00
DISCCART	439649.00	3765430.00
DISCCART	439679.00	3765430.00
DISCCART	439709.00	3765430.00
DISCCART	439739.00	3765430.00
DISCCART	439769.00	3765430.00
DISCCART	439799.00	3765430.00
DISCCART	439829.00	3765430.00
DISCCART	439859.00	3765430.00
DISCCART	439889.00	3765430.00
DISCCART	439649.00	3765460.00
DISCCART	439679.00	3765460.00
DISCCART	439709.00	3765460.00
DISCCART	439739.00	3765460.00
DISCCART	439769.00	3765460.00
DISCCART	439799.00	3765460.00
DISCCART	439829.00	3765460.00
DISCCART	439859.00	3765460.00
DISCCART	439889.00	3765460.00
DISCCART	439649.00	3765490.00
DISCCART	439679.00	3765490.00
DISCCART	439709.00	3765490.00
DISCCART	439739.00	3765490.00
DISCCART	439769.00	3765490.00

```
   DISCCART    439799.00   3765490.00
   DISCCART    439829.00   3765490.00
   DISCCART    439859.00   3765490.00
   DISCCART    439889.00   3765490.00
RE FINISHED
**
****************************************
** AERMOD Meteorology Pathway
****************************************
**
**
ME STARTING
   SURFFILE "C:\Users\sjremote\Desktop\Ontario_PUD-Legacy
\OntarioIntlAirportADJU (1)\KONT_V9_ADJU\KONT_v9.SFC"
   PROFFILE "C:\Users\sjremote\Desktop\Ontario_PUD-Legacy
\OntarioIntlAirportADJU (1)\KONT_V9_ADJU\KONT_v9.PFL"
   SURFDATA 3102 2012 Ontario_Apt
   UAIRDATA 3190 2012
   PROFBASE 289.0 METERS
ME FINISHED
**
****************************************
** AERMOD Output Pathway
****************************************
**
**
OU STARTING
   RECTABLE ALLAVE 1ST
   RECTABLE 1 1ST
** Auto-Generated Plotfiles
   PLOTFILE 1 ALL 1ST ONTARIO_PUD-LEGACY_OPS-HRA-TOG_20221005.AD
\01H1GALL.PLT 31
   PLOTFILE 1 Exh 1ST ONTARIO_PUD-LEGACY_OPS-HRA-TOG_20221005.AD
\01H1G001.PLT 32
   PLOTFILE 1 Evap 1ST ONTARIO_PUD-LEGACY_OPS-HRA-TOG_20221005.AD
\01H1G002.PLT 33
   PLOTFILE 1 FreeExh 1ST ONTARIO_PUD-LEGACY_OPS-HRA-TOG_
20221005.AD\01H1G003.PLT 34
   PLOTFILE 1 OnOffExh 1ST ONTARIO_PUD-LEGACY_OPS-HRA-TOG_
20221005.AD\01H1G004.PLT 35
   PLOTFILE 1 FreeEvap 1ST ONTARIO_PUD-LEGACY_OPS-HRA-TOG_
20221005.AD\01H1G005.PLT 36
   PLOTFILE 1 OnOffEva 1ST ONTARIO_PUD-LEGACY_OPS-HRA-TOG_
20221005.AD\01H1G006.PLT 37
   PLOTFILE PERIOD ALL ONTARIO_PUD-LEGACY_OPS-HRA-TOG_20221005.AD
\PE00GALL.PLT 38
   PLOTFILE PERIOD Exh ONTARIO_PUD-LEGACY_OPS-HRA-TOG_20221005.AD
\PE00G001.PLT 39
   PLOTFILE PERIOD Evap ONTARIO_PUD-LEGACY_OPS-HRA-TOG_
20221005.AD\PE00G002.PLT 40
   PLOTFILE PERIOD FreeExh ONTARIO_PUD-LEGACY_OPS-HRA-TOG_
20221005.AD\PE00G003.PLT 41
```

```
   PLOTFILE PERIOD OnOffExh ONTARIO_PUD-LEGACY_OPS-HRA-TOG_
20221005.AD\PE00G004.PLT 42
   PLOTFILE PERIOD FreeEvap ONTARIO_PUD-LEGACY_OPS-HRA-TOG_
20221005.AD\PE00G005.PLT 43
   PLOTFILE PERIOD OnOffEva ONTARIO_PUD-LEGACY_OPS-HRA-TOG_
20221005.AD\PE00G006.PLT 44
   SUMMFILE Ontario_PUD-Legacy_Ops-HRA-TOG_20221005.sum
OU FINISHED


  *** Message Summary For AERMOD Model Setup ***

  --------- Summary of Total Messages --------

 A Total of            0 Fatal Error Message(s)
 A Total of            2 Warning Message(s)
 A Total of            0 Informational Message(s)


    ******** FATAL ERROR MESSAGES ********
               ***  NONE  ***


    ********   WARNING MESSAGES   ********
 ME W186    2290       MEOPEN: THRESH_1MIN 1-min ASOS wind speed
threshold used           0.50
 ME W187    2290       MEOPEN: ADJ_U* Option for Stable Low Winds
used in AERMET

 ***********************************
 *** SETUP Finishes Successfully ***
 ***********************************
```

```
 *** AERMOD - VERSION 21112  ***   *** C:\Lakes\Ontario_PUD-
Legacy_Ops-HRA_20221004\Ontario_PUD-Legacy_Ops- ***
10/05/22
 *** AERMET - VERSION  16216 ***   ***
***        08:30:01

PAGE   1
 *** MODELOPTs:    NonDFAULT  CONC  FLAT  URBAN  ADJ_U*

                                              ***     MODEL SETUP
OPTIONS SUMMARY       ***
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

 **Model Is Setup For Calculation of Average CONCentration
Values.

   --  DEPOSITION LOGIC  --
 **NO GAS DEPOSITION Data Provided.
 **NO PARTICLE DEPOSITION Data Provided.
 **Model Uses NO DRY DEPLETION.  DRYDPLT  =  F
 **Model Uses NO WET DEPLETION.  WETDPLT  =  F

 **Model Uses URBAN Dispersion Algorithm for the SBL for   132
Source(s),
   for Total of    1 Urban Area(s):
   Urban Population =   2035210.0 ;  Urban Roughness Length =
1.000 m

 **Model Allows User-Specified Options:
         1. Stack-tip Downwash.
         2. Model Assumes Receptors on FLAT Terrain.
         3. Use Calms Processing Routine.
         4. Use Missing Data Processing Routine.
         5. No Exponential Decay.
         6. Urban Roughness Length of 1.0 Meter Used.

 **Other Options Specified:
         ADJ_U*   - Use ADJ_U* option for SBL in AERMET
         CCVR_Sub - Meteorological data includes CCVR
substitutions
         TEMP_Sub - Meteorological data includes TEMP
substitutions

 **Model Assumes No FLAGPOLE Receptor Heights.

 **The User Specified a Pollutant Type of:  PM_2.5

 **Model Calculates  1 Short Term Average(s) of:   1-HR
     and Calculates PERIOD Averages

 **This Run Includes:    132 Source(s);       7 Source Group(s);
```

```
and    1115 Receptor(s)

                with:      0 POINT(s), including
                           0 POINTCAP(s) and      0 POINTHOR(s)
                 and:      0 VOLUME source(s)
                 and:    132 AREA type source(s)
                 and:      0 LINE source(s)
                 and:      0 RLINE/RLINEXT source(s)
                 and:      0 OPENPIT source(s)
                 and:      0 BUOYANT LINE source(s) with a total
of     0 line(s)


 **Model Set To Continue RUNning After the Setup Testing.

 **The AERMET Input Meteorological Data Version Date:  16216

 **Output Options Selected:
          Model Outputs Tables of PERIOD Averages by Receptor
          Model Outputs Tables of Highest Short Term Values by
Receptor (RECTABLE Keyword)
          Model Outputs External File(s) of High Values for
Plotting (PLOTFILE Keyword)
          Model Outputs Separate Summary File of High Ranked
Values (SUMMFILE Keyword)

 **NOTE:  The Following Flags May Appear Following CONC Values:
c for Calm Hours

m for Missing Hours

b for Both Calm and Missing Hours

 **Misc. Inputs:  Base Elev. for Pot. Temp. Profile (m MSL) =
289.00 ;  Decay Coef. =    0.000     ;  Rot. Angle =     0.0
                  Emission Units =
GRAMS/SEC                                  ;  Emission Rate Unit
Factor =   0.10000E+07
                  Output Units   = MICROGRAMS/M**3

 **Approximate Storage Requirements of Model =      4.0 MB of
RAM.

 **Input Runstream File:          aermod.inp
 **Output Print File:             aermod.out

 **Detailed Error/Message File:   Ontario_PUD-Legacy_Ops-HRA-TOG_
20221005.err
 **File for Summary of Results:   Ontario_PUD-Legacy_Ops-HRA-TOG_
20221005.sum
```

*** AREA SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC /METER**2)	COORD (SW CORNER) X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	X-DIM OF AREA (METERS)	Y-DIM OF AREA (METERS)	ORIENT. OF AREA (DEG.)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
A0000012	0	0.30732E-04	440650.1	3765736.5	289.0	1.30	176.76	18.29	-179.52	1.20	YES	HROFDY
A0000013	0	0.30732E-04	440473.4	3765738.0	289.0	1.30	176.76	18.29	-179.52	1.20	YES	HROFDY
A0000014	0	0.30732E-04	440296.6	3765739.5	289.0	1.30	176.76	18.29	-179.52	1.20	YES	HROFDY
A0000015	0	0.30732E-04	440119.8	3765740.9	289.0	1.30	152.62	18.29	-179.86	1.20	YES	HROFDY
A0000016	0	0.30732E-04	439967.2	3765741.3	289.0	1.30	152.62	18.29	-179.86	1.20	YES	HROFDY
A0000017	0	0.30732E-04	439814.6	3765741.7	289.0	1.30	152.62	18.29	-179.86	1.20	YES	HROFDY
A0000018	0	0.30732E-04	439661.9	3765742.1	289.0	1.30	163.56	18.29	-179.87	1.20	YES	HROFDY
A0000019	0	0.30732E-04	439498.4	3765742.5	289.0	1.30	163.56	18.29	-179.87	1.20	YES	HROFDY
A0000020	0	0.30732E-04	439334.8	3765742.8	289.0	1.30	163.56	18.29	-179.87	1.20	YES	HROFDY
A0000021	0	0.30732E-04	439171.2	3765743.2	289.0	1.30	150.13	18.29	179.63	1.20	YES	HROFDY
A0000022	0	0.30732E-04	439021.1	3765742.2	289.0	1.30	150.13	18.29	179.63	1.20	YES	HROFDY
A0000001	0	0.30748E-04	438872.2	3765704.7	289.0	1.30	174.70	18.29	0.36	1.20	YES	HROFDY
A0000002	0	0.30748E-04	439046.9	3765703.5	289.0	1.30	174.70	18.29	0.36	1.20	YES	HROFDY
A0000003	0	0.30748E-04	439221.6	3765702.4	289.0							

```
1.30    174.70     18.29      0.36     1.20     YES   HROFDY
 A0000004         0   0.30748E-04  439396.3 3765701.3   289.0
1.30    174.70     18.29      0.36     1.20     YES   HROFDY
 A0000005         0   0.30748E-04  439571.0 3765700.2   289.0
1.30    173.93     18.29      0.19     1.20     YES   HROFDY
 A0000006         0   0.30748E-04  439744.9 3765699.6   289.0
1.30    172.78     18.29      0.07     1.20     YES   HROFDY
 A0000007         0   0.30748E-04  439917.7 3765699.4   289.0
1.30    172.78     18.29      0.07     1.20     YES   HROFDY
 A0000008         0   0.30748E-04  440090.5 3765699.2   289.0
1.30    157.42     18.29      0.00     1.20     YES   HROFDY
 A0000009         0   0.30748E-04  440247.9 3765699.2   289.0
1.30    157.42     18.29      0.00     1.20     YES   HROFDY
 A0000010         0   0.30748E-04  440405.4 3765699.2   289.0
1.30    122.75     18.29     -0.64     1.20     YES   HROFDY
 A0000011         0   0.30748E-04  440528.2 3765700.6   289.0
1.30    122.75     18.29     -0.64     1.20     YES   HROFDY
 A0000023         0   0.53118E-03  439894.8 3765794.0   289.0
1.30     32.80      3.96    171.48     1.20     YES   HROFDY
 A0000024         0   0.53118E-03  439862.4 3765789.1   289.0
1.30     32.80      3.96    171.48     1.20     YES   HROFDY
 A0000025         0   0.53118E-03  439830.0 3765784.3   289.0
1.30     38.31      3.96    171.96     1.20     YES   HROFDY
 A0000026         0   0.53118E-03  439792.0 3765778.9   289.0
1.30     38.31      3.96    171.96     1.20     YES   HROFDY
 A0000027         0   0.53118E-03  439754.1 3765773.6   289.0
1.30     38.31      3.96    171.96     1.20     YES   HROFDY
 A0000028         0   0.53118E-03  439716.2 3765768.2   289.0
1.30     38.31      3.96    171.96     1.20     YES   HROFDY
 A0000029         0   0.53118E-03  439678.2 3765762.8   289.0
1.30     38.31      3.96    171.96     1.20     YES   HROFDY
 A0000030         0   0.53118E-03  439640.3 3765757.5   289.0
1.30     38.31      3.96    171.96     1.20     YES   HROFDY
 A0000031         0   0.53118E-03  439602.5 3765752.1   289.0
1.30     23.20      3.96    175.65     1.20     YES   HROFDY
 A0000032         0   0.53118E-03  439579.4 3765750.4   289.0
1.30     23.20      3.96    175.65     1.20     YES   HROFDY
 A0000033         0   0.53118E-03  439556.3 3765748.6   289.0
1.30     39.05      3.96    178.51     1.20     YES   HROFDY
 A0000034         0   0.53118E-03  439517.3 3765747.6   289.0
1.30     39.05      3.96    178.51     1.20     YES   HROFDY
 A0000035         0   0.53118E-03  439478.2 3765746.6   289.0
1.30     27.56      3.96    178.03     1.20     YES   HROFDY
 A0000036         0   0.53118E-03  439450.7 3765745.6   289.0
1.30     27.56      3.96    178.03     1.20     YES   HROFDY
 A0000037         0   0.30079E-03  439896.1 3765649.5   289.0
1.30     39.04      7.62   -169.43     1.20     YES   HROFDY
 A0000038         0   0.30079E-03  439857.7 3765656.6   289.0
1.30     39.04      7.62   -169.43     1.20     YES   HROFDY
 A0000039         0   0.30079E-03  439819.3 3765663.8   289.0
1.30     64.28      7.62   -169.30     1.20     YES   HROFDY
 A0000040         0   0.30079E-03  439755.9 3765675.8   289.0
```

1.30	46.57	7.62	-174.26	1.20	YES	HROFDY

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** AREA SOURCE DATA ***

RELEASE	X-DIM	Y-DIM	ORIENT.	INIT.	URBAN	EMISSION RATE
SOURCE ID	PART. CATS.	(GRAMS/SEC /METER**2)	X (METERS)	Y (METERS)	ELEV. (METERS)	HEIGHT (METERS)	OF AREA (METERS)	OF AREA (METERS)	OF AREA (DEG.)	SZ (METERS)	SOURCE	SCALAR VARY BY
A0000041	0	0.30079E-03	439709.5	3765680.5	289.0	1.30	46.57	7.62	-174.26	1.20	YES	HROFDY
A0000042	0	0.30079E-03	439663.2	3765685.1	289.0	1.30	66.93	7.62	-174.23	1.20	YES	HROFDY
A0000043	0	0.30079E-03	439596.6	3765691.8	289.0	1.30	66.93	7.62	-174.23	1.20	YES	HROFDY
A0000044	0	0.30079E-03	439530.0	3765698.6	289.0	1.30	66.93	7.62	-174.23	1.20	YES	HROFDY
A0000045	0	0.49659E-03	439941.6	3765643.3	289.0	1.30	26.12	3.96	-8.23	1.20	YES	HROFDY
A0000046	0	0.49659E-03	439967.4	3765647.1	289.0	1.30	26.12	3.96	-8.23	1.20	YES	HROFDY
A0000047	0	0.49659E-03	439993.3	3765650.8	289.0	1.30	32.84	3.96	-7.40	1.20	YES	HROFDY
A0000048	0	0.49659E-03	440025.8	3765655.0	289.0	1.30	32.84	3.96	-7.40	1.20	YES	HROFDY
A0000049	0	0.49659E-03	440058.4	3765659.3	289.0	1.30	32.84	3.96	-7.40	1.20	YES	HROFDY
A0000050	0	0.49659E-03	440091.0	3765663.5	289.0	1.30	32.84	3.96	-7.40	1.20	YES	HROFDY
A0000051	0	0.49659E-03	440123.5	3765667.7	289.0	1.30	32.84	3.96	-7.40	1.20	YES	HROFDY
A0000052	0	0.49659E-03	440156.1	3765672.0	289.0	1.30	37.89	3.96	-7.15	1.20	YES	HROFDY
A0000053	0	0.49659E-03	440193.7	3765676.7	289.0	1.30	37.89	3.96	-7.15	1.20	YES	HROFDY
A0000054	0	0.49659E-03	440231.3	3765681.4	289.0							

```
1.30     37.89      3.96     -7.15     1.20     YES   HROFDY
 A0000055         0   0.49659E-03  440268.7 3765686.1   289.0
1.30     26.94      3.96     -3.79     1.20     YES   HROFDY
 A0000056         0   0.49659E-03  440295.6 3765687.9   289.0
1.30     26.94      3.96     -3.79     1.20     YES   HROFDY
 A0000057         0   0.49659E-03  440322.4 3765689.7   289.0
1.30     32.28      3.96     -1.87     1.20     YES   HROFDY
 A0000058         0   0.49659E-03  440354.7 3765690.7   289.0
1.30     30.65      3.96     -1.70     1.20     YES   HROFDY
 A0000059         0   0.49659E-03  440385.3 3765691.6   289.0
1.30     30.65      3.96     -1.70     1.20     YES   HROFDY
 A0000060         0   0.49659E-03  440416.0 3765692.5   289.0
1.30     30.65      3.96     -1.70     1.20     YES   HROFDY
 A0000061         0   0.18975E-03  440393.2 3765744.6   289.0
1.30     82.20     11.58   -174.12     1.20     YES   HROFDY
 A0000062         0   0.18975E-03  440311.4 3765753.0   289.0
1.30     86.40     11.58   -174.17     1.20     YES   HROFDY
 A0000063         0   0.18975E-03  440225.4 3765761.8   289.0
1.30     87.63     11.58   -175.26     1.20     YES   HROFDY
 A0000064         0   0.18975E-03  440138.2 3765769.0   289.0
1.30     35.21     11.58   -173.24     1.20     YES   HROFDY
 A0000065         0   0.18975E-03  440103.5 3765773.1   289.0
1.30     81.78     11.58   -171.16     1.20     YES   HROFDY
 A0000066         0   0.18975E-03  440022.7 3765785.7   289.0
1.30     81.78     11.58   -171.16     1.20     YES   HROFDY
 A0000067         0   0.30732E-04  440650.1 3765736.5   289.0
1.30    176.76     18.29   -179.52     1.20     YES   HROFDY
 A0000068         0   0.30732E-04  440473.4 3765738.0   289.0
1.30    176.76     18.29   -179.52     1.20     YES   HROFDY
 A0000069         0   0.30732E-04  440296.6 3765739.5   289.0
1.30    176.76     18.29   -179.52     1.20     YES   HROFDY
 A0000070         0   0.30732E-04  440119.8 3765740.9   289.0
1.30    152.62     18.29   -179.86     1.20     YES   HROFDY
 A0000071         0   0.30732E-04  439967.2 3765741.3   289.0
1.30    152.62     18.29   -179.86     1.20     YES   HROFDY
 A0000072         0   0.30732E-04  439814.6 3765741.7   289.0
1.30    152.62     18.29   -179.86     1.20     YES   HROFDY
 A0000073         0   0.30732E-04  439661.9 3765742.1   289.0
1.30    163.56     18.29   -179.87     1.20     YES   HROFDY
 A0000074         0   0.30732E-04  439498.4 3765742.5   289.0
1.30    163.56     18.29   -179.87     1.20     YES   HROFDY
 A0000075         0   0.30732E-04  439334.8 3765742.8   289.0
1.30    163.56     18.29   -179.87     1.20     YES   HROFDY
 A0000076         0   0.30732E-04  439171.2 3765743.2   289.0
1.30    150.14     18.29    179.63     1.20     YES   HROFDY
 A0000077         0   0.30732E-04  439021.1 3765742.2   289.0
1.30    150.14     18.29    179.63     1.20     YES   HROFDY
 A0000078         0   0.30740E-04  438872.2 3765704.7   289.0
1.30    174.70     18.29      0.37     1.20     YES   HROFDY
 A0000079         0   0.30740E-04  439046.9 3765703.5   289.0
1.30    174.70     18.29      0.37     1.20     YES   HROFDY
 A0000080         0   0.30740E-04  439221.6 3765702.4   289.0
```

1.30	174.70	18.29	0.37	1.20	YES	HROFDY

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** AREA SOURCE DATA ***

RELEASE	X-DIM	Y-DIM	ORIENT.	INIT.	URBAN	EMISSION RATE
SOURCE ID	PART. CATS.	(GRAMS/SEC /METER**2)	X (METERS)	Y (METERS)	ELEV. (METERS)	HEIGHT (METERS)
	OF AREA	OF AREA	OF AREA	SZ (METERS)	SOURCE (METERS)	SCALAR (DEG.)
	OF AREA					VARY BY
A0000081	0	0.30740E-04	439396.3	3765701.3	289.0	1.30
174.70	18.29	0.37	1.20	YES	HROFDY	
A0000082	0	0.30740E-04	439571.0	3765700.2	289.0	1.30
173.92	18.29	0.18	1.20	YES	HROFDY	
A0000083	0	0.30740E-04	439744.9	3765699.6	289.0	1.30
172.78	18.29	0.07	1.20	YES	HROFDY	
A0000084	0	0.30740E-04	439917.7	3765699.4	289.0	1.30
172.78	18.29	0.07	1.20	YES	HROFDY	
A0000085	0	0.30740E-04	440090.5	3765699.2	289.0	1.30
157.43	18.29	0.00	1.20	YES	HROFDY	
A0000086	0	0.30740E-04	440247.9	3765699.2	289.0	1.30
157.43	18.29	0.00	1.20	YES	HROFDY	
A0000087	0	0.30740E-04	440405.5	3765699.2	289.0	1.30
122.75	18.29	-0.64	1.20	YES	HROFDY	
A0000088	0	0.30740E-04	440528.2	3765700.6	289.0	1.30
122.75	18.29	-0.64	1.20	YES	HROFDY	
A0000089	0	0.53150E-03	439894.8	3765794.0	289.0	1.30
32.80	3.96	171.47	1.20	YES	HROFDY	
A0000090	0	0.53150E-03	439862.4	3765789.1	289.0	1.30
32.80	3.96	171.47	1.20	YES	HROFDY	
A0000091	0	0.53150E-03	439830.0	3765784.3	289.0	1.30
38.31	3.96	171.96	1.20	YES	HROFDY	
A0000092	0	0.53150E-03	439792.0	3765778.9	289.0	1.30
38.31	3.96	171.96	1.20	YES	HROFDY	
A0000093	0	0.53150E-03	439754.1	3765773.6	289.0	1.30
38.31	3.96	171.96	1.20	YES	HROFDY	
A0000094	0	0.53150E-03	439716.2	3765768.2	289.0	

```
1.30     38.31      3.96    171.96     1.20     YES   HROFDY
 A0000095         0   0.53150E-03  439678.2 3765762.8   289.0
1.30     38.31      3.96    171.96     1.20     YES   HROFDY
 A0000096         0   0.53150E-03  439640.3 3765757.5   289.0
1.30     38.31      3.96    171.96     1.20     YES   HROFDY
 A0000097         0   0.53150E-03  439602.5 3765752.1   289.0
1.30     23.20      3.96    175.64     1.20     YES   HROFDY
 A0000098         0   0.53150E-03  439579.4 3765750.4   289.0
1.30     23.20      3.96    175.64     1.20     YES   HROFDY
 A0000099         0   0.53150E-03  439556.3 3765748.6   289.0
1.30     39.06      3.96    178.51     1.20     YES   HROFDY
 A0000100         0   0.53150E-03  439517.3 3765747.6   289.0
1.30     39.06      3.96    178.51     1.20     YES   HROFDY
 A0000101         0   0.53150E-03  439478.2 3765746.6   289.0
1.30     27.56      3.96    178.02     1.20     YES   HROFDY
 A0000102         0   0.53150E-03  439450.7 3765745.6   289.0
1.30     27.56      3.96    178.02     1.20     YES   HROFDY
 A0000103         0   0.30079E-03  439896.1 3765649.5   289.0
1.30     39.04      7.62   -169.42     1.20     YES   HROFDY
 A0000104         0   0.30079E-03  439857.7 3765656.6   289.0
1.30     39.04      7.62   -169.42     1.20     YES   HROFDY
 A0000105         0   0.30079E-03  439819.3 3765663.8   289.0
1.30     64.29      7.62   -169.31     1.20     YES   HROFDY
 A0000106         0   0.30079E-03  439755.9 3765675.8   289.0
1.30     46.56      7.62   -174.26     1.20     YES   HROFDY
 A0000107         0   0.30079E-03  439709.5 3765680.5   289.0
1.30     46.56      7.62   -174.26     1.20     YES   HROFDY
 A0000108         0   0.30079E-03  439663.2 3765685.1   289.0
1.30     66.94      7.62   -174.23     1.20     YES   HROFDY
 A0000109         0   0.30079E-03  439596.6 3765691.8   289.0
1.30     66.94      7.62   -174.23     1.20     YES   HROFDY
 A0000110         0   0.30079E-03  439530.0 3765698.6   289.0
1.30     66.94      7.62   -174.23     1.20     YES   HROFDY
 A0000111         0   0.49690E-03  439941.6 3765643.3   289.0
1.30     26.12      3.96     -8.23     1.20     YES   HROFDY
 A0000112         0   0.49690E-03  439967.4 3765647.1   289.0
1.30     26.12      3.96     -8.23     1.20     YES   HROFDY
 A0000113         0   0.49690E-03  439993.3 3765650.8   289.0
1.30     32.84      3.96     -7.41     1.20     YES   HROFDY
 A0000114         0   0.49690E-03  440025.8 3765655.0   289.0
1.30     32.84      3.96     -7.41     1.20     YES   HROFDY
 A0000115         0   0.49690E-03  440058.4 3765659.3   289.0
1.30     32.84      3.96     -7.41     1.20     YES   HROFDY
 A0000116         0   0.49690E-03  440091.0 3765663.5   289.0
1.30     32.84      3.96     -7.41     1.20     YES   HROFDY
 A0000117         0   0.49690E-03  440123.5 3765667.7   289.0
1.30     32.84      3.96     -7.41     1.20     YES   HROFDY
 A0000118         0   0.49690E-03  440156.1 3765672.0   289.0
1.30     37.89      3.96     -7.15     1.20     YES   HROFDY
 A0000119         0   0.49690E-03  440193.7 3765676.7   289.0
1.30     37.89      3.96     -7.15     1.20     YES   HROFDY
 A0000120         0   0.49690E-03  440231.3 3765681.4   289.0
```

1.30	37.89	3.96	-7.15	1.20	YES	HROFDY

*** AREA SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC /METER**2)	COORD (SW CORNER) X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	X-DIM OF AREA (METERS)	Y-DIM OF AREA (METERS)	ORIENT. OF AREA (DEG.)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
A0000121	0	0.49690E-03	440268.7	3765686.1	289.0	1.30	26.94	3.96	-3.79	1.20	YES	HROFDY
A0000122	0	0.49690E-03	440295.6	3765687.9	289.0	1.30	26.94	3.96	-3.79	1.20	YES	HROFDY
A0000123	0	0.49690E-03	440322.4	3765689.7	289.0	1.30	32.28	3.96	-1.88	1.20	YES	HROFDY
A0000124	0	0.49690E-03	440354.7	3765690.7	289.0	1.30	30.65	3.96	-1.70	1.20	YES	HROFDY
A0000125	0	0.49690E-03	440385.3	3765691.6	289.0	1.30	30.65	3.96	-1.70	1.20	YES	HROFDY
A0000126	0	0.49690E-03	440416.0	3765692.5	289.0	1.30	30.65	3.96	-1.70	1.20	YES	HROFDY
A0000127	0	0.18979E-03	440393.2	3765744.6	289.0	1.30	82.20	11.58	-174.12	1.20	YES	HROFDY
A0000128	0	0.18979E-03	440311.4	3765753.0	289.0	1.30	86.41	11.58	-174.17	1.20	YES	HROFDY
A0000129	0	0.18979E-03	440225.4	3765761.8	289.0	1.30	87.64	11.58	-175.26	1.20	YES	HROFDY
A0000130	0	0.18979E-03	440138.2	3765769.0	289.0	1.30	35.20	11.58	-173.25	1.20	YES	HROFDY
A0000131	0	0.18979E-03	440103.5	3765773.1	289.0	1.30	81.78	11.58	-171.16	1.20	YES	HROFDY
A0000132	0	0.18979E-03	440022.7	3765785.7	289.0	1.30	81.78	11.58	-171.16	1.20	YES	HROFDY

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** SOURCE IDs DEFINING SOURCE GROUPS ***

SRCGROUP ID	SOURCE IDs
EXH	A0000012 , A0000013 , A0000014 , A0000015 , A0000016 , A0000017 , A0000018 , A0000019 ,
	A0000020 , A0000021 , A0000022 , A0000001 , A0000002 , A0000003 , A0000004 , A0000005 ,
	A0000006 , A0000007 , A0000008 , A0000009 , A0000010 , A0000011 , A0000023 , A0000024 ,
	A0000025 , A0000026 , A0000027 , A0000028 , A0000029 , A0000030 , A0000031 , A0000032 ,
	A0000033 , A0000034 , A0000035 , A0000036 , A0000037 , A0000038 , A0000039 , A0000040 ,
	A0000041 , A0000042 , A0000043 , A0000044 , A0000045 , A0000046 , A0000047 , A0000048 ,
	A0000049 , A0000050 , A0000051 , A0000052 , A0000053 , A0000054 , A0000055 , A0000056 ,
	A0000057 , A0000058 , A0000059 , A0000060 , A0000061 , A0000062 , A0000063 , A0000064 ,
	A0000065 , A0000066 ,

```
  EVAP       A0000067    , A0000068    , A0000069    ,
A0000070    , A0000071    , A0000072    , A0000073    ,
A0000074    ,

            A0000075    , A0000076    , A0000077    ,
A0000078    , A0000079    , A0000080    , A0000081    ,
A0000082    ,

            A0000083    , A0000084    , A0000085    ,
A0000086    , A0000087    , A0000088    , A0000089    ,
A0000090    ,

            A0000091    , A0000092    , A0000093    ,
A0000094    , A0000095    , A0000096    , A0000097    ,
A0000098    ,

            A0000099    , A0000100    , A0000101    ,
A0000102    , A0000103    , A0000104    , A0000105    ,
A0000106    ,

            A0000107    , A0000108    , A0000109    ,
A0000110    , A0000111    , A0000112    , A0000113    ,
A0000114    ,

            A0000115    , A0000116    , A0000117    ,
A0000118    , A0000119    , A0000120    , A0000121    ,
A0000122    ,

            A0000123    , A0000124    , A0000125    ,
A0000126    , A0000127    , A0000128    , A0000129    ,
A0000130    ,

            A0000131    , A0000132    ,

  FREEEXH   A0000012    , A0000013    , A0000014    ,
A0000015    , A0000016    , A0000017    , A0000018    ,
A0000019    ,

            A0000020    , A0000021    , A0000022    ,
A0000001    , A0000002    , A0000003    , A0000004    ,
A0000005    ,
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** SOURCE IDs DEFINING SOURCE GROUPS ***

SRCGROUP ID	SOURCE IDs
	A0000006 , A0000007 , A0000008 , A0000009 , A0000010 , A0000011 ,
ONOFFEXH	A0000023 , A0000024 , A0000025 , A0000026 , A0000027 , A0000028 , A0000029 , A0000030 ,
	A0000031 , A0000032 , A0000033 , A0000034 , A0000035 , A0000036 , A0000037 , A0000038 ,
	A0000039 , A0000040 , A0000041 , A0000042 , A0000043 , A0000044 , A0000045 , A0000046 ,
	A0000047 , A0000048 , A0000049 , A0000050 , A0000051 , A0000052 , A0000053 , A0000054 ,
	A0000055 , A0000056 , A0000057 , A0000058 , A0000059 , A0000060 , A0000061 , A0000062 ,
	A0000063 , A0000064 , A0000065 , A0000066 ,
FREEEVAP	A0000067 , A0000068 , A0000069 , A0000070 , A0000071 , A0000072 , A0000073 , A0000074 ,
	A0000075 , A0000076 , A0000077 , A0000078 , A0000079 , A0000080 , A0000081 , A0000082 ,

```
             A0000083    , A0000084    , A0000085    ,
A0000086    , A0000087    , A0000088    ,

  ONOFFEVA   A0000089    , A0000090    , A0000091    ,
A0000092    , A0000093    , A0000094    , A0000095    ,
A0000096    ,

             A0000097    , A0000098    , A0000099    ,
A0000100    , A0000101    , A0000102    , A0000103    ,
A0000104    ,

             A0000105    , A0000106    , A0000107    ,
A0000108    , A0000109    , A0000110    , A0000111    ,
A0000112    ,

             A0000113    , A0000114    , A0000115    ,
A0000116    , A0000117    , A0000118    , A0000119    ,
A0000120    ,

             A0000121    , A0000122    , A0000123    ,
A0000124    , A0000125    , A0000126    , A0000127    ,
A0000128    ,

             A0000129    , A0000130    , A0000131    ,
A0000132    ,

  ALL        A0000012    , A0000013    , A0000014    ,
A0000015    , A0000016    , A0000017    , A0000018    ,
A0000019    ,

             A0000020    , A0000021    , A0000022    ,
A0000001    , A0000002    , A0000003    , A0000004    ,
A0000005    ,

             A0000006    , A0000007    , A0000008    ,
A0000009    , A0000010    , A0000011    , A0000023    ,
A0000024    ,

             A0000025    , A0000026    , A0000027    ,
A0000028    , A0000029    , A0000030    , A0000031    ,
A0000032    ,
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** SOURCE IDs DEFINING SOURCE GROUPS ***

SRCGROUP ID	SOURCE IDs
A0000033 , A0000034 , A0000035 , A0000036 , A0000037 , A0000038 , A0000039 , A0000040 ,	
A0000041 , A0000042 , A0000043 , A0000044 , A0000045 , A0000046 , A0000047 , A0000048 ,	
A0000049 , A0000050 , A0000051 , A0000052 , A0000053 , A0000054 , A0000055 , A0000056 ,	
A0000057 , A0000058 , A0000059 , A0000060 , A0000061 , A0000062 , A0000063 , A0000064 ,	
A0000065 , A0000066 , A0000067 , A0000068 , A0000069 , A0000070 , A0000071 , A0000072 ,	
A0000073 , A0000074 , A0000075 , A0000076 , A0000077 , A0000078 , A0000079 , A0000080 ,	
A0000081 , A0000082 , A0000083 , A0000084 , A0000085 , A0000086 , A0000087 , A0000088 ,	
A0000089 , A0000090 , A0000091 , A0000092 , A0000093 , A0000094 , A0000095 , A0000096 ,	
A0000097 , A0000098 , A0000099 ,	

```
A0000100    , A0000101    , A0000102    , A0000103    ,
A0000104    ,

             A0000105    , A0000106    , A0000107    ,
A0000108    , A0000109    , A0000110    , A0000111    ,
A0000112    ,

             A0000113    , A0000114    , A0000115    ,
A0000116    , A0000117    , A0000118    , A0000119    ,
A0000120    ,

             A0000121    , A0000122    , A0000123    ,
A0000124    , A0000125    , A0000126    , A0000127    ,
A0000128    ,

             A0000129    , A0000130    , A0000131    ,
A0000132    ,
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** SOURCE IDs DEFINED AS URBAN SOURCES ***

URBAN ID	URBAN POP	SOURCE IDs
	2035210.	A0000012 , A0000013 , A0000014 , A0000015 , A0000016 , A0000017 , A0000018 , A0000019 ,
		A0000020 , A0000021 , A0000022 , A0000001 , A0000002 , A0000003 , A0000004 , A0000005 ,
		A0000006 , A0000007 , A0000008 , A0000009 , A0000010 , A0000011 , A0000023 , A0000024 ,
		A0000025 , A0000026 , A0000027 , A0000028 , A0000029 , A0000030 , A0000031 , A0000032 ,
		A0000033 , A0000034 , A0000035 , A0000036 , A0000037 , A0000038 , A0000039 , A0000040 ,
		A0000041 , A0000042 , A0000043 , A0000044 , A0000045 , A0000046 , A0000047 , A0000048 ,
		A0000049 , A0000050 , A0000051 , A0000052 , A0000053 , A0000054 , A0000055 , A0000056 ,
		A0000057 , A0000058 , A0000059 , A0000060 , A0000061 , A0000062 , A0000063 , A0000064 ,

```
             A0000065    , A0000066    , A0000067    ,
A0000068    , A0000069    , A0000070    , A0000071    ,
A0000072    ,

             A0000073    , A0000074    , A0000075    ,
A0000076    , A0000077    , A0000078    , A0000079    ,
A0000080    ,

             A0000081    , A0000082    , A0000083    ,
A0000084    , A0000085    , A0000086    , A0000087    ,
A0000088    ,

             A0000089    , A0000090    , A0000091    ,
A0000092    , A0000093    , A0000094    , A0000095    ,
A0000096    ,

             A0000097    , A0000098    , A0000099    ,
A0000100    , A0000101    , A0000102    , A0000103    ,
A0000104    ,

             A0000105    , A0000106    , A0000107    ,
A0000108    , A0000109    , A0000110    , A0000111    ,
A0000112    ,

             A0000113    , A0000114    , A0000115    ,
A0000116    , A0000117    , A0000118    , A0000119    ,
A0000120    ,

             A0000121    , A0000122    , A0000123    ,
A0000124    , A0000125    , A0000126    , A0000127    ,
A0000128    ,

             A0000129    , A0000130    , A0000131    ,
A0000132    ,
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.14400E-01	2	.19900E-01	3	.20300E-01
4	.31200E-01	5	.64700E-01	6	.74900E-01
7	.84300E-01	8	.91500E-01	9	.90100E-01
10	.88900E-01	11	.90000E-01	12	.92300E-01
13	.94300E-01	14	.96400E-01	15	.99800E-01
16	.10200E+00	17	.10300E+00	18	.10000E+00
19	.88600E-01	20	.72900E-01	21	.62600E-01
22	.59300E-01	23	.49100E-01	24	.36100E-01

SOURCE ID = A0000012 ; SOURCE TYPE = AREA :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.14400E-01	2	.19900E-01	3	.20300E-01
4	.31200E-01	5	.64700E-01	6	.74900E-01
7	.84300E-01	8	.91500E-01	9	.90100E-01
10	.88900E-01	11	.90000E-01	12	.92300E-01
13	.94300E-01	14	.96400E-01	15	.99800E-01
16	.10200E+00	17	.10300E+00	18	.10000E+00
19	.88600E-01	20	.72900E-01	21	.62600E-01
22	.59300E-01	23	.49100E-01	24	.36100E-01

SOURCE ID = A0000013 ; SOURCE TYPE = AREA :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.14400E-01	2	.19900E-01	3	.20300E-01
4	.31200E-01	5	.64700E-01	6	.74900E-01
7	.84300E-01	8	.91500E-01	9	.90100E-01
10	.88900E-01	11	.90000E-01	12	.92300E-01
13	.94300E-01	14	.96400E-01	15	.99800E-01
16	.10200E+00	17	.10300E+00	18	.10000E+00
19	.88600E-01	20	.72900E-01	21	.62600E-01
22	.59300E-01	23	.49100E-01	24	.36100E-01

SOURCE ID = A0000014 ; SOURCE TYPE = AREA :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.14400E-01	2	.19900E-01	3	.20300E-01
4	.31200E-01	5	.64700E-01	6	.74900E-01
7	.84300E-01	8	.91500E-01	9	.90100E-01
10	.88900E-01	11	.90000E-01	12	.92300E-01
13	.94300E-01	14	.96400E-01	15	.99800E-01
16	.10200E+00	17	.10300E+00	18	.10000E+00
19	.88600E-01	20	.72900E-01	21	.62600E-01
22	.59300E-01	23	.49100E-01	24	.36100E-01

SOURCE ID = A0000015 ; SOURCE TYPE = AREA :

```
       1   .14400E-01      2   .19900E-01      3   .20300E-01
4   .31200E-01      5   .64700E-01      6   .74900E-01
       7   .84300E-01      8   .91500E-01      9   .90100E-01
10   .88900E-01     11   .90000E-01     12   .92300E-01
      13   .94300E-01     14   .96400E-01     15   .99800E-01
16   .10200E+00     17   .10300E+00     18   .10000E+00
      19   .88600E-01     20   .72900E-01     21   .62600E-01
22   .59300E-01     23   .49100E-01     24   .36100E-01


 SOURCE ID = A0000016     ; SOURCE TYPE = AREA     :
       1   .14400E-01      2   .19900E-01      3   .20300E-01
4   .31200E-01      5   .64700E-01      6   .74900E-01
       7   .84300E-01      8   .91500E-01      9   .90100E-01
10   .88900E-01     11   .90000E-01     12   .92300E-01
      13   .94300E-01     14   .96400E-01     15   .99800E-01
16   .10200E+00     17   .10300E+00     18   .10000E+00
      19   .88600E-01     20   .72900E-01     21   .62600E-01
22   .59300E-01     23   .49100E-01     24   .36100E-01
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.14400E-01	2	.19900E-01	3	.20300E-01
4	.31200E-01	5	.64700E-01	6	.74900E-01
7	.84300E-01	8	.91500E-01	9	.90100E-01
10	.88900E-01	11	.90000E-01	12	.92300E-01
13	.94300E-01	14	.96400E-01	15	.99800E-01
16	.10200E+00	17	.10300E+00	18	.10000E+00
19	.88600E-01	20	.72900E-01	21	.62600E-01
22	.59300E-01	23	.49100E-01	24	.36100E-01

SOURCE ID = A0000017 ; SOURCE TYPE = AREA :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.14400E-01	2	.19900E-01	3	.20300E-01
4	.31200E-01	5	.64700E-01	6	.74900E-01
7	.84300E-01	8	.91500E-01	9	.90100E-01
10	.88900E-01	11	.90000E-01	12	.92300E-01
13	.94300E-01	14	.96400E-01	15	.99800E-01
16	.10200E+00	17	.10300E+00	18	.10000E+00
19	.88600E-01	20	.72900E-01	21	.62600E-01
22	.59300E-01	23	.49100E-01	24	.36100E-01

SOURCE ID = A0000018 ; SOURCE TYPE = AREA :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.14400E-01	2	.19900E-01	3	.20300E-01
4	.31200E-01	5	.64700E-01	6	.74900E-01
7	.84300E-01	8	.91500E-01	9	.90100E-01
10	.88900E-01	11	.90000E-01	12	.92300E-01
13	.94300E-01	14	.96400E-01	15	.99800E-01
16	.10200E+00	17	.10300E+00	18	.10000E+00
19	.88600E-01	20	.72900E-01	21	.62600E-01
22	.59300E-01	23	.49100E-01	24	.36100E-01

SOURCE ID = A0000019 ; SOURCE TYPE = AREA :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.14400E-01	2	.19900E-01	3	.20300E-01
4	.31200E-01	5	.64700E-01	6	.74900E-01
7	.84300E-01	8	.91500E-01	9	.90100E-01
10	.88900E-01	11	.90000E-01	12	.92300E-01
13	.94300E-01	14	.96400E-01	15	.99800E-01
16	.10200E+00	17	.10300E+00	18	.10000E+00
19	.88600E-01	20	.72900E-01	21	.62600E-01
22	.59300E-01	23	.49100E-01	24	.36100E-01

SOURCE ID = A0000020 ; SOURCE TYPE = AREA :

```
       1   .14400E-01      2   .19900E-01      3   .20300E-01
4   .31200E-01      5   .64700E-01      6   .74900E-01
       7   .84300E-01      8   .91500E-01      9   .90100E-01
10   .88900E-01     11   .90000E-01     12   .92300E-01
      13   .94300E-01     14   .96400E-01     15   .99800E-01
16   .10200E+00     17   .10300E+00     18   .10000E+00
      19   .88600E-01     20   .72900E-01     21   .62600E-01
22   .59300E-01     23   .49100E-01     24   .36100E-01


 SOURCE ID = A0000021     ; SOURCE TYPE = AREA     :
       1   .14400E-01      2   .19900E-01      3   .20300E-01
4   .31200E-01      5   .64700E-01      6   .74900E-01
       7   .84300E-01      8   .91500E-01      9   .90100E-01
10   .88900E-01     11   .90000E-01     12   .92300E-01
      13   .94300E-01     14   .96400E-01     15   .99800E-01
16   .10200E+00     17   .10300E+00     18   .10000E+00
      19   .88600E-01     20   .72900E-01     21   .62600E-01
22   .59300E-01     23   .49100E-01     24   .36100E-01
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.14400E-01	2	.19900E-01	3	.20300E-01	4	.31200E-01	5	.64700E-01	6	.74900E-01
7	.84300E-01	8	.91500E-01	9	.90100E-01	10	.88900E-01	11	.90000E-01	12	.92300E-01
13	.94300E-01	14	.96400E-01	15	.99800E-01	16	.10200E+00	17	.10300E+00	18	.10000E+00
19	.88600E-01	20	.72900E-01	21	.62600E-01	22	.59300E-01	23	.49100E-01	24	.36100E-01

SOURCE ID = A0000022 ; SOURCE TYPE = AREA :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.14400E-01	2	.19900E-01	3	.20300E-01	4	.31200E-01	5	.64700E-01	6	.74900E-01
7	.84300E-01	8	.91500E-01	9	.90100E-01	10	.88900E-01	11	.90000E-01	12	.92300E-01
13	.94300E-01	14	.96400E-01	15	.99800E-01	16	.10200E+00	17	.10300E+00	18	.10000E+00
19	.88600E-01	20	.72900E-01	21	.62600E-01	22	.59300E-01	23	.49100E-01	24	.36100E-01

SOURCE ID = A0000001 ; SOURCE TYPE = AREA :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.17200E-01	2	.12400E-01	3	.10800E-01	4	.12600E-01	5	.20300E-01	6	.34000E-01
7	.43100E-01	8	.45700E-01	9	.43900E-01	10	.41400E-01	11	.42000E-01	12	.43900E-01
13	.46300E-01	14	.48300E-01	15	.50100E-01	16	.49100E-01	17	.50800E-01	18	.50600E-01
19	.47200E-01	20	.45900E-01	21	.41700E-01	22	.40800E-01	23	.33400E-01	24	.24800E-01

SOURCE ID = A0000002 ; SOURCE TYPE = AREA :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.17200E-01	2	.12400E-01	3	.10800E-01	4	.12600E-01	5	.20300E-01	6	.34000E-01
7	.43100E-01	8	.45700E-01	9	.43900E-01	10	.41400E-01	11	.42000E-01	12	.43900E-01
13	.46300E-01	14	.48300E-01	15	.50100E-01	16	.49100E-01	17	.50800E-01	18	.50600E-01
19	.47200E-01	20	.45900E-01	21	.41700E-01	22	.40800E-01	23	.33400E-01	24	.24800E-01

SOURCE ID = A0000003 ; SOURCE TYPE = AREA :

```
       1   .17200E-01      2   .12400E-01      3   .10800E-01
4   .12600E-01      5   .20300E-01      6   .34000E-01
       7   .43100E-01      8   .45700E-01      9   .43900E-01
10   .41400E-01     11   .42000E-01     12   .43900E-01
      13   .46300E-01     14   .48300E-01     15   .50100E-01
16   .49100E-01     17   .50800E-01     18   .50600E-01
      19   .47200E-01     20   .45900E-01     21   .41700E-01
22   .40800E-01     23   .33400E-01     24   .24800E-01


 SOURCE ID = A0000004     ; SOURCE TYPE = AREA     :
       1   .17200E-01      2   .12400E-01      3   .10800E-01
4   .12600E-01      5   .20300E-01      6   .34000E-01
       7   .43100E-01      8   .45700E-01      9   .43900E-01
10   .41400E-01     11   .42000E-01     12   .43900E-01
      13   .46300E-01     14   .48300E-01     15   .50100E-01
16   .49100E-01     17   .50800E-01     18   .50600E-01
      19   .47200E-01     20   .45900E-01     21   .41700E-01
22   .40800E-01     23   .33400E-01     24   .24800E-01
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.17200E-01	2	.12400E-01	3	.10800E-01
4	.12600E-01	5	.20300E-01	6	.34000E-01
7	.43100E-01	8	.45700E-01	9	.43900E-01
10	.41400E-01	11	.42000E-01	12	.43900E-01
13	.46300E-01	14	.48300E-01	15	.50100E-01
16	.49100E-01	17	.50800E-01	18	.50600E-01
19	.47200E-01	20	.45900E-01	21	.41700E-01
22	.40800E-01	23	.33400E-01	24	.24800E-01

SOURCE ID = A0000005 ; SOURCE TYPE = AREA :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.17200E-01	2	.12400E-01	3	.10800E-01
4	.12600E-01	5	.20300E-01	6	.34000E-01
7	.43100E-01	8	.45700E-01	9	.43900E-01
10	.41400E-01	11	.42000E-01	12	.43900E-01
13	.46300E-01	14	.48300E-01	15	.50100E-01
16	.49100E-01	17	.50800E-01	18	.50600E-01
19	.47200E-01	20	.45900E-01	21	.41700E-01
22	.40800E-01	23	.33400E-01	24	.24800E-01

SOURCE ID = A0000006 ; SOURCE TYPE = AREA :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.17200E-01	2	.12400E-01	3	.10800E-01
4	.12600E-01	5	.20300E-01	6	.34000E-01
7	.43100E-01	8	.45700E-01	9	.43900E-01
10	.41400E-01	11	.42000E-01	12	.43900E-01
13	.46300E-01	14	.48300E-01	15	.50100E-01
16	.49100E-01	17	.50800E-01	18	.50600E-01
19	.47200E-01	20	.45900E-01	21	.41700E-01
22	.40800E-01	23	.33400E-01	24	.24800E-01

SOURCE ID = A0000007 ; SOURCE TYPE = AREA :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.17200E-01	2	.12400E-01	3	.10800E-01
4	.12600E-01	5	.20300E-01	6	.34000E-01
7	.43100E-01	8	.45700E-01	9	.43900E-01
10	.41400E-01	11	.42000E-01	12	.43900E-01
13	.46300E-01	14	.48300E-01	15	.50100E-01
16	.49100E-01	17	.50800E-01	18	.50600E-01
19	.47200E-01	20	.45900E-01	21	.41700E-01
22	.40800E-01	23	.33400E-01	24	.24800E-01

SOURCE ID = A0000008 ; SOURCE TYPE = AREA :

```
       1   .17200E-01      2   .12400E-01      3   .10800E-01
4   .12600E-01      5   .20300E-01      6   .34000E-01
       7   .43100E-01      8   .45700E-01      9   .43900E-01
10   .41400E-01     11   .42000E-01     12   .43900E-01
      13   .46300E-01     14   .48300E-01     15   .50100E-01
16   .49100E-01     17   .50800E-01     18   .50600E-01
      19   .47200E-01     20   .45900E-01     21   .41700E-01
22   .40800E-01     23   .33400E-01     24   .24800E-01


 SOURCE ID = A0000009     ; SOURCE TYPE = AREA     :
       1   .17200E-01      2   .12400E-01      3   .10800E-01
4   .12600E-01      5   .20300E-01      6   .34000E-01
       7   .43100E-01      8   .45700E-01      9   .43900E-01
10   .41400E-01     11   .42000E-01     12   .43900E-01
      13   .46300E-01     14   .48300E-01     15   .50100E-01
16   .49100E-01     17   .50800E-01     18   .50600E-01
      19   .47200E-01     20   .45900E-01     21   .41700E-01
22   .40800E-01     23   .33400E-01     24   .24800E-01
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.17200E-01	2	.12400E-01	3	.10800E-01
4	.12600E-01	5	.20300E-01	6	.34000E-01
7	.43100E-01	8	.45700E-01	9	.43900E-01
10	.41400E-01	11	.42000E-01	12	.43900E-01
13	.46300E-01	14	.48300E-01	15	.50100E-01
16	.49100E-01	17	.50800E-01	18	.50600E-01
19	.47200E-01	20	.45900E-01	21	.41700E-01
22	.40800E-01	23	.33400E-01	24	.24800E-01

SOURCE ID = A0000010 ; SOURCE TYPE = AREA :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.17200E-01	2	.12400E-01	3	.10800E-01
4	.12600E-01	5	.20300E-01	6	.34000E-01
7	.43100E-01	8	.45700E-01	9	.43900E-01
10	.41400E-01	11	.42000E-01	12	.43900E-01
13	.46300E-01	14	.48300E-01	15	.50100E-01
16	.49100E-01	17	.50800E-01	18	.50600E-01
19	.47200E-01	20	.45900E-01	21	.41700E-01
22	.40800E-01	23	.33400E-01	24	.24800E-01

SOURCE ID = A0000011 ; SOURCE TYPE = AREA :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.17200E-01	2	.12400E-01	3	.10800E-01
4	.12600E-01	5	.20300E-01	6	.34000E-01
7	.43100E-01	8	.45700E-01	9	.43900E-01
10	.41400E-01	11	.42000E-01	12	.43900E-01
13	.46300E-01	14	.48300E-01	15	.50100E-01
16	.49100E-01	17	.50800E-01	18	.50600E-01
19	.47200E-01	20	.45900E-01	21	.41700E-01
22	.40800E-01	23	.33400E-01	24	.24800E-01

SOURCE ID = A0000023 ; SOURCE TYPE = AREA :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.25100E-02	2	.19700E-02	3	.20100E-02
4	.30900E-02	5	.64200E-02	6	.75800E-02
7	.85400E-02	8	.91100E-02	9	.89600E-02
10	.88400E-02	11	.89600E-02	12	.91800E-02
13	.93800E-02	14	.95900E-02	15	.99300E-02
16	.10100E-01	17	.10200E-01	18	.10100E-01
19	.89700E-02	20	.72400E-02	21	.63400E-02
22	.58900E-02	23	.48700E-02	24	.35800E-02

SOURCE ID = A0000024 ; SOURCE TYPE = AREA :

```
       1   .25100E-02      2   .19700E-02      3   .20100E-02
4   .30900E-02      5   .64200E-02      6   .75800E-02
       7   .85400E-02      8   .91100E-02      9   .89600E-02
10   .88400E-02     11   .89600E-02     12   .91800E-02
      13   .93800E-02     14   .95900E-02     15   .99300E-02
16   .10100E-01     17   .10200E-01     18   .10100E-01
      19   .89700E-02     20   .72400E-02     21   .63400E-02
22   .58900E-02     23   .48700E-02     24   .35800E-02


 SOURCE ID = A0000025     ; SOURCE TYPE = AREA     :
       1   .25100E-02      2   .19700E-02      3   .20100E-02
4   .30900E-02      5   .64200E-02      6   .75800E-02
       7   .85400E-02      8   .91100E-02      9   .89600E-02
10   .88400E-02     11   .89600E-02     12   .91800E-02
      13   .93800E-02     14   .95900E-02     15   .99300E-02
16   .10100E-01     17   .10200E-01     18   .10100E-01
      19   .89700E-02     20   .72400E-02     21   .63400E-02
22   .58900E-02     23   .48700E-02     24   .35800E-02
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.25100E-02	2	.19700E-02	3	.20100E-02
4	.30900E-02	5	.64200E-02	6	.75800E-02
7	.85400E-02	8	.91100E-02	9	.89600E-02
10	.88400E-02	11	.89600E-02	12	.91800E-02
13	.93800E-02	14	.95900E-02	15	.99300E-02
16	.10100E-01	17	.10200E-01	18	.10100E-01
19	.89700E-02	20	.72400E-02	21	.63400E-02
22	.58900E-02	23	.48700E-02	24	.35800E-02

SOURCE ID = A0000026 ; SOURCE TYPE = AREA :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.25100E-02	2	.19700E-02	3	.20100E-02
4	.30900E-02	5	.64200E-02	6	.75800E-02
7	.85400E-02	8	.91100E-02	9	.89600E-02
10	.88400E-02	11	.89600E-02	12	.91800E-02
13	.93800E-02	14	.95900E-02	15	.99300E-02
16	.10100E-01	17	.10200E-01	18	.10100E-01
19	.89700E-02	20	.72400E-02	21	.63400E-02
22	.58900E-02	23	.48700E-02	24	.35800E-02

SOURCE ID = A0000027 ; SOURCE TYPE = AREA :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.25100E-02	2	.19700E-02	3	.20100E-02
4	.30900E-02	5	.64200E-02	6	.75800E-02
7	.85400E-02	8	.91100E-02	9	.89600E-02
10	.88400E-02	11	.89600E-02	12	.91800E-02
13	.93800E-02	14	.95900E-02	15	.99300E-02
16	.10100E-01	17	.10200E-01	18	.10100E-01
19	.89700E-02	20	.72400E-02	21	.63400E-02
22	.58900E-02	23	.48700E-02	24	.35800E-02

SOURCE ID = A0000028 ; SOURCE TYPE = AREA :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.25100E-02	2	.19700E-02	3	.20100E-02
4	.30900E-02	5	.64200E-02	6	.75800E-02
7	.85400E-02	8	.91100E-02	9	.89600E-02
10	.88400E-02	11	.89600E-02	12	.91800E-02
13	.93800E-02	14	.95900E-02	15	.99300E-02
16	.10100E-01	17	.10200E-01	18	.10100E-01
19	.89700E-02	20	.72400E-02	21	.63400E-02
22	.58900E-02	23	.48700E-02	24	.35800E-02

SOURCE ID = A0000029 ; SOURCE TYPE = AREA :

```
       1   .25100E-02      2   .19700E-02      3   .20100E-02
4   .30900E-02      5   .64200E-02      6   .75800E-02
       7   .85400E-02      8   .91100E-02      9   .89600E-02
10   .88400E-02     11   .89600E-02     12   .91800E-02
      13   .93800E-02     14   .95900E-02     15   .99300E-02
16   .10100E-01     17   .10200E-01     18   .10100E-01
      19   .89700E-02     20   .72400E-02     21   .63400E-02
22   .58900E-02     23   .48700E-02     24   .35800E-02


 SOURCE ID = A0000030     ; SOURCE TYPE = AREA     :
       1   .25100E-02      2   .19700E-02      3   .20100E-02
4   .30900E-02      5   .64200E-02      6   .75800E-02
       7   .85400E-02      8   .91100E-02      9   .89600E-02
10   .88400E-02     11   .89600E-02     12   .91800E-02
      13   .93800E-02     14   .95900E-02     15   .99300E-02
16   .10100E-01     17   .10200E-01     18   .10100E-01
      19   .89700E-02     20   .72400E-02     21   .63400E-02
22   .58900E-02     23   .48700E-02     24   .35800E-02
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.25100E-02	2	.19700E-02	3	.20100E-02
4	.30900E-02	5	.64200E-02	6	.75800E-02
7	.85400E-02	8	.91100E-02	9	.89600E-02
10	.88400E-02	11	.89600E-02	12	.91800E-02
13	.93800E-02	14	.95900E-02	15	.99300E-02
16	.10100E-01	17	.10200E-01	18	.10100E-01
19	.89700E-02	20	.72400E-02	21	.63400E-02
22	.58900E-02	23	.48700E-02	24	.35800E-02

SOURCE ID = A0000031 ; SOURCE TYPE = AREA :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.25100E-02	2	.19700E-02	3	.20100E-02
4	.30900E-02	5	.64200E-02	6	.75800E-02
7	.85400E-02	8	.91100E-02	9	.89600E-02
10	.88400E-02	11	.89600E-02	12	.91800E-02
13	.93800E-02	14	.95900E-02	15	.99300E-02
16	.10100E-01	17	.10200E-01	18	.10100E-01
19	.89700E-02	20	.72400E-02	21	.63400E-02
22	.58900E-02	23	.48700E-02	24	.35800E-02

SOURCE ID = A0000032 ; SOURCE TYPE = AREA :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.25100E-02	2	.19700E-02	3	.20100E-02
4	.30900E-02	5	.64200E-02	6	.75800E-02
7	.85400E-02	8	.91100E-02	9	.89600E-02
10	.88400E-02	11	.89600E-02	12	.91800E-02
13	.93800E-02	14	.95900E-02	15	.99300E-02
16	.10100E-01	17	.10200E-01	18	.10100E-01
19	.89700E-02	20	.72400E-02	21	.63400E-02
22	.58900E-02	23	.48700E-02	24	.35800E-02

SOURCE ID = A0000033 ; SOURCE TYPE = AREA :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.25100E-02	2	.19700E-02	3	.20100E-02
4	.30900E-02	5	.64200E-02	6	.75800E-02
7	.85400E-02	8	.91100E-02	9	.89600E-02
10	.88400E-02	11	.89600E-02	12	.91800E-02
13	.93800E-02	14	.95900E-02	15	.99300E-02
16	.10100E-01	17	.10200E-01	18	.10100E-01
19	.89700E-02	20	.72400E-02	21	.63400E-02
22	.58900E-02	23	.48700E-02	24	.35800E-02

SOURCE ID = A0000034 ; SOURCE TYPE = AREA :

```
       1   .25100E-02      2   .19700E-02      3   .20100E-02
4   .30900E-02      5   .64200E-02      6   .75800E-02
       7   .85400E-02      8   .91100E-02      9   .89600E-02
10   .88400E-02     11   .89600E-02     12   .91800E-02
      13   .93800E-02     14   .95900E-02     15   .99300E-02
16   .10100E-01     17   .10200E-01     18   .10100E-01
      19   .89700E-02     20   .72400E-02     21   .63400E-02
22   .58900E-02     23   .48700E-02     24   .35800E-02


 SOURCE ID = A0000035     ; SOURCE TYPE = AREA     :
       1   .25100E-02      2   .19700E-02      3   .20100E-02
4   .30900E-02      5   .64200E-02      6   .75800E-02
       7   .85400E-02      8   .91100E-02      9   .89600E-02
10   .88400E-02     11   .89600E-02     12   .91800E-02
      13   .93800E-02     14   .95900E-02     15   .99300E-02
16   .10100E-01     17   .10200E-01     18   .10100E-01
      19   .89700E-02     20   .72400E-02     21   .63400E-02
22   .58900E-02     23   .48700E-02     24   .35800E-02
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.25100E-02	2	.19700E-02	3	.20100E-02	4	.30900E-02	5	.64200E-02	6	.75800E-02
7	.85400E-02	8	.91100E-02	9	.89600E-02	10	.88400E-02	11	.89600E-02	12	.91800E-02
13	.93800E-02	14	.95900E-02	15	.99300E-02	16	.10100E-01	17	.10200E-01	18	.10100E-01
19	.89700E-02	20	.72400E-02	21	.63400E-02	22	.58900E-02	23	.48700E-02	24	.35800E-02

SOURCE ID = A0000036 ; SOURCE TYPE = AREA :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.25100E-02	2	.19700E-02	3	.20100E-02	4	.30900E-02	5	.64200E-02	6	.75800E-02
7	.85400E-02	8	.91100E-02	9	.89600E-02	10	.88400E-02	11	.89600E-02	12	.91800E-02
13	.93800E-02	14	.95900E-02	15	.99300E-02	16	.10100E-01	17	.10200E-01	18	.10100E-01
19	.89700E-02	20	.72400E-02	21	.63400E-02	22	.58900E-02	23	.48700E-02	24	.35800E-02

SOURCE ID = A0000037 ; SOURCE TYPE = AREA :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.26100E-02	2	.18800E-02	3	.16500E-02	4	.19200E-02	5	.30900E-02	6	.51800E-02
7	.72700E-02	8	.81100E-02	9	.78000E-02	10	.73400E-02	11	.74500E-02	12	.77900E-02
13	.82200E-02	14	.85700E-02	15	.88500E-02	16	.86800E-02	17	.85200E-02	18	.84900E-02
19	.83700E-02	20	.77500E-02	21	.70300E-02	22	.62100E-02	23	.50800E-02	24	.37800E-02

SOURCE ID = A0000038 ; SOURCE TYPE = AREA :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.26100E-02	2	.18800E-02	3	.16500E-02	4	.19200E-02	5	.30900E-02	6	.51800E-02
7	.72700E-02	8	.81100E-02	9	.78000E-02	10	.73400E-02	11	.74500E-02	12	.77900E-02
13	.82200E-02	14	.85700E-02	15	.88500E-02	16	.86800E-02	17	.85200E-02	18	.84900E-02
19	.83700E-02	20	.77500E-02	21	.70300E-02	22	.62100E-02	23	.50800E-02	24	.37800E-02

SOURCE ID = A0000039 ; SOURCE TYPE = AREA :

```
       1   .26100E-02      2   .18800E-02      3   .16500E-02
4   .19200E-02      5   .30900E-02      6   .51800E-02
       7   .72700E-02      8   .81100E-02      9   .78000E-02
10   .73400E-02     11   .74500E-02     12   .77900E-02
      13   .82200E-02     14   .85700E-02     15   .88500E-02
16   .86800E-02     17   .85200E-02     18   .84900E-02
      19   .83700E-02     20   .77500E-02     21   .70300E-02
22   .62100E-02     23   .50800E-02     24   .37800E-02


 SOURCE ID = A0000040     ; SOURCE TYPE = AREA     :
       1   .26100E-02      2   .18800E-02      3   .16500E-02
4   .19200E-02      5   .30900E-02      6   .51800E-02
       7   .72700E-02      8   .81100E-02      9   .78000E-02
10   .73400E-02     11   .74500E-02     12   .77900E-02
      13   .82200E-02     14   .85700E-02     15   .88500E-02
16   .86800E-02     17   .85200E-02     18   .84900E-02
      19   .83700E-02     20   .77500E-02     21   .70300E-02
22   .62100E-02     23   .50800E-02     24   .37800E-02
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.26100E-02	2	.18800E-02	3	.16500E-02
4	.19200E-02	5	.30900E-02	6	.51800E-02
7	.72700E-02	8	.81100E-02	9	.78000E-02
10	.73400E-02	11	.74500E-02	12	.77900E-02
13	.82200E-02	14	.85700E-02	15	.88500E-02
16	.86800E-02	17	.85200E-02	18	.84900E-02
19	.83700E-02	20	.77500E-02	21	.70300E-02
22	.62100E-02	23	.50800E-02	24	.37800E-02

SOURCE ID = A0000041 ; SOURCE TYPE = AREA :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.26100E-02	2	.18800E-02	3	.16500E-02
4	.19200E-02	5	.30900E-02	6	.51800E-02
7	.72700E-02	8	.81100E-02	9	.78000E-02
10	.73400E-02	11	.74500E-02	12	.77900E-02
13	.82200E-02	14	.85700E-02	15	.88500E-02
16	.86800E-02	17	.85200E-02	18	.84900E-02
19	.83700E-02	20	.77500E-02	21	.70300E-02
22	.62100E-02	23	.50800E-02	24	.37800E-02

SOURCE ID = A0000042 ; SOURCE TYPE = AREA :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.26100E-02	2	.18800E-02	3	.16500E-02
4	.19200E-02	5	.30900E-02	6	.51800E-02
7	.72700E-02	8	.81100E-02	9	.78000E-02
10	.73400E-02	11	.74500E-02	12	.77900E-02
13	.82200E-02	14	.85700E-02	15	.88500E-02
16	.86800E-02	17	.85200E-02	18	.84900E-02
19	.83700E-02	20	.77500E-02	21	.70300E-02
22	.62100E-02	23	.50800E-02	24	.37800E-02

SOURCE ID = A0000043 ; SOURCE TYPE = AREA :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.26100E-02	2	.18800E-02	3	.16500E-02
4	.19200E-02	5	.30900E-02	6	.51800E-02
7	.72700E-02	8	.81100E-02	9	.78000E-02
10	.73400E-02	11	.74500E-02	12	.77900E-02
13	.82200E-02	14	.85700E-02	15	.88500E-02
16	.86800E-02	17	.85200E-02	18	.84900E-02
19	.83700E-02	20	.77500E-02	21	.70300E-02
22	.62100E-02	23	.50800E-02	24	.37800E-02

SOURCE ID = A0000044 ; SOURCE TYPE = AREA :

```
       1   .26100E-02      2   .18800E-02      3   .16500E-02
4   .19200E-02      5   .30900E-02      6   .51800E-02
       7   .72700E-02      8   .81100E-02      9   .78000E-02
10   .73400E-02     11   .74500E-02     12   .77900E-02
      13   .82200E-02     14   .85700E-02     15   .88500E-02
16   .86800E-02     17   .85200E-02     18   .84900E-02
      19   .83700E-02     20   .77500E-02     21   .70300E-02
22   .62100E-02     23   .50800E-02     24   .37800E-02


 SOURCE ID = A0000045     ; SOURCE TYPE = AREA     :
       1   .40100E-02      2   .28800E-02      3   .25300E-02
4   .29400E-02      5   .47400E-02      6   .79400E-02
       7   .11100E-01      8   .12400E-01      9   .12000E-01
10   .11300E-01     11   .11400E-01     12   .11900E-01
      13   .12600E-01     14   .13100E-01     15   .13600E-01
16   .13300E-01     17   .13100E-01     18   .13000E-01
      19   .12800E-01     20   .11900E-01     21   .10800E-01
22   .95100E-02     23   .77900E-02     24   .58000E-02
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.40100E-02	2	.28800E-02	3	.25300E-02
4	.29400E-02	5	.47400E-02	6	.79400E-02
7	.11100E-01	8	.12400E-01	9	.12000E-01
10	.11300E-01	11	.11400E-01	12	.11900E-01
13	.12600E-01	14	.13100E-01	15	.13600E-01
16	.13300E-01	17	.13100E-01	18	.13000E-01
19	.12800E-01	20	.11900E-01	21	.10800E-01
22	.95100E-02	23	.77900E-02	24	.58000E-02

SOURCE ID = A0000046 ; SOURCE TYPE = AREA :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.40100E-02	2	.28800E-02	3	.25300E-02
4	.29400E-02	5	.47400E-02	6	.79400E-02
7	.11100E-01	8	.12400E-01	9	.12000E-01
10	.11300E-01	11	.11400E-01	12	.11900E-01
13	.12600E-01	14	.13100E-01	15	.13600E-01
16	.13300E-01	17	.13100E-01	18	.13000E-01
19	.12800E-01	20	.11900E-01	21	.10800E-01
22	.95100E-02	23	.77900E-02	24	.58000E-02

SOURCE ID = A0000047 ; SOURCE TYPE = AREA :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.40100E-02	2	.28800E-02	3	.25300E-02
4	.29400E-02	5	.47400E-02	6	.79400E-02
7	.11100E-01	8	.12400E-01	9	.12000E-01
10	.11300E-01	11	.11400E-01	12	.11900E-01
13	.12600E-01	14	.13100E-01	15	.13600E-01
16	.13300E-01	17	.13100E-01	18	.13000E-01
19	.12800E-01	20	.11900E-01	21	.10800E-01
22	.95100E-02	23	.77900E-02	24	.58000E-02

SOURCE ID = A0000048 ; SOURCE TYPE = AREA :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.40100E-02	2	.28800E-02	3	.25300E-02
4	.29400E-02	5	.47400E-02	6	.79400E-02
7	.11100E-01	8	.12400E-01	9	.12000E-01
10	.11300E-01	11	.11400E-01	12	.11900E-01
13	.12600E-01	14	.13100E-01	15	.13600E-01
16	.13300E-01	17	.13100E-01	18	.13000E-01
19	.12800E-01	20	.11900E-01	21	.10800E-01
22	.95100E-02	23	.77900E-02	24	.58000E-02

SOURCE ID = A0000049 ; SOURCE TYPE = AREA :

```
       1   .40100E-02      2   .28800E-02      3   .25300E-02
4   .29400E-02      5   .47400E-02      6   .79400E-02
       7   .11100E-01      8   .12400E-01      9   .12000E-01
10   .11300E-01     11   .11400E-01     12   .11900E-01
      13   .12600E-01     14   .13100E-01     15   .13600E-01
16   .13300E-01     17   .13100E-01     18   .13000E-01
      19   .12800E-01     20   .11900E-01     21   .10800E-01
22   .95100E-02     23   .77900E-02     24   .58000E-02


 SOURCE ID = A0000050     ; SOURCE TYPE = AREA     :
       1   .40100E-02      2   .28800E-02      3   .25300E-02
4   .29400E-02      5   .47400E-02      6   .79400E-02
       7   .11100E-01      8   .12400E-01      9   .12000E-01
10   .11300E-01     11   .11400E-01     12   .11900E-01
      13   .12600E-01     14   .13100E-01     15   .13600E-01
16   .13300E-01     17   .13100E-01     18   .13000E-01
      19   .12800E-01     20   .11900E-01     21   .10800E-01
22   .95100E-02     23   .77900E-02     24   .58000E-02
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.40100E-02	2	.28800E-02	3	.25300E-02
4	.29400E-02	5	.47400E-02	6	.79400E-02
7	.11100E-01	8	.12400E-01	9	.12000E-01
10	.11300E-01	11	.11400E-01	12	.11900E-01
13	.12600E-01	14	.13100E-01	15	.13600E-01
16	.13300E-01	17	.13100E-01	18	.13000E-01
19	.12800E-01	20	.11900E-01	21	.10800E-01
22	.95100E-02	23	.77900E-02	24	.58000E-02

SOURCE ID = A0000051 ; SOURCE TYPE = AREA :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.40100E-02	2	.28800E-02	3	.25300E-02
4	.29400E-02	5	.47400E-02	6	.79400E-02
7	.11100E-01	8	.12400E-01	9	.12000E-01
10	.11300E-01	11	.11400E-01	12	.11900E-01
13	.12600E-01	14	.13100E-01	15	.13600E-01
16	.13300E-01	17	.13100E-01	18	.13000E-01
19	.12800E-01	20	.11900E-01	21	.10800E-01
22	.95100E-02	23	.77900E-02	24	.58000E-02

SOURCE ID = A0000052 ; SOURCE TYPE = AREA :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.40100E-02	2	.28800E-02	3	.25300E-02
4	.29400E-02	5	.47400E-02	6	.79400E-02
7	.11100E-01	8	.12400E-01	9	.12000E-01
10	.11300E-01	11	.11400E-01	12	.11900E-01
13	.12600E-01	14	.13100E-01	15	.13600E-01
16	.13300E-01	17	.13100E-01	18	.13000E-01
19	.12800E-01	20	.11900E-01	21	.10800E-01
22	.95100E-02	23	.77900E-02	24	.58000E-02

SOURCE ID = A0000053 ; SOURCE TYPE = AREA :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.40100E-02	2	.28800E-02	3	.25300E-02
4	.29400E-02	5	.47400E-02	6	.79400E-02
7	.11100E-01	8	.12400E-01	9	.12000E-01
10	.11300E-01	11	.11400E-01	12	.11900E-01
13	.12600E-01	14	.13100E-01	15	.13600E-01
16	.13300E-01	17	.13100E-01	18	.13000E-01
19	.12800E-01	20	.11900E-01	21	.10800E-01
22	.95100E-02	23	.77900E-02	24	.58000E-02

SOURCE ID = A0000054 ; SOURCE TYPE = AREA :

```
       1   .40100E-02      2   .28800E-02      3   .25300E-02
4   .29400E-02      5   .47400E-02      6   .79400E-02
       7   .11100E-01      8   .12400E-01      9   .12000E-01
10   .11300E-01     11   .11400E-01     12   .11900E-01
      13   .12600E-01     14   .13100E-01     15   .13600E-01
16   .13300E-01     17   .13100E-01     18   .13000E-01
      19   .12800E-01     20   .11900E-01     21   .10800E-01
22   .95100E-02     23   .77900E-02     24   .58000E-02


 SOURCE ID = A0000055     ; SOURCE TYPE = AREA     :
       1   .40100E-02      2   .28800E-02      3   .25300E-02
4   .29400E-02      5   .47400E-02      6   .79400E-02
       7   .11100E-01      8   .12400E-01      9   .12000E-01
10   .11300E-01     11   .11400E-01     12   .11900E-01
      13   .12600E-01     14   .13100E-01     15   .13600E-01
16   .13300E-01     17   .13100E-01     18   .13000E-01
      19   .12800E-01     20   .11900E-01     21   .10800E-01
22   .95100E-02     23   .77900E-02     24   .58000E-02
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

SOURCE ID = A0000056 ; SOURCE TYPE = AREA :

1	.40100E-02	2	.28800E-02	3	.25300E-02
4	.29400E-02	5	.47400E-02	6	.79400E-02
7	.11100E-01	8	.12400E-01	9	.12000E-01
10	.11300E-01	11	.11400E-01	12	.11900E-01
13	.12600E-01	14	.13100E-01	15	.13600E-01
16	.13300E-01	17	.13100E-01	18	.13000E-01
19	.12800E-01	20	.11900E-01	21	.10800E-01
22	.95100E-02	23	.77900E-02	24	.58000E-02

SOURCE ID = A0000057 ; SOURCE TYPE = AREA :

1	.40100E-02	2	.28800E-02	3	.25300E-02
4	.29400E-02	5	.47400E-02	6	.79400E-02
7	.11100E-01	8	.12400E-01	9	.12000E-01
10	.11300E-01	11	.11400E-01	12	.11900E-01
13	.12600E-01	14	.13100E-01	15	.13600E-01
16	.13300E-01	17	.13100E-01	18	.13000E-01
19	.12800E-01	20	.11900E-01	21	.10800E-01
22	.95100E-02	23	.77900E-02	24	.58000E-02

SOURCE ID = A0000058 ; SOURCE TYPE = AREA :

1	.40100E-02	2	.28800E-02	3	.25300E-02
4	.29400E-02	5	.47400E-02	6	.79400E-02
7	.11100E-01	8	.12400E-01	9	.12000E-01
10	.11300E-01	11	.11400E-01	12	.11900E-01
13	.12600E-01	14	.13100E-01	15	.13600E-01
16	.13300E-01	17	.13100E-01	18	.13000E-01
19	.12800E-01	20	.11900E-01	21	.10800E-01
22	.95100E-02	23	.77900E-02	24	.58000E-02

SOURCE ID = A0000059 ; SOURCE TYPE = AREA :

```
       1   .40100E-02      2   .28800E-02      3   .25300E-02
4   .29400E-02      5   .47400E-02      6   .79400E-02
       7   .11100E-01      8   .12400E-01      9   .12000E-01
10   .11300E-01     11   .11400E-01     12   .11900E-01
      13   .12600E-01     14   .13100E-01     15   .13600E-01
16   .13300E-01     17   .13100E-01     18   .13000E-01
      19   .12800E-01     20   .11900E-01     21   .10800E-01
22   .95100E-02     23   .77900E-02     24   .58000E-02


 SOURCE ID = A0000060     ; SOURCE TYPE = AREA     :
       1   .40100E-02      2   .28800E-02      3   .25300E-02
4   .29400E-02      5   .47400E-02      6   .79400E-02
       7   .11100E-01      8   .12400E-01      9   .12000E-01
10   .11300E-01     11   .11400E-01     12   .11900E-01
      13   .12600E-01     14   .13100E-01     15   .13600E-01
16   .13300E-01     17   .13100E-01     18   .13000E-01
      19   .12800E-01     20   .11900E-01     21   .10800E-01
22   .95100E-02     23   .77900E-02     24   .58000E-02
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.40200E-03	2	.31600E-03	3	.32200E-03
4	.49500E-03	5	.10300E-02	6	.12100E-02
7	.13700E-02	8	.14600E-02	9	.14400E-02
10	.14200E-02	11	.14300E-02	12	.14700E-02
13	.15000E-02	14	.15400E-02	15	.15900E-02
16	.16200E-02	17	.16400E-02	18	.16200E-02
19	.14400E-02	20	.11600E-02	21	.10200E-02
22	.94200E-03	23	.78100E-03	24	.57400E-03

SOURCE ID = A0000061 ; SOURCE TYPE = AREA :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.40200E-03	2	.31600E-03	3	.32200E-03
4	.49500E-03	5	.10300E-02	6	.12100E-02
7	.13700E-02	8	.14600E-02	9	.14400E-02
10	.14200E-02	11	.14300E-02	12	.14700E-02
13	.15000E-02	14	.15400E-02	15	.15900E-02
16	.16200E-02	17	.16400E-02	18	.16200E-02
19	.14400E-02	20	.11600E-02	21	.10200E-02
22	.94200E-03	23	.78100E-03	24	.57400E-03

SOURCE ID = A0000062 ; SOURCE TYPE = AREA :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.40200E-03	2	.31600E-03	3	.32200E-03
4	.49500E-03	5	.10300E-02	6	.12100E-02
7	.13700E-02	8	.14600E-02	9	.14400E-02
10	.14200E-02	11	.14300E-02	12	.14700E-02
13	.15000E-02	14	.15400E-02	15	.15900E-02
16	.16200E-02	17	.16400E-02	18	.16200E-02
19	.14400E-02	20	.11600E-02	21	.10200E-02
22	.94200E-03	23	.78100E-03	24	.57400E-03

SOURCE ID = A0000063 ; SOURCE TYPE = AREA :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.40200E-03	2	.31600E-03	3	.32200E-03
4	.49500E-03	5	.10300E-02	6	.12100E-02
7	.13700E-02	8	.14600E-02	9	.14400E-02
10	.14200E-02	11	.14300E-02	12	.14700E-02
13	.15000E-02	14	.15400E-02	15	.15900E-02
16	.16200E-02	17	.16400E-02	18	.16200E-02
19	.14400E-02	20	.11600E-02	21	.10200E-02
22	.94200E-03	23	.78100E-03	24	.57400E-03

SOURCE ID = A0000064 ; SOURCE TYPE = AREA :

```
       1   .40200E-03      2   .31600E-03      3   .32200E-03
4   .49500E-03      5   .10300E-02      6   .12100E-02
       7   .13700E-02      8   .14600E-02      9   .14400E-02
10   .14200E-02     11   .14300E-02     12   .14700E-02
      13   .15000E-02     14   .15400E-02     15   .15900E-02
16   .16200E-02     17   .16400E-02     18   .16200E-02
      19   .14400E-02     20   .11600E-02     21   .10200E-02
22   .94200E-03     23   .78100E-03     24   .57400E-03


 SOURCE ID = A0000065     ; SOURCE TYPE = AREA     :
       1   .40200E-03      2   .31600E-03      3   .32200E-03
4   .49500E-03      5   .10300E-02      6   .12100E-02
       7   .13700E-02      8   .14600E-02      9   .14400E-02
10   .14200E-02     11   .14300E-02     12   .14700E-02
      13   .15000E-02     14   .15400E-02     15   .15900E-02
16   .16200E-02     17   .16400E-02     18   .16200E-02
      19   .14400E-02     20   .11600E-02     21   .10200E-02
22   .94200E-03     23   .78100E-03     24   .57400E-03
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.40200E-03	2	.31600E-03	3	.32200E-03
4	.49500E-03	5	.10300E-02	6	.12100E-02
7	.13700E-02	8	.14600E-02	9	.14400E-02
10	.14200E-02	11	.14300E-02	12	.14700E-02
13	.15000E-02	14	.15400E-02	15	.15900E-02
16	.16200E-02	17	.16400E-02	18	.16200E-02
19	.14400E-02	20	.11600E-02	21	.10200E-02
22	.94200E-03	23	.78100E-03	24	.57400E-03

SOURCE ID = A0000066 ; SOURCE TYPE = AREA :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.10900E-01	2	.85500E-02	3	.87100E-02
4	.13400E-01	5	.27800E-01	6	.35600E-01
7	.40100E-01	8	.46700E-01	9	.45900E-01
10	.45300E-01	11	.45900E-01	12	.47000E-01
13	.48100E-01	14	.49100E-01	15	.50900E-01
16	.51900E-01	17	.52400E-01	18	.47600E-01
19	.42100E-01	20	.31400E-01	21	.29800E-01
22	.25500E-01	23	.21100E-01	24	.15500E-01

SOURCE ID = A0000067 ; SOURCE TYPE = AREA :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.10900E-01	2	.85500E-02	3	.87100E-02
4	.13400E-01	5	.27800E-01	6	.35600E-01
7	.40100E-01	8	.46700E-01	9	.45900E-01
10	.45300E-01	11	.45900E-01	12	.47000E-01
13	.48100E-01	14	.49100E-01	15	.50900E-01
16	.51900E-01	17	.52400E-01	18	.47600E-01
19	.42100E-01	20	.31400E-01	21	.29800E-01
22	.25500E-01	23	.21100E-01	24	.15500E-01

SOURCE ID = A0000068 ; SOURCE TYPE = AREA :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.10900E-01	2	.85500E-02	3	.87100E-02
4	.13400E-01	5	.27800E-01	6	.35600E-01
7	.40100E-01	8	.46700E-01	9	.45900E-01
10	.45300E-01	11	.45900E-01	12	.47000E-01
13	.48100E-01	14	.49100E-01	15	.50900E-01
16	.51900E-01	17	.52400E-01	18	.47600E-01
19	.42100E-01	20	.31400E-01	21	.29800E-01
22	.25500E-01	23	.21100E-01	24	.15500E-01

SOURCE ID = A0000069 ; SOURCE TYPE = AREA :

```
       1   .10900E-01      2   .85500E-02      3   .87100E-02
4   .13400E-01      5   .27800E-01      6   .35600E-01
       7   .40100E-01      8   .46700E-01      9   .45900E-01
10   .45300E-01     11   .45900E-01     12   .47000E-01
      13   .48100E-01     14   .49100E-01     15   .50900E-01
16   .51900E-01     17   .52400E-01     18   .47600E-01
      19   .42100E-01     20   .31400E-01     21   .29800E-01
22   .25500E-01     23   .21100E-01     24   .15500E-01


 SOURCE ID = A0000070     ; SOURCE TYPE = AREA     :
       1   .10900E-01      2   .85500E-02      3   .87100E-02
4   .13400E-01      5   .27800E-01      6   .35600E-01
       7   .40100E-01      8   .46700E-01      9   .45900E-01
10   .45300E-01     11   .45900E-01     12   .47000E-01
      13   .48100E-01     14   .49100E-01     15   .50900E-01
16   .51900E-01     17   .52400E-01     18   .47600E-01
      19   .42100E-01     20   .31400E-01     21   .29800E-01
22   .25500E-01     23   .21100E-01     24   .15500E-01
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.10900E-01	2	.85500E-02	3	.87100E-02
4	.13400E-01	5	.27800E-01	6	.35600E-01
7	.40100E-01	8	.46700E-01	9	.45900E-01
10	.45300E-01	11	.45900E-01	12	.47000E-01
13	.48100E-01	14	.49100E-01	15	.50900E-01
16	.51900E-01	17	.52400E-01	18	.47600E-01
19	.42100E-01	20	.31400E-01	21	.29800E-01
22	.25500E-01	23	.21100E-01	24	.15500E-01

SOURCE ID = A0000071 ; SOURCE TYPE = AREA :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.10900E-01	2	.85500E-02	3	.87100E-02
4	.13400E-01	5	.27800E-01	6	.35600E-01
7	.40100E-01	8	.46700E-01	9	.45900E-01
10	.45300E-01	11	.45900E-01	12	.47000E-01
13	.48100E-01	14	.49100E-01	15	.50900E-01
16	.51900E-01	17	.52400E-01	18	.47600E-01
19	.42100E-01	20	.31400E-01	21	.29800E-01
22	.25500E-01	23	.21100E-01	24	.15500E-01

SOURCE ID = A0000072 ; SOURCE TYPE = AREA :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.10900E-01	2	.85500E-02	3	.87100E-02
4	.13400E-01	5	.27800E-01	6	.35600E-01
7	.40100E-01	8	.46700E-01	9	.45900E-01
10	.45300E-01	11	.45900E-01	12	.47000E-01
13	.48100E-01	14	.49100E-01	15	.50900E-01
16	.51900E-01	17	.52400E-01	18	.47600E-01
19	.42100E-01	20	.31400E-01	21	.29800E-01
22	.25500E-01	23	.21100E-01	24	.15500E-01

SOURCE ID = A0000073 ; SOURCE TYPE = AREA :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.10900E-01	2	.85500E-02	3	.87100E-02
4	.13400E-01	5	.27800E-01	6	.35600E-01
7	.40100E-01	8	.46700E-01	9	.45900E-01
10	.45300E-01	11	.45900E-01	12	.47000E-01
13	.48100E-01	14	.49100E-01	15	.50900E-01
16	.51900E-01	17	.52400E-01	18	.47600E-01
19	.42100E-01	20	.31400E-01	21	.29800E-01
22	.25500E-01	23	.21100E-01	24	.15500E-01

SOURCE ID = A0000074 ; SOURCE TYPE = AREA :

```
       1   .10900E-01      2   .85500E-02      3   .87100E-02
4   .13400E-01      5   .27800E-01      6   .35600E-01
       7   .40100E-01      8   .46700E-01      9   .45900E-01
10   .45300E-01     11   .45900E-01     12   .47000E-01
      13   .48100E-01     14   .49100E-01     15   .50900E-01
16   .51900E-01     17   .52400E-01     18   .47600E-01
      19   .42100E-01     20   .31400E-01     21   .29800E-01
22   .25500E-01     23   .21100E-01     24   .15500E-01


 SOURCE ID = A0000075     ; SOURCE TYPE = AREA     :
       1   .10900E-01      2   .85500E-02      3   .87100E-02
4   .13400E-01      5   .27800E-01      6   .35600E-01
       7   .40100E-01      8   .46700E-01      9   .45900E-01
10   .45300E-01     11   .45900E-01     12   .47000E-01
      13   .48100E-01     14   .49100E-01     15   .50900E-01
16   .51900E-01     17   .52400E-01     18   .47600E-01
      19   .42100E-01     20   .31400E-01     21   .29800E-01
22   .25500E-01     23   .21100E-01     24   .15500E-01
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.10900E-01	2	.85500E-02	3	.87100E-02
4	.13400E-01	5	.27800E-01	6	.35600E-01
7	.40100E-01	8	.46700E-01	9	.45900E-01
10	.45300E-01	11	.45900E-01	12	.47000E-01
13	.48100E-01	14	.49100E-01	15	.50900E-01
16	.51900E-01	17	.52400E-01	18	.47600E-01
19	.42100E-01	20	.31400E-01	21	.29800E-01
22	.25500E-01	23	.21100E-01	24	.15500E-01

SOURCE ID = A0000076 ; SOURCE TYPE = AREA :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.10900E-01	2	.85500E-02	3	.87100E-02
4	.13400E-01	5	.27800E-01	6	.35600E-01
7	.40100E-01	8	.46700E-01	9	.45900E-01
10	.45300E-01	11	.45900E-01	12	.47000E-01
13	.48100E-01	14	.49100E-01	15	.50900E-01
16	.51900E-01	17	.52400E-01	18	.47600E-01
19	.42100E-01	20	.31400E-01	21	.29800E-01
22	.25500E-01	23	.21100E-01	24	.15500E-01

SOURCE ID = A0000077 ; SOURCE TYPE = AREA :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.13000E-01	2	.93200E-02	3	.81700E-02
4	.95100E-02	5	.15300E-01	6	.25700E-01
7	.39000E-01	8	.47500E-01	9	.45600E-01
10	.43000E-01	11	.43600E-01	12	.45600E-01
13	.48100E-01	14	.50200E-01	15	.57000E-01
16	.55900E-01	17	.61000E-01	18	.60800E-01
19	.49000E-01	20	.41600E-01	21	.37700E-01
22	.30700E-01	23	.25200E-01	24	.18700E-01

SOURCE ID = A0000078 ; SOURCE TYPE = AREA :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.13000E-01	2	.93200E-02	3	.81700E-02
4	.95100E-02	5	.15300E-01	6	.25700E-01
7	.39000E-01	8	.47500E-01	9	.45600E-01
10	.43000E-01	11	.43600E-01	12	.45600E-01
13	.48100E-01	14	.50200E-01	15	.57000E-01
16	.55900E-01	17	.61000E-01	18	.60800E-01
19	.49000E-01	20	.41600E-01	21	.37700E-01
22	.30700E-01	23	.25200E-01	24	.18700E-01

SOURCE ID = A0000079 ; SOURCE TYPE = AREA :

```
       1   .13000E-01      2   .93200E-02      3   .81700E-02
4   .95100E-02      5   .15300E-01      6   .25700E-01
       7   .39000E-01      8   .47500E-01      9   .45600E-01
10   .43000E-01     11   .43600E-01     12   .45600E-01
      13   .48100E-01     14   .50200E-01     15   .57000E-01
16   .55900E-01     17   .61000E-01     18   .60800E-01
      19   .49000E-01     20   .41600E-01     21   .37700E-01
22   .30700E-01     23   .25200E-01     24   .18700E-01


 SOURCE ID = A0000080     ; SOURCE TYPE = AREA     :
       1   .13000E-01      2   .93200E-02      3   .81700E-02
4   .95100E-02      5   .15300E-01      6   .25700E-01
       7   .39000E-01      8   .47500E-01      9   .45600E-01
10   .43000E-01     11   .43600E-01     12   .45600E-01
      13   .48100E-01     14   .50200E-01     15   .57000E-01
16   .55900E-01     17   .61000E-01     18   .60800E-01
      19   .49000E-01     20   .41600E-01     21   .37700E-01
22   .30700E-01     23   .25200E-01     24   .18700E-01
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.13000E-01	2	.93200E-02	3	.81700E-02
4	.95100E-02	5	.15300E-01	6	.25700E-01
7	.39000E-01	8	.47500E-01	9	.45600E-01
10	.43000E-01	11	.43600E-01	12	.45600E-01
13	.48100E-01	14	.50200E-01	15	.57000E-01
16	.55900E-01	17	.61000E-01	18	.60800E-01
19	.49000E-01	20	.41600E-01	21	.37700E-01
22	.30700E-01	23	.25200E-01	24	.18700E-01

SOURCE ID = A0000081 ; SOURCE TYPE = AREA :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.13000E-01	2	.93200E-02	3	.81700E-02
4	.95100E-02	5	.15300E-01	6	.25700E-01
7	.39000E-01	8	.47500E-01	9	.45600E-01
10	.43000E-01	11	.43600E-01	12	.45600E-01
13	.48100E-01	14	.50200E-01	15	.57000E-01
16	.55900E-01	17	.61000E-01	18	.60800E-01
19	.49000E-01	20	.41600E-01	21	.37700E-01
22	.30700E-01	23	.25200E-01	24	.18700E-01

SOURCE ID = A0000082 ; SOURCE TYPE = AREA :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.13000E-01	2	.93200E-02	3	.81700E-02
4	.95100E-02	5	.15300E-01	6	.25700E-01
7	.39000E-01	8	.47500E-01	9	.45600E-01
10	.43000E-01	11	.43600E-01	12	.45600E-01
13	.48100E-01	14	.50200E-01	15	.57000E-01
16	.55900E-01	17	.61000E-01	18	.60800E-01
19	.49000E-01	20	.41600E-01	21	.37700E-01
22	.30700E-01	23	.25200E-01	24	.18700E-01

SOURCE ID = A0000083 ; SOURCE TYPE = AREA :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.13000E-01	2	.93200E-02	3	.81700E-02
4	.95100E-02	5	.15300E-01	6	.25700E-01
7	.39000E-01	8	.47500E-01	9	.45600E-01
10	.43000E-01	11	.43600E-01	12	.45600E-01
13	.48100E-01	14	.50200E-01	15	.57000E-01
16	.55900E-01	17	.61000E-01	18	.60800E-01
19	.49000E-01	20	.41600E-01	21	.37700E-01
22	.30700E-01	23	.25200E-01	24	.18700E-01

SOURCE ID = A0000084 ; SOURCE TYPE = AREA :

```
       1   .13000E-01      2   .93200E-02      3   .81700E-02
4   .95100E-02      5   .15300E-01      6   .25700E-01
       7   .39000E-01      8   .47500E-01      9   .45600E-01
10   .43000E-01     11   .43600E-01     12   .45600E-01
      13   .48100E-01     14   .50200E-01     15   .57000E-01
16   .55900E-01     17   .61000E-01     18   .60800E-01
      19   .49000E-01     20   .41600E-01     21   .37700E-01
22   .30700E-01     23   .25200E-01     24   .18700E-01


 SOURCE ID = A0000085     ; SOURCE TYPE = AREA     :
       1   .13000E-01      2   .93200E-02      3   .81700E-02
4   .95100E-02      5   .15300E-01      6   .25700E-01
       7   .39000E-01      8   .47500E-01      9   .45600E-01
10   .43000E-01     11   .43600E-01     12   .45600E-01
      13   .48100E-01     14   .50200E-01     15   .57000E-01
16   .55900E-01     17   .61000E-01     18   .60800E-01
      19   .49000E-01     20   .41600E-01     21   .37700E-01
22   .30700E-01     23   .25200E-01     24   .18700E-01
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.13000E-01	2	.93200E-02	3	.81700E-02
4	.95100E-02	5	.15300E-01	6	.25700E-01
7	.39000E-01	8	.47500E-01	9	.45600E-01
10	.43000E-01	11	.43600E-01	12	.45600E-01
13	.48100E-01	14	.50200E-01	15	.57000E-01
16	.55900E-01	17	.61000E-01	18	.60800E-01
19	.49000E-01	20	.41600E-01	21	.37700E-01
22	.30700E-01	23	.25200E-01	24	.18700E-01

SOURCE ID = A0000086 ; SOURCE TYPE = AREA :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.13000E-01	2	.93200E-02	3	.81700E-02
4	.95100E-02	5	.15300E-01	6	.25700E-01
7	.39000E-01	8	.47500E-01	9	.45600E-01
10	.43000E-01	11	.43600E-01	12	.45600E-01
13	.48100E-01	14	.50200E-01	15	.57000E-01
16	.55900E-01	17	.61000E-01	18	.60800E-01
19	.49000E-01	20	.41600E-01	21	.37700E-01
22	.30700E-01	23	.25200E-01	24	.18700E-01

SOURCE ID = A0000087 ; SOURCE TYPE = AREA :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.13000E-01	2	.93200E-02	3	.81700E-02
4	.95100E-02	5	.15300E-01	6	.25700E-01
7	.39000E-01	8	.47500E-01	9	.45600E-01
10	.43000E-01	11	.43600E-01	12	.45600E-01
13	.48100E-01	14	.50200E-01	15	.57000E-01
16	.55900E-01	17	.61000E-01	18	.60800E-01
19	.49000E-01	20	.41600E-01	21	.37700E-01
22	.30700E-01	23	.25200E-01	24	.18700E-01

SOURCE ID = A0000088 ; SOURCE TYPE = AREA :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.13000E-01	2	.93200E-02	3	.81700E-02
4	.95100E-02	5	.15300E-01	6	.25700E-01
7	.39000E-01	8	.47500E-01	9	.45600E-01
10	.43000E-01	11	.43600E-01	12	.45600E-01
13	.48100E-01	14	.50200E-01	15	.57000E-01
16	.55900E-01	17	.61000E-01	18	.60800E-01
19	.49000E-01	20	.41600E-01	21	.37700E-01
22	.30700E-01	23	.25200E-01	24	.18700E-01

SOURCE ID = A0000089 ; SOURCE TYPE = AREA :

```
       1   .34100E-02      2   .26800E-02      3   .27300E-02
4   .42000E-02      5   .87200E-02      6   .11400E-02
       7   .11600E-01      8   .12400E-01      9   .12200E-01
10   .12000E-01     11   .12200E-01     12   .12500E-01
      13   .12700E-01     14   .13000E-01     15   .13500E-01
16   .13800E-01     17   .13900E-01     18   .13800E-01
      19   .12200E-01     20   .98300E-02     21   .86100E-02
22   .80000E-02     23   .66200E-02     24   .48700E-02


 SOURCE ID = A0000090     ; SOURCE TYPE = AREA     :
       1   .34100E-02      2   .26800E-02      3   .27300E-02
4   .42000E-02      5   .87200E-02      6   .11400E-02
       7   .11600E-01      8   .12400E-01      9   .12200E-01
10   .12000E-01     11   .12200E-01     12   .12500E-01
      13   .12700E-01     14   .13000E-01     15   .13500E-01
16   .13800E-01     17   .13900E-01     18   .13800E-01
      19   .12200E-01     20   .98300E-02     21   .86100E-02
22   .80000E-02     23   .66200E-02     24   .48700E-02
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

SOURCE ID = A0000091 ; SOURCE TYPE = AREA :

1	.34100E-02	2	.26800E-02	3	.27300E-02
4	.42000E-02	5	.87200E-02	6	.11400E-02
7	.11600E-01	8	.12400E-01	9	.12200E-01
10	.12000E-01	11	.12200E-01	12	.12500E-01
13	.12700E-01	14	.13000E-01	15	.13500E-01
16	.13800E-01	17	.13900E-01	18	.13800E-01
19	.12200E-01	20	.98300E-02	21	.86100E-02
22	.80000E-02	23	.66200E-02	24	.48700E-02

SOURCE ID = A0000092 ; SOURCE TYPE = AREA :

1	.34100E-02	2	.26800E-02	3	.27300E-02
4	.42000E-02	5	.87200E-02	6	.11400E-02
7	.11600E-01	8	.12400E-01	9	.12200E-01
10	.12000E-01	11	.12200E-01	12	.12500E-01
13	.12700E-01	14	.13000E-01	15	.13500E-01
16	.13800E-01	17	.13900E-01	18	.13800E-01
19	.12200E-01	20	.98300E-02	21	.86100E-02
22	.80000E-02	23	.66200E-02	24	.48700E-02

SOURCE ID = A0000093 ; SOURCE TYPE = AREA :

1	.34100E-02	2	.26800E-02	3	.27300E-02
4	.42000E-02	5	.87200E-02	6	.11400E-02
7	.11600E-01	8	.12400E-01	9	.12200E-01
10	.12000E-01	11	.12200E-01	12	.12500E-01
13	.12700E-01	14	.13000E-01	15	.13500E-01
16	.13800E-01	17	.13900E-01	18	.13800E-01
19	.12200E-01	20	.98300E-02	21	.86100E-02
22	.80000E-02	23	.66200E-02	24	.48700E-02

SOURCE ID = A0000094 ; SOURCE TYPE = AREA :

```
       1   .34100E-02      2   .26800E-02      3   .27300E-02
4   .42000E-02      5   .87200E-02      6   .11400E-02
       7   .11600E-01      8   .12400E-01      9   .12200E-01
10   .12000E-01     11   .12200E-01     12   .12500E-01
      13   .12700E-01     14   .13000E-01     15   .13500E-01
16   .13800E-01     17   .13900E-01     18   .13800E-01
      19   .12200E-01     20   .98300E-02     21   .86100E-02
22   .80000E-02     23   .66200E-02     24   .48700E-02


 SOURCE ID = A0000095     ; SOURCE TYPE = AREA     :
       1   .34100E-02      2   .26800E-02      3   .27300E-02
4   .42000E-02      5   .87200E-02      6   .11400E-02
       7   .11600E-01      8   .12400E-01      9   .12200E-01
10   .12000E-01     11   .12200E-01     12   .12500E-01
      13   .12700E-01     14   .13000E-01     15   .13500E-01
16   .13800E-01     17   .13900E-01     18   .13800E-01
      19   .12200E-01     20   .98300E-02     21   .86100E-02
22   .80000E-02     23   .66200E-02     24   .48700E-02
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

SOURCE ID = A0000096 ; SOURCE TYPE = AREA :

1	.34100E-02	2	.26800E-02	3	.27300E-02
4	.42000E-02	5	.87200E-02	6	.11400E-02
7	.11600E-01	8	.12400E-01	9	.12200E-01
10	.12000E-01	11	.12200E-01	12	.12500E-01
13	.12700E-01	14	.13000E-01	15	.13500E-01
16	.13800E-01	17	.13900E-01	18	.13800E-01
19	.12200E-01	20	.98300E-02	21	.86100E-02
22	.80000E-02	23	.66200E-02	24	.48700E-02

SOURCE ID = A0000097 ; SOURCE TYPE = AREA :

1	.34100E-02	2	.26800E-02	3	.27300E-02
4	.42000E-02	5	.87200E-02	6	.11400E-02
7	.11600E-01	8	.12400E-01	9	.12200E-01
10	.12000E-01	11	.12200E-01	12	.12500E-01
13	.12700E-01	14	.13000E-01	15	.13500E-01
16	.13800E-01	17	.13900E-01	18	.13800E-01
19	.12200E-01	20	.98300E-02	21	.86100E-02
22	.80000E-02	23	.66200E-02	24	.48700E-02

SOURCE ID = A0000098 ; SOURCE TYPE = AREA :

1	.34100E-02	2	.26800E-02	3	.27300E-02
4	.42000E-02	5	.87200E-02	6	.11400E-02
7	.11600E-01	8	.12400E-01	9	.12200E-01
10	.12000E-01	11	.12200E-01	12	.12500E-01
13	.12700E-01	14	.13000E-01	15	.13500E-01
16	.13800E-01	17	.13900E-01	18	.13800E-01
19	.12200E-01	20	.98300E-02	21	.86100E-02
22	.80000E-02	23	.66200E-02	24	.48700E-02

SOURCE ID = A0000099 ; SOURCE TYPE = AREA :

```
       1   .34100E-02      2   .26800E-02      3   .27300E-02
4   .42000E-02      5   .87200E-02      6   .11400E-02
       7   .11600E-01      8   .12400E-01      9   .12200E-01
10   .12000E-01     11   .12200E-01     12   .12500E-01
      13   .12700E-01     14   .13000E-01     15   .13500E-01
16   .13800E-01     17   .13900E-01     18   .13800E-01
      19   .12200E-01     20   .98300E-02     21   .86100E-02
22   .80000E-02     23   .66200E-02     24   .48700E-02


 SOURCE ID = A0000100     ; SOURCE TYPE = AREA     :
       1   .34100E-02      2   .26800E-02      3   .27300E-02
4   .42000E-02      5   .87200E-02      6   .11400E-02
       7   .11600E-01      8   .12400E-01      9   .12200E-01
10   .12000E-01     11   .12200E-01     12   .12500E-01
      13   .12700E-01     14   .13000E-01     15   .13500E-01
16   .13800E-01     17   .13900E-01     18   .13800E-01
      19   .12200E-01     20   .98300E-02     21   .86100E-02
22   .80000E-02     23   .66200E-02     24   .48700E-02
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

SOURCE ID = A0000101 ; SOURCE TYPE = AREA :

1	.34100E-02	2	.26800E-02	3	.27300E-02
4	.42000E-02	5	.87200E-02	6	.11400E-02
7	.11600E-01	8	.12400E-01	9	.12200E-01
10	.12000E-01	11	.12200E-01	12	.12500E-01
13	.12700E-01	14	.13000E-01	15	.13500E-01
16	.13800E-01	17	.13900E-01	18	.13800E-01
19	.12200E-01	20	.98300E-02	21	.86100E-02
22	.80000E-02	23	.66200E-02	24	.48700E-02

SOURCE ID = A0000102 ; SOURCE TYPE = AREA :

1	.34100E-02	2	.26800E-02	3	.27300E-02
4	.42000E-02	5	.87200E-02	6	.11400E-02
7	.11600E-01	8	.12400E-01	9	.12200E-01
10	.12000E-01	11	.12200E-01	12	.12500E-01
13	.12700E-01	14	.13000E-01	15	.13500E-01
16	.13800E-01	17	.13900E-01	18	.13800E-01
19	.12200E-01	20	.98300E-02	21	.86100E-02
22	.80000E-02	23	.66200E-02	24	.48700E-02

SOURCE ID = A0000103 ; SOURCE TYPE = AREA :

1	.39500E-03	2	.28400E-03	3	.24900E-03
4	.29000E-03	5	.46600E-03	6	.78200E-03
7	.11000E-02	8	.12200E-02	9	.11800E-02
10	.11100E-02	11	.11200E-02	12	.11800E-02
13	.12400E-02	14	.12900E-02	15	.13400E-02
16	.13100E-02	17	.12900E-02	18	.12800E-02
19	.12600E-02	20	.11700E-02	21	.10600E-02
22	.93700E-03	23	.76700E-03	24	.57100E-03

SOURCE ID = A0000104 ; SOURCE TYPE = AREA :

```
       1   .39500E-03      2   .28400E-03      3   .24900E-03
4   .29000E-03      5   .46600E-03      6   .78200E-03
       7   .11000E-02      8   .12200E-02      9   .11800E-02
10   .11100E-02     11   .11200E-02     12   .11800E-02
      13   .12400E-02     14   .12900E-02     15   .13400E-02
16   .13100E-02     17   .12900E-02     18   .12800E-02
      19   .12600E-02     20   .11700E-02     21   .10600E-02
22   .93700E-03     23   .76700E-03     24   .57100E-03


 SOURCE ID = A0000105     ; SOURCE TYPE = AREA     :
       1   .39500E-03      2   .28400E-03      3   .24900E-03
4   .29000E-03      5   .46600E-03      6   .78200E-03
       7   .11000E-02      8   .12200E-02      9   .11800E-02
10   .11100E-02     11   .11200E-02     12   .11800E-02
      13   .12400E-02     14   .12900E-02     15   .13400E-02
16   .13100E-02     17   .12900E-02     18   .12800E-02
      19   .12600E-02     20   .11700E-02     21   .10600E-02
22   .93700E-03     23   .76700E-03     24   .57100E-03
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

SOURCE ID = A0000106 ; SOURCE TYPE = AREA :

1	.39500E-03	2	.28400E-03	3	.24900E-03
4	.29000E-03	5	.46600E-03	6	.78200E-03
7	.11000E-02	8	.12200E-02	9	.11800E-02
10	.11100E-02	11	.11200E-02	12	.11800E-02
13	.12400E-02	14	.12900E-02	15	.13400E-02
16	.13100E-02	17	.12900E-02	18	.12800E-02
19	.12600E-02	20	.11700E-02	21	.10600E-02
22	.93700E-03	23	.76700E-03	24	.57100E-03

SOURCE ID = A0000107 ; SOURCE TYPE = AREA :

1	.39500E-03	2	.28400E-03	3	.24900E-03
4	.29000E-03	5	.46600E-03	6	.78200E-03
7	.11000E-02	8	.12200E-02	9	.11800E-02
10	.11100E-02	11	.11200E-02	12	.11800E-02
13	.12400E-02	14	.12900E-02	15	.13400E-02
16	.13100E-02	17	.12900E-02	18	.12800E-02
19	.12600E-02	20	.11700E-02	21	.10600E-02
22	.93700E-03	23	.76700E-03	24	.57100E-03

SOURCE ID = A0000108 ; SOURCE TYPE = AREA :

1	.39500E-03	2	.28400E-03	3	.24900E-03
4	.29000E-03	5	.46600E-03	6	.78200E-03
7	.11000E-02	8	.12200E-02	9	.11800E-02
10	.11100E-02	11	.11200E-02	12	.11800E-02
13	.12400E-02	14	.12900E-02	15	.13400E-02
16	.13100E-02	17	.12900E-02	18	.12800E-02
19	.12600E-02	20	.11700E-02	21	.10600E-02
22	.93700E-03	23	.76700E-03	24	.57100E-03

SOURCE ID = A0000109 ; SOURCE TYPE = AREA :

```
       1   .39500E-03      2   .28400E-03      3   .24900E-03
4   .29000E-03      5   .46600E-03      6   .78200E-03
       7   .11000E-02      8   .12200E-02      9   .11800E-02
10   .11100E-02     11   .11200E-02     12   .11800E-02
      13   .12400E-02     14   .12900E-02     15   .13400E-02
16   .13100E-02     17   .12900E-02     18   .12800E-02
      19   .12600E-02     20   .11700E-02     21   .10600E-02
22   .93700E-03     23   .76700E-03     24   .57100E-03


 SOURCE ID = A0000110     ; SOURCE TYPE = AREA     :
       1   .39500E-03      2   .28400E-03      3   .24900E-03
4   .29000E-03      5   .46600E-03      6   .78200E-03
       7   .11000E-02      8   .12200E-02      9   .11800E-02
10   .11100E-02     11   .11200E-02     12   .11800E-02
      13   .12400E-02     14   .12900E-02     15   .13400E-02
16   .13100E-02     17   .12900E-02     18   .12800E-02
      19   .12600E-02     20   .11700E-02     21   .10600E-02
22   .93700E-03     23   .76700E-03     24   .57100E-03
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.54500E-02	2	.39200E-02	3	.34300E-02
4	.40000E-02	5	.64400E-02	6	.12000E-02
7	.15100E-01	8	.16900E-01	9	.16200E-01
10	.15300E-01	11	.15500E-01	12	.16200E-01
13	.17100E-01	14	.17800E-01	15	.18400E-01
16	.18100E-01	17	.17700E-01	18	.17700E-01
19	.17400E-01	20	.16100E-01	21	.14600E-01
22	.12900E-01	23	.10600E-01	24	.78800E-02

SOURCE ID = A0000111 ; SOURCE TYPE = AREA :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.54500E-02	2	.39200E-02	3	.34300E-02
4	.40000E-02	5	.64400E-02	6	.12000E-02
7	.15100E-01	8	.16900E-01	9	.16200E-01
10	.15300E-01	11	.15500E-01	12	.16200E-01
13	.17100E-01	14	.17800E-01	15	.18400E-01
16	.18100E-01	17	.17700E-01	18	.17700E-01
19	.17400E-01	20	.16100E-01	21	.14600E-01
22	.12900E-01	23	.10600E-01	24	.78800E-02

SOURCE ID = A0000112 ; SOURCE TYPE = AREA :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.54500E-02	2	.39200E-02	3	.34300E-02
4	.40000E-02	5	.64400E-02	6	.12000E-02
7	.15100E-01	8	.16900E-01	9	.16200E-01
10	.15300E-01	11	.15500E-01	12	.16200E-01
13	.17100E-01	14	.17800E-01	15	.18400E-01
16	.18100E-01	17	.17700E-01	18	.17700E-01
19	.17400E-01	20	.16100E-01	21	.14600E-01
22	.12900E-01	23	.10600E-01	24	.78800E-02

SOURCE ID = A0000113 ; SOURCE TYPE = AREA :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.54500E-02	2	.39200E-02	3	.34300E-02
4	.40000E-02	5	.64400E-02	6	.12000E-02
7	.15100E-01	8	.16900E-01	9	.16200E-01
10	.15300E-01	11	.15500E-01	12	.16200E-01
13	.17100E-01	14	.17800E-01	15	.18400E-01
16	.18100E-01	17	.17700E-01	18	.17700E-01
19	.17400E-01	20	.16100E-01	21	.14600E-01
22	.12900E-01	23	.10600E-01	24	.78800E-02

SOURCE ID = A0000114 ; SOURCE TYPE = AREA :

```
       1   .54500E-02      2   .39200E-02      3   .34300E-02
4   .40000E-02      5   .64400E-02      6   .12000E-02
       7   .15100E-01      8   .16900E-01      9   .16200E-01
10   .15300E-01     11   .15500E-01     12   .16200E-01
      13   .17100E-01     14   .17800E-01     15   .18400E-01
16   .18100E-01     17   .17700E-01     18   .17700E-01
      19   .17400E-01     20   .16100E-01     21   .14600E-01
22   .12900E-01     23   .10600E-01     24   .78800E-02


 SOURCE ID = A0000115     ; SOURCE TYPE = AREA     :
       1   .54500E-02      2   .39200E-02      3   .34300E-02
4   .40000E-02      5   .64400E-02      6   .12000E-02
       7   .15100E-01      8   .16900E-01      9   .16200E-01
10   .15300E-01     11   .15500E-01     12   .16200E-01
      13   .17100E-01     14   .17800E-01     15   .18400E-01
16   .18100E-01     17   .17700E-01     18   .17700E-01
      19   .17400E-01     20   .16100E-01     21   .14600E-01
22   .12900E-01     23   .10600E-01     24   .78800E-02
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

SOURCE ID = A0000116 ; SOURCE TYPE = AREA :

1	.54500E-02	2	.39200E-02	3	.34300E-02
4	.40000E-02	5	.64400E-02	6	.12000E-02
7	.15100E-01	8	.16900E-01	9	.16200E-01
10	.15300E-01	11	.15500E-01	12	.16200E-01
13	.17100E-01	14	.17800E-01	15	.18400E-01
16	.18100E-01	17	.17700E-01	18	.17700E-01
19	.17400E-01	20	.16100E-01	21	.14600E-01
22	.12900E-01	23	.10600E-01	24	.78800E-02

SOURCE ID = A0000117 ; SOURCE TYPE = AREA :

1	.54500E-02	2	.39200E-02	3	.34300E-02
4	.40000E-02	5	.64400E-02	6	.12000E-02
7	.15100E-01	8	.16900E-01	9	.16200E-01
10	.15300E-01	11	.15500E-01	12	.16200E-01
13	.17100E-01	14	.17800E-01	15	.18400E-01
16	.18100E-01	17	.17700E-01	18	.17700E-01
19	.17400E-01	20	.16100E-01	21	.14600E-01
22	.12900E-01	23	.10600E-01	24	.78800E-02

SOURCE ID = A0000118 ; SOURCE TYPE = AREA :

1	.54500E-02	2	.39200E-02	3	.34300E-02
4	.40000E-02	5	.64400E-02	6	.12000E-02
7	.15100E-01	8	.16900E-01	9	.16200E-01
10	.15300E-01	11	.15500E-01	12	.16200E-01
13	.17100E-01	14	.17800E-01	15	.18400E-01
16	.18100E-01	17	.17700E-01	18	.17700E-01
19	.17400E-01	20	.16100E-01	21	.14600E-01
22	.12900E-01	23	.10600E-01	24	.78800E-02

SOURCE ID = A0000119 ; SOURCE TYPE = AREA :

```
       1   .54500E-02      2   .39200E-02      3   .34300E-02
4   .40000E-02      5   .64400E-02      6   .12000E-02
       7   .15100E-01      8   .16900E-01      9   .16200E-01
10   .15300E-01     11   .15500E-01     12   .16200E-01
      13   .17100E-01     14   .17800E-01     15   .18400E-01
16   .18100E-01     17   .17700E-01     18   .17700E-01
      19   .17400E-01     20   .16100E-01     21   .14600E-01
22   .12900E-01     23   .10600E-01     24   .78800E-02


 SOURCE ID = A0000120     ; SOURCE TYPE = AREA     :
       1   .54500E-02      2   .39200E-02      3   .34300E-02
4   .40000E-02      5   .64400E-02      6   .12000E-02
       7   .15100E-01      8   .16900E-01      9   .16200E-01
10   .15300E-01     11   .15500E-01     12   .16200E-01
      13   .17100E-01     14   .17800E-01     15   .18400E-01
16   .18100E-01     17   .17700E-01     18   .17700E-01
      19   .17400E-01     20   .16100E-01     21   .14600E-01
22   .12900E-01     23   .10600E-01     24   .78800E-02
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.54500E-02	2	.39200E-02	3	.34300E-02
4	.40000E-02	5	.64400E-02	6	.12000E-02
7	.15100E-01	8	.16900E-01	9	.16200E-01
10	.15300E-01	11	.15500E-01	12	.16200E-01
13	.17100E-01	14	.17800E-01	15	.18400E-01
16	.18100E-01	17	.17700E-01	18	.17700E-01
19	.17400E-01	20	.16100E-01	21	.14600E-01
22	.12900E-01	23	.10600E-01	24	.78800E-02

SOURCE ID = A0000121 ; SOURCE TYPE = AREA :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.54500E-02	2	.39200E-02	3	.34300E-02
4	.40000E-02	5	.64400E-02	6	.12000E-02
7	.15100E-01	8	.16900E-01	9	.16200E-01
10	.15300E-01	11	.15500E-01	12	.16200E-01
13	.17100E-01	14	.17800E-01	15	.18400E-01
16	.18100E-01	17	.17700E-01	18	.17700E-01
19	.17400E-01	20	.16100E-01	21	.14600E-01
22	.12900E-01	23	.10600E-01	24	.78800E-02

SOURCE ID = A0000122 ; SOURCE TYPE = AREA :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.54500E-02	2	.39200E-02	3	.34300E-02
4	.40000E-02	5	.64400E-02	6	.12000E-02
7	.15100E-01	8	.16900E-01	9	.16200E-01
10	.15300E-01	11	.15500E-01	12	.16200E-01
13	.17100E-01	14	.17800E-01	15	.18400E-01
16	.18100E-01	17	.17700E-01	18	.17700E-01
19	.17400E-01	20	.16100E-01	21	.14600E-01
22	.12900E-01	23	.10600E-01	24	.78800E-02

SOURCE ID = A0000123 ; SOURCE TYPE = AREA :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.54500E-02	2	.39200E-02	3	.34300E-02
4	.40000E-02	5	.64400E-02	6	.12000E-02
7	.15100E-01	8	.16900E-01	9	.16200E-01
10	.15300E-01	11	.15500E-01	12	.16200E-01
13	.17100E-01	14	.17800E-01	15	.18400E-01
16	.18100E-01	17	.17700E-01	18	.17700E-01
19	.17400E-01	20	.16100E-01	21	.14600E-01
22	.12900E-01	23	.10600E-01	24	.78800E-02

SOURCE ID = A0000124 ; SOURCE TYPE = AREA :

```
       1   .54500E-02      2   .39200E-02      3   .34300E-02
4   .40000E-02      5   .64400E-02      6   .12000E-02
       7   .15100E-01      8   .16900E-01      9   .16200E-01
10   .15300E-01     11   .15500E-01     12   .16200E-01
      13   .17100E-01     14   .17800E-01     15   .18400E-01
16   .18100E-01     17   .17700E-01     18   .17700E-01
      19   .17400E-01     20   .16100E-01     21   .14600E-01
22   .12900E-01     23   .10600E-01     24   .78800E-02


 SOURCE ID = A0000125     ; SOURCE TYPE = AREA     :
       1   .54500E-02      2   .39200E-02      3   .34300E-02
4   .40000E-02      5   .64400E-02      6   .12000E-02
       7   .15100E-01      8   .16900E-01      9   .16200E-01
10   .15300E-01     11   .15500E-01     12   .16200E-01
      13   .17100E-01     14   .17800E-01     15   .18400E-01
16   .18100E-01     17   .17700E-01     18   .17700E-01
      19   .17400E-01     20   .16100E-01     21   .14600E-01
22   .12900E-01     23   .10600E-01     24   .78800E-02
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.54500E-02	2	.39200E-02	3	.34300E-02
4	.40000E-02	5	.64400E-02	6	.12000E-02
7	.15100E-01	8	.16900E-01	9	.16200E-01
10	.15300E-01	11	.15500E-01	12	.16200E-01
13	.17100E-01	14	.17800E-01	15	.18400E-01
16	.18100E-01	17	.17700E-01	18	.17700E-01
19	.17400E-01	20	.16100E-01	21	.14600E-01
22	.12900E-01	23	.10600E-01	24	.78800E-02

SOURCE ID = A0000126 ; SOURCE TYPE = AREA :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.54500E-02	2	.39200E-02	3	.34300E-02
4	.40000E-02	5	.64400E-02	6	.12000E-02
7	.15100E-01	8	.16900E-01	9	.16200E-01
10	.15300E-01	11	.15500E-01	12	.16200E-01
13	.17100E-01	14	.17800E-01	15	.18400E-01
16	.18100E-01	17	.17700E-01	18	.17700E-01
19	.17400E-01	20	.16100E-01	21	.14600E-01
22	.12900E-01	23	.10600E-01	24	.78800E-02

SOURCE ID = A0000127 ; SOURCE TYPE = AREA :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.48200E-03	2	.37900E-03	3	.38600E-03
4	.59400E-03	5	.12300E-02	6	.14600E-02
7	.16400E-02	8	.17500E-02	9	.17200E-02
10	.17000E-02	11	.17200E-02	12	.17600E-02
13	.18000E-02	14	.18400E-02	15	.19100E-02
16	.19400E-02	17	.19600E-02	18	.19500E-02
19	.17200E-02	20	.13900E-02	21	.12200E-02
22	.11300E-02	23	.93700E-03	24	.68900E-03

SOURCE ID = A0000128 ; SOURCE TYPE = AREA :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.48200E-03	2	.37900E-03	3	.38600E-03
4	.59400E-03	5	.12300E-02	6	.14600E-02
7	.16400E-02	8	.17500E-02	9	.17200E-02
10	.17000E-02	11	.17200E-02	12	.17600E-02
13	.18000E-02	14	.18400E-02	15	.19100E-02
16	.19400E-02	17	.19600E-02	18	.19500E-02
19	.17200E-02	20	.13900E-02	21	.12200E-02
22	.11300E-02	23	.93700E-03	24	.68900E-03

SOURCE ID = A0000129 ; SOURCE TYPE = AREA :

```
       1   .48200E-03      2   .37900E-03      3   .38600E-03
4   .59400E-03      5   .12300E-02      6   .14600E-02
       7   .16400E-02      8   .17500E-02      9   .17200E-02
10   .17000E-02     11   .17200E-02     12   .17600E-02
      13   .18000E-02     14   .18400E-02     15   .19100E-02
16   .19400E-02     17   .19600E-02     18   .19500E-02
      19   .17200E-02     20   .13900E-02     21   .12200E-02
22   .11300E-02     23   .93700E-03     24   .68900E-03


 SOURCE ID = A0000130     ; SOURCE TYPE = AREA     :
       1   .48200E-03      2   .37900E-03      3   .38600E-03
4   .59400E-03      5   .12300E-02      6   .14600E-02
       7   .16400E-02      8   .17500E-02      9   .17200E-02
10   .17000E-02     11   .17200E-02     12   .17600E-02
      13   .18000E-02     14   .18400E-02     15   .19100E-02
16   .19400E-02     17   .19600E-02     18   .19500E-02
      19   .17200E-02     20   .13900E-02     21   .12200E-02
22   .11300E-02     23   .93700E-03     24   .68900E-03
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

SOURCE ID = A0000131 ; SOURCE TYPE = AREA :

1	.48200E-03	2	.37900E-03	3	.38600E-03
4	.59400E-03	5	.12300E-02	6	.14600E-02
7	.16400E-02	8	.17500E-02	9	.17200E-02
10	.17000E-02	11	.17200E-02	12	.17600E-02
13	.18000E-02	14	.18400E-02	15	.19100E-02
16	.19400E-02	17	.19600E-02	18	.19500E-02
19	.17200E-02	20	.13900E-02	21	.12200E-02
22	.11300E-02	23	.93700E-03	24	.68900E-03

SOURCE ID = A0000132 ; SOURCE TYPE = AREA :

1	.48200E-03	2	.37900E-03	3	.38600E-03
4	.59400E-03	5	.12300E-02	6	.14600E-02
7	.16400E-02	8	.17500E-02	9	.17200E-02
10	.17000E-02	11	.17200E-02	12	.17600E-02
13	.18000E-02	14	.18400E-02	15	.19100E-02
16	.19400E-02	17	.19600E-02	18	.19500E-02
19	.17200E-02	20	.13900E-02	21	.12200E-02
22	.11300E-02	23	.93700E-03	24	.68900E-03

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)

(METERS)

(439674.0, 3765310.0, 289.0, 289.0, 0.0);
(439679.0, 3765310.0, 289.0, 289.0, 0.0);
(439684.0, 3765310.0, 289.0, 289.0, 0.0);
(439689.0, 3765310.0, 289.0, 289.0, 0.0);
(439694.0, 3765310.0, 289.0, 289.0, 0.0);
(439699.0, 3765310.0, 289.0, 289.0, 0.0);
(439704.0, 3765310.0, 289.0, 289.0, 0.0);
(439709.0, 3765310.0, 289.0, 289.0, 0.0);
(439714.0, 3765310.0, 289.0, 289.0, 0.0);
(439719.0, 3765310.0, 289.0, 289.0, 0.0);
(439729.0, 3765310.0, 289.0, 289.0, 0.0);
(439734.0, 3765310.0, 289.0, 289.0, 0.0);
(439739.0, 3765310.0, 289.0, 289.0, 0.0);
(439744.0, 3765310.0, 289.0, 289.0, 0.0);
(439749.0, 3765310.0, 289.0, 289.0, 0.0);
(439764.0, 3765310.0, 289.0, 289.0, 0.0);
(439769.0, 3765310.0, 289.0, 289.0, 0.0);
(439774.0, 3765310.0, 289.0, 289.0, 0.0);
(439779.0, 3765310.0, 289.0, 289.0, 0.0);
(439784.0, 3765310.0, 289.0, 289.0, 0.0);
(439789.0, 3765310.0, 289.0, 289.0, 0.0);
(439794.0, 3765310.0, 289.0, 289.0, 0.0);
(439799.0, 3765310.0, 289.0, 289.0, 0.0);
(439804.0, 3765310.0, 289.0, 289.0, 0.0);
(439809.0, 3765310.0, 289.0, 289.0, 0.0);
(439814.0, 3765310.0, 289.0, 289.0, 0.0);
(439819.0, 3765310.0, 289.0, 289.0, 0.0);
(439824.0, 3765310.0, 289.0, 289.0, 0.0);
(439829.0, 3765310.0, 289.0, 289.0, 0.0);
(439839.0, 3765310.0, 289.0, 289.0, 0.0);
(439844.0, 3765310.0, 289.0, 289.0, 0.0);
(439849.0, 3765310.0, 289.0, 289.0, 0.0);
(439854.0, 3765310.0, 289.0, 289.0, 0.0);
(439859.0, 3765310.0, 289.0, 289.0, 0.0);
(439864.0, 3765310.0, 289.0, 289.0, 0.0);
(439869.0, 3765310.0, 289.0, 289.0, 0.0);

```
     ( 439874.0, 3765310.0,     289.0,     289.0,       0.0);
( 439879.0, 3765310.0,     289.0,     289.0,       0.0);
     ( 439884.0, 3765310.0,     289.0,     289.0,       0.0);
( 439674.0, 3765315.0,     289.0,     289.0,       0.0);
     ( 439679.0, 3765315.0,     289.0,     289.0,       0.0);
( 439684.0, 3765315.0,     289.0,     289.0,       0.0);
     ( 439689.0, 3765315.0,     289.0,     289.0,       0.0);
( 439694.0, 3765315.0,     289.0,     289.0,       0.0);
     ( 439699.0, 3765315.0,     289.0,     289.0,       0.0);
( 439704.0, 3765315.0,     289.0,     289.0,       0.0);
     ( 439709.0, 3765315.0,     289.0,     289.0,       0.0);
( 439714.0, 3765315.0,     289.0,     289.0,       0.0);
     ( 439719.0, 3765315.0,     289.0,     289.0,       0.0);
( 439729.0, 3765315.0,     289.0,     289.0,       0.0);
     ( 439734.0, 3765315.0,     289.0,     289.0,       0.0);
( 439739.0, 3765315.0,     289.0,     289.0,       0.0);
     ( 439744.0, 3765315.0,     289.0,     289.0,       0.0);
( 439749.0, 3765315.0,     289.0,     289.0,       0.0);
     ( 439764.0, 3765315.0,     289.0,     289.0,       0.0);
( 439769.0, 3765315.0,     289.0,     289.0,       0.0);
     ( 439774.0, 3765315.0,     289.0,     289.0,       0.0);
( 439779.0, 3765315.0,     289.0,     289.0,       0.0);
     ( 439784.0, 3765315.0,     289.0,     289.0,       0.0);
( 439789.0, 3765315.0,     289.0,     289.0,       0.0);
     ( 439794.0, 3765315.0,     289.0,     289.0,       0.0);
( 439799.0, 3765315.0,     289.0,     289.0,       0.0);
     ( 439804.0, 3765315.0,     289.0,     289.0,       0.0);
( 439809.0, 3765315.0,     289.0,     289.0,       0.0);
     ( 439814.0, 3765315.0,     289.0,     289.0,       0.0);
( 439819.0, 3765315.0,     289.0,     289.0,       0.0);
     ( 439824.0, 3765315.0,     289.0,     289.0,       0.0);
( 439829.0, 3765315.0,     289.0,     289.0,       0.0);
     ( 439839.0, 3765315.0,     289.0,     289.0,       0.0);
( 439844.0, 3765315.0,     289.0,     289.0,       0.0);
     ( 439849.0, 3765315.0,     289.0,     289.0,       0.0);
( 439854.0, 3765315.0,     289.0,     289.0,       0.0);
     ( 439859.0, 3765315.0,     289.0,     289.0,       0.0);
( 439864.0, 3765315.0,     289.0,     289.0,       0.0);
     ( 439869.0, 3765315.0,     289.0,     289.0,       0.0);
( 439874.0, 3765315.0,     289.0,     289.0,       0.0);
     ( 439879.0, 3765315.0,     289.0,     289.0,       0.0);
( 439884.0, 3765315.0,     289.0,     289.0,       0.0);
     ( 439674.0, 3765320.0,     289.0,     289.0,       0.0);
( 439679.0, 3765320.0,     289.0,     289.0,       0.0);
     ( 439684.0, 3765320.0,     289.0,     289.0,       0.0);
( 439689.0, 3765320.0,     289.0,     289.0,       0.0);
     ( 439694.0, 3765320.0,     289.0,     289.0,       0.0);
( 439699.0, 3765320.0,     289.0,     289.0,       0.0);
     ( 439704.0, 3765320.0,     289.0,     289.0,       0.0);
( 439709.0, 3765320.0,     289.0,     289.0,       0.0);
     ( 439714.0, 3765320.0,     289.0,     289.0,       0.0);
( 439719.0, 3765320.0,     289.0,     289.0,       0.0);
```

```
     ( 439729.0, 3765320.0,     289.0,     289.0,       0.0);
( 439734.0, 3765320.0,     289.0,     289.0,       0.0);
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)

(METERS)

(439739.0, 3765320.0, 289.0, 289.0, 0.0);
(439744.0, 3765320.0, 289.0, 289.0, 0.0);
(439749.0, 3765320.0, 289.0, 289.0, 0.0);
(439764.0, 3765320.0, 289.0, 289.0, 0.0);
(439769.0, 3765320.0, 289.0, 289.0, 0.0);
(439774.0, 3765320.0, 289.0, 289.0, 0.0);
(439779.0, 3765320.0, 289.0, 289.0, 0.0);
(439784.0, 3765320.0, 289.0, 289.0, 0.0);
(439789.0, 3765320.0, 289.0, 289.0, 0.0);
(439794.0, 3765320.0, 289.0, 289.0, 0.0);
(439799.0, 3765320.0, 289.0, 289.0, 0.0);
(439804.0, 3765320.0, 289.0, 289.0, 0.0);
(439809.0, 3765320.0, 289.0, 289.0, 0.0);
(439814.0, 3765320.0, 289.0, 289.0, 0.0);
(439819.0, 3765320.0, 289.0, 289.0, 0.0);
(439824.0, 3765320.0, 289.0, 289.0, 0.0);
(439829.0, 3765320.0, 289.0, 289.0, 0.0);
(439839.0, 3765320.0, 289.0, 289.0, 0.0);
(439844.0, 3765320.0, 289.0, 289.0, 0.0);
(439849.0, 3765320.0, 289.0, 289.0, 0.0);
(439854.0, 3765320.0, 289.0, 289.0, 0.0);
(439859.0, 3765320.0, 289.0, 289.0, 0.0);
(439864.0, 3765320.0, 289.0, 289.0, 0.0);
(439869.0, 3765320.0, 289.0, 289.0, 0.0);
(439874.0, 3765320.0, 289.0, 289.0, 0.0);
(439879.0, 3765320.0, 289.0, 289.0, 0.0);
(439884.0, 3765320.0, 289.0, 289.0, 0.0);
(439674.0, 3765325.0, 289.0, 289.0, 0.0);
(439679.0, 3765325.0, 289.0, 289.0, 0.0);
(439684.0, 3765325.0, 289.0, 289.0, 0.0);
(439689.0, 3765325.0, 289.0, 289.0, 0.0);
(439694.0, 3765325.0, 289.0, 289.0, 0.0);
(439699.0, 3765325.0, 289.0, 289.0, 0.0);
(439704.0, 3765325.0, 289.0, 289.0, 0.0);
(439709.0, 3765325.0, 289.0, 289.0, 0.0);
(439714.0, 3765325.0, 289.0, 289.0, 0.0);

```
     ( 439719.0, 3765325.0,     289.0,     289.0,       0.0);
( 439729.0, 3765325.0,     289.0,     289.0,       0.0);
     ( 439734.0, 3765325.0,     289.0,     289.0,       0.0);
( 439739.0, 3765325.0,     289.0,     289.0,       0.0);
     ( 439744.0, 3765325.0,     289.0,     289.0,       0.0);
( 439749.0, 3765325.0,     289.0,     289.0,       0.0);
     ( 439754.0, 3765325.0,     289.0,     289.0,       0.0);
( 439769.0, 3765325.0,     289.0,     289.0,       0.0);
     ( 439774.0, 3765325.0,     289.0,     289.0,       0.0);
( 439779.0, 3765325.0,     289.0,     289.0,       0.0);
     ( 439784.0, 3765325.0,     289.0,     289.0,       0.0);
( 439789.0, 3765325.0,     289.0,     289.0,       0.0);
     ( 439794.0, 3765325.0,     289.0,     289.0,       0.0);
( 439799.0, 3765325.0,     289.0,     289.0,       0.0);
     ( 439804.0, 3765325.0,     289.0,     289.0,       0.0);
( 439809.0, 3765325.0,     289.0,     289.0,       0.0);
     ( 439814.0, 3765325.0,     289.0,     289.0,       0.0);
( 439819.0, 3765325.0,     289.0,     289.0,       0.0);
     ( 439824.0, 3765325.0,     289.0,     289.0,       0.0);
( 439829.0, 3765325.0,     289.0,     289.0,       0.0);
     ( 439839.0, 3765325.0,     289.0,     289.0,       0.0);
( 439844.0, 3765325.0,     289.0,     289.0,       0.0);
     ( 439849.0, 3765325.0,     289.0,     289.0,       0.0);
( 439854.0, 3765325.0,     289.0,     289.0,       0.0);
     ( 439859.0, 3765325.0,     289.0,     289.0,       0.0);
( 439864.0, 3765325.0,     289.0,     289.0,       0.0);
     ( 439869.0, 3765325.0,     289.0,     289.0,       0.0);
( 439874.0, 3765325.0,     289.0,     289.0,       0.0);
     ( 439879.0, 3765325.0,     289.0,     289.0,       0.0);
( 439884.0, 3765325.0,     289.0,     289.0,       0.0);
     ( 439674.0, 3765330.0,     289.0,     289.0,       0.0);
( 439679.0, 3765330.0,     289.0,     289.0,       0.0);
     ( 439684.0, 3765330.0,     289.0,     289.0,       0.0);
( 439689.0, 3765330.0,     289.0,     289.0,       0.0);
     ( 439694.0, 3765330.0,     289.0,     289.0,       0.0);
( 439699.0, 3765330.0,     289.0,     289.0,       0.0);
     ( 439704.0, 3765330.0,     289.0,     289.0,       0.0);
( 439709.0, 3765330.0,     289.0,     289.0,       0.0);
     ( 439714.0, 3765330.0,     289.0,     289.0,       0.0);
( 439719.0, 3765330.0,     289.0,     289.0,       0.0);
     ( 439729.0, 3765330.0,     289.0,     289.0,       0.0);
( 439734.0, 3765330.0,     289.0,     289.0,       0.0);
     ( 439739.0, 3765330.0,     289.0,     289.0,       0.0);
( 439744.0, 3765330.0,     289.0,     289.0,       0.0);
     ( 439749.0, 3765330.0,     289.0,     289.0,       0.0);
( 439754.0, 3765330.0,     289.0,     289.0,       0.0);
     ( 439774.0, 3765330.0,     289.0,     289.0,       0.0);
( 439779.0, 3765330.0,     289.0,     289.0,       0.0);
     ( 439784.0, 3765330.0,     289.0,     289.0,       0.0);
( 439789.0, 3765330.0,     289.0,     289.0,       0.0);
     ( 439794.0, 3765330.0,     289.0,     289.0,       0.0);
( 439799.0, 3765330.0,     289.0,     289.0,       0.0);
```

```
     ( 439804.0, 3765330.0,     289.0,     289.0,       0.0);
( 439809.0, 3765330.0,     289.0,     289.0,       0.0);
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)

(METERS)

(439814.0, 3765330.0, 289.0, 289.0, 0.0);
(439819.0, 3765330.0, 289.0, 289.0, 0.0);
(439824.0, 3765330.0, 289.0, 289.0, 0.0);
(439829.0, 3765330.0, 289.0, 289.0, 0.0);
(439839.0, 3765330.0, 289.0, 289.0, 0.0);
(439844.0, 3765330.0, 289.0, 289.0, 0.0);
(439849.0, 3765330.0, 289.0, 289.0, 0.0);
(439854.0, 3765330.0, 289.0, 289.0, 0.0);
(439859.0, 3765330.0, 289.0, 289.0, 0.0);
(439864.0, 3765330.0, 289.0, 289.0, 0.0);
(439869.0, 3765330.0, 289.0, 289.0, 0.0);
(439874.0, 3765330.0, 289.0, 289.0, 0.0);
(439879.0, 3765330.0, 289.0, 289.0, 0.0);
(439884.0, 3765330.0, 289.0, 289.0, 0.0);
(439674.0, 3765335.0, 289.0, 289.0, 0.0);
(439679.0, 3765335.0, 289.0, 289.0, 0.0);
(439684.0, 3765335.0, 289.0, 289.0, 0.0);
(439689.0, 3765335.0, 289.0, 289.0, 0.0);
(439694.0, 3765335.0, 289.0, 289.0, 0.0);
(439699.0, 3765335.0, 289.0, 289.0, 0.0);
(439704.0, 3765335.0, 289.0, 289.0, 0.0);
(439709.0, 3765335.0, 289.0, 289.0, 0.0);
(439714.0, 3765335.0, 289.0, 289.0, 0.0);
(439719.0, 3765335.0, 289.0, 289.0, 0.0);
(439729.0, 3765335.0, 289.0, 289.0, 0.0);
(439734.0, 3765335.0, 289.0, 289.0, 0.0);
(439739.0, 3765335.0, 289.0, 289.0, 0.0);
(439744.0, 3765335.0, 289.0, 289.0, 0.0);
(439749.0, 3765335.0, 289.0, 289.0, 0.0);
(439774.0, 3765335.0, 289.0, 289.0, 0.0);
(439779.0, 3765335.0, 289.0, 289.0, 0.0);
(439784.0, 3765335.0, 289.0, 289.0, 0.0);
(439789.0, 3765335.0, 289.0, 289.0, 0.0);
(439794.0, 3765335.0, 289.0, 289.0, 0.0);
(439839.0, 3765335.0, 289.0, 289.0, 0.0);
(439844.0, 3765335.0, 289.0, 289.0, 0.0);

```
     ( 439849.0, 3765335.0,     289.0,     289.0,       0.0);
( 439854.0, 3765335.0,     289.0,     289.0,       0.0);
     ( 439859.0, 3765335.0,     289.0,     289.0,       0.0);
( 439864.0, 3765335.0,     289.0,     289.0,       0.0);
     ( 439869.0, 3765335.0,     289.0,     289.0,       0.0);
( 439874.0, 3765335.0,     289.0,     289.0,       0.0);
     ( 439879.0, 3765335.0,     289.0,     289.0,       0.0);
( 439884.0, 3765335.0,     289.0,     289.0,       0.0);
     ( 439674.0, 3765340.0,     289.0,     289.0,       0.0);
( 439679.0, 3765340.0,     289.0,     289.0,       0.0);
     ( 439684.0, 3765340.0,     289.0,     289.0,       0.0);
( 439689.0, 3765340.0,     289.0,     289.0,       0.0);
     ( 439694.0, 3765340.0,     289.0,     289.0,       0.0);
( 439699.0, 3765340.0,     289.0,     289.0,       0.0);
     ( 439704.0, 3765340.0,     289.0,     289.0,       0.0);
( 439709.0, 3765340.0,     289.0,     289.0,       0.0);
     ( 439714.0, 3765340.0,     289.0,     289.0,       0.0);
( 439719.0, 3765340.0,     289.0,     289.0,       0.0);
     ( 439729.0, 3765340.0,     289.0,     289.0,       0.0);
( 439734.0, 3765340.0,     289.0,     289.0,       0.0);
     ( 439739.0, 3765340.0,     289.0,     289.0,       0.0);
( 439744.0, 3765340.0,     289.0,     289.0,       0.0);
     ( 439749.0, 3765340.0,     289.0,     289.0,       0.0);
( 439774.0, 3765340.0,     289.0,     289.0,       0.0);
     ( 439779.0, 3765340.0,     289.0,     289.0,       0.0);
( 439784.0, 3765340.0,     289.0,     289.0,       0.0);
     ( 439789.0, 3765340.0,     289.0,     289.0,       0.0);
( 439794.0, 3765340.0,     289.0,     289.0,       0.0);
     ( 439839.0, 3765340.0,     289.0,     289.0,       0.0);
( 439844.0, 3765340.0,     289.0,     289.0,       0.0);
     ( 439849.0, 3765340.0,     289.0,     289.0,       0.0);
( 439854.0, 3765340.0,     289.0,     289.0,       0.0);
     ( 439859.0, 3765340.0,     289.0,     289.0,       0.0);
( 439864.0, 3765340.0,     289.0,     289.0,       0.0);
     ( 439869.0, 3765340.0,     289.0,     289.0,       0.0);
( 439874.0, 3765340.0,     289.0,     289.0,       0.0);
     ( 439879.0, 3765340.0,     289.0,     289.0,       0.0);
( 439884.0, 3765340.0,     289.0,     289.0,       0.0);
     ( 439674.0, 3765345.0,     289.0,     289.0,       0.0);
( 439679.0, 3765345.0,     289.0,     289.0,       0.0);
     ( 439684.0, 3765345.0,     289.0,     289.0,       0.0);
( 439689.0, 3765345.0,     289.0,     289.0,       0.0);
     ( 439694.0, 3765345.0,     289.0,     289.0,       0.0);
( 439699.0, 3765345.0,     289.0,     289.0,       0.0);
     ( 439704.0, 3765345.0,     289.0,     289.0,       0.0);
( 439709.0, 3765345.0,     289.0,     289.0,       0.0);
     ( 439714.0, 3765345.0,     289.0,     289.0,       0.0);
( 439719.0, 3765345.0,     289.0,     289.0,       0.0);
     ( 439729.0, 3765345.0,     289.0,     289.0,       0.0);
( 439734.0, 3765345.0,     289.0,     289.0,       0.0);
     ( 439739.0, 3765345.0,     289.0,     289.0,       0.0);
( 439744.0, 3765345.0,     289.0,     289.0,       0.0);
```

```
     ( 439749.0, 3765345.0,     289.0,     289.0,       0.0);
( 439774.0, 3765345.0,     289.0,     289.0,       0.0);
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)

(METERS)

(439779.0, 3765345.0, 289.0, 289.0, 0.0);
(439784.0, 3765345.0, 289.0, 289.0, 0.0);
(439789.0, 3765345.0, 289.0, 289.0, 0.0);
(439794.0, 3765345.0, 289.0, 289.0, 0.0);
(439839.0, 3765345.0, 289.0, 289.0, 0.0);
(439844.0, 3765345.0, 289.0, 289.0, 0.0);
(439849.0, 3765345.0, 289.0, 289.0, 0.0);
(439854.0, 3765345.0, 289.0, 289.0, 0.0);
(439859.0, 3765345.0, 289.0, 289.0, 0.0);
(439864.0, 3765345.0, 289.0, 289.0, 0.0);
(439869.0, 3765345.0, 289.0, 289.0, 0.0);
(439874.0, 3765345.0, 289.0, 289.0, 0.0);
(439879.0, 3765345.0, 289.0, 289.0, 0.0);
(439884.0, 3765345.0, 289.0, 289.0, 0.0);
(439674.0, 3765350.0, 289.0, 289.0, 0.0);
(439679.0, 3765350.0, 289.0, 289.0, 0.0);
(439684.0, 3765350.0, 289.0, 289.0, 0.0);
(439689.0, 3765350.0, 289.0, 289.0, 0.0);
(439694.0, 3765350.0, 289.0, 289.0, 0.0);
(439699.0, 3765350.0, 289.0, 289.0, 0.0);
(439704.0, 3765350.0, 289.0, 289.0, 0.0);
(439709.0, 3765350.0, 289.0, 289.0, 0.0);
(439714.0, 3765350.0, 289.0, 289.0, 0.0);
(439719.0, 3765350.0, 289.0, 289.0, 0.0);
(439729.0, 3765350.0, 289.0, 289.0, 0.0);
(439734.0, 3765350.0, 289.0, 289.0, 0.0);
(439739.0, 3765350.0, 289.0, 289.0, 0.0);
(439744.0, 3765350.0, 289.0, 289.0, 0.0);
(439749.0, 3765350.0, 289.0, 289.0, 0.0);
(439774.0, 3765350.0, 289.0, 289.0, 0.0);
(439779.0, 3765350.0, 289.0, 289.0, 0.0);
(439784.0, 3765350.0, 289.0, 289.0, 0.0);
(439789.0, 3765350.0, 289.0, 289.0, 0.0);
(439794.0, 3765350.0, 289.0, 289.0, 0.0);
(439839.0, 3765350.0, 289.0, 289.0, 0.0);
(439844.0, 3765350.0, 289.0, 289.0, 0.0);

```
     ( 439849.0, 3765350.0,     289.0,     289.0,       0.0);
( 439854.0, 3765350.0,     289.0,     289.0,       0.0);
     ( 439859.0, 3765350.0,     289.0,     289.0,       0.0);
( 439864.0, 3765350.0,     289.0,     289.0,       0.0);
     ( 439869.0, 3765350.0,     289.0,     289.0,       0.0);
( 439874.0, 3765350.0,     289.0,     289.0,       0.0);
     ( 439879.0, 3765350.0,     289.0,     289.0,       0.0);
( 439884.0, 3765350.0,     289.0,     289.0,       0.0);
     ( 439674.0, 3765355.0,     289.0,     289.0,       0.0);
( 439679.0, 3765355.0,     289.0,     289.0,       0.0);
     ( 439684.0, 3765355.0,     289.0,     289.0,       0.0);
( 439689.0, 3765355.0,     289.0,     289.0,       0.0);
     ( 439694.0, 3765355.0,     289.0,     289.0,       0.0);
( 439699.0, 3765355.0,     289.0,     289.0,       0.0);
     ( 439704.0, 3765355.0,     289.0,     289.0,       0.0);
( 439709.0, 3765355.0,     289.0,     289.0,       0.0);
     ( 439714.0, 3765355.0,     289.0,     289.0,       0.0);
( 439719.0, 3765355.0,     289.0,     289.0,       0.0);
     ( 439729.0, 3765355.0,     289.0,     289.0,       0.0);
( 439734.0, 3765355.0,     289.0,     289.0,       0.0);
     ( 439739.0, 3765355.0,     289.0,     289.0,       0.0);
( 439744.0, 3765355.0,     289.0,     289.0,       0.0);
     ( 439749.0, 3765355.0,     289.0,     289.0,       0.0);
( 439774.0, 3765355.0,     289.0,     289.0,       0.0);
     ( 439779.0, 3765355.0,     289.0,     289.0,       0.0);
( 439784.0, 3765355.0,     289.0,     289.0,       0.0);
     ( 439789.0, 3765355.0,     289.0,     289.0,       0.0);
( 439794.0, 3765355.0,     289.0,     289.0,       0.0);
     ( 439839.0, 3765355.0,     289.0,     289.0,       0.0);
( 439844.0, 3765355.0,     289.0,     289.0,       0.0);
     ( 439849.0, 3765355.0,     289.0,     289.0,       0.0);
( 439854.0, 3765355.0,     289.0,     289.0,       0.0);
     ( 439859.0, 3765355.0,     289.0,     289.0,       0.0);
( 439864.0, 3765355.0,     289.0,     289.0,       0.0);
     ( 439869.0, 3765355.0,     289.0,     289.0,       0.0);
( 439874.0, 3765355.0,     289.0,     289.0,       0.0);
     ( 439879.0, 3765355.0,     289.0,     289.0,       0.0);
( 439884.0, 3765355.0,     289.0,     289.0,       0.0);
     ( 439674.0, 3765360.0,     289.0,     289.0,       0.0);
( 439679.0, 3765360.0,     289.0,     289.0,       0.0);
     ( 439684.0, 3765360.0,     289.0,     289.0,       0.0);
( 439689.0, 3765360.0,     289.0,     289.0,       0.0);
     ( 439694.0, 3765360.0,     289.0,     289.0,       0.0);
( 439699.0, 3765360.0,     289.0,     289.0,       0.0);
     ( 439704.0, 3765360.0,     289.0,     289.0,       0.0);
( 439709.0, 3765360.0,     289.0,     289.0,       0.0);
     ( 439714.0, 3765360.0,     289.0,     289.0,       0.0);
( 439719.0, 3765360.0,     289.0,     289.0,       0.0);
     ( 439729.0, 3765360.0,     289.0,     289.0,       0.0);
( 439734.0, 3765360.0,     289.0,     289.0,       0.0);
     ( 439739.0, 3765360.0,     289.0,     289.0,       0.0);
( 439744.0, 3765360.0,     289.0,     289.0,       0.0);
```

```
     ( 439749.0, 3765360.0,     289.0,     289.0,       0.0);
( 439774.0, 3765360.0,     289.0,     289.0,       0.0);
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)

(METERS)

(439779.0, 3765360.0, 289.0, 289.0, 0.0);
(439784.0, 3765360.0, 289.0, 289.0, 0.0);
(439789.0, 3765360.0, 289.0, 289.0, 0.0);
(439794.0, 3765360.0, 289.0, 289.0, 0.0);
(439799.0, 3765360.0, 289.0, 289.0, 0.0);
(439804.0, 3765360.0, 289.0, 289.0, 0.0);
(439809.0, 3765360.0, 289.0, 289.0, 0.0);
(439814.0, 3765360.0, 289.0, 289.0, 0.0);
(439839.0, 3765360.0, 289.0, 289.0, 0.0);
(439844.0, 3765360.0, 289.0, 289.0, 0.0);
(439849.0, 3765360.0, 289.0, 289.0, 0.0);
(439854.0, 3765360.0, 289.0, 289.0, 0.0);
(439859.0, 3765360.0, 289.0, 289.0, 0.0);
(439864.0, 3765360.0, 289.0, 289.0, 0.0);
(439869.0, 3765360.0, 289.0, 289.0, 0.0);
(439874.0, 3765360.0, 289.0, 289.0, 0.0);
(439879.0, 3765360.0, 289.0, 289.0, 0.0);
(439884.0, 3765360.0, 289.0, 289.0, 0.0);
(439674.0, 3765365.0, 289.0, 289.0, 0.0);
(439679.0, 3765365.0, 289.0, 289.0, 0.0);
(439684.0, 3765365.0, 289.0, 289.0, 0.0);
(439689.0, 3765365.0, 289.0, 289.0, 0.0);
(439694.0, 3765365.0, 289.0, 289.0, 0.0);
(439699.0, 3765365.0, 289.0, 289.0, 0.0);
(439704.0, 3765365.0, 289.0, 289.0, 0.0);
(439709.0, 3765365.0, 289.0, 289.0, 0.0);
(439714.0, 3765365.0, 289.0, 289.0, 0.0);
(439719.0, 3765365.0, 289.0, 289.0, 0.0);
(439729.0, 3765365.0, 289.0, 289.0, 0.0);
(439734.0, 3765365.0, 289.0, 289.0, 0.0);
(439739.0, 3765365.0, 289.0, 289.0, 0.0);
(439744.0, 3765365.0, 289.0, 289.0, 0.0);
(439749.0, 3765365.0, 289.0, 289.0, 0.0);
(439774.0, 3765365.0, 289.0, 289.0, 0.0);
(439779.0, 3765365.0, 289.0, 289.0, 0.0);
(439784.0, 3765365.0, 289.0, 289.0, 0.0);

```
     ( 439789.0, 3765365.0,     289.0,     289.0,       0.0);
( 439794.0, 3765365.0,     289.0,     289.0,       0.0);
     ( 439799.0, 3765365.0,     289.0,     289.0,       0.0);
( 439804.0, 3765365.0,     289.0,     289.0,       0.0);
     ( 439809.0, 3765365.0,     289.0,     289.0,       0.0);
( 439814.0, 3765365.0,     289.0,     289.0,       0.0);
     ( 439839.0, 3765365.0,     289.0,     289.0,       0.0);
( 439844.0, 3765365.0,     289.0,     289.0,       0.0);
     ( 439849.0, 3765365.0,     289.0,     289.0,       0.0);
( 439854.0, 3765365.0,     289.0,     289.0,       0.0);
     ( 439859.0, 3765365.0,     289.0,     289.0,       0.0);
( 439864.0, 3765365.0,     289.0,     289.0,       0.0);
     ( 439869.0, 3765365.0,     289.0,     289.0,       0.0);
( 439874.0, 3765365.0,     289.0,     289.0,       0.0);
     ( 439879.0, 3765365.0,     289.0,     289.0,       0.0);
( 439884.0, 3765365.0,     289.0,     289.0,       0.0);
     ( 439674.0, 3765370.0,     289.0,     289.0,       0.0);
( 439679.0, 3765370.0,     289.0,     289.0,       0.0);
     ( 439684.0, 3765370.0,     289.0,     289.0,       0.0);
( 439689.0, 3765370.0,     289.0,     289.0,       0.0);
     ( 439694.0, 3765370.0,     289.0,     289.0,       0.0);
( 439699.0, 3765370.0,     289.0,     289.0,       0.0);
     ( 439704.0, 3765370.0,     289.0,     289.0,       0.0);
( 439709.0, 3765370.0,     289.0,     289.0,       0.0);
     ( 439714.0, 3765370.0,     289.0,     289.0,       0.0);
( 439719.0, 3765370.0,     289.0,     289.0,       0.0);
     ( 439729.0, 3765370.0,     289.0,     289.0,       0.0);
( 439734.0, 3765370.0,     289.0,     289.0,       0.0);
     ( 439739.0, 3765370.0,     289.0,     289.0,       0.0);
( 439744.0, 3765370.0,     289.0,     289.0,       0.0);
     ( 439749.0, 3765370.0,     289.0,     289.0,       0.0);
( 439774.0, 3765370.0,     289.0,     289.0,       0.0);
     ( 439779.0, 3765370.0,     289.0,     289.0,       0.0);
( 439784.0, 3765370.0,     289.0,     289.0,       0.0);
     ( 439789.0, 3765370.0,     289.0,     289.0,       0.0);
( 439794.0, 3765370.0,     289.0,     289.0,       0.0);
     ( 439799.0, 3765370.0,     289.0,     289.0,       0.0);
( 439804.0, 3765370.0,     289.0,     289.0,       0.0);
     ( 439809.0, 3765370.0,     289.0,     289.0,       0.0);
( 439814.0, 3765370.0,     289.0,     289.0,       0.0);
     ( 439839.0, 3765370.0,     289.0,     289.0,       0.0);
( 439844.0, 3765370.0,     289.0,     289.0,       0.0);
     ( 439849.0, 3765370.0,     289.0,     289.0,       0.0);
( 439854.0, 3765370.0,     289.0,     289.0,       0.0);
     ( 439859.0, 3765370.0,     289.0,     289.0,       0.0);
( 439864.0, 3765370.0,     289.0,     289.0,       0.0);
     ( 439869.0, 3765370.0,     289.0,     289.0,       0.0);
( 439874.0, 3765370.0,     289.0,     289.0,       0.0);
     ( 439879.0, 3765370.0,     289.0,     289.0,       0.0);
( 439884.0, 3765370.0,     289.0,     289.0,       0.0);
     ( 439674.0, 3765375.0,     289.0,     289.0,       0.0);
( 439679.0, 3765375.0,     289.0,     289.0,       0.0);
```

```
     ( 439684.0, 3765375.0,     289.0,     289.0,       0.0);
( 439689.0, 3765375.0,     289.0,     289.0,       0.0);
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)

(METERS)

(439694.0, 3765375.0, 289.0, 289.0, 0.0);
(439699.0, 3765375.0, 289.0, 289.0, 0.0);
(439704.0, 3765375.0, 289.0, 289.0, 0.0);
(439709.0, 3765375.0, 289.0, 289.0, 0.0);
(439714.0, 3765375.0, 289.0, 289.0, 0.0);
(439719.0, 3765375.0, 289.0, 289.0, 0.0);
(439729.0, 3765375.0, 289.0, 289.0, 0.0);
(439734.0, 3765375.0, 289.0, 289.0, 0.0);
(439739.0, 3765375.0, 289.0, 289.0, 0.0);
(439744.0, 3765375.0, 289.0, 289.0, 0.0);
(439749.0, 3765375.0, 289.0, 289.0, 0.0);
(439754.0, 3765375.0, 289.0, 289.0, 0.0);
(439774.0, 3765375.0, 289.0, 289.0, 0.0);
(439779.0, 3765375.0, 289.0, 289.0, 0.0);
(439784.0, 3765375.0, 289.0, 289.0, 0.0);
(439789.0, 3765375.0, 289.0, 289.0, 0.0);
(439794.0, 3765375.0, 289.0, 289.0, 0.0);
(439799.0, 3765375.0, 289.0, 289.0, 0.0);
(439804.0, 3765375.0, 289.0, 289.0, 0.0);
(439809.0, 3765375.0, 289.0, 289.0, 0.0);
(439814.0, 3765375.0, 289.0, 289.0, 0.0);
(439839.0, 3765375.0, 289.0, 289.0, 0.0);
(439844.0, 3765375.0, 289.0, 289.0, 0.0);
(439849.0, 3765375.0, 289.0, 289.0, 0.0);
(439854.0, 3765375.0, 289.0, 289.0, 0.0);
(439859.0, 3765375.0, 289.0, 289.0, 0.0);
(439864.0, 3765375.0, 289.0, 289.0, 0.0);
(439869.0, 3765375.0, 289.0, 289.0, 0.0);
(439874.0, 3765375.0, 289.0, 289.0, 0.0);
(439879.0, 3765375.0, 289.0, 289.0, 0.0);
(439884.0, 3765375.0, 289.0, 289.0, 0.0);
(439774.0, 3765380.0, 289.0, 289.0, 0.0);
(439779.0, 3765380.0, 289.0, 289.0, 0.0);
(439784.0, 3765380.0, 289.0, 289.0, 0.0);
(439789.0, 3765380.0, 289.0, 289.0, 0.0);
(439794.0, 3765380.0, 289.0, 289.0, 0.0);

```
     ( 439799.0, 3765380.0,     289.0,     289.0,       0.0);
( 439804.0, 3765380.0,     289.0,     289.0,       0.0);
     ( 439809.0, 3765380.0,     289.0,     289.0,       0.0);
( 439814.0, 3765380.0,     289.0,     289.0,       0.0);
     ( 439769.0, 3765385.0,     289.0,     289.0,       0.0);
( 439819.0, 3765385.0,     289.0,     289.0,       0.0);
     ( 439769.0, 3765400.0,     289.0,     289.0,       0.0);
( 439844.0, 3765400.0,     289.0,     289.0,       0.0);
     ( 439849.0, 3765400.0,     289.0,     289.0,       0.0);
( 439674.0, 3765405.0,     289.0,     289.0,       0.0);
     ( 439714.0, 3765405.0,     289.0,     289.0,       0.0);
( 439719.0, 3765405.0,     289.0,     289.0,       0.0);
     ( 439734.0, 3765405.0,     289.0,     289.0,       0.0);
( 439749.0, 3765405.0,     289.0,     289.0,       0.0);
     ( 439754.0, 3765405.0,     289.0,     289.0,       0.0);
( 439774.0, 3765405.0,     289.0,     289.0,       0.0);
     ( 439779.0, 3765405.0,     289.0,     289.0,       0.0);
( 439784.0, 3765405.0,     289.0,     289.0,       0.0);
     ( 439789.0, 3765405.0,     289.0,     289.0,       0.0);
( 439794.0, 3765405.0,     289.0,     289.0,       0.0);
     ( 439799.0, 3765405.0,     289.0,     289.0,       0.0);
( 439804.0, 3765405.0,     289.0,     289.0,       0.0);
     ( 439809.0, 3765405.0,     289.0,     289.0,       0.0);
( 439814.0, 3765405.0,     289.0,     289.0,       0.0);
     ( 439819.0, 3765405.0,     289.0,     289.0,       0.0);
( 439824.0, 3765405.0,     289.0,     289.0,       0.0);
     ( 439829.0, 3765405.0,     289.0,     289.0,       0.0);
( 439834.0, 3765405.0,     289.0,     289.0,       0.0);
     ( 439839.0, 3765405.0,     289.0,     289.0,       0.0);
( 439844.0, 3765405.0,     289.0,     289.0,       0.0);
     ( 439849.0, 3765405.0,     289.0,     289.0,       0.0);
( 439854.0, 3765405.0,     289.0,     289.0,       0.0);
     ( 439859.0, 3765405.0,     289.0,     289.0,       0.0);
( 439674.0, 3765410.0,     289.0,     289.0,       0.0);
     ( 439679.0, 3765410.0,     289.0,     289.0,       0.0);
( 439684.0, 3765410.0,     289.0,     289.0,       0.0);
     ( 439689.0, 3765410.0,     289.0,     289.0,       0.0);
( 439694.0, 3765410.0,     289.0,     289.0,       0.0);
     ( 439699.0, 3765410.0,     289.0,     289.0,       0.0);
( 439704.0, 3765410.0,     289.0,     289.0,       0.0);
     ( 439709.0, 3765410.0,     289.0,     289.0,       0.0);
( 439714.0, 3765410.0,     289.0,     289.0,       0.0);
     ( 439719.0, 3765410.0,     289.0,     289.0,       0.0);
( 439729.0, 3765410.0,     289.0,     289.0,       0.0);
     ( 439734.0, 3765410.0,     289.0,     289.0,       0.0);
( 439739.0, 3765410.0,     289.0,     289.0,       0.0);
     ( 439744.0, 3765410.0,     289.0,     289.0,       0.0);
( 439749.0, 3765410.0,     289.0,     289.0,       0.0);
     ( 439774.0, 3765410.0,     289.0,     289.0,       0.0);
( 439779.0, 3765410.0,     289.0,     289.0,       0.0);
     ( 439784.0, 3765410.0,     289.0,     289.0,       0.0);
( 439789.0, 3765410.0,     289.0,     289.0,       0.0);
```

```
     ( 439794.0, 3765410.0,     289.0,     289.0,       0.0);
( 439799.0, 3765410.0,     289.0,     289.0,       0.0);
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)

(METERS)

(439804.0, 3765410.0, 289.0, 289.0, 0.0);
(439809.0, 3765410.0, 289.0, 289.0, 0.0);
(439814.0, 3765410.0, 289.0, 289.0, 0.0);
(439819.0, 3765410.0, 289.0, 289.0, 0.0);
(439824.0, 3765410.0, 289.0, 289.0, 0.0);
(439829.0, 3765410.0, 289.0, 289.0, 0.0);
(439834.0, 3765410.0, 289.0, 289.0, 0.0);
(439839.0, 3765410.0, 289.0, 289.0, 0.0);
(439844.0, 3765410.0, 289.0, 289.0, 0.0);
(439849.0, 3765410.0, 289.0, 289.0, 0.0);
(439854.0, 3765410.0, 289.0, 289.0, 0.0);
(439859.0, 3765410.0, 289.0, 289.0, 0.0);
(439674.0, 3765415.0, 289.0, 289.0, 0.0);
(439679.0, 3765415.0, 289.0, 289.0, 0.0);
(439684.0, 3765415.0, 289.0, 289.0, 0.0);
(439689.0, 3765415.0, 289.0, 289.0, 0.0);
(439694.0, 3765415.0, 289.0, 289.0, 0.0);
(439699.0, 3765415.0, 289.0, 289.0, 0.0);
(439704.0, 3765415.0, 289.0, 289.0, 0.0);
(439709.0, 3765415.0, 289.0, 289.0, 0.0);
(439714.0, 3765415.0, 289.0, 289.0, 0.0);
(439719.0, 3765415.0, 289.0, 289.0, 0.0);
(439729.0, 3765415.0, 289.0, 289.0, 0.0);
(439734.0, 3765415.0, 289.0, 289.0, 0.0);
(439739.0, 3765415.0, 289.0, 289.0, 0.0);
(439744.0, 3765415.0, 289.0, 289.0, 0.0);
(439749.0, 3765415.0, 289.0, 289.0, 0.0);
(439774.0, 3765415.0, 289.0, 289.0, 0.0);
(439779.0, 3765415.0, 289.0, 289.0, 0.0);
(439784.0, 3765415.0, 289.0, 289.0, 0.0);
(439789.0, 3765415.0, 289.0, 289.0, 0.0);
(439794.0, 3765415.0, 289.0, 289.0, 0.0);
(439799.0, 3765415.0, 289.0, 289.0, 0.0);
(439804.0, 3765415.0, 289.0, 289.0, 0.0);
(439809.0, 3765415.0, 289.0, 289.0, 0.0);
(439814.0, 3765415.0, 289.0, 289.0, 0.0);

```
     ( 439819.0, 3765415.0,     289.0,     289.0,       0.0);
( 439824.0, 3765415.0,     289.0,     289.0,       0.0);
     ( 439829.0, 3765415.0,     289.0,     289.0,       0.0);
( 439834.0, 3765415.0,     289.0,     289.0,       0.0);
     ( 439839.0, 3765415.0,     289.0,     289.0,       0.0);
( 439844.0, 3765415.0,     289.0,     289.0,       0.0);
     ( 439849.0, 3765415.0,     289.0,     289.0,       0.0);
( 439854.0, 3765415.0,     289.0,     289.0,       0.0);
     ( 439859.0, 3765415.0,     289.0,     289.0,       0.0);
( 439674.0, 3765420.0,     289.0,     289.0,       0.0);
     ( 439679.0, 3765420.0,     289.0,     289.0,       0.0);
( 439684.0, 3765420.0,     289.0,     289.0,       0.0);
     ( 439689.0, 3765420.0,     289.0,     289.0,       0.0);
( 439694.0, 3765420.0,     289.0,     289.0,       0.0);
     ( 439699.0, 3765420.0,     289.0,     289.0,       0.0);
( 439704.0, 3765420.0,     289.0,     289.0,       0.0);
     ( 439709.0, 3765420.0,     289.0,     289.0,       0.0);
( 439714.0, 3765420.0,     289.0,     289.0,       0.0);
     ( 439719.0, 3765420.0,     289.0,     289.0,       0.0);
( 439729.0, 3765420.0,     289.0,     289.0,       0.0);
     ( 439734.0, 3765420.0,     289.0,     289.0,       0.0);
( 439739.0, 3765420.0,     289.0,     289.0,       0.0);
     ( 439744.0, 3765420.0,     289.0,     289.0,       0.0);
( 439749.0, 3765420.0,     289.0,     289.0,       0.0);
     ( 439774.0, 3765420.0,     289.0,     289.0,       0.0);
( 439779.0, 3765420.0,     289.0,     289.0,       0.0);
     ( 439784.0, 3765420.0,     289.0,     289.0,       0.0);
( 439789.0, 3765420.0,     289.0,     289.0,       0.0);
     ( 439794.0, 3765420.0,     289.0,     289.0,       0.0);
( 439799.0, 3765420.0,     289.0,     289.0,       0.0);
     ( 439804.0, 3765420.0,     289.0,     289.0,       0.0);
( 439809.0, 3765420.0,     289.0,     289.0,       0.0);
     ( 439814.0, 3765420.0,     289.0,     289.0,       0.0);
( 439819.0, 3765420.0,     289.0,     289.0,       0.0);
     ( 439824.0, 3765420.0,     289.0,     289.0,       0.0);
( 439829.0, 3765420.0,     289.0,     289.0,       0.0);
     ( 439834.0, 3765420.0,     289.0,     289.0,       0.0);
( 439839.0, 3765420.0,     289.0,     289.0,       0.0);
     ( 439844.0, 3765420.0,     289.0,     289.0,       0.0);
( 439849.0, 3765420.0,     289.0,     289.0,       0.0);
     ( 439854.0, 3765420.0,     289.0,     289.0,       0.0);
( 439859.0, 3765420.0,     289.0,     289.0,       0.0);
     ( 439674.0, 3765425.0,     289.0,     289.0,       0.0);
( 439679.0, 3765425.0,     289.0,     289.0,       0.0);
     ( 439684.0, 3765425.0,     289.0,     289.0,       0.0);
( 439689.0, 3765425.0,     289.0,     289.0,       0.0);
     ( 439694.0, 3765425.0,     289.0,     289.0,       0.0);
( 439699.0, 3765425.0,     289.0,     289.0,       0.0);
     ( 439704.0, 3765425.0,     289.0,     289.0,       0.0);
( 439709.0, 3765425.0,     289.0,     289.0,       0.0);
     ( 439714.0, 3765425.0,     289.0,     289.0,       0.0);
( 439719.0, 3765425.0,     289.0,     289.0,       0.0);
```

```
     ( 439729.0, 3765425.0,     289.0,     289.0,       0.0);
( 439734.0, 3765425.0,     289.0,     289.0,       0.0);
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)

(METERS)

(439739.0, 3765425.0, 289.0, 289.0, 0.0);
(439744.0, 3765425.0, 289.0, 289.0, 0.0);
(439749.0, 3765425.0, 289.0, 289.0, 0.0);
(439774.0, 3765425.0, 289.0, 289.0, 0.0);
(439779.0, 3765425.0, 289.0, 289.0, 0.0);
(439784.0, 3765425.0, 289.0, 289.0, 0.0);
(439789.0, 3765425.0, 289.0, 289.0, 0.0);
(439794.0, 3765425.0, 289.0, 289.0, 0.0);
(439799.0, 3765425.0, 289.0, 289.0, 0.0);
(439804.0, 3765425.0, 289.0, 289.0, 0.0);
(439809.0, 3765425.0, 289.0, 289.0, 0.0);
(439814.0, 3765425.0, 289.0, 289.0, 0.0);
(439819.0, 3765425.0, 289.0, 289.0, 0.0);
(439824.0, 3765425.0, 289.0, 289.0, 0.0);
(439829.0, 3765425.0, 289.0, 289.0, 0.0);
(439834.0, 3765425.0, 289.0, 289.0, 0.0);
(439839.0, 3765425.0, 289.0, 289.0, 0.0);
(439844.0, 3765425.0, 289.0, 289.0, 0.0);
(439849.0, 3765425.0, 289.0, 289.0, 0.0);
(439854.0, 3765425.0, 289.0, 289.0, 0.0);
(439859.0, 3765425.0, 289.0, 289.0, 0.0);
(439674.0, 3765430.0, 289.0, 289.0, 0.0);
(439679.0, 3765430.0, 289.0, 289.0, 0.0);
(439684.0, 3765430.0, 289.0, 289.0, 0.0);
(439689.0, 3765430.0, 289.0, 289.0, 0.0);
(439694.0, 3765430.0, 289.0, 289.0, 0.0);
(439699.0, 3765430.0, 289.0, 289.0, 0.0);
(439704.0, 3765430.0, 289.0, 289.0, 0.0);
(439709.0, 3765430.0, 289.0, 289.0, 0.0);
(439714.0, 3765430.0, 289.0, 289.0, 0.0);
(439719.0, 3765430.0, 289.0, 289.0, 0.0);
(439729.0, 3765430.0, 289.0, 289.0, 0.0);
(439734.0, 3765430.0, 289.0, 289.0, 0.0);
(439739.0, 3765430.0, 289.0, 289.0, 0.0);
(439744.0, 3765430.0, 289.0, 289.0, 0.0);
(439749.0, 3765430.0, 289.0, 289.0, 0.0);

```
     ( 439774.0, 3765430.0,     289.0,     289.0,       0.0);
( 439779.0, 3765430.0,     289.0,     289.0,       0.0);
     ( 439784.0, 3765430.0,     289.0,     289.0,       0.0);
( 439789.0, 3765430.0,     289.0,     289.0,       0.0);
     ( 439794.0, 3765430.0,     289.0,     289.0,       0.0);
( 439799.0, 3765430.0,     289.0,     289.0,       0.0);
     ( 439804.0, 3765430.0,     289.0,     289.0,       0.0);
( 439809.0, 3765430.0,     289.0,     289.0,       0.0);
     ( 439814.0, 3765430.0,     289.0,     289.0,       0.0);
( 439819.0, 3765430.0,     289.0,     289.0,       0.0);
     ( 439824.0, 3765430.0,     289.0,     289.0,       0.0);
( 439829.0, 3765430.0,     289.0,     289.0,       0.0);
     ( 439834.0, 3765430.0,     289.0,     289.0,       0.0);
( 439839.0, 3765430.0,     289.0,     289.0,       0.0);
     ( 439844.0, 3765430.0,     289.0,     289.0,       0.0);
( 439849.0, 3765430.0,     289.0,     289.0,       0.0);
     ( 439854.0, 3765430.0,     289.0,     289.0,       0.0);
( 439859.0, 3765430.0,     289.0,     289.0,       0.0);
     ( 439674.0, 3765435.0,     289.0,     289.0,       0.0);
( 439679.0, 3765435.0,     289.0,     289.0,       0.0);
     ( 439684.0, 3765435.0,     289.0,     289.0,       0.0);
( 439689.0, 3765435.0,     289.0,     289.0,       0.0);
     ( 439694.0, 3765435.0,     289.0,     289.0,       0.0);
( 439699.0, 3765435.0,     289.0,     289.0,       0.0);
     ( 439704.0, 3765435.0,     289.0,     289.0,       0.0);
( 439709.0, 3765435.0,     289.0,     289.0,       0.0);
     ( 439714.0, 3765435.0,     289.0,     289.0,       0.0);
( 439719.0, 3765435.0,     289.0,     289.0,       0.0);
     ( 439729.0, 3765435.0,     289.0,     289.0,       0.0);
( 439734.0, 3765435.0,     289.0,     289.0,       0.0);
     ( 439739.0, 3765435.0,     289.0,     289.0,       0.0);
( 439744.0, 3765435.0,     289.0,     289.0,       0.0);
     ( 439749.0, 3765435.0,     289.0,     289.0,       0.0);
( 439774.0, 3765435.0,     289.0,     289.0,       0.0);
     ( 439779.0, 3765435.0,     289.0,     289.0,       0.0);
( 439784.0, 3765435.0,     289.0,     289.0,       0.0);
     ( 439789.0, 3765435.0,     289.0,     289.0,       0.0);
( 439794.0, 3765435.0,     289.0,     289.0,       0.0);
     ( 439799.0, 3765435.0,     289.0,     289.0,       0.0);
( 439804.0, 3765435.0,     289.0,     289.0,       0.0);
     ( 439809.0, 3765435.0,     289.0,     289.0,       0.0);
( 439814.0, 3765435.0,     289.0,     289.0,       0.0);
     ( 439819.0, 3765435.0,     289.0,     289.0,       0.0);
( 439824.0, 3765435.0,     289.0,     289.0,       0.0);
     ( 439829.0, 3765435.0,     289.0,     289.0,       0.0);
( 439834.0, 3765435.0,     289.0,     289.0,       0.0);
     ( 439839.0, 3765435.0,     289.0,     289.0,       0.0);
( 439844.0, 3765435.0,     289.0,     289.0,       0.0);
     ( 439849.0, 3765435.0,     289.0,     289.0,       0.0);
( 439854.0, 3765435.0,     289.0,     289.0,       0.0);
     ( 439859.0, 3765435.0,     289.0,     289.0,       0.0);
( 439674.0, 3765440.0,     289.0,     289.0,       0.0);
```

```
     ( 439679.0, 3765440.0,     289.0,     289.0,       0.0);
( 439684.0, 3765440.0,     289.0,     289.0,       0.0);
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)

(METERS)

(439689.0, 3765440.0, 289.0, 289.0, 0.0);
(439694.0, 3765440.0, 289.0, 289.0, 0.0);
(439699.0, 3765440.0, 289.0, 289.0, 0.0);
(439704.0, 3765440.0, 289.0, 289.0, 0.0);
(439709.0, 3765440.0, 289.0, 289.0, 0.0);
(439714.0, 3765440.0, 289.0, 289.0, 0.0);
(439719.0, 3765440.0, 289.0, 289.0, 0.0);
(439729.0, 3765440.0, 289.0, 289.0, 0.0);
(439734.0, 3765440.0, 289.0, 289.0, 0.0);
(439739.0, 3765440.0, 289.0, 289.0, 0.0);
(439744.0, 3765440.0, 289.0, 289.0, 0.0);
(439749.0, 3765440.0, 289.0, 289.0, 0.0);
(439774.0, 3765440.0, 289.0, 289.0, 0.0);
(439779.0, 3765440.0, 289.0, 289.0, 0.0);
(439784.0, 3765440.0, 289.0, 289.0, 0.0);
(439789.0, 3765440.0, 289.0, 289.0, 0.0);
(439794.0, 3765440.0, 289.0, 289.0, 0.0);
(439799.0, 3765440.0, 289.0, 289.0, 0.0);
(439804.0, 3765440.0, 289.0, 289.0, 0.0);
(439809.0, 3765440.0, 289.0, 289.0, 0.0);
(439814.0, 3765440.0, 289.0, 289.0, 0.0);
(439819.0, 3765440.0, 289.0, 289.0, 0.0);
(439824.0, 3765440.0, 289.0, 289.0, 0.0);
(439829.0, 3765440.0, 289.0, 289.0, 0.0);
(439834.0, 3765440.0, 289.0, 289.0, 0.0);
(439839.0, 3765440.0, 289.0, 289.0, 0.0);
(439844.0, 3765440.0, 289.0, 289.0, 0.0);
(439849.0, 3765440.0, 289.0, 289.0, 0.0);
(439854.0, 3765440.0, 289.0, 289.0, 0.0);
(439859.0, 3765440.0, 289.0, 289.0, 0.0);
(439674.0, 3765445.0, 289.0, 289.0, 0.0);
(439679.0, 3765445.0, 289.0, 289.0, 0.0);
(439684.0, 3765445.0, 289.0, 289.0, 0.0);
(439689.0, 3765445.0, 289.0, 289.0, 0.0);
(439694.0, 3765445.0, 289.0, 289.0, 0.0);
(439699.0, 3765445.0, 289.0, 289.0, 0.0);

```
     ( 439704.0, 3765445.0,     289.0,     289.0,       0.0);
( 439709.0, 3765445.0,     289.0,     289.0,       0.0);
     ( 439714.0, 3765445.0,     289.0,     289.0,       0.0);
( 439719.0, 3765445.0,     289.0,     289.0,       0.0);
     ( 439729.0, 3765445.0,     289.0,     289.0,       0.0);
( 439734.0, 3765445.0,     289.0,     289.0,       0.0);
     ( 439739.0, 3765445.0,     289.0,     289.0,       0.0);
( 439744.0, 3765445.0,     289.0,     289.0,       0.0);
     ( 439749.0, 3765445.0,     289.0,     289.0,       0.0);
( 439774.0, 3765445.0,     289.0,     289.0,       0.0);
     ( 439779.0, 3765445.0,     289.0,     289.0,       0.0);
( 439784.0, 3765445.0,     289.0,     289.0,       0.0);
     ( 439789.0, 3765445.0,     289.0,     289.0,       0.0);
( 439794.0, 3765445.0,     289.0,     289.0,       0.0);
     ( 439799.0, 3765445.0,     289.0,     289.0,       0.0);
( 439804.0, 3765445.0,     289.0,     289.0,       0.0);
     ( 439809.0, 3765445.0,     289.0,     289.0,       0.0);
( 439814.0, 3765445.0,     289.0,     289.0,       0.0);
     ( 439819.0, 3765445.0,     289.0,     289.0,       0.0);
( 439824.0, 3765445.0,     289.0,     289.0,       0.0);
     ( 439829.0, 3765445.0,     289.0,     289.0,       0.0);
( 439834.0, 3765445.0,     289.0,     289.0,       0.0);
     ( 439839.0, 3765445.0,     289.0,     289.0,       0.0);
( 439844.0, 3765445.0,     289.0,     289.0,       0.0);
     ( 439849.0, 3765445.0,     289.0,     289.0,       0.0);
( 439854.0, 3765445.0,     289.0,     289.0,       0.0);
     ( 439859.0, 3765445.0,     289.0,     289.0,       0.0);
( 439674.0, 3765450.0,     289.0,     289.0,       0.0);
     ( 439679.0, 3765450.0,     289.0,     289.0,       0.0);
( 439684.0, 3765450.0,     289.0,     289.0,       0.0);
     ( 439689.0, 3765450.0,     289.0,     289.0,       0.0);
( 439694.0, 3765450.0,     289.0,     289.0,       0.0);
     ( 439699.0, 3765450.0,     289.0,     289.0,       0.0);
( 439704.0, 3765450.0,     289.0,     289.0,       0.0);
     ( 439709.0, 3765450.0,     289.0,     289.0,       0.0);
( 439714.0, 3765450.0,     289.0,     289.0,       0.0);
     ( 439719.0, 3765450.0,     289.0,     289.0,       0.0);
( 439729.0, 3765450.0,     289.0,     289.0,       0.0);
     ( 439734.0, 3765450.0,     289.0,     289.0,       0.0);
( 439739.0, 3765450.0,     289.0,     289.0,       0.0);
     ( 439744.0, 3765450.0,     289.0,     289.0,       0.0);
( 439749.0, 3765450.0,     289.0,     289.0,       0.0);
     ( 439774.0, 3765450.0,     289.0,     289.0,       0.0);
( 439844.0, 3765450.0,     289.0,     289.0,       0.0);
     ( 439849.0, 3765450.0,     289.0,     289.0,       0.0);
( 439854.0, 3765450.0,     289.0,     289.0,       0.0);
     ( 439859.0, 3765450.0,     289.0,     289.0,       0.0);
( 439674.0, 3765455.0,     289.0,     289.0,       0.0);
     ( 439679.0, 3765455.0,     289.0,     289.0,       0.0);
( 439684.0, 3765455.0,     289.0,     289.0,       0.0);
     ( 439689.0, 3765455.0,     289.0,     289.0,       0.0);
( 439694.0, 3765455.0,     289.0,     289.0,       0.0);
```

```
     ( 439699.0, 3765455.0,     289.0,     289.0,       0.0);
( 439704.0, 3765455.0,     289.0,     289.0,       0.0);
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)

(METERS)

(439709.0, 3765455.0, 289.0, 289.0, 0.0);
(439714.0, 3765455.0, 289.0, 289.0, 0.0);
(439719.0, 3765455.0, 289.0, 289.0, 0.0);
(439729.0, 3765455.0, 289.0, 289.0, 0.0);
(439734.0, 3765455.0, 289.0, 289.0, 0.0);
(439739.0, 3765455.0, 289.0, 289.0, 0.0);
(439744.0, 3765455.0, 289.0, 289.0, 0.0);
(439749.0, 3765455.0, 289.0, 289.0, 0.0);
(439844.0, 3765455.0, 289.0, 289.0, 0.0);
(439849.0, 3765455.0, 289.0, 289.0, 0.0);
(439854.0, 3765455.0, 289.0, 289.0, 0.0);
(439859.0, 3765455.0, 289.0, 289.0, 0.0);
(439674.0, 3765460.0, 289.0, 289.0, 0.0);
(439679.0, 3765460.0, 289.0, 289.0, 0.0);
(439684.0, 3765460.0, 289.0, 289.0, 0.0);
(439689.0, 3765460.0, 289.0, 289.0, 0.0);
(439694.0, 3765460.0, 289.0, 289.0, 0.0);
(439699.0, 3765460.0, 289.0, 289.0, 0.0);
(439704.0, 3765460.0, 289.0, 289.0, 0.0);
(439709.0, 3765460.0, 289.0, 289.0, 0.0);
(439714.0, 3765460.0, 289.0, 289.0, 0.0);
(439719.0, 3765460.0, 289.0, 289.0, 0.0);
(439729.0, 3765460.0, 289.0, 289.0, 0.0);
(439734.0, 3765460.0, 289.0, 289.0, 0.0);
(439739.0, 3765460.0, 289.0, 289.0, 0.0);
(439744.0, 3765460.0, 289.0, 289.0, 0.0);
(439749.0, 3765460.0, 289.0, 289.0, 0.0);
(439789.0, 3765460.0, 289.0, 289.0, 0.0);
(439794.0, 3765460.0, 289.0, 289.0, 0.0);
(439799.0, 3765460.0, 289.0, 289.0, 0.0);
(439804.0, 3765460.0, 289.0, 289.0, 0.0);
(439809.0, 3765460.0, 289.0, 289.0, 0.0);
(439814.0, 3765460.0, 289.0, 289.0, 0.0);
(439819.0, 3765460.0, 289.0, 289.0, 0.0);
(439824.0, 3765460.0, 289.0, 289.0, 0.0);
(439829.0, 3765460.0, 289.0, 289.0, 0.0);

```
     ( 439844.0, 3765460.0,     289.0,     289.0,       0.0);
( 439849.0, 3765460.0,     289.0,     289.0,       0.0);
     ( 439854.0, 3765460.0,     289.0,     289.0,       0.0);
( 439859.0, 3765460.0,     289.0,     289.0,       0.0);
     ( 439674.0, 3765465.0,     289.0,     289.0,       0.0);
( 439679.0, 3765465.0,     289.0,     289.0,       0.0);
     ( 439684.0, 3765465.0,     289.0,     289.0,       0.0);
( 439689.0, 3765465.0,     289.0,     289.0,       0.0);
     ( 439694.0, 3765465.0,     289.0,     289.0,       0.0);
( 439699.0, 3765465.0,     289.0,     289.0,       0.0);
     ( 439704.0, 3765465.0,     289.0,     289.0,       0.0);
( 439709.0, 3765465.0,     289.0,     289.0,       0.0);
     ( 439714.0, 3765465.0,     289.0,     289.0,       0.0);
( 439719.0, 3765465.0,     289.0,     289.0,       0.0);
     ( 439729.0, 3765465.0,     289.0,     289.0,       0.0);
( 439734.0, 3765465.0,     289.0,     289.0,       0.0);
     ( 439739.0, 3765465.0,     289.0,     289.0,       0.0);
( 439744.0, 3765465.0,     289.0,     289.0,       0.0);
     ( 439749.0, 3765465.0,     289.0,     289.0,       0.0);
( 439789.0, 3765465.0,     289.0,     289.0,       0.0);
     ( 439794.0, 3765465.0,     289.0,     289.0,       0.0);
( 439799.0, 3765465.0,     289.0,     289.0,       0.0);
     ( 439804.0, 3765465.0,     289.0,     289.0,       0.0);
( 439809.0, 3765465.0,     289.0,     289.0,       0.0);
     ( 439814.0, 3765465.0,     289.0,     289.0,       0.0);
( 439819.0, 3765465.0,     289.0,     289.0,       0.0);
     ( 439824.0, 3765465.0,     289.0,     289.0,       0.0);
( 439829.0, 3765465.0,     289.0,     289.0,       0.0);
     ( 439844.0, 3765465.0,     289.0,     289.0,       0.0);
( 439849.0, 3765465.0,     289.0,     289.0,       0.0);
     ( 439854.0, 3765465.0,     289.0,     289.0,       0.0);
( 439859.0, 3765465.0,     289.0,     289.0,       0.0);
     ( 439674.0, 3765470.0,     289.0,     289.0,       0.0);
( 439679.0, 3765470.0,     289.0,     289.0,       0.0);
     ( 439684.0, 3765470.0,     289.0,     289.0,       0.0);
( 439689.0, 3765470.0,     289.0,     289.0,       0.0);
     ( 439694.0, 3765470.0,     289.0,     289.0,       0.0);
( 439699.0, 3765470.0,     289.0,     289.0,       0.0);
     ( 439704.0, 3765470.0,     289.0,     289.0,       0.0);
( 439709.0, 3765470.0,     289.0,     289.0,       0.0);
     ( 439714.0, 3765470.0,     289.0,     289.0,       0.0);
( 439719.0, 3765470.0,     289.0,     289.0,       0.0);
     ( 439729.0, 3765470.0,     289.0,     289.0,       0.0);
( 439734.0, 3765470.0,     289.0,     289.0,       0.0);
     ( 439739.0, 3765470.0,     289.0,     289.0,       0.0);
( 439744.0, 3765470.0,     289.0,     289.0,       0.0);
     ( 439749.0, 3765470.0,     289.0,     289.0,       0.0);
( 439789.0, 3765470.0,     289.0,     289.0,       0.0);
     ( 439794.0, 3765470.0,     289.0,     289.0,       0.0);
( 439799.0, 3765470.0,     289.0,     289.0,       0.0);
     ( 439804.0, 3765470.0,     289.0,     289.0,       0.0);
( 439809.0, 3765470.0,     289.0,     289.0,       0.0);
```

```
     ( 439814.0, 3765470.0,     289.0,     289.0,       0.0);
( 439819.0, 3765470.0,     289.0,     289.0,       0.0);
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)

(METERS)

(439824.0, 3765470.0, 289.0, 289.0, 0.0);
(439829.0, 3765470.0, 289.0, 289.0, 0.0);
(439844.0, 3765470.0, 289.0, 289.0, 0.0);
(439849.0, 3765470.0, 289.0, 289.0, 0.0);
(439854.0, 3765470.0, 289.0, 289.0, 0.0);
(439859.0, 3765470.0, 289.0, 289.0, 0.0);
(439674.0, 3765475.0, 289.0, 289.0, 0.0);
(439679.0, 3765475.0, 289.0, 289.0, 0.0);
(439684.0, 3765475.0, 289.0, 289.0, 0.0);
(439689.0, 3765475.0, 289.0, 289.0, 0.0);
(439694.0, 3765475.0, 289.0, 289.0, 0.0);
(439699.0, 3765475.0, 289.0, 289.0, 0.0);
(439704.0, 3765475.0, 289.0, 289.0, 0.0);
(439709.0, 3765475.0, 289.0, 289.0, 0.0);
(439714.0, 3765475.0, 289.0, 289.0, 0.0);
(439719.0, 3765475.0, 289.0, 289.0, 0.0);
(439729.0, 3765475.0, 289.0, 289.0, 0.0);
(439734.0, 3765475.0, 289.0, 289.0, 0.0);
(439739.0, 3765475.0, 289.0, 289.0, 0.0);
(439744.0, 3765475.0, 289.0, 289.0, 0.0);
(439749.0, 3765475.0, 289.0, 289.0, 0.0);
(439754.0, 3765475.0, 289.0, 289.0, 0.0);
(439789.0, 3765475.0, 289.0, 289.0, 0.0);
(439794.0, 3765475.0, 289.0, 289.0, 0.0);
(439799.0, 3765475.0, 289.0, 289.0, 0.0);
(439804.0, 3765475.0, 289.0, 289.0, 0.0);
(439809.0, 3765475.0, 289.0, 289.0, 0.0);
(439814.0, 3765475.0, 289.0, 289.0, 0.0);
(439819.0, 3765475.0, 289.0, 289.0, 0.0);
(439824.0, 3765475.0, 289.0, 289.0, 0.0);
(439829.0, 3765475.0, 289.0, 289.0, 0.0);
(439269.0, 3764900.0, 289.0, 289.0, 0.0);
(439369.0, 3764900.0, 289.0, 289.0, 0.0);
(439469.0, 3764900.0, 289.0, 289.0, 0.0);
(439569.0, 3764900.0, 289.0, 289.0, 0.0);
(439669.0, 3764900.0, 289.0, 289.0, 0.0);

```
     ( 439769.0, 3764900.0,     289.0,     289.0,       0.0);
( 439869.0, 3764900.0,     289.0,     289.0,       0.0);
     ( 439969.0, 3764900.0,     289.0,     289.0,       0.0);
( 440069.0, 3764900.0,     289.0,     289.0,       0.0);
     ( 440169.0, 3764900.0,     289.0,     289.0,       0.0);
( 440269.0, 3764900.0,     289.0,     289.0,       0.0);
     ( 439269.0, 3765000.0,     289.0,     289.0,       0.0);
( 439369.0, 3765000.0,     289.0,     289.0,       0.0);
     ( 439469.0, 3765000.0,     289.0,     289.0,       0.0);
( 439569.0, 3765000.0,     289.0,     289.0,       0.0);
     ( 439669.0, 3765000.0,     289.0,     289.0,       0.0);
( 439769.0, 3765000.0,     289.0,     289.0,       0.0);
     ( 439869.0, 3765000.0,     289.0,     289.0,       0.0);
( 439969.0, 3765000.0,     289.0,     289.0,       0.0);
     ( 440069.0, 3765000.0,     289.0,     289.0,       0.0);
( 440169.0, 3765000.0,     289.0,     289.0,       0.0);
     ( 440269.0, 3765000.0,     289.0,     289.0,       0.0);
( 439269.0, 3765100.0,     289.0,     289.0,       0.0);
     ( 439369.0, 3765100.0,     289.0,     289.0,       0.0);
( 439469.0, 3765100.0,     289.0,     289.0,       0.0);
     ( 439569.0, 3765100.0,     289.0,     289.0,       0.0);
( 439669.0, 3765100.0,     289.0,     289.0,       0.0);
     ( 439769.0, 3765100.0,     289.0,     289.0,       0.0);
( 439869.0, 3765100.0,     289.0,     289.0,       0.0);
     ( 439969.0, 3765100.0,     289.0,     289.0,       0.0);
( 440069.0, 3765100.0,     289.0,     289.0,       0.0);
     ( 440169.0, 3765100.0,     289.0,     289.0,       0.0);
( 440269.0, 3765100.0,     289.0,     289.0,       0.0);
     ( 439269.0, 3765200.0,     289.0,     289.0,       0.0);
( 439369.0, 3765200.0,     289.0,     289.0,       0.0);
     ( 439469.0, 3765200.0,     289.0,     289.0,       0.0);
( 439569.0, 3765200.0,     289.0,     289.0,       0.0);
     ( 439669.0, 3765200.0,     289.0,     289.0,       0.0);
( 439769.0, 3765200.0,     289.0,     289.0,       0.0);
     ( 439869.0, 3765200.0,     289.0,     289.0,       0.0);
( 439969.0, 3765200.0,     289.0,     289.0,       0.0);
     ( 440069.0, 3765200.0,     289.0,     289.0,       0.0);
( 440169.0, 3765200.0,     289.0,     289.0,       0.0);
     ( 440269.0, 3765200.0,     289.0,     289.0,       0.0);
( 439269.0, 3765300.0,     289.0,     289.0,       0.0);
     ( 439369.0, 3765300.0,     289.0,     289.0,       0.0);
( 439469.0, 3765300.0,     289.0,     289.0,       0.0);
     ( 439569.0, 3765300.0,     289.0,     289.0,       0.0);
( 439669.0, 3765300.0,     289.0,     289.0,       0.0);
     ( 439769.0, 3765300.0,     289.0,     289.0,       0.0);
( 439869.0, 3765300.0,     289.0,     289.0,       0.0);
     ( 439969.0, 3765300.0,     289.0,     289.0,       0.0);
( 440069.0, 3765300.0,     289.0,     289.0,       0.0);
     ( 440169.0, 3765300.0,     289.0,     289.0,       0.0);
( 440269.0, 3765300.0,     289.0,     289.0,       0.0);
     ( 439269.0, 3765400.0,     289.0,     289.0,       0.0);
( 439369.0, 3765400.0,     289.0,     289.0,       0.0);
```

```
     ( 439469.0, 3765400.0,     289.0,     289.0,       0.0);
( 439569.0, 3765400.0,     289.0,     289.0,       0.0);
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)

(METERS)

(439669.0, 3765400.0, 289.0, 289.0, 0.0);
(439769.0, 3765400.0, 289.0, 289.0, 0.0);
(439869.0, 3765400.0, 289.0, 289.0, 0.0);
(439969.0, 3765400.0, 289.0, 289.0, 0.0);
(440069.0, 3765400.0, 289.0, 289.0, 0.0);
(440169.0, 3765400.0, 289.0, 289.0, 0.0);
(440269.0, 3765400.0, 289.0, 289.0, 0.0);
(439269.0, 3765500.0, 289.0, 289.0, 0.0);
(439369.0, 3765500.0, 289.0, 289.0, 0.0);
(439469.0, 3765500.0, 289.0, 289.0, 0.0);
(439569.0, 3765500.0, 289.0, 289.0, 0.0);
(439669.0, 3765500.0, 289.0, 289.0, 0.0);
(439769.0, 3765500.0, 289.0, 289.0, 0.0);
(439869.0, 3765500.0, 289.0, 289.0, 0.0);
(439969.0, 3765500.0, 289.0, 289.0, 0.0);
(440069.0, 3765500.0, 289.0, 289.0, 0.0);
(440169.0, 3765500.0, 289.0, 289.0, 0.0);
(440269.0, 3765500.0, 289.0, 289.0, 0.0);
(439269.0, 3765600.0, 289.0, 289.0, 0.0);
(439369.0, 3765600.0, 289.0, 289.0, 0.0);
(439469.0, 3765600.0, 289.0, 289.0, 0.0);
(439569.0, 3765600.0, 289.0, 289.0, 0.0);
(439669.0, 3765600.0, 289.0, 289.0, 0.0);
(439769.0, 3765600.0, 289.0, 289.0, 0.0);
(439869.0, 3765600.0, 289.0, 289.0, 0.0);
(439969.0, 3765600.0, 289.0, 289.0, 0.0);
(440069.0, 3765600.0, 289.0, 289.0, 0.0);
(440169.0, 3765600.0, 289.0, 289.0, 0.0);
(440269.0, 3765600.0, 289.0, 289.0, 0.0);
(439269.0, 3765700.0, 289.0, 289.0, 0.0);
(439369.0, 3765700.0, 289.0, 289.0, 0.0);
(439469.0, 3765700.0, 289.0, 289.0, 0.0);
(439569.0, 3765700.0, 289.0, 289.0, 0.0);
(439669.0, 3765700.0, 289.0, 289.0, 0.0);
(439769.0, 3765700.0, 289.0, 289.0, 0.0);
(439869.0, 3765700.0, 289.0, 289.0, 0.0);

```
     ( 439969.0, 3765700.0,     289.0,     289.0,       0.0);
( 440069.0, 3765700.0,     289.0,     289.0,       0.0);
     ( 440169.0, 3765700.0,     289.0,     289.0,       0.0);
( 440269.0, 3765700.0,     289.0,     289.0,       0.0);
     ( 439269.0, 3765800.0,     289.0,     289.0,       0.0);
( 439369.0, 3765800.0,     289.0,     289.0,       0.0);
     ( 439469.0, 3765800.0,     289.0,     289.0,       0.0);
( 439569.0, 3765800.0,     289.0,     289.0,       0.0);
     ( 439669.0, 3765800.0,     289.0,     289.0,       0.0);
( 439769.0, 3765800.0,     289.0,     289.0,       0.0);
     ( 439869.0, 3765800.0,     289.0,     289.0,       0.0);
( 439969.0, 3765800.0,     289.0,     289.0,       0.0);
     ( 440069.0, 3765800.0,     289.0,     289.0,       0.0);
( 440169.0, 3765800.0,     289.0,     289.0,       0.0);
     ( 440269.0, 3765800.0,     289.0,     289.0,       0.0);
( 439269.0, 3765900.0,     289.0,     289.0,       0.0);
     ( 439369.0, 3765900.0,     289.0,     289.0,       0.0);
( 439469.0, 3765900.0,     289.0,     289.0,       0.0);
     ( 439569.0, 3765900.0,     289.0,     289.0,       0.0);
( 439669.0, 3765900.0,     289.0,     289.0,       0.0);
     ( 439769.0, 3765900.0,     289.0,     289.0,       0.0);
( 439869.0, 3765900.0,     289.0,     289.0,       0.0);
     ( 439969.0, 3765900.0,     289.0,     289.0,       0.0);
( 440069.0, 3765900.0,     289.0,     289.0,       0.0);
     ( 440169.0, 3765900.0,     289.0,     289.0,       0.0);
( 440269.0, 3765900.0,     289.0,     289.0,       0.0);
     ( 439649.0, 3765310.0,     289.0,     289.0,       0.0);
( 439679.0, 3765310.0,     289.0,     289.0,       0.0);
     ( 439709.0, 3765310.0,     289.0,     289.0,       0.0);
( 439739.0, 3765310.0,     289.0,     289.0,       0.0);
     ( 439769.0, 3765310.0,     289.0,     289.0,       0.0);
( 439799.0, 3765310.0,     289.0,     289.0,       0.0);
     ( 439829.0, 3765310.0,     289.0,     289.0,       0.0);
( 439859.0, 3765310.0,     289.0,     289.0,       0.0);
     ( 439889.0, 3765310.0,     289.0,     289.0,       0.0);
( 439649.0, 3765340.0,     289.0,     289.0,       0.0);
     ( 439679.0, 3765340.0,     289.0,     289.0,       0.0);
( 439709.0, 3765340.0,     289.0,     289.0,       0.0);
     ( 439739.0, 3765340.0,     289.0,     289.0,       0.0);
( 439769.0, 3765340.0,     289.0,     289.0,       0.0);
     ( 439799.0, 3765340.0,     289.0,     289.0,       0.0);
( 439829.0, 3765340.0,     289.0,     289.0,       0.0);
     ( 439859.0, 3765340.0,     289.0,     289.0,       0.0);
( 439889.0, 3765340.0,     289.0,     289.0,       0.0);
     ( 439649.0, 3765370.0,     289.0,     289.0,       0.0);
( 439679.0, 3765370.0,     289.0,     289.0,       0.0);
     ( 439709.0, 3765370.0,     289.0,     289.0,       0.0);
( 439739.0, 3765370.0,     289.0,     289.0,       0.0);
     ( 439769.0, 3765370.0,     289.0,     289.0,       0.0);
( 439799.0, 3765370.0,     289.0,     289.0,       0.0);
     ( 439829.0, 3765370.0,     289.0,     289.0,       0.0);
( 439859.0, 3765370.0,     289.0,     289.0,       0.0);
```

```
     ( 439889.0, 3765370.0,     289.0,     289.0,       0.0);
( 439649.0, 3765400.0,     289.0,     289.0,       0.0);
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)

(METERS)

(439679.0, 3765400.0, 289.0, 289.0, 0.0);
(439709.0, 3765400.0, 289.0, 289.0, 0.0);
(439739.0, 3765400.0, 289.0, 289.0, 0.0);
(439769.0, 3765400.0, 289.0, 289.0, 0.0);
(439799.0, 3765400.0, 289.0, 289.0, 0.0);
(439829.0, 3765400.0, 289.0, 289.0, 0.0);
(439859.0, 3765400.0, 289.0, 289.0, 0.0);
(439889.0, 3765400.0, 289.0, 289.0, 0.0);
(439649.0, 3765430.0, 289.0, 289.0, 0.0);
(439679.0, 3765430.0, 289.0, 289.0, 0.0);
(439709.0, 3765430.0, 289.0, 289.0, 0.0);
(439739.0, 3765430.0, 289.0, 289.0, 0.0);
(439769.0, 3765430.0, 289.0, 289.0, 0.0);
(439799.0, 3765430.0, 289.0, 289.0, 0.0);
(439829.0, 3765430.0, 289.0, 289.0, 0.0);
(439859.0, 3765430.0, 289.0, 289.0, 0.0);
(439889.0, 3765430.0, 289.0, 289.0, 0.0);
(439649.0, 3765460.0, 289.0, 289.0, 0.0);
(439679.0, 3765460.0, 289.0, 289.0, 0.0);
(439709.0, 3765460.0, 289.0, 289.0, 0.0);
(439739.0, 3765460.0, 289.0, 289.0, 0.0);
(439769.0, 3765460.0, 289.0, 289.0, 0.0);
(439799.0, 3765460.0, 289.0, 289.0, 0.0);
(439829.0, 3765460.0, 289.0, 289.0, 0.0);
(439859.0, 3765460.0, 289.0, 289.0, 0.0);
(439889.0, 3765460.0, 289.0, 289.0, 0.0);
(439649.0, 3765490.0, 289.0, 289.0, 0.0);
(439679.0, 3765490.0, 289.0, 289.0, 0.0);
(439709.0, 3765490.0, 289.0, 289.0, 0.0);
(439739.0, 3765490.0, 289.0, 289.0, 0.0);
(439769.0, 3765490.0, 289.0, 289.0, 0.0);
(439799.0, 3765490.0, 289.0, 289.0, 0.0);
(439829.0, 3765490.0, 289.0, 289.0, 0.0);
(439859.0, 3765490.0, 289.0, 289.0, 0.0);
(439889.0, 3765490.0, 289.0, 289.0, 0.0);

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** METEOROLOGICAL DAYS SELECTED FOR PROCESSING ***

(1=YES; 0=NO)

```
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1
1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1
1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1
1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1
1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1
1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1
1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1
1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1
```

NOTE: METEOROLOGICAL DATA ACTUALLY PROCESSED WILL ALSO DEPEND ON WHAT IS INCLUDED IN THE DATA FILE.

*** UPPER BOUND OF FIRST THROUGH FIFTH WIND SPEED CATEGORIES ***

(METERS/SEC)

1.54, 3.09, 5.14, 8.23, 10.80,

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** UP TO THE FIRST 24 HOURS OF METEOROLOGICAL DATA ***

Surface file: C:\Users\sjremote\Desktop\Ontario_PUD-Legacy\OntarioIntlAirportADJU (1)\KONT_V9_ Met Version: 16216
Profile file: C:\Users\sjremote\Desktop\Ontario_PUD-Legacy\OntarioIntlAirportADJU (1)\KONT_V9_
Surface format: FREE
Profile format: FREE
Surface station no.: 3102 Upper air station no.: 3190
Name: ONTARIO_APT Name: UNKNOWN
Year: 2012 Year: 2012

First 24 hours of scalar data

YR	MO	DY	JDY	HR	H0	U*	W*	DT/DZ	ZICNV	ZIMCH	M-O LEN	Z0	BOWEN	ALBEDO	REF WS	WD	HT	REF TA	HT
12	01	01	1	01	-16.4	0.171	-9.000	-9.000	-999.	170.	32.3	0.09	1.12	1.00	2.03	43.	7.9	285.9	2.0
12	01	01	1	02	-18.8	0.194	-9.000	-9.000	-999.	205.	41.3	0.09	1.12	1.00	2.28	34.	7.9	285.4	2.0
12	01	01	1	03	-17.8	0.182	-9.000	-9.000	-999.	187.	36.5	0.09	1.12	1.00	2.15	24.	7.9	282.0	2.0
12	01	01	1	04	-9.4	0.128	-9.000	-9.000	-999.	110.	19.6	0.09	1.12	1.00	1.55	41.	7.9	283.1	2.0
12	01	01	1	05	-16.9	0.173	-9.000	-9.000	-999.	173.	33.0	0.09	1.12	1.00	2.05	39.	7.9	280.4	2.0
12	01	01	1	06	-8.0	0.117	-9.000	-9.000	-999.	97.	17.8	0.09	1.12	1.00	1.43	21.	7.9	282.0	2.0
12	01	01	1	07	-7.6	0.115	-9.000	-9.000	-999.	93.	17.4	0.09	1.12	1.00	1.40	31.	7.9	282.5	2.0
12	01	01	1	08	-13.6	0.184	-9.000	-9.000	-999.	190.	40.5	0.09	1.12	0.54	2.16	34.	7.9	284.2	2.0
12	01	01	1	09	28.4	0.126	0.300	0.011	33.	108.	-6.2	0.09	1.12	0.32	1.03	29.	7.9	289.2	2.0
12	01	01	1	10	79.8	0.133	0.607	0.010	99.	116.	-2.6	0.09	1.12	0.25	0.94	173.	7.9	292.5	2.0
12	01	01	1	11	115.8	0.137	0.932	0.006	246.	121.	-2.0	0.09	1.12	0.22	0.92	172.	7.9	295.4	2.0

```
 12 01 01   1 12  133.7  0.139  1.197  0.005  453.  125.     -1.8
0.09   1.12   0.21    0.92  146.    7.9  297.5    2.0
 12 01 01   1 13  133.2  0.160  1.354  0.005  657.  153.     -2.7
0.09   1.12   0.21    1.14  117.    7.9  299.9    2.0
 12 01 01   1 14  113.5  0.159  1.454  0.005  955.  151.     -3.1
0.09   1.12   0.23    1.16  285.    7.9  300.9    2.0
 12 01 01   1 15   76.2  0.166  1.350  0.005 1138.  163.     -5.3
0.09   1.12   0.26    1.33   72.    7.9  302.0    2.0
 12 01 01   1 16   23.5  0.175  0.925  0.005 1183.  175.    -19.9
0.09   1.12   0.35    1.65  107.    7.9  301.4    2.0
 12 01 01   1 17   -6.1  0.107 -9.000 -9.000 -999.   86.     18.0
0.09   1.12   0.63    1.31  107.    7.9  298.1    2.0
 12 01 01   1 18  -11.1  0.141 -9.000 -9.000 -999.  127.     22.1
0.09   1.12   1.00    1.69   86.    7.9  293.1    2.0
 12 01 01   1 19   -3.2  0.076 -9.000 -9.000 -999.   51.     11.8
0.09   1.12   1.00    0.91   64.    7.9  292.0    2.0
 12 01 01   1 20   -2.3  0.066 -9.000 -9.000 -999.   41.     11.2
0.09   1.12   1.00    0.74   73.    7.9  288.8    2.0
 12 01 01   1 21  -10.0  0.133 -9.000 -9.000 -999.  116.     20.5
0.09   1.12   1.00    1.60   14.    7.9  288.1    2.0
 12 01 01   1 22  -19.4  0.201 -9.000 -9.000 -999.  216.     44.5
0.09   1.12   1.00    2.36   22.    7.9  287.5    2.0
 12 01 01   1 23  -23.7  0.246 -9.000 -9.000 -999.  293.     66.5
0.09   1.12   1.00    2.86   40.    7.9  287.0    2.0
 12 01 01   1 24  -12.3  0.147 -9.000 -9.000 -999.  139.     23.8
0.09   1.12   1.00    1.76   40.    7.9  283.8    2.0


 First hour of profile data
 YR MO DY HR HEIGHT F  WDIR    WSPD AMB_TMP sigmaA  sigmaW
sigmaV
 12 01 01 01    7.9 1   43.    2.03   286.0
99.0  -99.00  -99.00

 F indicates top of profile (=1) or below (=0)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: EXH *** INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439674.00	3765310.00	0.32467	439679.00	3765310.00	0.32467
439684.00	3765310.00	0.32466	439689.00	3765310.00	0.32464
439694.00	3765310.00	0.32462	439699.00	3765310.00	0.32458
439704.00	3765310.00	0.32455	439709.00	3765310.00	0.32450
439714.00	3765310.00	0.32445	439719.00	3765310.00	0.32439
439729.00	3765310.00	0.32425	439734.00	3765310.00	0.32417
439739.00	3765310.00	0.32409	439744.00	3765310.00	0.32399
439749.00	3765310.00	0.32389	439764.00	3765310.00	0.32355
439769.00	3765310.00	0.32341	439774.00	3765310.00	0.32327

```
          439779.00    3765310.00        0.32313
439784.00    3765310.00        0.32297
          439789.00    3765310.00        0.32281
439794.00    3765310.00        0.32263
          439799.00    3765310.00        0.32245
439804.00    3765310.00        0.32226
          439809.00    3765310.00        0.32206
439814.00    3765310.00        0.32184
          439819.00    3765310.00        0.32162
439824.00    3765310.00        0.32139
          439829.00    3765310.00        0.32115
439839.00    3765310.00        0.32064
          439844.00    3765310.00        0.32036
439849.00    3765310.00        0.32008
          439854.00    3765310.00        0.31978
439859.00    3765310.00        0.31948
          439864.00    3765310.00        0.31916
439869.00    3765310.00        0.31883
          439874.00    3765310.00        0.31848
439879.00    3765310.00        0.31813
          439884.00    3765310.00        0.31777
439674.00    3765315.00        0.32908
          439679.00    3765315.00        0.32908
439684.00    3765315.00        0.32908
          439689.00    3765315.00        0.32906
439694.00    3765315.00        0.32904
          439699.00    3765315.00        0.32902
439704.00    3765315.00        0.32898
          439709.00    3765315.00        0.32894
439714.00    3765315.00        0.32889
          439719.00    3765315.00        0.32884
439729.00    3765315.00        0.32871
          439734.00    3765315.00        0.32864
439739.00    3765315.00        0.32856
          439744.00    3765315.00        0.32847
439749.00    3765315.00        0.32837
          439764.00    3765315.00        0.32804
439769.00    3765315.00        0.32792
          439774.00    3765315.00        0.32778
439779.00    3765315.00        0.32764
          439784.00    3765315.00        0.32749
439789.00    3765315.00        0.32733
          439794.00    3765315.00        0.32716
439799.00    3765315.00        0.32699
          439804.00    3765315.00        0.32680
439809.00    3765315.00        0.32661
          439814.00    3765315.00        0.32640
439819.00    3765315.00        0.32618
          439824.00    3765315.00        0.32596
439829.00    3765315.00        0.32572
          439839.00    3765315.00        0.32522
439844.00    3765315.00        0.32495
```

```
         439849.00    3765315.00        0.32468
439854.00    3765315.00        0.32438
         439859.00    3765315.00        0.32408
439864.00    3765315.00        0.32377
         439869.00    3765315.00        0.32344
439874.00    3765315.00        0.32311
         439879.00    3765315.00        0.32276
439884.00    3765315.00        0.32240
         439674.00    3765320.00        0.33359
439679.00    3765320.00        0.33360
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: EXH *** INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439684.00	3765320.00	0.33360	439689.00	3765320.00	0.33359
439694.00	3765320.00	0.33357	439699.00	3765320.00	0.33355
439704.00	3765320.00	0.33352	439709.00	3765320.00	0.33349
439714.00	3765320.00	0.33345	439719.00	3765320.00	0.33340
439729.00	3765320.00	0.33328	439734.00	3765320.00	0.33321
439739.00	3765320.00	0.33313	439744.00	3765320.00	0.33305
439749.00	3765320.00	0.33296	439764.00	3765320.00	0.33264
439769.00	3765320.00	0.33253	439774.00	3765320.00	0.33239
439779.00	3765320.00	0.33226	439784.00	3765320.00	0.33212

```
         439789.00    3765320.00        0.33196
439794.00    3765320.00        0.33180
         439799.00    3765320.00        0.33163
439804.00    3765320.00        0.33145
         439809.00    3765320.00        0.33126
439814.00    3765320.00        0.33106
         439819.00    3765320.00        0.33085
439824.00    3765320.00        0.33063
         439829.00    3765320.00        0.33040
439839.00    3765320.00        0.32991
         439844.00    3765320.00        0.32965
439849.00    3765320.00        0.32938
         439854.00    3765320.00        0.32909
439859.00    3765320.00        0.32879
         439864.00    3765320.00        0.32849
439869.00    3765320.00        0.32817
         439874.00    3765320.00        0.32784
439879.00    3765320.00        0.32750
         439884.00    3765320.00        0.32714
439674.00    3765325.00        0.33821
         439679.00    3765325.00        0.33822
439684.00    3765325.00        0.33822
         439689.00    3765325.00        0.33822
439694.00    3765325.00        0.33821
         439699.00    3765325.00        0.33819
439704.00    3765325.00        0.33817
         439709.00    3765325.00        0.33814
439714.00    3765325.00        0.33810
         439719.00    3765325.00        0.33806
439729.00    3765325.00        0.33795
         439734.00    3765325.00        0.33789
439739.00    3765325.00        0.33781
         439744.00    3765325.00        0.33774
439749.00    3765325.00        0.33765
         439754.00    3765325.00        0.33756
439769.00    3765325.00        0.33724
         439774.00    3765325.00        0.33712
439779.00    3765325.00        0.33699
         439784.00    3765325.00        0.33685
439789.00    3765325.00        0.33670
         439794.00    3765325.00        0.33655
439799.00    3765325.00        0.33638
         439804.00    3765325.00        0.33621
439809.00    3765325.00        0.33603
         439814.00    3765325.00        0.33583
439819.00    3765325.00        0.33563
         439824.00    3765325.00        0.33541
439829.00    3765325.00        0.33519
         439839.00    3765325.00        0.33472
439844.00    3765325.00        0.33446
         439849.00    3765325.00        0.33419
439854.00    3765325.00        0.33391
```

```
         439859.00    3765325.00        0.33362
439864.00    3765325.00        0.33332
         439869.00    3765325.00        0.33301
439874.00    3765325.00        0.33268
         439879.00    3765325.00        0.33235
439884.00    3765325.00        0.33199
         439674.00    3765330.00        0.34294
439679.00    3765330.00        0.34295
         439684.00    3765330.00        0.34296
439689.00    3765330.00        0.34296
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: EXH *** INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439694.00	3765330.00	0.34296	439699.00	3765330.00	0.34294
439704.00	3765330.00	0.34293	439709.00	3765330.00	0.34290
439714.00	3765330.00	0.34287	439719.00	3765330.00	0.34283
439729.00	3765330.00	0.34273	439734.00	3765330.00	0.34267
439739.00	3765330.00	0.34261	439744.00	3765330.00	0.34253
439749.00	3765330.00	0.34246	439754.00	3765330.00	0.34237
439774.00	3765330.00	0.34195	439779.00	3765330.00	0.34183
439784.00	3765330.00	0.34169	439789.00	3765330.00	0.34156
439794.00	3765330.00	0.34141	439799.00	3765330.00	0.34124

```
          439804.00    3765330.00         0.34108
439809.00    3765330.00         0.34090
          439814.00    3765330.00         0.34072
439819.00    3765330.00         0.34052
          439824.00    3765330.00         0.34031
439829.00    3765330.00         0.34009
          439839.00    3765330.00         0.33963
439844.00    3765330.00         0.33938
          439849.00    3765330.00         0.33912
439854.00    3765330.00         0.33885
          439859.00    3765330.00         0.33857
439864.00    3765330.00         0.33827
          439869.00    3765330.00         0.33796
439874.00    3765330.00         0.33764
          439879.00    3765330.00         0.33731
439884.00    3765330.00         0.33697
          439674.00    3765335.00         0.34778
439679.00    3765335.00         0.34780
          439684.00    3765335.00         0.34781
439689.00    3765335.00         0.34783
          439694.00    3765335.00         0.34782
439699.00    3765335.00         0.34782
          439704.00    3765335.00         0.34780
439709.00    3765335.00         0.34778
          439714.00    3765335.00         0.34775
439719.00    3765335.00         0.34772
          439729.00    3765335.00         0.34764
439734.00    3765335.00         0.34758
          439739.00    3765335.00         0.34752
439744.00    3765335.00         0.34745
          439749.00    3765335.00         0.34738
439774.00    3765335.00         0.34690
          439779.00    3765335.00         0.34678
439784.00    3765335.00         0.34666
          439789.00    3765335.00         0.34652
439794.00    3765335.00         0.34638
          439839.00    3765335.00         0.34467
439844.00    3765335.00         0.34443
          439849.00    3765335.00         0.34417
439854.00    3765335.00         0.34391
          439859.00    3765335.00         0.34363
439864.00    3765335.00         0.34334
          439869.00    3765335.00         0.34304
439874.00    3765335.00         0.34273
          439879.00    3765335.00         0.34240
439884.00    3765335.00         0.34206
          439674.00    3765340.00         0.35274
439679.00    3765340.00         0.35277
          439684.00    3765340.00         0.35279
439689.00    3765340.00         0.35280
          439694.00    3765340.00         0.35281
439699.00    3765340.00         0.35280
```

```
         439704.00    3765340.00        0.35280
439709.00    3765340.00        0.35278
         439714.00    3765340.00        0.35275
439719.00    3765340.00        0.35273
         439729.00    3765340.00        0.35265
439734.00    3765340.00        0.35260
         439739.00    3765340.00        0.35255
439744.00    3765340.00        0.35249
         439749.00    3765340.00        0.35242
439774.00    3765340.00        0.35197
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: EXH *** INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439779.00	3765340.00	0.35186	439784.00	3765340.00	0.35174
439789.00	3765340.00	0.35162	439794.00	3765340.00	0.35148
439839.00	3765340.00	0.34983	439844.00	3765340.00	0.34960
439849.00	3765340.00	0.34935	439854.00	3765340.00	0.34909
439859.00	3765340.00	0.34882	439864.00	3765340.00	0.34854
439869.00	3765340.00	0.34824	439874.00	3765340.00	0.34794
439879.00	3765340.00	0.34762	439884.00	3765340.00	0.34728
439674.00	3765345.00	0.35783	439679.00	3765345.00	0.35786
439684.00	3765345.00	0.35789	439689.00	3765345.00	0.35790

```
          439694.00    3765345.00        0.35791
439699.00    3765345.00        0.35792
          439704.00    3765345.00        0.35791
439709.00    3765345.00        0.35790
          439714.00    3765345.00        0.35788
439719.00    3765345.00        0.35786
          439729.00    3765345.00        0.35779
439734.00    3765345.00        0.35775
          439739.00    3765345.00        0.35770
439744.00    3765345.00        0.35764
          439749.00    3765345.00        0.35759
439774.00    3765345.00        0.35717
          439779.00    3765345.00        0.35706
439784.00    3765345.00        0.35695
          439789.00    3765345.00        0.35683
439794.00    3765345.00        0.35670
          439839.00    3765345.00        0.35512
439844.00    3765345.00        0.35489
          439849.00    3765345.00        0.35465
439854.00    3765345.00        0.35440
          439859.00    3765345.00        0.35414
439864.00    3765345.00        0.35386
          439869.00    3765345.00        0.35357
439874.00    3765345.00        0.35328
          439879.00    3765345.00        0.35296
439884.00    3765345.00        0.35264
          439674.00    3765350.00        0.36305
439679.00    3765350.00        0.36309
          439684.00    3765350.00        0.36311
439689.00    3765350.00        0.36314
          439694.00    3765350.00        0.36315
439699.00    3765350.00        0.36316
          439704.00    3765350.00        0.36316
439709.00    3765350.00        0.36315
          439714.00    3765350.00        0.36314
439719.00    3765350.00        0.36312
          439729.00    3765350.00        0.36307
439734.00    3765350.00        0.36303
          439739.00    3765350.00        0.36299
439744.00    3765350.00        0.36294
          439749.00    3765350.00        0.36288
439774.00    3765350.00        0.36250
          439779.00    3765350.00        0.36240
439784.00    3765350.00        0.36229
          439789.00    3765350.00        0.36218
439794.00    3765350.00        0.36205
          439839.00    3765350.00        0.36055
439844.00    3765350.00        0.36032
          439849.00    3765350.00        0.36009
439854.00    3765350.00        0.35985
          439859.00    3765350.00        0.35959
439864.00    3765350.00        0.35932
```

```
         439869.00    3765350.00        0.35905
439874.00    3765350.00        0.35875
         439879.00    3765350.00        0.35845
439884.00    3765350.00        0.35813
         439674.00    3765355.00        0.36841
439679.00    3765355.00        0.36844
         439684.00    3765355.00        0.36848
439689.00    3765355.00        0.36850
         439694.00    3765355.00        0.36853
439699.00    3765355.00        0.36854
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: EXH *** INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439704.00	3765355.00	0.36854	439709.00	3765355.00	0.36854
439714.00	3765355.00	0.36853	439719.00	3765355.00	0.36853
439729.00	3765355.00	0.36848	439734.00	3765355.00	0.36844
439739.00	3765355.00	0.36841	439744.00	3765355.00	0.36836
439749.00	3765355.00	0.36832	439774.00	3765355.00	0.36796
439779.00	3765355.00	0.36787	439784.00	3765355.00	0.36777
439789.00	3765355.00	0.36766	439794.00	3765355.00	0.36755
439839.00	3765355.00	0.36610	439844.00	3765355.00	0.36590
439849.00	3765355.00	0.36566	439854.00	3765355.00	0.36544

```
          439859.00    3765355.00        0.36518
439864.00    3765355.00        0.36493
          439869.00    3765355.00        0.36465
439874.00    3765355.00        0.36437
          439879.00    3765355.00        0.36407
439884.00    3765355.00        0.36376
          439674.00    3765360.00        0.37389
439679.00    3765360.00        0.37394
          439684.00    3765360.00        0.37398
439689.00    3765360.00        0.37401
          439694.00    3765360.00        0.37404
439699.00    3765360.00        0.37405
          439704.00    3765360.00        0.37407
439709.00    3765360.00        0.37407
          439714.00    3765360.00        0.37407
439719.00    3765360.00        0.37406
          439729.00    3765360.00        0.37402
439734.00    3765360.00        0.37400
          439739.00    3765360.00        0.37396
439744.00    3765360.00        0.37393
          439749.00    3765360.00        0.37388
439774.00    3765360.00        0.37356
          439779.00    3765360.00        0.37347
439784.00    3765360.00        0.37338
          439789.00    3765360.00        0.37329
439794.00    3765360.00        0.37318
          439799.00    3765360.00        0.37306
439804.00    3765360.00        0.37293
          439809.00    3765360.00        0.37281
439814.00    3765360.00        0.37266
          439839.00    3765360.00        0.37182
439844.00    3765360.00        0.37160
          439849.00    3765360.00        0.37139
439854.00    3765360.00        0.37116
          439859.00    3765360.00        0.37093
439864.00    3765360.00        0.37067
          439869.00    3765360.00        0.37041
439874.00    3765360.00        0.37013
          439879.00    3765360.00        0.36984
439884.00    3765360.00        0.36954
          439674.00    3765365.00        0.37953
439679.00    3765365.00        0.37958
          439684.00    3765365.00        0.37963
439689.00    3765365.00        0.37967
          439694.00    3765365.00        0.37969
439699.00    3765365.00        0.37972
          439704.00    3765365.00        0.37973
439709.00    3765365.00        0.37975
          439714.00    3765365.00        0.37975
439719.00    3765365.00        0.37975
          439729.00    3765365.00        0.37972
439734.00    3765365.00        0.37970
```

```
          439739.00    3765365.00        0.37968
439744.00    3765365.00        0.37964
          439749.00    3765365.00        0.37960
439774.00    3765365.00        0.37931
          439779.00    3765365.00        0.37923
439784.00    3765365.00        0.37915
          439789.00    3765365.00        0.37905
439794.00    3765365.00        0.37896
          439799.00    3765365.00        0.37885
439804.00    3765365.00        0.37874
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: EXH *** INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 , A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439809.00	3765365.00	0.37861	439814.00	3765365.00	0.37848
439839.00	3765365.00	0.37766	439844.00	3765365.00	0.37747
439849.00	3765365.00	0.37727	439854.00	3765365.00	0.37705
439859.00	3765365.00	0.37682	439864.00	3765365.00	0.37657
439869.00	3765365.00	0.37632	439874.00	3765365.00	0.37605
439879.00	3765365.00	0.37577	439884.00	3765365.00	0.37547
439674.00	3765370.00	0.38533	439679.00	3765370.00	0.38538
439684.00	3765370.00	0.38544	439689.00	3765370.00	0.38547
439694.00	3765370.00	0.38551	439699.00	3765370.00	0.38553

```
          439704.00    3765370.00        0.38556
439709.00    3765370.00        0.38557
          439714.00    3765370.00        0.38558
439719.00    3765370.00        0.38558
          439729.00    3765370.00        0.38557
439734.00    3765370.00        0.38555
          439739.00    3765370.00        0.38553
439744.00    3765370.00        0.38550
          439749.00    3765370.00        0.38547
439774.00    3765370.00        0.38521
          439779.00    3765370.00        0.38514
439784.00    3765370.00        0.38506
          439789.00    3765370.00        0.38498
439794.00    3765370.00        0.38489
          439799.00    3765370.00        0.38479
439804.00    3765370.00        0.38468
          439809.00    3765370.00        0.38457
439814.00    3765370.00        0.38444
          439839.00    3765370.00        0.38368
439844.00    3765370.00        0.38350
          439849.00    3765370.00        0.38329
439854.00    3765370.00        0.38309
          439859.00    3765370.00        0.38287
439864.00    3765370.00        0.38263
          439869.00    3765370.00        0.38238
439874.00    3765370.00        0.38213
          439879.00    3765370.00        0.38185
439884.00    3765370.00        0.38157
          439674.00    3765375.00        0.39127
439679.00    3765375.00        0.39134
          439684.00    3765375.00        0.39139
439689.00    3765375.00        0.39145
          439694.00    3765375.00        0.39147
439699.00    3765375.00        0.39151
          439704.00    3765375.00        0.39154
439709.00    3765375.00        0.39156
          439714.00    3765375.00        0.39157
439719.00    3765375.00        0.39157
          439729.00    3765375.00        0.39157
439734.00    3765375.00        0.39157
          439739.00    3765375.00        0.39154
439744.00    3765375.00        0.39153
          439749.00    3765375.00        0.39149
439754.00    3765375.00        0.39147
          439774.00    3765375.00        0.39128
439779.00    3765375.00        0.39121
          439784.00    3765375.00        0.39114
439789.00    3765375.00        0.39106
          439794.00    3765375.00        0.39098
439799.00    3765375.00        0.39089
          439804.00    3765375.00        0.39079
439809.00    3765375.00        0.39069
```

```
         439814.00    3765375.00        0.39056
439839.00    3765375.00        0.38986
         439844.00    3765375.00        0.38967
439849.00    3765375.00        0.38950
         439854.00    3765375.00        0.38929
439859.00    3765375.00        0.38908
         439864.00    3765375.00        0.38885
439869.00    3765375.00        0.38862
         439874.00    3765375.00        0.38837
439879.00    3765375.00        0.38810
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: EXH *** INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439884.00	3765375.00	0.38782	439774.00	3765380.00	0.39750
439779.00	3765380.00	0.39745	439784.00	3765380.00	0.39738
439789.00	3765380.00	0.39730	439794.00	3765380.00	0.39724
439799.00	3765380.00	0.39715	439804.00	3765380.00	0.39707
439809.00	3765380.00	0.39696	439814.00	3765380.00	0.39687
439769.00	3765385.00	0.40394	439819.00	3765385.00	0.40324
439769.00	3765400.00	0.42424	439844.00	3765400.00	0.42330
439849.00	3765400.00	0.42317	439674.00	3765405.00	0.43074
439714.00	3765405.00	0.43128	439719.00	3765405.00	0.43132

```
          439734.00    3765405.00        0.43139
439749.00    3765405.00        0.43143
          439754.00    3765405.00        0.43142
439774.00    3765405.00        0.43138
          439779.00    3765405.00        0.43138
439784.00    3765405.00        0.43135
          439789.00    3765405.00        0.43132
439794.00    3765405.00        0.43128
          439799.00    3765405.00        0.43126
439804.00    3765405.00        0.43121
          439809.00    3765405.00        0.43116
439814.00    3765405.00        0.43112
          439819.00    3765405.00        0.43104
439824.00    3765405.00        0.43098
          439829.00    3765405.00        0.43090
439834.00    3765405.00        0.43083
          439839.00    3765405.00        0.43072
439844.00    3765405.00        0.43063
          439849.00    3765405.00        0.43051
439854.00    3765405.00        0.43038
          439859.00    3765405.00        0.43024
439674.00    3765410.00        0.43802
          439679.00    3765410.00        0.43813
439684.00    3765410.00        0.43822
          439689.00    3765410.00        0.43830
439694.00    3765410.00        0.43838
          439699.00    3765410.00        0.43844
439704.00    3765410.00        0.43850
          439709.00    3765410.00        0.43856
439714.00    3765410.00        0.43861
          439719.00    3765410.00        0.43864
439729.00    3765410.00        0.43871
          439734.00    3765410.00        0.43874
439739.00    3765410.00        0.43875
          439744.00    3765410.00        0.43878
439749.00    3765410.00        0.43878
          439774.00    3765410.00        0.43879
439779.00    3765410.00        0.43877
          439784.00    3765410.00        0.43875
439789.00    3765410.00        0.43874
          439794.00    3765410.00        0.43871
439799.00    3765410.00        0.43869
          439804.00    3765410.00        0.43865
439809.00    3765410.00        0.43863
          439814.00    3765410.00        0.43856
439819.00    3765410.00        0.43853
          439824.00    3765410.00        0.43847
439829.00    3765410.00        0.43841
          439834.00    3765410.00        0.43832
439839.00    3765410.00        0.43826
          439844.00    3765410.00        0.43816
439849.00    3765410.00        0.43807
```

```
         439854.00    3765410.00        0.43795
439859.00    3765410.00        0.43783
         439674.00    3765415.00        0.44553
439679.00    3765415.00        0.44564
         439684.00    3765415.00        0.44574
439689.00    3765415.00        0.44583
         439694.00    3765415.00        0.44590
439699.00    3765415.00        0.44599
         439704.00    3765415.00        0.44605
439709.00    3765415.00        0.44611
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: EXH *** INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439714.00	3765415.00	0.44615	439719.00	3765415.00	0.44621
439729.00	3765415.00	0.44629	439734.00	3765415.00	0.44630
439739.00	3765415.00	0.44634	439744.00	3765415.00	0.44635
439749.00	3765415.00	0.44637	439774.00	3765415.00	0.44639
439779.00	3765415.00	0.44639	439784.00	3765415.00	0.44639
439789.00	3765415.00	0.44638	439794.00	3765415.00	0.44636
439799.00	3765415.00	0.44634	439804.00	3765415.00	0.44633
439809.00	3765415.00	0.44629	439814.00	3765415.00	0.44628
439819.00	3765415.00	0.44622	439824.00	3765415.00	0.44619

```
          439829.00    3765415.00        0.44613
439834.00    3765415.00        0.44609
          439839.00    3765415.00        0.44600
439844.00    3765415.00        0.44594
          439849.00    3765415.00        0.44585
439854.00    3765415.00        0.44576
          439859.00    3765415.00        0.44565
439674.00    3765420.00        0.45329
          439679.00    3765420.00        0.45340
439684.00    3765420.00        0.45351
          439689.00    3765420.00        0.45359
439694.00    3765420.00        0.45369
          439699.00    3765420.00        0.45376
439704.00    3765420.00        0.45383
          439709.00    3765420.00        0.45389
439714.00    3765420.00        0.45396
          439719.00    3765420.00        0.45400
439729.00    3765420.00        0.45408
          439734.00    3765420.00        0.45413
439739.00    3765420.00        0.45415
          439744.00    3765420.00        0.45418
439749.00    3765420.00        0.45419
          439774.00    3765420.00        0.45426
439779.00    3765420.00        0.45426
          439784.00    3765420.00        0.45425
439789.00    3765420.00        0.45426
          439794.00    3765420.00        0.45425
439799.00    3765420.00        0.45425
          439804.00    3765420.00        0.45423
439809.00    3765420.00        0.45423
          439814.00    3765420.00        0.45419
439819.00    3765420.00        0.45418
          439824.00    3765420.00        0.45414
439829.00    3765420.00        0.45412
          439834.00    3765420.00        0.45406
439839.00    3765420.00        0.45403
          439844.00    3765420.00        0.45395
439849.00    3765420.00        0.45389
          439854.00    3765420.00        0.45380
439859.00    3765420.00        0.45372
          439674.00    3765425.00        0.46128
439679.00    3765425.00        0.46141
          439684.00    3765425.00        0.46151
439689.00    3765425.00        0.46162
          439694.00    3765425.00        0.46170
439699.00    3765425.00        0.46180
          439704.00    3765425.00        0.46187
439709.00    3765425.00        0.46195
          439714.00    3765425.00        0.46199
439719.00    3765425.00        0.46206
          439729.00    3765425.00        0.46215
439734.00    3765425.00        0.46218
```

```
         439739.00    3765425.00        0.46222
439744.00    3765425.00        0.46225
         439749.00    3765425.00        0.46228
439774.00    3765425.00        0.46236
         439779.00    3765425.00        0.46237
439784.00    3765425.00        0.46239
         439789.00    3765425.00        0.46238
439794.00    3765425.00        0.46239
         439799.00    3765425.00        0.46239
439804.00    3765425.00        0.46240
```

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: EXH ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439809.00	3765425.00	0.46238	439814.00	3765425.00	0.46239
439819.00	3765425.00	0.46236	439824.00	3765425.00	0.46237
439829.00	3765425.00	0.46232	439834.00	3765425.00	0.46231
439839.00	3765425.00	0.46226	439844.00	3765425.00	0.46223
439849.00	3765425.00	0.46217	439854.00	3765425.00	0.46211
439859.00	3765425.00	0.46203	439674.00	3765430.00	0.46956
439679.00	3765430.00	0.46968	439684.00	3765430.00	0.46980
439689.00	3765430.00	0.46990	439694.00	3765430.00	0.47001
439699.00	3765430.00	0.47008	439704.00	3765430.00	0.47017

```
          439709.00    3765430.00         0.47024
439714.00    3765430.00         0.47032
          439719.00    3765430.00         0.47036
439729.00    3765430.00         0.47047
          439734.00    3765430.00         0.47051
439739.00    3765430.00         0.47055
          439744.00    3765430.00         0.47059
439749.00    3765430.00         0.47062
          439774.00    3765430.00         0.47073
439779.00    3765430.00         0.47075
          439784.00    3765430.00         0.47076
439789.00    3765430.00         0.47079
          439794.00    3765430.00         0.47079
439799.00    3765430.00         0.47081
          439804.00    3765430.00         0.47081
439809.00    3765430.00         0.47084
          439814.00    3765430.00         0.47082
439819.00    3765430.00         0.47084
          439824.00    3765430.00         0.47082
439829.00    3765430.00         0.47083
          439834.00    3765430.00         0.47080
439839.00    3765430.00         0.47080
          439844.00    3765430.00         0.47076
439849.00    3765430.00         0.47073
          439854.00    3765430.00         0.47068
439859.00    3765430.00         0.47063
          439674.00    3765435.00         0.47810
439679.00    3765435.00         0.47824
          439684.00    3765435.00         0.47835
439689.00    3765435.00         0.47847
          439694.00    3765435.00         0.47856
439699.00    3765435.00         0.47867
          439704.00    3765435.00         0.47875
439709.00    3765435.00         0.47883
          439714.00    3765435.00         0.47890
439719.00    3765435.00         0.47897
          439729.00    3765435.00         0.47908
439734.00    3765435.00         0.47912
          439739.00    3765435.00         0.47917
439744.00    3765435.00         0.47921
          439749.00    3765435.00         0.47924
439774.00    3765435.00         0.47938
          439779.00    3765435.00         0.47941
439784.00    3765435.00         0.47943
          439789.00    3765435.00         0.47945
439794.00    3765435.00         0.47948
          439799.00    3765435.00         0.47950
439804.00    3765435.00         0.47952
          439809.00    3765435.00         0.47953
439814.00    3765435.00         0.47956
          439819.00    3765435.00         0.47956
439824.00    3765435.00         0.47959
```

```
          439829.00    3765435.00        0.47958
439834.00    3765435.00        0.47960
          439839.00    3765435.00        0.47958
439844.00    3765435.00        0.47959
          439849.00    3765435.00        0.47956
439854.00    3765435.00        0.47954
          439859.00    3765435.00        0.47950
439674.00    3765440.00        0.48694
          439679.00    3765440.00        0.48708
439684.00    3765440.00        0.48721
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: EXH *** INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 , A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439689.00	3765440.00	0.48732	439694.00	3765440.00	0.48744
439699.00	3765440.00	0.48753	439704.00	3765440.00	0.48763
439709.00	3765440.00	0.48771	439714.00	3765440.00	0.48779
439719.00	3765440.00	0.48785	439729.00	3765440.00	0.48797
439734.00	3765440.00	0.48802	439739.00	3765440.00	0.48807
439744.00	3765440.00	0.48812	439749.00	3765440.00	0.48816
439774.00	3765440.00	0.48832	439779.00	3765440.00	0.48836
439784.00	3765440.00	0.48838	439789.00	3765440.00	0.48842
439794.00	3765440.00	0.48845	439799.00	3765440.00	0.48848

```
          439804.00    3765440.00        0.48851
439809.00    3765440.00        0.48855
          439814.00    3765440.00        0.48856
439819.00    3765440.00        0.48861
          439824.00    3765440.00        0.48862
439829.00    3765440.00        0.48866
          439834.00    3765440.00        0.48866
439839.00    3765440.00        0.48869
          439844.00    3765440.00        0.48869
439849.00    3765440.00        0.48870
          439854.00    3765440.00        0.48869
439859.00    3765440.00        0.48868
          439674.00    3765445.00        0.49609
439679.00    3765445.00        0.49624
          439684.00    3765445.00        0.49637
439689.00    3765445.00        0.49650
          439694.00    3765445.00        0.49661
439699.00    3765445.00        0.49672
          439704.00    3765445.00        0.49681
439709.00    3765445.00        0.49690
          439714.00    3765445.00        0.49698
439719.00    3765445.00        0.49706
          439729.00    3765445.00        0.49718
439734.00    3765445.00        0.49724
          439739.00    3765445.00        0.49729
439744.00    3765445.00        0.49734
          439749.00    3765445.00        0.49738
439774.00    3765445.00        0.49758
          439779.00    3765445.00        0.49761
439784.00    3765445.00        0.49766
          439789.00    3765445.00        0.49769
439794.00    3765445.00        0.49773
          439799.00    3765445.00        0.49777
439804.00    3765445.00        0.49781
          439809.00    3765445.00        0.49785
439814.00    3765445.00        0.49790
          439819.00    3765445.00        0.49793
439824.00    3765445.00        0.49798
          439829.00    3765445.00        0.49801
439834.00    3765445.00        0.49806
          439839.00    3765445.00        0.49809
439844.00    3765445.00        0.49812
          439849.00    3765445.00        0.49814
439854.00    3765445.00        0.49816
          439859.00    3765445.00        0.49817
439674.00    3765450.00        0.50556
          439679.00    3765450.00        0.50571
439684.00    3765450.00        0.50586
          439689.00    3765450.00        0.50599
439694.00    3765450.00        0.50611
          439699.00    3765450.00        0.50622
439704.00    3765450.00        0.50633
```

```
         439709.00    3765450.00        0.50642
439714.00    3765450.00        0.50651
         439719.00    3765450.00        0.50658
439729.00    3765450.00        0.50672
         439734.00    3765450.00        0.50678
439739.00    3765450.00        0.50684
         439744.00    3765450.00        0.50689
439749.00    3765450.00        0.50694
         439774.00    3765450.00        0.50715
439844.00    3765450.00        0.50787
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: EXH *** INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439849.00	3765450.00	0.50792	439854.00	3765450.00	0.50795
439859.00	3765450.00	0.50799	439674.00	3765455.00	0.51538
439679.00	3765455.00	0.51554	439684.00	3765455.00	0.51569
439689.00	3765455.00	0.51583	439694.00	3765455.00	0.51596
439699.00	3765455.00	0.51608	439704.00	3765455.00	0.51618
439709.00	3765455.00	0.51628	439714.00	3765455.00	0.51638
439719.00	3765455.00	0.51646	439729.00	3765455.00	0.51661
439734.00	3765455.00	0.51667	439739.00	3765455.00	0.51673
439744.00	3765455.00	0.51679	439749.00	3765455.00	0.51684

```
          439844.00    3765455.00         0.51797
439849.00    3765455.00         0.51804
          439854.00    3765455.00         0.51810
439859.00    3765455.00         0.51816
          439674.00    3765460.00         0.52556
439679.00    3765460.00         0.52573
          439684.00    3765460.00         0.52589
439689.00    3765460.00         0.52603
          439694.00    3765460.00         0.52617
439699.00    3765460.00         0.52629
          439704.00    3765460.00         0.52641
439709.00    3765460.00         0.52651
          439714.00    3765460.00         0.52661
439719.00    3765460.00         0.52670
          439729.00    3765460.00         0.52686
439734.00    3765460.00         0.52693
          439739.00    3765460.00         0.52700
439744.00    3765460.00         0.52705
          439749.00    3765460.00         0.52712
439789.00    3765460.00         0.52754
          439794.00    3765460.00         0.52761
439799.00    3765460.00         0.52767
          439804.00    3765460.00         0.52774
439809.00    3765460.00         0.52782
          439814.00    3765460.00         0.52789
439819.00    3765460.00         0.52798
          439824.00    3765460.00         0.52807
439829.00    3765460.00         0.52816
          439844.00    3765460.00         0.52844
439849.00    3765460.00         0.52853
          439854.00    3765460.00         0.52862
439859.00    3765460.00         0.52870
          439674.00    3765465.00         0.53612
439679.00    3765465.00         0.53631
          439684.00    3765465.00         0.53647
439689.00    3765465.00         0.53663
          439694.00    3765465.00         0.53676
439699.00    3765465.00         0.53690
          439704.00    3765465.00         0.53702
439709.00    3765465.00         0.53714
          439714.00    3765465.00         0.53724
439719.00    3765465.00         0.53733
          439729.00    3765465.00         0.53750
439734.00    3765465.00         0.53758
          439739.00    3765465.00         0.53764
439744.00    3765465.00         0.53771
          439749.00    3765465.00         0.53777
439789.00    3765465.00         0.53824
          439794.00    3765465.00         0.53831
439799.00    3765465.00         0.53839
          439804.00    3765465.00         0.53846
439809.00    3765465.00         0.53855
```

```
         439814.00    3765465.00        0.53864
439819.00    3765465.00        0.53874
         439824.00    3765465.00        0.53884
439829.00    3765465.00        0.53895
         439844.00    3765465.00        0.53929
439849.00    3765465.00        0.53941
         439854.00    3765465.00        0.53952
439859.00    3765465.00        0.53963
         439674.00    3765470.00        0.54710
439679.00    3765470.00        0.54728
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: EXH *** INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439684.00	3765470.00	0.54747	439689.00	3765470.00	0.54762
439694.00	3765470.00	0.54778	439699.00	3765470.00	0.54792
439704.00	3765470.00	0.54805	439709.00	3765470.00	0.54816
439714.00	3765470.00	0.54828	439719.00	3765470.00	0.54838
439729.00	3765470.00	0.54856	439734.00	3765470.00	0.54863
439739.00	3765470.00	0.54871	439744.00	3765470.00	0.54878
439749.00	3765470.00	0.54885	439789.00	3765470.00	0.54935
439794.00	3765470.00	0.54943	439799.00	3765470.00	0.54951
439804.00	3765470.00	0.54960	439809.00	3765470.00	0.54969

```
          439814.00    3765470.00        0.54979
439819.00    3765470.00        0.54990
          439824.00    3765470.00        0.55002
439829.00    3765470.00        0.55014
          439844.00    3765470.00        0.55055
439849.00    3765470.00        0.55069
          439854.00    3765470.00        0.55084
439859.00    3765470.00        0.55097
          439674.00    3765475.00        0.55849
439679.00    3765475.00        0.55870
          439684.00    3765475.00        0.55888
439689.00    3765475.00        0.55907
          439694.00    3765475.00        0.55922
439699.00    3765475.00        0.55938
          439704.00    3765475.00        0.55951
439709.00    3765475.00        0.55964
          439714.00    3765475.00        0.55975
439719.00    3765475.00        0.55987
          439729.00    3765475.00        0.56005
439734.00    3765475.00        0.56014
          439739.00    3765475.00        0.56022
439744.00    3765475.00        0.56030
          439749.00    3765475.00        0.56036
439754.00    3765475.00        0.56043
          439789.00    3765475.00        0.56090
439794.00    3765475.00        0.56098
          439799.00    3765475.00        0.56107
439804.00    3765475.00        0.56116
          439809.00    3765475.00        0.56127
439814.00    3765475.00        0.56138
          439819.00    3765475.00        0.56150
439824.00    3765475.00        0.56164
          439829.00    3765475.00        0.56178
439269.00    3764900.00        0.14143
          439369.00    3764900.00        0.14292
439469.00    3764900.00        0.14294
          439569.00    3764900.00        0.14145
439669.00    3764900.00        0.13844
          439769.00    3764900.00        0.13393
439869.00    3764900.00        0.12797
          439969.00    3764900.00        0.12069
440069.00    3764900.00        0.11232
          440169.00    3764900.00        0.10323
440269.00    3764900.00        0.09391
          439269.00    3765000.00        0.16487
439369.00    3765000.00        0.16769
          439469.00    3765000.00        0.16870
439569.00    3765000.00        0.16791
          439669.00    3765000.00        0.16532
439769.00    3765000.00        0.16086
          439869.00    3765000.00        0.15443
439969.00    3765000.00        0.14608
```

```
         440069.00    3765000.00        0.13604
440169.00    3765000.00        0.12473
         440269.00    3765000.00        0.11281
439269.00    3765100.00        0.19480
         439369.00    3765100.00        0.19950
439469.00    3765100.00        0.20196
         439569.00    3765100.00        0.20224
439669.00    3765100.00        0.20044
         439769.00    3765100.00        0.19641
439869.00    3765100.00        0.18982
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: EXH ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439969.00	3765100.00	0.18055	440069.00	3765100.00	0.16871
440169.00	3765100.00	0.15470	440269.00	3765100.00	0.13931
439269.00	3765200.00	0.23442	439369.00	3765200.00	0.24200
439469.00	3765200.00	0.24665	439569.00	3765200.00	0.24855
439669.00	3765200.00	0.24799	439769.00	3765200.00	0.24492
439869.00	3765200.00	0.23875	439969.00	3765200.00	0.22902
440069.00	3765200.00	0.21550	440169.00	3765200.00	0.19836
440269.00	3765200.00	0.17837	439269.00	3765300.00	0.28944
439369.00	3765300.00	0.30196	439469.00	3765300.00	0.31037

```
         439569.00    3765300.00        0.31486
439669.00    3765300.00        0.31616
         439769.00    3765300.00        0.31471
439869.00    3765300.00        0.30991
         439969.00    3765300.00        0.30060
440069.00    3765300.00        0.28597
         440169.00    3765300.00        0.26562
440269.00    3765300.00        0.23971
         439269.00    3765400.00        0.37150
439369.00    3765400.00        0.39359
         439469.00    3765400.00        0.40980
439569.00    3765400.00        0.41937
         439669.00    3765400.00        0.42358
439769.00    3765400.00        0.42424
         439869.00    3765400.00        0.42254
439969.00    3765400.00        0.41548
         440069.00    3765400.00        0.40085
440169.00    3765400.00        0.37773
         440269.00    3765400.00        0.34468
439269.00    3765500.00        0.51072
         439369.00    3765500.00        0.55371
439469.00    3765500.00        0.59006
         439569.00    3765500.00        0.61236
439669.00    3765500.00        0.62273
         439769.00    3765500.00        0.62602
439869.00    3765500.00        0.63005
         439969.00    3765500.00        0.63278
440069.00    3765500.00        0.61996
         440169.00    3765500.00        0.59357
440269.00    3765500.00        0.55185
         439269.00    3765600.00        0.83497
439369.00    3765600.00        0.92480
         439469.00    3765600.00        1.03675
439569.00    3765600.00        1.10543
         439669.00    3765600.00        1.14335
439769.00    3765600.00        1.17649
         439869.00    3765600.00        1.19283
439969.00    3765600.00        1.29155
         440069.00    3765600.00        1.25952
440169.00    3765600.00        1.19682
         440269.00    3765600.00        1.12370
439269.00    3765700.00        4.20940
         439369.00    3765700.00        4.51295
439469.00    3765700.00        7.08246
         439569.00    3765700.00        7.56523
439669.00    3765700.00        6.67604
         439769.00    3765700.00        6.28150
439869.00    3765700.00        5.91312
         439969.00    3765700.00        5.76266
440069.00    3765700.00        6.15807
         440169.00    3765700.00        6.77010
440269.00    3765700.00        8.02168
```

```
         439269.00    3765800.00        1.85507
439369.00    3765800.00        1.97273
         439469.00    3765800.00        2.18051
439569.00    3765800.00        2.50815
         439669.00    3765800.00        2.80305
439769.00    3765800.00        3.24441
         439869.00    3765800.00        4.19210
439969.00    3765800.00        2.84239
         440069.00    3765800.00        2.53678
440169.00    3765800.00        2.45150
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: EXH *** INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
440269.00	3765800.00	2.43137	439269.00	3765900.00	0.60419
439369.00	3765900.00	0.70341	439469.00	3765900.00	0.78957
439569.00	3765900.00	0.87542	439669.00	3765900.00	0.96396
439769.00	3765900.00	1.04849	439869.00	3765900.00	1.11889
439969.00	3765900.00	1.15396	440069.00	3765900.00	1.14186
440169.00	3765900.00	1.11763	440269.00	3765900.00	1.10044
439649.00	3765310.00	0.32459	439679.00	3765310.00	0.32467
439709.00	3765310.00	0.32450	439739.00	3765310.00	0.32409
439769.00	3765310.00	0.32341	439799.00	3765310.00	0.32245

```
          439829.00    3765310.00        0.32115
439859.00    3765310.00        0.31948
          439889.00    3765310.00        0.31739
439649.00    3765340.00        0.35251
          439679.00    3765340.00        0.35277
439709.00    3765340.00        0.35278
          439739.00    3765340.00        0.35255
439769.00    3765340.00        0.35208
          439799.00    3765340.00        0.35133
439829.00    3765340.00        0.35027
          439859.00    3765340.00        0.34882
439889.00    3765340.00        0.34694
          439649.00    3765370.00        0.38492
439679.00    3765370.00        0.38538
          439709.00    3765370.00        0.38557
439739.00    3765370.00        0.38553
          439769.00    3765370.00        0.38528
439799.00    3765370.00        0.38479
          439829.00    3765370.00        0.38401
439859.00    3765370.00        0.38287
          439889.00    3765370.00        0.38126
439649.00    3765400.00        0.42310
          439679.00    3765400.00        0.42377
439709.00    3765400.00        0.42414
          439739.00    3765400.00        0.42428
439769.00    3765400.00        0.42424
          439799.00    3765400.00        0.42403
439829.00    3765400.00        0.42362
          439859.00    3765400.00        0.42288
439889.00    3765400.00        0.42168
          439649.00    3765430.00        0.46877
439679.00    3765430.00        0.46968
          439709.00    3765430.00        0.47024
439739.00    3765430.00        0.47055
          439769.00    3765430.00        0.47072
439799.00    3765430.00        0.47081
          439829.00    3765430.00        0.47083
439859.00    3765430.00        0.47063
          439889.00    3765430.00        0.47000
439649.00    3765460.00        0.52450
          439679.00    3765460.00        0.52573
439709.00    3765460.00        0.52651
          439739.00    3765460.00        0.52700
439769.00    3765460.00        0.52732
          439799.00    3765460.00        0.52767
439829.00    3765460.00        0.52816
          439859.00    3765460.00        0.52870
439889.00    3765460.00        0.52896
          439649.00    3765490.00        0.59415
439679.00    3765490.00        0.59583
          439709.00    3765490.00        0.59695
439739.00    3765490.00        0.59767
```

```
         439769.00    3765490.00        0.59817
439799.00    3765490.00        0.59870
         439829.00    3765490.00        0.59959
439859.00    3765490.00        0.60104
         439889.00    3765490.00        0.60267
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: EVAP ***
INCLUDING SOURCE(S):
A0000067 , A0000068 , A0000069 , A0000070 , A0000071 ,
A0000072 , A0000073 , A0000074 , A0000075 , A0000076 , A0000077 , A0000078 , A0000079 ,
A0000080 , A0000081 , A0000082 , A0000083 , A0000084 , A0000085 , A0000086 , A0000087 ,
A0000088 , A0000089 , A0000090 , A0000091 , A0000092 , A0000093 ,
A0000094 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439674.00	3765310.00	0.21343	439679.00	3765310.00	0.21367
439684.00	3765310.00	0.21390	439689.00	3765310.00	0.21414
439694.00	3765310.00	0.21438	439699.00	3765310.00	0.21461
439704.00	3765310.00	0.21484	439709.00	3765310.00	0.21506
439714.00	3765310.00	0.21529	439719.00	3765310.00	0.21551
439729.00	3765310.00	0.21594	439734.00	3765310.00	0.21615
439739.00	3765310.00	0.21636	439744.00	3765310.00	0.21656
439749.00	3765310.00	0.21676	439764.00	3765310.00	0.21732
439769.00	3765310.00	0.21749	439774.00	3765310.00	0.21766

```
          439779.00    3765310.00        0.21782
439784.00    3765310.00        0.21797
          439789.00    3765310.00        0.21811
439794.00    3765310.00        0.21825
          439799.00    3765310.00        0.21838
439804.00    3765310.00        0.21849
          439809.00    3765310.00        0.21860
439814.00    3765310.00        0.21870
          439819.00    3765310.00        0.21879
439824.00    3765310.00        0.21886
          439829.00    3765310.00        0.21894
439839.00    3765310.00        0.21904
          439844.00    3765310.00        0.21907
439849.00    3765310.00        0.21909
          439854.00    3765310.00        0.21910
439859.00    3765310.00        0.21910
          439864.00    3765310.00        0.21908
439869.00    3765310.00        0.21906
          439874.00    3765310.00        0.21901
439879.00    3765310.00        0.21896
          439884.00    3765310.00        0.21890
439674.00    3765315.00        0.21617
          439679.00    3765315.00        0.21642
439684.00    3765315.00        0.21667
          439689.00    3765315.00        0.21691
439694.00    3765315.00        0.21715
          439699.00    3765315.00        0.21740
439704.00    3765315.00        0.21764
          439709.00    3765315.00        0.21788
439714.00    3765315.00        0.21811
          439719.00    3765315.00        0.21835
439729.00    3765315.00        0.21880
          439734.00    3765315.00        0.21902
439739.00    3765315.00        0.21924
          439744.00    3765315.00        0.21946
439749.00    3765315.00        0.21967
          439764.00    3765315.00        0.22026
439769.00    3765315.00        0.22045
          439774.00    3765315.00        0.22063
439779.00    3765315.00        0.22080
          439784.00    3765315.00        0.22097
439789.00    3765315.00        0.22113
          439794.00    3765315.00        0.22127
439799.00    3765315.00        0.22141
          439804.00    3765315.00        0.22155
439809.00    3765315.00        0.22167
          439814.00    3765315.00        0.22178
439819.00    3765315.00        0.22188
          439824.00    3765315.00        0.22198
439829.00    3765315.00        0.22206
          439839.00    3765315.00        0.22218
439844.00    3765315.00        0.22223
```

```
         439849.00    3765315.00        0.22227
439854.00    3765315.00        0.22229
         439859.00    3765315.00        0.22230
439864.00    3765315.00        0.22230
         439869.00    3765315.00        0.22228
439874.00    3765315.00        0.22225
         439879.00    3765315.00        0.22221
439884.00    3765315.00        0.22216
         439674.00    3765320.00        0.21897
439679.00    3765320.00        0.21923
```

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: EVAP ***
INCLUDING SOURCE(S):
A0000067 , A0000068 , A0000069 , A0000070 , A0000071 ,
A0000072 , A0000073 , A0000074 , A0000075 , A0000076 , A0000077 , A0000078 , A0000079 ,
A0000080 , A0000081 , A0000082 , A0000083 , A0000084 , A0000085 , A0000086 , A0000087 ,
A0000088 , A0000089 , A0000090 , A0000091 , A0000092 , A0000093 ,
A0000094 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439684.00	3765320.00	0.21949	439689.00	3765320.00	0.21974
439694.00	3765320.00	0.22000	439699.00	3765320.00	0.22025
439704.00	3765320.00	0.22050	439709.00	3765320.00	0.22075
439714.00	3765320.00	0.22099	439719.00	3765320.00	0.22124
439729.00	3765320.00	0.22172	439734.00	3765320.00	0.22195
439739.00	3765320.00	0.22218	439744.00	3765320.00	0.22241
439749.00	3765320.00	0.22263	439764.00	3765320.00	0.22327
439769.00	3765320.00	0.22347	439774.00	3765320.00	0.22366
439779.00	3765320.00	0.22385	439784.00	3765320.00	0.22403

```
          439789.00    3765320.00        0.22420
439794.00    3765320.00        0.22436
          439799.00    3765320.00        0.22452
439804.00    3765320.00        0.22467
          439809.00    3765320.00        0.22480
439814.00    3765320.00        0.22493
          439819.00    3765320.00        0.22505
439824.00    3765320.00        0.22516
          439829.00    3765320.00        0.22525
439839.00    3765320.00        0.22541
          439844.00    3765320.00        0.22547
439849.00    3765320.00        0.22552
          439854.00    3765320.00        0.22555
439859.00    3765320.00        0.22557
          439864.00    3765320.00        0.22559
439869.00    3765320.00        0.22558
          439874.00    3765320.00        0.22557
439879.00    3765320.00        0.22554
          439884.00    3765320.00        0.22549
439674.00    3765325.00        0.22183
          439679.00    3765325.00        0.22210
439684.00    3765325.00        0.22236
          439689.00    3765325.00        0.22263
439694.00    3765325.00        0.22289
          439699.00    3765325.00        0.22316
439704.00    3765325.00        0.22342
          439709.00    3765325.00        0.22368
439714.00    3765325.00        0.22394
          439719.00    3765325.00        0.22419
439729.00    3765325.00        0.22469
          439734.00    3765325.00        0.22494
439739.00    3765325.00        0.22518
          439744.00    3765325.00        0.22543
439749.00    3765325.00        0.22566
          439754.00    3765325.00        0.22589
439769.00    3765325.00        0.22655
          439774.00    3765325.00        0.22676
439779.00    3765325.00        0.22697
          439784.00    3765325.00        0.22716
439789.00    3765325.00        0.22735
          439794.00    3765325.00        0.22753
439799.00    3765325.00        0.22770
          439804.00    3765325.00        0.22785
439809.00    3765325.00        0.22801
          439814.00    3765325.00        0.22815
439819.00    3765325.00        0.22828
          439824.00    3765325.00        0.22840
439829.00    3765325.00        0.22851
          439839.00    3765325.00        0.22870
439844.00    3765325.00        0.22878
          439849.00    3765325.00        0.22884
439854.00    3765325.00        0.22889
```

```
         439859.00    3765325.00        0.22893
439864.00    3765325.00        0.22895
         439869.00    3765325.00        0.22896
439874.00    3765325.00        0.22896
         439879.00    3765325.00        0.22894
439884.00    3765325.00        0.22891
         439674.00    3765330.00        0.22476
439679.00    3765330.00        0.22503
         439684.00    3765330.00        0.22531
439689.00    3765330.00        0.22558
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: EVAP ***
INCLUDING SOURCE(S):
A0000067 , A0000068 , A0000069 , A0000070 , A0000071 ,
A0000072 , A0000073 , A0000074 , A0000075 , A0000076 , A0000077 , A0000078 , A0000079 ,
A0000080 , A0000081 , A0000082 , A0000083 , A0000084 , A0000085 , A0000086 , A0000087 ,
A0000088 , A0000089 , A0000090 , A0000091 , A0000092 , A0000093 ,
A0000094 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439694.00	3765330.00	0.22586	439699.00	3765330.00	0.22613
439704.00	3765330.00	0.22640	439709.00	3765330.00	0.22667
439714.00	3765330.00	0.22694	439719.00	3765330.00	0.22721
439729.00	3765330.00	0.22774	439734.00	3765330.00	0.22800
439739.00	3765330.00	0.22825	439744.00	3765330.00	0.22851
439749.00	3765330.00	0.22876	439754.00	3765330.00	0.22900
439774.00	3765330.00	0.22993	439779.00	3765330.00	0.23014
439784.00	3765330.00	0.23036	439789.00	3765330.00	0.23056
439794.00	3765330.00	0.23075	439799.00	3765330.00	0.23094

```
          439804.00    3765330.00        0.23112
439809.00    3765330.00        0.23129
          439814.00    3765330.00        0.23144
439819.00    3765330.00        0.23159
          439824.00    3765330.00        0.23173
439829.00    3765330.00        0.23185
          439839.00    3765330.00        0.23207
439844.00    3765330.00        0.23216
          439849.00    3765330.00        0.23224
439854.00    3765330.00        0.23230
          439859.00    3765330.00        0.23236
439864.00    3765330.00        0.23240
          439869.00    3765330.00        0.23242
439874.00    3765330.00        0.23243
          439879.00    3765330.00        0.23243
439884.00    3765330.00        0.23241
          439674.00    3765335.00        0.22774
439679.00    3765335.00        0.22803
          439684.00    3765335.00        0.22831
439689.00    3765335.00        0.22860
          439694.00    3765335.00        0.22888
439699.00    3765335.00        0.22917
          439704.00    3765335.00        0.22945
439709.00    3765335.00        0.22973
          439714.00    3765335.00        0.23001
439719.00    3765335.00        0.23029
          439729.00    3765335.00        0.23084
439734.00    3765335.00        0.23112
          439739.00    3765335.00        0.23139
439744.00    3765335.00        0.23165
          439749.00    3765335.00        0.23192
439774.00    3765335.00        0.23316
          439779.00    3765335.00        0.23340
439784.00    3765335.00        0.23363
          439789.00    3765335.00        0.23384
439794.00    3765335.00        0.23405
          439839.00    3765335.00        0.23552
439844.00    3765335.00        0.23563
          439849.00    3765335.00        0.23572
439854.00    3765335.00        0.23580
          439859.00    3765335.00        0.23587
439864.00    3765335.00        0.23592
          439869.00    3765335.00        0.23596
439874.00    3765335.00        0.23599
          439879.00    3765335.00        0.23600
439884.00    3765335.00        0.23599
          439674.00    3765340.00        0.23080
439679.00    3765340.00        0.23109
          439684.00    3765340.00        0.23139
439689.00    3765340.00        0.23168
          439694.00    3765340.00        0.23198
439699.00    3765340.00        0.23227
```

```
         439704.00    3765340.00        0.23257
439709.00    3765340.00        0.23286
         439714.00    3765340.00        0.23315
439719.00    3765340.00        0.23344
         439729.00    3765340.00        0.23402
439734.00    3765340.00        0.23430
         439739.00    3765340.00        0.23459
439744.00    3765340.00        0.23487
         439749.00    3765340.00        0.23515
439774.00    3765340.00        0.23648
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: EVAP ***
INCLUDING SOURCE(S):
A0000067 , A0000068 , A0000069 , A0000070 , A0000071 ,
A0000072 , A0000073 , A0000074 , A0000075 , A0000076 , A0000077 , A0000078 , A0000079 ,
A0000080 , A0000081 , A0000082 , A0000083 , A0000084 , A0000085 , A0000086 , A0000087 ,
A0000088 , A0000089 , A0000090 , A0000091 , A0000092 , A0000093 ,
A0000094 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439779.00	3765340.00	0.23672	439784.00	3765340.00	0.23696
439789.00	3765340.00	0.23720	439794.00	3765340.00	0.23743
439839.00	3765340.00	0.23905	439844.00	3765340.00	0.23917
439849.00	3765340.00	0.23928	439854.00	3765340.00	0.23938
439859.00	3765340.00	0.23946	439864.00	3765340.00	0.23954
439869.00	3765340.00	0.23959	439874.00	3765340.00	0.23963
439879.00	3765340.00	0.23966	439884.00	3765340.00	0.23966
439674.00	3765345.00	0.23392	439679.00	3765345.00	0.23423
439684.00	3765345.00	0.23453	439689.00	3765345.00	0.23483

```
          439694.00    3765345.00        0.23514
439699.00    3765345.00        0.23544
          439704.00    3765345.00        0.23575
439709.00    3765345.00        0.23605
          439714.00    3765345.00        0.23636
439719.00    3765345.00        0.23666
          439729.00    3765345.00        0.23726
439734.00    3765345.00        0.23757
          439739.00    3765345.00        0.23786
439744.00    3765345.00        0.23816
          439749.00    3765345.00        0.23845
439774.00    3765345.00        0.23986
          439779.00    3765345.00        0.24012
439784.00    3765345.00        0.24038
          439789.00    3765345.00        0.24063
439794.00    3765345.00        0.24088
          439839.00    3765345.00        0.24266
439844.00    3765345.00        0.24281
          439849.00    3765345.00        0.24293
439854.00    3765345.00        0.24305
          439859.00    3765345.00        0.24315
439864.00    3765345.00        0.24323
          439869.00    3765345.00        0.24330
439874.00    3765345.00        0.24336
          439879.00    3765345.00        0.24340
439884.00    3765345.00        0.24343
          439674.00    3765350.00        0.23712
439679.00    3765350.00        0.23743
          439684.00    3765350.00        0.23774
439689.00    3765350.00        0.23806
          439694.00    3765350.00        0.23837
439699.00    3765350.00        0.23869
          439704.00    3765350.00        0.23900
439709.00    3765350.00        0.23932
          439714.00    3765350.00        0.23964
439719.00    3765350.00        0.23995
          439729.00    3765350.00        0.24058
439734.00    3765350.00        0.24090
          439739.00    3765350.00        0.24121
439744.00    3765350.00        0.24152
          439749.00    3765350.00        0.24183
439774.00    3765350.00        0.24332
          439779.00    3765350.00        0.24360
439784.00    3765350.00        0.24388
          439789.00    3765350.00        0.24415
439794.00    3765350.00        0.24441
          439839.00    3765350.00        0.24637
439844.00    3765350.00        0.24652
          439849.00    3765350.00        0.24667
439854.00    3765350.00        0.24680
          439859.00    3765350.00        0.24692
439864.00    3765350.00        0.24702
```

```
         439869.00    3765350.00        0.24712
439874.00    3765350.00        0.24719
         439879.00    3765350.00        0.24725
439884.00    3765350.00        0.24729
         439674.00    3765355.00        0.24039
439679.00    3765355.00        0.24071
         439684.00    3765355.00        0.24104
439689.00    3765355.00        0.24135
         439694.00    3765355.00        0.24169
439699.00    3765355.00        0.24201
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: EVAP ***
INCLUDING SOURCE(S):
A0000067 , A0000068 , A0000069 , A0000070 , A0000071 ,
A0000072 , A0000073 , A0000074 , A0000075 , A0000076 , A0000077 , A0000078 , A0000079 ,
A0000080 , A0000081 , A0000082 , A0000083 , A0000084 , A0000085 , A0000086 , A0000087 ,
A0000088 , A0000089 , A0000090 , A0000091 , A0000092 , A0000093 ,
A0000094 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439704.00	3765355.00	0.24234	439709.00	3765355.00	0.24266
439714.00	3765355.00	0.24299	439719.00	3765355.00	0.24332
439729.00	3765355.00	0.24398	439734.00	3765355.00	0.24430
439739.00	3765355.00	0.24464	439744.00	3765355.00	0.24495
439749.00	3765355.00	0.24528	439774.00	3765355.00	0.24685
439779.00	3765355.00	0.24715	439784.00	3765355.00	0.24745
439789.00	3765355.00	0.24774	439794.00	3765355.00	0.24802
439839.00	3765355.00	0.25015	439844.00	3765355.00	0.25034
439849.00	3765355.00	0.25050	439854.00	3765355.00	0.25065

```
         439859.00    3765355.00        0.25079
439864.00    3765355.00        0.25091
         439869.00    3765355.00        0.25102
439874.00    3765355.00        0.25111
         439879.00    3765355.00        0.25119
439884.00    3765355.00        0.25125
         439674.00    3765360.00        0.24374
439679.00    3765360.00        0.24407
         439684.00    3765360.00        0.24440
439689.00    3765360.00        0.24474
         439694.00    3765360.00        0.24507
439699.00    3765360.00        0.24541
         439704.00    3765360.00        0.24575
439709.00    3765360.00        0.24608
         439714.00    3765360.00        0.24643
439719.00    3765360.00        0.24677
         439729.00    3765360.00        0.24745
439734.00    3765360.00        0.24779
         439739.00    3765360.00        0.24813
439744.00    3765360.00        0.24848
         439749.00    3765360.00        0.24881
439774.00    3765360.00        0.25047
         439779.00    3765360.00        0.25079
439784.00    3765360.00        0.25111
         439789.00    3765360.00        0.25142
439794.00    3765360.00        0.25172
         439799.00    3765360.00        0.25202
439804.00    3765360.00        0.25230
         439809.00    3765360.00        0.25258
439814.00    3765360.00        0.25285
         439839.00    3765360.00        0.25404
439844.00    3765360.00        0.25423
         439849.00    3765360.00        0.25443
439854.00    3765360.00        0.25460
         439859.00    3765360.00        0.25476
439864.00    3765360.00        0.25490
         439869.00    3765360.00        0.25503
439874.00    3765360.00        0.25514
         439879.00    3765360.00        0.25523
439884.00    3765360.00        0.25531
         439674.00    3765365.00        0.24717
439679.00    3765365.00        0.24751
         439684.00    3765365.00        0.24785
439689.00    3765365.00        0.24820
         439694.00    3765365.00        0.24854
439699.00    3765365.00        0.24889
         439704.00    3765365.00        0.24923
439709.00    3765365.00        0.24959
         439714.00    3765365.00        0.24994
439719.00    3765365.00        0.25029
         439729.00    3765365.00        0.25100
439734.00    3765365.00        0.25136
```

```
         439739.00    3765365.00        0.25172
439744.00    3765365.00        0.25207
         439749.00    3765365.00        0.25243
439774.00    3765365.00        0.25418
         439779.00    3765365.00        0.25452
439784.00    3765365.00        0.25486
         439789.00    3765365.00        0.25518
439794.00    3765365.00        0.25551
         439799.00    3765365.00        0.25582
439804.00    3765365.00        0.25613
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: EVAP ***
INCLUDING SOURCE(S):
A0000067 , A0000068 , A0000069 , A0000070 , A0000071 ,
A0000072 , A0000073 , A0000074 , A0000075 , A0000076 , A0000077 , A0000078 , A0000079 ,
A0000080 , A0000081 , A0000082 , A0000083 , A0000084 , A0000085 , A0000086 , A0000087 ,
A0000088 , A0000089 , A0000090 , A0000091 , A0000092 , A0000093 ,
A0000094 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439809.00	3765365.00	0.25643	439814.00	3765365.00	0.25673
439839.00	3765365.00	0.25802	439844.00	3765365.00	0.25824
439849.00	3765365.00	0.25845	439854.00	3765365.00	0.25864
439859.00	3765365.00	0.25882	439864.00	3765365.00	0.25899
439869.00	3765365.00	0.25914	439874.00	3765365.00	0.25926
439879.00	3765365.00	0.25939	439884.00	3765365.00	0.25948
439674.00	3765370.00	0.25068	439679.00	3765370.00	0.25103
439684.00	3765370.00	0.25138	439689.00	3765370.00	0.25173
439694.00	3765370.00	0.25209	439699.00	3765370.00	0.25245

```
          439704.00    3765370.00        0.25281
439709.00    3765370.00        0.25317
          439714.00    3765370.00        0.25354
439719.00    3765370.00        0.25390
          439729.00    3765370.00        0.25465
439734.00    3765370.00        0.25501
          439739.00    3765370.00        0.25539
439744.00    3765370.00        0.25576
          439749.00    3765370.00        0.25613
439774.00    3765370.00        0.25797
          439779.00    3765370.00        0.25833
439784.00    3765370.00        0.25869
          439789.00    3765370.00        0.25904
439794.00    3765370.00        0.25938
          439799.00    3765370.00        0.25972
439804.00    3765370.00        0.26005
          439809.00    3765370.00        0.26038
439814.00    3765370.00        0.26069
          439839.00    3765370.00        0.26210
439844.00    3765370.00        0.26235
          439849.00    3765370.00        0.26257
439854.00    3765370.00        0.26280
          439859.00    3765370.00        0.26299
439864.00    3765370.00        0.26318
          439869.00    3765370.00        0.26335
439874.00    3765370.00        0.26351
          439879.00    3765370.00        0.26364
439884.00    3765370.00        0.26376
          439674.00    3765375.00        0.25428
439679.00    3765375.00        0.25464
          439684.00    3765375.00        0.25500
439689.00    3765375.00        0.25537
          439694.00    3765375.00        0.25573
439699.00    3765375.00        0.25610
          439704.00    3765375.00        0.25647
439709.00    3765375.00        0.25685
          439714.00    3765375.00        0.25722
439719.00    3765375.00        0.25760
          439729.00    3765375.00        0.25837
439734.00    3765375.00        0.25876
          439739.00    3765375.00        0.25914
439744.00    3765375.00        0.25953
          439749.00    3765375.00        0.25992
439754.00    3765375.00        0.26032
          439774.00    3765375.00        0.26186
439779.00    3765375.00        0.26224
          439784.00    3765375.00        0.26262
439789.00    3765375.00        0.26299
          439794.00    3765375.00        0.26335
439799.00    3765375.00        0.26372
          439804.00    3765375.00        0.26407
439809.00    3765375.00        0.26442
```

```
         439814.00    3765375.00        0.26475
439839.00    3765375.00        0.26629
         439844.00    3765375.00        0.26655
439849.00    3765375.00        0.26682
         439854.00    3765375.00        0.26705
439859.00    3765375.00        0.26728
         439864.00    3765375.00        0.26748
439869.00    3765375.00        0.26768
         439874.00    3765375.00        0.26786
439879.00    3765375.00        0.26801
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: EVAP ***
INCLUDING SOURCE(S):
A0000067 , A0000068 , A0000069 , A0000070 , A0000071 ,
A0000072 , A0000073 , A0000074 , A0000075 , A0000076 , A0000077 , A0000078 , A0000079 ,
A0000080 , A0000081 , A0000082 , A0000083 , A0000084 , A0000085 , A0000086 , A0000087 ,
A0000088 , A0000089 , A0000090 , A0000091 , A0000092 , A0000093 ,
A0000094 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439884.00	3765375.00	0.26815	439774.00	3765380.00	0.26584
439779.00	3765380.00	0.26624	439784.00	3765380.00	0.26664
439789.00	3765380.00	0.26703	439794.00	3765380.00	0.26743
439799.00	3765380.00	0.26781	439804.00	3765380.00	0.26819
439809.00	3765380.00	0.26855	439814.00	3765380.00	0.26893
439769.00	3765385.00	0.26949	439819.00	3765385.00	0.27358
439769.00	3765400.00	0.28228	439844.00	3765400.00	0.28933
439849.00	3765400.00	0.28974	439674.00	3765405.00	0.27798
439714.00	3765405.00	0.28138	439719.00	3765405.00	0.28184

```
          439734.00    3765405.00        0.28326
439749.00    3765405.00        0.28473
          439754.00    3765405.00        0.28523
439774.00    3765405.00        0.28728
          439779.00    3765405.00        0.28781
439784.00    3765405.00        0.28832
          439789.00    3765405.00        0.28884
439794.00    3765405.00        0.28937
          439799.00    3765405.00        0.28989
439804.00    3765405.00        0.29040
          439809.00    3765405.00        0.29091
439814.00    3765405.00        0.29142
          439819.00    3765405.00        0.29192
439824.00    3765405.00        0.29241
          439829.00    3765405.00        0.29289
439834.00    3765405.00        0.29337
          439839.00    3765405.00        0.29382
439844.00    3765405.00        0.29427
          439849.00    3765405.00        0.29471
439854.00    3765405.00        0.29512
          439859.00    3765405.00        0.29552
439674.00    3765410.00        0.28232
          439679.00    3765410.00        0.28273
439684.00    3765410.00        0.28314
          439689.00    3765410.00        0.28356
439694.00    3765410.00        0.28400
          439699.00    3765410.00        0.28443
439704.00    3765410.00        0.28488
          439709.00    3765410.00        0.28533
439714.00    3765410.00        0.28580
          439719.00    3765410.00        0.28626
439729.00    3765410.00        0.28723
          439734.00    3765410.00        0.28772
439739.00    3765410.00        0.28822
          439744.00    3765410.00        0.28874
439749.00    3765410.00        0.28925
          439774.00    3765410.00        0.29192
439779.00    3765410.00        0.29246
          439784.00    3765410.00        0.29300
439789.00    3765410.00        0.29356
          439794.00    3765410.00        0.29411
439799.00    3765410.00        0.29465
          439804.00    3765410.00        0.29520
439809.00    3765410.00        0.29575
          439814.00    3765410.00        0.29628
439819.00    3765410.00        0.29682
          439824.00    3765410.00        0.29734
439829.00    3765410.00        0.29786
          439834.00    3765410.00        0.29836
439839.00    3765410.00        0.29887
          439844.00    3765410.00        0.29934
439849.00    3765410.00        0.29982
```

```
         439854.00    3765410.00        0.30027
439859.00    3765410.00        0.30071
         439674.00    3765415.00        0.28678
439679.00    3765415.00        0.28720
         439684.00    3765415.00        0.28762
439689.00    3765415.00        0.28806
         439694.00    3765415.00        0.28848
439699.00    3765415.00        0.28894
         439704.00    3765415.00        0.28939
439709.00    3765415.00        0.28985
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: EVAP ***
INCLUDING SOURCE(S):
A0000067 , A0000068 , A0000069 , A0000070 , A0000071 ,
A0000072 , A0000073 , A0000074 , A0000075 , A0000076 , A0000077 , A0000078 , A0000079 ,
A0000080 , A0000081 , A0000082 , A0000083 , A0000084 , A0000085 , A0000086 , A0000087 ,
A0000088 , A0000089 , A0000090 , A0000091 , A0000092 , A0000093 ,
A0000094 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439714.00	3765415.00	0.29032	439719.00	3765415.00	0.29081
439729.00	3765415.00	0.29180	439734.00	3765415.00	0.29231
439739.00	3765415.00	0.29283	439744.00	3765415.00	0.29335
439749.00	3765415.00	0.29389	439774.00	3765415.00	0.29666
439779.00	3765415.00	0.29724	439784.00	3765415.00	0.29782
439789.00	3765415.00	0.29839	439794.00	3765415.00	0.29897
439799.00	3765415.00	0.29955	439804.00	3765415.00	0.30014
439809.00	3765415.00	0.30071	439814.00	3765415.00	0.30129
439819.00	3765415.00	0.30185	439824.00	3765415.00	0.30241

```
          439829.00    3765415.00        0.30296
439834.00    3765415.00        0.30352
          439839.00    3765415.00        0.30404
439844.00    3765415.00        0.30457
          439849.00    3765415.00        0.30507
439854.00    3765415.00        0.30556
          439859.00    3765415.00        0.30604
439674.00    3765420.00        0.29139
          439679.00    3765420.00        0.29180
439684.00    3765420.00        0.29224
          439689.00    3765420.00        0.29266
439694.00    3765420.00        0.29312
          439699.00    3765420.00        0.29357
439704.00    3765420.00        0.29403
          439709.00    3765420.00        0.29450
439714.00    3765420.00        0.29499
          439719.00    3765420.00        0.29548
439729.00    3765420.00        0.29650
          439734.00    3765420.00        0.29703
439739.00    3765420.00        0.29756
          439744.00    3765420.00        0.29810
439749.00    3765420.00        0.29865
          439774.00    3765420.00        0.30155
439779.00    3765420.00        0.30215
          439784.00    3765420.00        0.30275
439789.00    3765420.00        0.30336
          439794.00    3765420.00        0.30397
439799.00    3765420.00        0.30459
          439804.00    3765420.00        0.30519
439809.00    3765420.00        0.30582
          439814.00    3765420.00        0.30641
439819.00    3765420.00        0.30703
          439824.00    3765420.00        0.30762
439829.00    3765420.00        0.30822
          439834.00    3765420.00        0.30879
439839.00    3765420.00        0.30938
          439844.00    3765420.00        0.30993
439849.00    3765420.00        0.31048
          439854.00    3765420.00        0.31101
439859.00    3765420.00        0.31153
          439674.00    3765425.00        0.29612
439679.00    3765425.00        0.29655
          439684.00    3765425.00        0.29698
439689.00    3765425.00        0.29743
          439694.00    3765425.00        0.29787
439699.00    3765425.00        0.29834
          439704.00    3765425.00        0.29881
439709.00    3765425.00        0.29930
          439714.00    3765425.00        0.29978
439719.00    3765425.00        0.30030
          439729.00    3765425.00        0.30134
439734.00    3765425.00        0.30188
```

```
         439739.00    3765425.00        0.30243
439744.00    3765425.00        0.30299
         439749.00    3765425.00        0.30356
439774.00    3765425.00        0.30657
         439779.00    3765425.00        0.30719
439784.00    3765425.00        0.30783
         439789.00    3765425.00        0.30846
439794.00    3765425.00        0.30911
         439799.00    3765425.00        0.30976
439804.00    3765425.00        0.31041
```

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: EVAP ***
INCLUDING SOURCE(S):
A0000067 , A0000068 , A0000069 , A0000070 , A0000071 ,
A0000072 , A0000073 , A0000074 , A0000075 , A0000076 , A0000077 , A0000078 , A0000079 ,
A0000080 , A0000081 , A0000082 , A0000083 , A0000084 , A0000085 , A0000086 , A0000087 ,
A0000088 , A0000089 , A0000090 , A0000091 , A0000092 , A0000093 ,
A0000094 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439809.00	3765425.00	0.31105	439814.00	3765425.00	0.31171
439819.00	3765425.00	0.31234	439824.00	3765425.00	0.31299
439829.00	3765425.00	0.31361	439834.00	3765425.00	0.31425
439839.00	3765425.00	0.31485	439844.00	3765425.00	0.31547
439849.00	3765425.00	0.31605	439854.00	3765425.00	0.31663
439859.00	3765425.00	0.31718	439674.00	3765430.00	0.30101
439679.00	3765430.00	0.30144	439684.00	3765430.00	0.30188
439689.00	3765430.00	0.30232	439694.00	3765430.00	0.30279
439699.00	3765430.00	0.30325	439704.00	3765430.00	0.30374

```
          439709.00    3765430.00         0.30422
439714.00    3765430.00         0.30473
          439719.00    3765430.00         0.30524
439729.00    3765430.00         0.30631
          439734.00    3765430.00         0.30687
439739.00    3765430.00         0.30743
          439744.00    3765430.00         0.30801
439749.00    3765430.00         0.30860
          439774.00    3765430.00         0.31173
439779.00    3765430.00         0.31238
          439784.00    3765430.00         0.31304
439789.00    3765430.00         0.31372
          439794.00    3765430.00         0.31439
439799.00    3765430.00         0.31507
          439804.00    3765430.00         0.31576
439809.00    3765430.00         0.31645
          439814.00    3765430.00         0.31713
439819.00    3765430.00         0.31782
          439824.00    3765430.00         0.31850
439829.00    3765430.00         0.31918
          439834.00    3765430.00         0.31984
439839.00    3765430.00         0.32051
          439844.00    3765430.00         0.32115
439849.00    3765430.00         0.32179
          439854.00    3765430.00         0.32241
439859.00    3765430.00         0.32302
          439674.00    3765435.00         0.30605
439679.00    3765435.00         0.30648
          439684.00    3765435.00         0.30693
439689.00    3765435.00         0.30738
          439694.00    3765435.00         0.30784
439699.00    3765435.00         0.30832
          439704.00    3765435.00         0.30880
439709.00    3765435.00         0.30931
          439714.00    3765435.00         0.30982
439719.00    3765435.00         0.31035
          439729.00    3765435.00         0.31144
439734.00    3765435.00         0.31201
          439739.00    3765435.00         0.31259
439744.00    3765435.00         0.31319
          439749.00    3765435.00         0.31379
439774.00    3765435.00         0.31704
          439779.00    3765435.00         0.31772
439784.00    3765435.00         0.31842
          439789.00    3765435.00         0.31912
439794.00    3765435.00         0.31983
          439799.00    3765435.00         0.32055
439804.00    3765435.00         0.32127
          439809.00    3765435.00         0.32199
439814.00    3765435.00         0.32273
          439819.00    3765435.00         0.32345
439824.00    3765435.00         0.32418
```

```
         439829.00    3765435.00        0.32489
439834.00    3765435.00        0.32562
         439839.00    3765435.00        0.32631
439844.00    3765435.00        0.32702
         439849.00    3765435.00        0.32770
439854.00    3765435.00        0.32837
         439859.00    3765435.00        0.32902
439674.00    3765440.00        0.31125
         439679.00    3765440.00        0.31169
439684.00    3765440.00        0.31214
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: EVAP ***
INCLUDING SOURCE(S):
A0000067 , A0000068 , A0000069 , A0000070 , A0000071 ,
A0000072 , A0000073 , A0000074 , A0000075 , A0000076 , A0000077 , A0000078 , A0000079 ,
A0000080 , A0000081 , A0000082 , A0000083 , A0000084 , A0000085 , A0000086 , A0000087 ,
A0000088 , A0000089 , A0000090 , A0000091 , A0000092 , A0000093 ,
A0000094 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439689.00	3765440.00	0.31259	439694.00	3765440.00	0.31307
439699.00	3765440.00	0.31354	439704.00	3765440.00	0.31405
439709.00	3765440.00	0.31455	439714.00	3765440.00	0.31507
439719.00	3765440.00	0.31561	439729.00	3765440.00	0.31672
439734.00	3765440.00	0.31730	439739.00	3765440.00	0.31790
439744.00	3765440.00	0.31851	439749.00	3765440.00	0.31914
439774.00	3765440.00	0.32250	439779.00	3765440.00	0.32321
439784.00	3765440.00	0.32394	439789.00	3765440.00	0.32468
439794.00	3765440.00	0.32542	439799.00	3765440.00	0.32618

```
          439804.00    3765440.00        0.32694
439809.00    3765440.00        0.32771
          439814.00    3765440.00        0.32847
439819.00    3765440.00        0.32925
          439824.00    3765440.00        0.33002
439829.00    3765440.00        0.33079
          439834.00    3765440.00        0.33155
439839.00    3765440.00        0.33231
          439844.00    3765440.00        0.33306
439849.00    3765440.00        0.33380
          439854.00    3765440.00        0.33452
439859.00    3765440.00        0.33522
          439674.00    3765445.00        0.31663
439679.00    3765445.00        0.31707
          439684.00    3765445.00        0.31752
439689.00    3765445.00        0.31799
          439694.00    3765445.00        0.31846
439699.00    3765445.00        0.31895
          439704.00    3765445.00        0.31944
439709.00    3765445.00        0.31996
          439714.00    3765445.00        0.32049
439719.00    3765445.00        0.32103
          439729.00    3765445.00        0.32217
439734.00    3765445.00        0.32276
          439739.00    3765445.00        0.32338
439744.00    3765445.00        0.32400
          439749.00    3765445.00        0.32465
439774.00    3765445.00        0.32813
          439779.00    3765445.00        0.32887
439784.00    3765445.00        0.32963
          439789.00    3765445.00        0.33040
439794.00    3765445.00        0.33118
          439799.00    3765445.00        0.33197
439804.00    3765445.00        0.33278
          439809.00    3765445.00        0.33358
439814.00    3765445.00        0.33441
          439819.00    3765445.00        0.33522
439824.00    3765445.00        0.33604
          439829.00    3765445.00        0.33685
439834.00    3765445.00        0.33768
          439839.00    3765445.00        0.33848
439844.00    3765445.00        0.33929
          439849.00    3765445.00        0.34007
439854.00    3765445.00        0.34086
          439859.00    3765445.00        0.34162
439674.00    3765450.00        0.32219
          439679.00    3765450.00        0.32263
439684.00    3765450.00        0.32308
          439689.00    3765450.00        0.32355
439694.00    3765450.00        0.32403
          439699.00    3765450.00        0.32452
439704.00    3765450.00        0.32503
```

```
         439709.00    3765450.00        0.32554
439714.00    3765450.00        0.32608
         439719.00    3765450.00        0.32664
439729.00    3765450.00        0.32779
         439734.00    3765450.00        0.32840
439739.00    3765450.00        0.32902
         439744.00    3765450.00        0.32967
439749.00    3765450.00        0.33033
         439774.00    3765450.00        0.33392
439844.00    3765450.00        0.34571
```

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: EVAP ***
INCLUDING SOURCE(S):
A0000067 , A0000068 , A0000069 , A0000070 , A0000071 ,
A0000072 , A0000073 , A0000074 , A0000075 , A0000076 , A0000077 , A0000078 , A0000079 ,
A0000080 , A0000081 , A0000082 , A0000083 , A0000084 , A0000085 , A0000086 , A0000087 ,
A0000088 , A0000089 , A0000090 , A0000091 , A0000092 , A0000093 ,
A0000094 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439849.00	3765450.00	0.34656	439854.00	3765450.00	0.34740
439859.00	3765450.00	0.34823	439674.00	3765455.00	0.32794
439679.00	3765455.00	0.32838	439684.00	3765455.00	0.32884
439689.00	3765455.00	0.32931	439694.00	3765455.00	0.32979
439699.00	3765455.00	0.33028	439704.00	3765455.00	0.33079
439709.00	3765455.00	0.33132	439714.00	3765455.00	0.33186
439719.00	3765455.00	0.33242	439729.00	3765455.00	0.33360
439734.00	3765455.00	0.33422	439739.00	3765455.00	0.33485
439744.00	3765455.00	0.33551	439749.00	3765455.00	0.33619

```
          439844.00    3765455.00        0.35234
439849.00    3765455.00        0.35325
          439854.00    3765455.00        0.35416
439859.00    3765455.00        0.35505
          439674.00    3765460.00        0.33390
439679.00    3765460.00        0.33434
          439684.00    3765460.00        0.33480
439689.00    3765460.00        0.33526
          439694.00    3765460.00        0.33575
439699.00    3765460.00        0.33624
          439704.00    3765460.00        0.33676
439709.00    3765460.00        0.33729
          439714.00    3765460.00        0.33784
439719.00    3765460.00        0.33840
          439729.00    3765460.00        0.33960
439734.00    3765460.00        0.34023
          439739.00    3765460.00        0.34088
439744.00    3765460.00        0.34155
          439749.00    3765460.00        0.34225
439789.00    3765460.00        0.34863
          439794.00    3765460.00        0.34953
439799.00    3765460.00        0.35045
          439804.00    3765460.00        0.35138
439809.00    3765460.00        0.35233
          439814.00    3765460.00        0.35328
439819.00    3765460.00        0.35426
          439824.00    3765460.00        0.35524
439829.00    3765460.00        0.35623
          439844.00    3765460.00        0.35919
439849.00    3765460.00        0.36017
          439854.00    3765460.00        0.36114
439859.00    3765460.00        0.36210
          439674.00    3765465.00        0.34007
439679.00    3765465.00        0.34051
          439684.00    3765465.00        0.34096
439689.00    3765465.00        0.34144
          439694.00    3765465.00        0.34192
439699.00    3765465.00        0.34242
          439704.00    3765465.00        0.34294
439709.00    3765465.00        0.34347
          439714.00    3765465.00        0.34402
439719.00    3765465.00        0.34460
          439729.00    3765465.00        0.34580
439734.00    3765465.00        0.34645
          439739.00    3765465.00        0.34710
439744.00    3765465.00        0.34779
          439749.00    3765465.00        0.34850
439789.00    3765465.00        0.35510
          439794.00    3765465.00        0.35604
439799.00    3765465.00        0.35700
          439804.00    3765465.00        0.35797
439809.00    3765465.00        0.35897
```

```
         439814.00    3765465.00        0.35998
439819.00    3765465.00        0.36101
         439824.00    3765465.00        0.36205
439829.00    3765465.00        0.36309
         439844.00    3765465.00        0.36626
439849.00    3765465.00        0.36731
         439854.00    3765465.00        0.36835
439859.00    3765465.00        0.36938
         439674.00    3765470.00        0.34647
439679.00    3765470.00        0.34691
```

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: EVAP ***
INCLUDING SOURCE(S):
A0000067 , A0000068 , A0000069 , A0000070 , A0000071 ,
A0000072 , A0000073 , A0000074 , A0000075 , A0000076 , A0000077 , A0000078 , A0000079 ,
A0000080 , A0000081 , A0000082 , A0000083 , A0000084 , A0000085 , A0000086 , A0000087 ,
A0000088 , A0000089 , A0000090 , A0000091 , A0000092 , A0000093 ,
A0000094 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439684.00	3765470.00	0.34737	439689.00	3765470.00	0.34783
439694.00	3765470.00	0.34832	439699.00	3765470.00	0.34882
439704.00	3765470.00	0.34934	439709.00	3765470.00	0.34987
439714.00	3765470.00	0.35043	439719.00	3765470.00	0.35101
439729.00	3765470.00	0.35224	439734.00	3765470.00	0.35288
439739.00	3765470.00	0.35355	439744.00	3765470.00	0.35425
439749.00	3765470.00	0.35498	439789.00	3765470.00	0.36178
439794.00	3765470.00	0.36276	439799.00	3765470.00	0.36375
439804.00	3765470.00	0.36478	439809.00	3765470.00	0.36583

```
          439814.00    3765470.00        0.36689
439819.00    3765470.00        0.36798
          439824.00    3765470.00        0.36908
439829.00    3765470.00        0.37019
          439844.00    3765470.00        0.37356
439849.00    3765470.00        0.37469
          439854.00    3765470.00        0.37581
439859.00    3765470.00        0.37692
          439674.00    3765475.00        0.35311
439679.00    3765475.00        0.35356
          439684.00    3765475.00        0.35400
439689.00    3765475.00        0.35448
          439694.00    3765475.00        0.35496
439699.00    3765475.00        0.35546
          439704.00    3765475.00        0.35598
439709.00    3765475.00        0.35652
          439714.00    3765475.00        0.35708
439719.00    3765475.00        0.35766
          439729.00    3765475.00        0.35889
439734.00    3765475.00        0.35955
          439739.00    3765475.00        0.36023
439744.00    3765475.00        0.36094
          439749.00    3765475.00        0.36167
439754.00    3765475.00        0.36244
          439789.00    3765475.00        0.36868
439794.00    3765475.00        0.36969
          439799.00    3765475.00        0.37074
439804.00    3765475.00        0.37181
          439809.00    3765475.00        0.37291
439814.00    3765475.00        0.37403
          439819.00    3765475.00        0.37518
439824.00    3765475.00        0.37634
          439829.00    3765475.00        0.37752
439269.00    3764900.00        0.09144
          439369.00    3764900.00        0.09303
439469.00    3764900.00        0.09372
          439569.00    3764900.00        0.09342
439669.00    3764900.00        0.09205
          439769.00    3764900.00        0.08956
439869.00    3764900.00        0.08595
          439969.00    3764900.00        0.08132
440069.00    3764900.00        0.07586
          440169.00    3764900.00        0.06989
440269.00    3764900.00        0.06376
          439269.00    3765000.00        0.10608
439369.00    3765000.00        0.10868
          439469.00    3765000.00        0.11028
439569.00    3765000.00        0.11078
          439669.00    3765000.00        0.11006
439769.00    3765000.00        0.10792
          439869.00    3765000.00        0.10420
439969.00    3765000.00        0.09894
```

```
         440069.00    3765000.00        0.09235
440169.00    3765000.00        0.08483
         440269.00    3765000.00        0.07690
439269.00    3765100.00        0.12459
         439369.00    3765100.00        0.12850
439469.00    3765100.00        0.13130
         439569.00    3765100.00        0.13298
439669.00    3765100.00        0.13341
         439769.00    3765100.00        0.13217
439869.00    3765100.00        0.12879
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: EVAP ***
INCLUDING SOURCE(S):
A0000067 , A0000068 , A0000069 , A0000070 , A0000071 ,
A0000072 , A0000073 , A0000074 , A0000075 , A0000076 , A0000077 , A0000078 , A0000079 ,
A0000080 , A0000081 , A0000082 , A0000083 , A0000084 , A0000085 , A0000086 , A0000087 ,
A0000088 , A0000089 , A0000090 , A0000091 , A0000092 , A0000093 ,
A0000094 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439969.00	3765100.00	0.12312	440069.00	3765100.00	0.11531
440169.00	3765100.00	0.10585	440269.00	3765100.00	0.09541
439269.00	3765200.00	0.14902	439369.00	3765200.00	0.15468
439469.00	3765200.00	0.15903	439569.00	3765200.00	0.16230
439669.00	3765200.00	0.16454	439769.00	3765200.00	0.16512
439869.00	3765200.00	0.16299	439969.00	3765200.00	0.15753
440069.00	3765200.00	0.14869	440169.00	3765200.00	0.13688
440269.00	3765200.00	0.12290	439269.00	3765300.00	0.18311
439369.00	3765300.00	0.19157	439469.00	3765300.00	0.19801

```
          439569.00    3765300.00         0.20318
439669.00    3765300.00         0.20788
          439769.00    3765300.00         0.21176
439869.00    3765300.00         0.21282
          439969.00    3765300.00         0.20910
440069.00    3765300.00         0.19997
          440169.00    3765300.00         0.18556
440269.00    3765300.00         0.16653
          439269.00    3765400.00         0.23447
439369.00    3765400.00         0.24842
          439469.00    3765400.00         0.25874
439569.00    3765400.00         0.26628
          439669.00    3765400.00         0.27337
439769.00    3765400.00         0.28228
          439869.00    3765400.00         0.29117
439969.00    3765400.00         0.29317
          440069.00    3765400.00         0.28575
440169.00    3765400.00         0.26880
          440269.00    3765400.00         0.24269
439269.00    3765500.00         0.32255
          439369.00    3765500.00         0.34940
439469.00    3765500.00         0.36983
          439569.00    3765500.00         0.38223
439669.00    3765500.00         0.39015
          439769.00    3765500.00         0.40272
439869.00    3765500.00         0.43167
          439969.00    3765500.00         0.45599
440069.00    3765500.00         0.45477
          440169.00    3765500.00         0.43473
440269.00    3765500.00         0.39902
          439269.00    3765600.00         0.53003
439369.00    3765600.00         0.59110
          439469.00    3765600.00         0.64757
439569.00    3765600.00         0.67619
          439669.00    3765600.00         0.68610
439769.00    3765600.00         0.69464
          439869.00    3765600.00         0.75013
439969.00    3765600.00         0.99152
          440069.00    3765600.00         0.99187
440169.00    3765600.00         0.93788
          440269.00    3765600.00         0.86769
439269.00    3765700.00         3.04476
          439369.00    3765700.00         3.30958
439469.00    3765700.00         4.07275
          439569.00    3765700.00         4.33857
439669.00    3765700.00         4.26516
          439769.00    3765700.00         4.22817
439869.00    3765700.00         4.15175
          439969.00    3765700.00         4.29164
440069.00    3765700.00         4.99170
          440169.00    3765700.00         5.84784
440269.00    3765700.00         7.49644
```

```
         439269.00    3765800.00        1.13569
439369.00    3765800.00        1.22334
         439469.00    3765800.00        1.43259
439569.00    3765800.00        1.78112
         439669.00    3765800.00        2.08787
439769.00    3765800.00        2.62679
         439869.00    3765800.00        3.86597
439969.00    3765800.00        2.10074
         440069.00    3765800.00        1.74667
440169.00    3765800.00        1.68548
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: EVAP ***
INCLUDING SOURCE(S):
A0000067 , A0000068 , A0000069 , A0000070 , A0000071 ,
A0000072 , A0000073 , A0000074 , A0000075 , A0000076 , A0000077 , A0000078 , A0000079 ,
A0000080 , A0000081 , A0000082 , A0000083 , A0000084 , A0000085 , A0000086 , A0000087 ,
A0000088 , A0000089 , A0000090 , A0000091 , A0000092 , A0000093 ,
A0000094 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
440269.00	3765800.00	1.70829	439269.00	3765900.00	0.37802
439369.00	3765900.00	0.44420	439469.00	3765900.00	0.50621
439569.00	3765900.00	0.57509	439669.00	3765900.00	0.65261
439769.00	3765900.00	0.72950	439869.00	3765900.00	0.79633
439969.00	3765900.00	0.82815	440069.00	3765900.00	0.80664
440169.00	3765900.00	0.77711	440269.00	3765900.00	0.76499
439649.00	3765310.00	0.21221	439679.00	3765310.00	0.21367
439709.00	3765310.00	0.21506	439739.00	3765310.00	0.21636
439769.00	3765310.00	0.21749	439799.00	3765310.00	0.21838

```
          439829.00    3765310.00        0.21894
439859.00    3765310.00        0.21910
          439889.00    3765310.00        0.21882
439649.00    3765340.00        0.22934
          439679.00    3765340.00        0.23109
439709.00    3765340.00        0.23286
          439739.00    3765340.00        0.23459
439769.00    3765340.00        0.23622
          439799.00    3765340.00        0.23765
439829.00    3765340.00        0.23877
          439859.00    3765340.00        0.23946
439889.00    3765340.00        0.23966
          439649.00    3765370.00        0.24898
439679.00    3765370.00        0.25103
          439709.00    3765370.00        0.25317
439739.00    3765370.00        0.25539
          439769.00    3765370.00        0.25761
439799.00    3765370.00        0.25972
          439829.00    3765370.00        0.26157
439859.00    3765370.00        0.26299
          439889.00    3765370.00        0.26386
439649.00    3765400.00        0.27186
          439679.00    3765400.00        0.27416
439709.00    3765400.00        0.27665
          439739.00    3765400.00        0.27938
439769.00    3765400.00        0.28228
          439799.00    3765400.00        0.28524
439829.00    3765400.00        0.28806
          439859.00    3765400.00        0.29048
439889.00    3765400.00        0.29230
          439649.00    3765430.00        0.29898
439679.00    3765430.00        0.30144
          439709.00    3765430.00        0.30422
439739.00    3765430.00        0.30743
          439769.00    3765430.00        0.31108
439799.00    3765430.00        0.31507
          439829.00    3765430.00        0.31918
439859.00    3765430.00        0.32302
          439889.00    3765430.00        0.32621
439649.00    3765460.00        0.33182
          439679.00    3765460.00        0.33434
439709.00    3765460.00        0.33729
          439739.00    3765460.00        0.34088
439769.00    3765460.00        0.34526
          439799.00    3765460.00        0.35045
439829.00    3765460.00        0.35623
          439859.00    3765460.00        0.36210
439889.00    3765460.00        0.36739
          439649.00    3765490.00        0.37266
439679.00    3765490.00        0.37510
          439709.00    3765490.00        0.37802
439739.00    3765490.00        0.38178
```

```
          439769.00    3765490.00        0.38676
439799.00    3765490.00        0.39318
          439829.00    3765490.00        0.40106
439859.00    3765490.00        0.40986
          439889.00    3765490.00        0.41850
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: FREEEXH ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439674.00	3765310.00	0.24726	439679.00	3765310.00	0.24721
439684.00	3765310.00	0.24715	439689.00	3765310.00	0.24709
439694.00	3765310.00	0.24703	439699.00	3765310.00	0.24696
439704.00	3765310.00	0.24689	439709.00	3765310.00	0.24681
439714.00	3765310.00	0.24673	439719.00	3765310.00	0.24665
439729.00	3765310.00	0.24647	439734.00	3765310.00	0.24638
439739.00	3765310.00	0.24628	439744.00	3765310.00	0.24618
439749.00	3765310.00	0.24607	439764.00	3765310.00	0.24572
439769.00	3765310.00	0.24560	439774.00	3765310.00	0.24547
439779.00	3765310.00	0.24534	439784.00	3765310.00	0.24520

```
         439789.00    3765310.00        0.24506
439794.00    3765310.00        0.24492
         439799.00    3765310.00        0.24477
439804.00    3765310.00        0.24461
         439809.00    3765310.00        0.24445
439814.00    3765310.00        0.24429
         439819.00    3765310.00        0.24412
439824.00    3765310.00        0.24395
         439829.00    3765310.00        0.24377
439839.00    3765310.00        0.24340
         439844.00    3765310.00        0.24321
439849.00    3765310.00        0.24301
         439854.00    3765310.00        0.24281
439859.00    3765310.00        0.24260
         439864.00    3765310.00        0.24238
439869.00    3765310.00        0.24217
         439874.00    3765310.00        0.24194
439879.00    3765310.00        0.24171
         439884.00    3765310.00        0.24148
439674.00    3765315.00        0.25048
         439679.00    3765315.00        0.25043
439684.00    3765315.00        0.25038
         439689.00    3765315.00        0.25032
439694.00    3765315.00        0.25026
         439699.00    3765315.00        0.25020
439704.00    3765315.00        0.25013
         439709.00    3765315.00        0.25006
439714.00    3765315.00        0.24998
         439719.00    3765315.00        0.24990
439729.00    3765315.00        0.24973
         439734.00    3765315.00        0.24964
439739.00    3765315.00        0.24954
         439744.00    3765315.00        0.24944
439749.00    3765315.00        0.24934
         439764.00    3765315.00        0.24900
439769.00    3765315.00        0.24888
         439774.00    3765315.00        0.24875
439779.00    3765315.00        0.24862
         439784.00    3765315.00        0.24849
439789.00    3765315.00        0.24835
         439794.00    3765315.00        0.24821
439799.00    3765315.00        0.24806
         439804.00    3765315.00        0.24791
439809.00    3765315.00        0.24775
         439814.00    3765315.00        0.24760
439819.00    3765315.00        0.24743
         439824.00    3765315.00        0.24726
439829.00    3765315.00        0.24708
         439839.00    3765315.00        0.24672
439844.00    3765315.00        0.24653
         439849.00    3765315.00        0.24633
439854.00    3765315.00        0.24613
```

```
         439859.00    3765315.00        0.24592
439864.00    3765315.00        0.24572
         439869.00    3765315.00        0.24550
439874.00    3765315.00        0.24528
         439879.00    3765315.00        0.24505
439884.00    3765315.00        0.24482
         439674.00    3765320.00        0.25378
439679.00    3765320.00        0.25374
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: FREEEXH ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439684.00	3765320.00	0.25369	439689.00	3765320.00	0.25363
439694.00	3765320.00	0.25357	439699.00	3765320.00	0.25351
439704.00	3765320.00	0.25345	439709.00	3765320.00	0.25338
439714.00	3765320.00	0.25330	439719.00	3765320.00	0.25323
439729.00	3765320.00	0.25306	439734.00	3765320.00	0.25297
439739.00	3765320.00	0.25288	439744.00	3765320.00	0.25278
439749.00	3765320.00	0.25268	439764.00	3765320.00	0.25235
439769.00	3765320.00	0.25223	439774.00	3765320.00	0.25211
439779.00	3765320.00	0.25199	439784.00	3765320.00	0.25186
439789.00	3765320.00	0.25172	439794.00	3765320.00	0.25158

```
          439799.00    3765320.00        0.25144
439804.00    3765320.00        0.25129
          439809.00    3765320.00        0.25113
439814.00    3765320.00        0.25098
          439819.00    3765320.00        0.25081
439824.00    3765320.00        0.25064
          439829.00    3765320.00        0.25047
439839.00    3765320.00        0.25011
          439844.00    3765320.00        0.24992
439849.00    3765320.00        0.24973
          439854.00    3765320.00        0.24953
439859.00    3765320.00        0.24933
          439864.00    3765320.00        0.24912
439869.00    3765320.00        0.24891
          439874.00    3765320.00        0.24869
439879.00    3765320.00        0.24846
          439884.00    3765320.00        0.24823
439674.00    3765325.00        0.25716
          439679.00    3765325.00        0.25712
439684.00    3765325.00        0.25707
          439689.00    3765325.00        0.25702
439694.00    3765325.00        0.25696
          439699.00    3765325.00        0.25690
439704.00    3765325.00        0.25684
          439709.00    3765325.00        0.25677
439714.00    3765325.00        0.25671
          439719.00    3765325.00        0.25663
439729.00    3765325.00        0.25647
          439734.00    3765325.00        0.25638
439739.00    3765325.00        0.25629
          439744.00    3765325.00        0.25620
439749.00    3765325.00        0.25610
          439754.00    3765325.00        0.25600
439769.00    3765325.00        0.25567
          439774.00    3765325.00        0.25555
439779.00    3765325.00        0.25542
          439784.00    3765325.00        0.25529
439789.00    3765325.00        0.25516
          439794.00    3765325.00        0.25503
439799.00    3765325.00        0.25488
          439804.00    3765325.00        0.25474
439809.00    3765325.00        0.25459
          439814.00    3765325.00        0.25443
439819.00    3765325.00        0.25427
          439824.00    3765325.00        0.25411
439829.00    3765325.00        0.25394
          439839.00    3765325.00        0.25358
439844.00    3765325.00        0.25340
          439849.00    3765325.00        0.25321
439854.00    3765325.00        0.25301
          439859.00    3765325.00        0.25281
439864.00    3765325.00        0.25260
```

```
         439869.00    3765325.00        0.25239
439874.00    3765325.00        0.25218
         439879.00    3765325.00        0.25196
439884.00    3765325.00        0.25173
         439674.00    3765330.00        0.26061
439679.00    3765330.00        0.26057
         439684.00    3765330.00        0.26053
439689.00    3765330.00        0.26048
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: FREEEXH ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439694.00	3765330.00	0.26043	439699.00	3765330.00	0.26037
439704.00	3765330.00	0.26032	439709.00	3765330.00	0.26025
439714.00	3765330.00	0.26018	439719.00	3765330.00	0.26011
439729.00	3765330.00	0.25996	439734.00	3765330.00	0.25988
439739.00	3765330.00	0.25979	439744.00	3765330.00	0.25970
439749.00	3765330.00	0.25960	439754.00	3765330.00	0.25950
439774.00	3765330.00	0.25906	439779.00	3765330.00	0.25894
439784.00	3765330.00	0.25882	439789.00	3765330.00	0.25869
439794.00	3765330.00	0.25855	439799.00	3765330.00	0.25841
439804.00	3765330.00	0.25827	439809.00	3765330.00	0.25812

```
          439814.00    3765330.00        0.25797
439819.00    3765330.00        0.25781
          439824.00    3765330.00        0.25765
439829.00    3765330.00        0.25748
          439839.00    3765330.00        0.25713
439844.00    3765330.00        0.25695
          439849.00    3765330.00        0.25676
439854.00    3765330.00        0.25657
          439859.00    3765330.00        0.25638
439864.00    3765330.00        0.25617
          439869.00    3765330.00        0.25596
439874.00    3765330.00        0.25575
          439879.00    3765330.00        0.25553
439884.00    3765330.00        0.25531
          439674.00    3765335.00        0.26415
439679.00    3765335.00        0.26411
          439684.00    3765335.00        0.26407
439689.00    3765335.00        0.26403
          439694.00    3765335.00        0.26398
439699.00    3765335.00        0.26393
          439704.00    3765335.00        0.26387
439709.00    3765335.00        0.26381
          439714.00    3765335.00        0.26375
439719.00    3765335.00        0.26368
          439729.00    3765335.00        0.26353
439734.00    3765335.00        0.26345
          439739.00    3765335.00        0.26337
439744.00    3765335.00        0.26328
          439749.00    3765335.00        0.26319
439774.00    3765335.00        0.26266
          439779.00    3765335.00        0.26255
439784.00    3765335.00        0.26242
          439789.00    3765335.00        0.26230
439794.00    3765335.00        0.26217
          439839.00    3765335.00        0.26077
439844.00    3765335.00        0.26059
          439849.00    3765335.00        0.26041
439854.00    3765335.00        0.26022
          439859.00    3765335.00        0.26002
439864.00    3765335.00        0.25982
          439869.00    3765335.00        0.25962
439874.00    3765335.00        0.25941
          439879.00    3765335.00        0.25919
439884.00    3765335.00        0.25897
          439674.00    3765340.00        0.26777
439679.00    3765340.00        0.26774
          439684.00    3765340.00        0.26770
439689.00    3765340.00        0.26766
          439694.00    3765340.00        0.26762
439699.00    3765340.00        0.26756
          439704.00    3765340.00        0.26751
439709.00    3765340.00        0.26746
```

```
         439714.00    3765340.00        0.26740
439719.00    3765340.00        0.26733
         439729.00    3765340.00        0.26719
439734.00    3765340.00        0.26711
         439739.00    3765340.00        0.26703
439744.00    3765340.00        0.26695
         439749.00    3765340.00        0.26686
439774.00    3765340.00        0.26635
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: FREEEXH ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439779.00	3765340.00	0.26624	439784.00	3765340.00	0.26612
439789.00	3765340.00	0.26599	439794.00	3765340.00	0.26586
439839.00	3765340.00	0.26450	439844.00	3765340.00	0.26432
439849.00	3765340.00	0.26414	439854.00	3765340.00	0.26395
439859.00	3765340.00	0.26376	439864.00	3765340.00	0.26356
439869.00	3765340.00	0.26336	439874.00	3765340.00	0.26315
439879.00	3765340.00	0.26294	439884.00	3765340.00	0.26272
439674.00	3765345.00	0.27148	439679.00	3765345.00	0.27145
439684.00	3765345.00	0.27142	439689.00	3765345.00	0.27138
439694.00	3765345.00	0.27134	439699.00	3765345.00	0.27129

```
          439704.00    3765345.00        0.27125
439709.00    3765345.00        0.27119
          439714.00    3765345.00        0.27113
439719.00    3765345.00        0.27107
          439729.00    3765345.00        0.27094
439734.00    3765345.00        0.27086
          439739.00    3765345.00        0.27079
439744.00    3765345.00        0.27070
          439749.00    3765345.00        0.27062
439774.00    3765345.00        0.27013
          439779.00    3765345.00        0.27002
439784.00    3765345.00        0.26990
          439789.00    3765345.00        0.26978
439794.00    3765345.00        0.26965
          439839.00    3765345.00        0.26831
439844.00    3765345.00        0.26814
          439849.00    3765345.00        0.26796
439854.00    3765345.00        0.26778
          439859.00    3765345.00        0.26759
439864.00    3765345.00        0.26740
          439869.00    3765345.00        0.26719
439874.00    3765345.00        0.26699
          439879.00    3765345.00        0.26677
439884.00    3765345.00        0.26656
          439674.00    3765350.00        0.27528
439679.00    3765350.00        0.27526
          439684.00    3765350.00        0.27522
439689.00    3765350.00        0.27520
          439694.00    3765350.00        0.27515
439699.00    3765350.00        0.27512
          439704.00    3765350.00        0.27506
439709.00    3765350.00        0.27502
          439714.00    3765350.00        0.27496
439719.00    3765350.00        0.27491
          439729.00    3765350.00        0.27478
439734.00    3765350.00        0.27471
          439739.00    3765350.00        0.27463
439744.00    3765350.00        0.27456
          439749.00    3765350.00        0.27447
439774.00    3765350.00        0.27400
          439779.00    3765350.00        0.27389
439784.00    3765350.00        0.27378
          439789.00    3765350.00        0.27366
439794.00    3765350.00        0.27354
          439839.00    3765350.00        0.27223
439844.00    3765350.00        0.27205
          439849.00    3765350.00        0.27188
439854.00    3765350.00        0.27170
          439859.00    3765350.00        0.27151
439864.00    3765350.00        0.27132
          439869.00    3765350.00        0.27112
439874.00    3765350.00        0.27092
```

```
         439879.00    3765350.00        0.27072
439884.00    3765350.00        0.27050
         439674.00    3765355.00        0.27919
439679.00    3765355.00        0.27916
         439684.00    3765355.00        0.27914
439689.00    3765355.00        0.27910
         439694.00    3765355.00        0.27907
439699.00    3765355.00        0.27903
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: FREEEXH ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439704.00	3765355.00	0.27899	439709.00	3765355.00	0.27894
439714.00	3765355.00	0.27889	439719.00	3765355.00	0.27884
439729.00	3765355.00	0.27872	439734.00	3765355.00	0.27864
439739.00	3765355.00	0.27858	439744.00	3765355.00	0.27850
439749.00	3765355.00	0.27843	439774.00	3765355.00	0.27796
439779.00	3765355.00	0.27786	439784.00	3765355.00	0.27775
439789.00	3765355.00	0.27764	439794.00	3765355.00	0.27752
439839.00	3765355.00	0.27623	439844.00	3765355.00	0.27607
439849.00	3765355.00	0.27589	439854.00	3765355.00	0.27572
439859.00	3765355.00	0.27553	439864.00	3765355.00	0.27535

```
         439869.00    3765355.00        0.27515
439874.00    3765355.00        0.27495
         439879.00    3765355.00        0.27475
439884.00    3765355.00        0.27454
         439674.00    3765360.00        0.28318
439679.00    3765360.00        0.28316
         439684.00    3765360.00        0.28314
439689.00    3765360.00        0.28311
         439694.00    3765360.00        0.28308
439699.00    3765360.00        0.28305
         439704.00    3765360.00        0.28301
439709.00    3765360.00        0.28296
         439714.00    3765360.00        0.28292
439719.00    3765360.00        0.28287
         439729.00    3765360.00        0.28275
439734.00    3765360.00        0.28269
         439739.00    3765360.00        0.28262
439744.00    3765360.00        0.28256
         439749.00    3765360.00        0.28247
439774.00    3765360.00        0.28203
         439779.00    3765360.00        0.28193
439784.00    3765360.00        0.28183
         439789.00    3765360.00        0.28172
439794.00    3765360.00        0.28160
         439799.00    3765360.00        0.28148
439804.00    3765360.00        0.28135
         439809.00    3765360.00        0.28123
439814.00    3765360.00        0.28109
         439839.00    3765360.00        0.28035
439844.00    3765360.00        0.28018
         439849.00    3765360.00        0.28001
439854.00    3765360.00        0.27983
         439859.00    3765360.00        0.27966
439864.00    3765360.00        0.27947
         439869.00    3765360.00        0.27928
439874.00    3765360.00        0.27909
         439879.00    3765360.00        0.27888
439884.00    3765360.00        0.27868
         439674.00    3765365.00        0.28728
439679.00    3765365.00        0.28727
         439684.00    3765365.00        0.28725
439689.00    3765365.00        0.28723
         439694.00    3765365.00        0.28719
439699.00    3765365.00        0.28717
         439704.00    3765365.00        0.28713
439709.00    3765365.00        0.28709
         439714.00    3765365.00        0.28705
439719.00    3765365.00        0.28701
         439729.00    3765365.00        0.28690
439734.00    3765365.00        0.28684
         439739.00    3765365.00        0.28678
439744.00    3765365.00        0.28670
```

```
         439749.00    3765365.00        0.28664
439774.00    3765365.00        0.28621
         439779.00    3765365.00        0.28611
439784.00    3765365.00        0.28601
         439789.00    3765365.00        0.28590
439794.00    3765365.00        0.28579
         439799.00    3765365.00        0.28567
439804.00    3765365.00        0.28555
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: FREEEXH ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439809.00	3765365.00	0.28542	439814.00	3765365.00	0.28530
439839.00	3765365.00	0.28456	439844.00	3765365.00	0.28440
439849.00	3765365.00	0.28423	439854.00	3765365.00	0.28406
439859.00	3765365.00	0.28389	439864.00	3765365.00	0.28370
439869.00	3765365.00	0.28352	439874.00	3765365.00	0.28332
439879.00	3765365.00	0.28313	439884.00	3765365.00	0.28292
439674.00	3765370.00	0.29149	439679.00	3765370.00	0.29147
439684.00	3765370.00	0.29147	439689.00	3765370.00	0.29144
439694.00	3765370.00	0.29143	439699.00	3765370.00	0.29139
439704.00	3765370.00	0.29137	439709.00	3765370.00	0.29133

```
          439714.00    3765370.00        0.29129
439719.00    3765370.00        0.29124
          439729.00    3765370.00        0.29115
439734.00    3765370.00        0.29109
          439739.00    3765370.00        0.29103
439744.00    3765370.00        0.29097
          439749.00    3765370.00        0.29090
439774.00    3765370.00        0.29049
          439779.00    3765370.00        0.29040
439784.00    3765370.00        0.29029
          439789.00    3765370.00        0.29020
439794.00    3765370.00        0.29008
          439799.00    3765370.00        0.28997
439804.00    3765370.00        0.28985
          439809.00    3765370.00        0.28973
439814.00    3765370.00        0.28960
          439839.00    3765370.00        0.28889
439844.00    3765370.00        0.28874
          439849.00    3765370.00        0.28857
439854.00    3765370.00        0.28840
          439859.00    3765370.00        0.28823
439864.00    3765370.00        0.28805
          439869.00    3765370.00        0.28786
439874.00    3765370.00        0.28768
          439879.00    3765370.00        0.28747
439884.00    3765370.00        0.28728
          439674.00    3765375.00        0.29580
439679.00    3765375.00        0.29581
          439684.00    3765375.00        0.29579
439689.00    3765375.00        0.29578
          439694.00    3765375.00        0.29576
439699.00    3765375.00        0.29573
          439704.00    3765375.00        0.29571
439709.00    3765375.00        0.29568
          439714.00    3765375.00        0.29564
439719.00    3765375.00        0.29560
          439729.00    3765375.00        0.29551
439734.00    3765375.00        0.29547
          439739.00    3765375.00        0.29540
439744.00    3765375.00        0.29535
          439749.00    3765375.00        0.29527
439754.00    3765375.00        0.29522
          439774.00    3765375.00        0.29490
439779.00    3765375.00        0.29480
          439784.00    3765375.00        0.29470
439789.00    3765375.00        0.29460
          439794.00    3765375.00        0.29450
439799.00    3765375.00        0.29439
          439804.00    3765375.00        0.29427
439809.00    3765375.00        0.29416
          439814.00    3765375.00        0.29402
439839.00    3765375.00        0.29334
```

```
         439844.00    3765375.00        0.29317
439849.00    3765375.00        0.29303
         439854.00    3765375.00        0.29285
439859.00    3765375.00        0.29268
         439864.00    3765375.00        0.29250
439869.00    3765375.00        0.29233
         439874.00    3765375.00        0.29214
439879.00    3765375.00        0.29194
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: FREEEXH ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439884.00	3765375.00	0.29174	439774.00	3765380.00	0.29940
439779.00	3765380.00	0.29932	439784.00	3765380.00	0.29923
439789.00	3765380.00	0.29912	439794.00	3765380.00	0.29903
439799.00	3765380.00	0.29892	439804.00	3765380.00	0.29882
439809.00	3765380.00	0.29868	439814.00	3765380.00	0.29858
439769.00	3765385.00	0.30412	439819.00	3765385.00	0.30313
439769.00	3765400.00	0.31883	439844.00	3765400.00	0.31731
439849.00	3765400.00	0.31717	439674.00	3765405.00	0.32438
439714.00	3765405.00	0.32441	439719.00	3765405.00	0.32441
439734.00	3765405.00	0.32433	439749.00	3765405.00	0.32423

```
         439754.00    3765405.00        0.32418
439774.00    3765405.00        0.32395
         439779.00    3765405.00        0.32389
439784.00    3765405.00        0.32381
         439789.00    3765405.00        0.32373
439794.00    3765405.00        0.32365
         439799.00    3765405.00        0.32357
439804.00    3765405.00        0.32347
         439809.00    3765405.00        0.32337
439814.00    3765405.00        0.32328
         439819.00    3765405.00        0.32316
439824.00    3765405.00        0.32306
         439829.00    3765405.00        0.32294
439834.00    3765405.00        0.32282
         439839.00    3765405.00        0.32268
439844.00    3765405.00        0.32256
         439849.00    3765405.00        0.32242
439854.00    3765405.00        0.32227
         439859.00    3765405.00        0.32212
439674.00    3765410.00        0.32963
         439679.00    3765410.00        0.32966
439684.00    3765410.00        0.32967
         439689.00    3765410.00        0.32969
439694.00    3765410.00        0.32971
         439699.00    3765410.00        0.32970
439704.00    3765410.00        0.32972
         439709.00    3765410.00        0.32971
439714.00    3765410.00        0.32971
         439719.00    3765410.00        0.32969
439729.00    3765410.00        0.32966
         439734.00    3765410.00        0.32965
439739.00    3765410.00        0.32961
         439744.00    3765410.00        0.32959
439749.00    3765410.00        0.32954
         439774.00    3765410.00        0.32930
439779.00    3765410.00        0.32923
         439784.00    3765410.00        0.32916
439789.00    3765410.00        0.32909
         439794.00    3765410.00        0.32901
439799.00    3765410.00        0.32893
         439804.00    3765410.00        0.32884
439809.00    3765410.00        0.32876
         439814.00    3765410.00        0.32864
439819.00    3765410.00        0.32856
         439824.00    3765410.00        0.32844
439829.00    3765410.00        0.32834
         439834.00    3765410.00        0.32820
439839.00    3765410.00        0.32810
         439844.00    3765410.00        0.32795
439849.00    3765410.00        0.32783
         439854.00    3765410.00        0.32769
439859.00    3765410.00        0.32754
```

```
         439674.00    3765415.00        0.33505
439679.00    3765415.00        0.33507
         439684.00    3765415.00        0.33510
439689.00    3765415.00        0.33512
         439694.00    3765415.00        0.33513
439699.00    3765415.00        0.33515
         439704.00    3765415.00        0.33515
439709.00    3765415.00        0.33516
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: FREEEXH ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439714.00	3765415.00	0.33515	439719.00	3765415.00	0.33516
439729.00	3765415.00	0.33514	439734.00	3765415.00	0.33511
439739.00	3765415.00	0.33509	439744.00	3765415.00	0.33506
439749.00	3765415.00	0.33504	439774.00	3765415.00	0.33480
439779.00	3765415.00	0.33474	439784.00	3765415.00	0.33468
439789.00	3765415.00	0.33461	439794.00	3765415.00	0.33454
439799.00	3765415.00	0.33446	439804.00	3765415.00	0.33438
439809.00	3765415.00	0.33428	439814.00	3765415.00	0.33420
439819.00	3765415.00	0.33408	439824.00	3765415.00	0.33400
439829.00	3765415.00	0.33387	439834.00	3765415.00	0.33378

```
          439839.00    3765415.00        0.33364
439844.00    3765415.00        0.33353
          439849.00    3765415.00        0.33339
439854.00    3765415.00        0.33326
          439859.00    3765415.00        0.33311
439674.00    3765420.00        0.34062
          439679.00    3765420.00        0.34066
439684.00    3765420.00        0.34069
          439689.00    3765420.00        0.34071
439694.00    3765420.00        0.34074
          439699.00    3765420.00        0.34075
439704.00    3765420.00        0.34077
          439709.00    3765420.00        0.34077
439714.00    3765420.00        0.34079
          439719.00    3765420.00        0.34077
439729.00    3765420.00        0.34076
          439734.00    3765420.00        0.34075
439739.00    3765420.00        0.34073
          439744.00    3765420.00        0.34071
439749.00    3765420.00        0.34068
          439774.00    3765420.00        0.34048
439779.00    3765420.00        0.34042
          439784.00    3765420.00        0.34036
439789.00    3765420.00        0.34030
          439794.00    3765420.00        0.34023
439799.00    3765420.00        0.34016
          439804.00    3765420.00        0.34007
439809.00    3765420.00        0.34000
          439814.00    3765420.00        0.33989
439819.00    3765420.00        0.33981
          439824.00    3765420.00        0.33970
439829.00    3765420.00        0.33961
          439834.00    3765420.00        0.33948
439839.00    3765420.00        0.33939
          439844.00    3765420.00        0.33925
439849.00    3765420.00        0.33913
          439854.00    3765420.00        0.33900
439859.00    3765420.00        0.33886
          439674.00    3765425.00        0.34637
439679.00    3765425.00        0.34642
          439684.00    3765425.00        0.34645
439689.00    3765425.00        0.34649
          439694.00    3765425.00        0.34650
439699.00    3765425.00        0.34654
          439704.00    3765425.00        0.34655
439709.00    3765425.00        0.34657
          439714.00    3765425.00        0.34656
439719.00    3765425.00        0.34658
          439729.00    3765425.00        0.34658
439734.00    3765425.00        0.34656
          439739.00    3765425.00        0.34655
439744.00    3765425.00        0.34653
```

```
         439749.00    3765425.00        0.34651
439774.00    3765425.00        0.34633
         439779.00    3765425.00        0.34628
439784.00    3765425.00        0.34623
         439789.00    3765425.00        0.34615
439794.00    3765425.00        0.34610
         439799.00    3765425.00        0.34603
439804.00    3765425.00        0.34596
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: FREEEXH ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439809.00	3765425.00	0.34586	439814.00	3765425.00	0.34580
439819.00	3765425.00	0.34569	439824.00	3765425.00	0.34561
439829.00	3765425.00	0.34549	439834.00	3765425.00	0.34540
439839.00	3765425.00	0.34527	439844.00	3765425.00	0.34517
439849.00	3765425.00	0.34505	439854.00	3765425.00	0.34492
439859.00	3765425.00	0.34478	439674.00	3765430.00	0.35232
439679.00	3765430.00	0.35235	439684.00	3765430.00	0.35240
439689.00	3765430.00	0.35243	439694.00	3765430.00	0.35248
439699.00	3765430.00	0.35249	439704.00	3765430.00	0.35252
439709.00	3765430.00	0.35253	439714.00	3765430.00	0.35256

```
          439719.00    3765430.00        0.35255
439729.00    3765430.00        0.35256
          439734.00    3765430.00        0.35256
439739.00    3765430.00        0.35255
          439744.00    3765430.00        0.35254
439749.00    3765430.00        0.35252
          439774.00    3765430.00        0.35236
439779.00    3765430.00        0.35232
          439784.00    3765430.00        0.35226
439789.00    3765430.00        0.35222
          439794.00    3765430.00        0.35215
439799.00    3765430.00        0.35209
          439804.00    3765430.00        0.35201
439809.00    3765430.00        0.35195
          439814.00    3765430.00        0.35185
439819.00    3765430.00        0.35178
          439824.00    3765430.00        0.35168
439829.00    3765430.00        0.35160
          439834.00    3765430.00        0.35148
439839.00    3765430.00        0.35139
          439844.00    3765430.00        0.35126
439849.00    3765430.00        0.35115
          439854.00    3765430.00        0.35102
439859.00    3765430.00        0.35090
          439674.00    3765435.00        0.35843
439679.00    3765435.00        0.35849
          439684.00    3765435.00        0.35853
439689.00    3765435.00        0.35858
          439694.00    3765435.00        0.35861
439699.00    3765435.00        0.35865
          439704.00    3765435.00        0.35867
439709.00    3765435.00        0.35870
          439714.00    3765435.00        0.35871
439719.00    3765435.00        0.35874
          439729.00    3765435.00        0.35875
439734.00    3765435.00        0.35875
          439739.00    3765435.00        0.35875
439744.00    3765435.00        0.35874
          439749.00    3765435.00        0.35872
439774.00    3765435.00        0.35859
          439779.00    3765435.00        0.35855
439784.00    3765435.00        0.35851
          439789.00    3765435.00        0.35845
439794.00    3765435.00        0.35840
          439799.00    3765435.00        0.35834
439804.00    3765435.00        0.35828
          439809.00    3765435.00        0.35820
439814.00    3765435.00        0.35813
          439819.00    3765435.00        0.35804
439824.00    3765435.00        0.35797
          439829.00    3765435.00        0.35786
439834.00    3765435.00        0.35778
```

```
         439839.00    3765435.00        0.35766
439844.00    3765435.00        0.35756
         439849.00    3765435.00        0.35744
439854.00    3765435.00        0.35733
         439859.00    3765435.00        0.35720
439674.00    3765440.00        0.36477
         439679.00    3765440.00        0.36482
439684.00    3765440.00        0.36488
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: FREEEXH ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439689.00	3765440.00	0.36492	439694.00	3765440.00	0.36497
439699.00	3765440.00	0.36500	439704.00	3765440.00	0.36504
439709.00	3765440.00	0.36506	439714.00	3765440.00	0.36509
439719.00	3765440.00	0.36511	439729.00	3765440.00	0.36514
439734.00	3765440.00	0.36514	439739.00	3765440.00	0.36514
439744.00	3765440.00	0.36514	439749.00	3765440.00	0.36514
439774.00	3765440.00	0.36502	439779.00	3765440.00	0.36499
439784.00	3765440.00	0.36495	439789.00	3765440.00	0.36491
439794.00	3765440.00	0.36485	439799.00	3765440.00	0.36480
439804.00	3765440.00	0.36473	439809.00	3765440.00	0.36467

```
          439814.00    3765440.00        0.36459
439819.00    3765440.00        0.36453
          439824.00    3765440.00        0.36444
439829.00    3765440.00        0.36436
          439834.00    3765440.00        0.36425
439839.00    3765440.00        0.36417
          439844.00    3765440.00        0.36405
439849.00    3765440.00        0.36395
          439854.00    3765440.00        0.36383
439859.00    3765440.00        0.36372
          439674.00    3765445.00        0.37131
439679.00    3765445.00        0.37137
          439684.00    3765445.00        0.37142
439689.00    3765445.00        0.37148
          439694.00    3765445.00        0.37153
439699.00    3765445.00        0.37157
          439704.00    3765445.00        0.37161
439709.00    3765445.00        0.37165
          439714.00    3765445.00        0.37167
439719.00    3765445.00        0.37170
          439729.00    3765445.00        0.37174
439734.00    3765445.00        0.37175
          439739.00    3765445.00        0.37176
439744.00    3765445.00        0.37176
          439749.00    3765445.00        0.37176
439774.00    3765445.00        0.37168
          439779.00    3765445.00        0.37164
439784.00    3765445.00        0.37161
          439789.00    3765445.00        0.37157
439794.00    3765445.00        0.37153
          439799.00    3765445.00        0.37147
439804.00    3765445.00        0.37142
          439809.00    3765445.00        0.37135
439814.00    3765445.00        0.37129
          439819.00    3765445.00        0.37121
439824.00    3765445.00        0.37114
          439829.00    3765445.00        0.37105
439834.00    3765445.00        0.37097
          439839.00    3765445.00        0.37087
439844.00    3765445.00        0.37078
          439849.00    3765445.00        0.37066
439854.00    3765445.00        0.37056
          439859.00    3765445.00        0.37044
439674.00    3765450.00        0.37807
          439679.00    3765450.00        0.37814
439684.00    3765450.00        0.37820
          439689.00    3765450.00        0.37826
439694.00    3765450.00        0.37831
          439699.00    3765450.00        0.37836
439704.00    3765450.00        0.37841
          439709.00    3765450.00        0.37845
439714.00    3765450.00        0.37849
```

```
         439719.00    3765450.00        0.37852
439729.00    3765450.00        0.37857
         439734.00    3765450.00        0.37858
439739.00    3765450.00        0.37859
         439744.00    3765450.00        0.37860
439749.00    3765450.00        0.37861
         439774.00    3765450.00        0.37855
439844.00    3765450.00        0.37772
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: FREEEXH ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439849.00	3765450.00	0.37762	439854.00	3765450.00	0.37751
439859.00	3765450.00	0.37740	439674.00	3765455.00	0.38507
439679.00	3765455.00	0.38514	439684.00	3765455.00	0.38521
439689.00	3765455.00	0.38528	439694.00	3765455.00	0.38534
439699.00	3765455.00	0.38539	439704.00	3765455.00	0.38544
439709.00	3765455.00	0.38549	439714.00	3765455.00	0.38553
439719.00	3765455.00	0.38557	439729.00	3765455.00	0.38563
439734.00	3765455.00	0.38565	439739.00	3765455.00	0.38567
439744.00	3765455.00	0.38568	439749.00	3765455.00	0.38569
439844.00	3765455.00	0.38491	439849.00	3765455.00	0.38481

```
          439854.00    3765455.00         0.38471
439859.00    3765455.00         0.38460
          439674.00    3765460.00         0.39232
439679.00    3765460.00         0.39239
          439684.00    3765460.00         0.39247
439689.00    3765460.00         0.39254
          439694.00    3765460.00         0.39261
439699.00    3765460.00         0.39267
          439704.00    3765460.00         0.39273
439709.00    3765460.00         0.39278
          439714.00    3765460.00         0.39282
439719.00    3765460.00         0.39287
          439729.00    3765460.00         0.39295
439734.00    3765460.00         0.39297
          439739.00    3765460.00         0.39300
439744.00    3765460.00         0.39301
          439749.00    3765460.00         0.39303
439789.00    3765460.00         0.39297
          439794.00    3765460.00         0.39294
439799.00    3765460.00         0.39290
          439804.00    3765460.00         0.39286
439809.00    3765460.00         0.39282
          439814.00    3765460.00         0.39276
439819.00    3765460.00         0.39271
          439824.00    3765460.00         0.39264
439829.00    3765460.00         0.39258
          439844.00    3765460.00         0.39234
439849.00    3765460.00         0.39225
          439854.00    3765460.00         0.39216
439859.00    3765460.00         0.39205
          439674.00    3765465.00         0.39982
439679.00    3765465.00         0.39991
          439684.00    3765465.00         0.39999
439689.00    3765465.00         0.40007
          439694.00    3765465.00         0.40014
439699.00    3765465.00         0.40021
          439704.00    3765465.00         0.40027
439709.00    3765465.00         0.40033
          439714.00    3765465.00         0.40039
439719.00    3765465.00         0.40043
          439729.00    3765465.00         0.40052
439734.00    3765465.00         0.40056
          439739.00    3765465.00         0.40058
439744.00    3765465.00         0.40061
          439749.00    3765465.00         0.40062
439789.00    3765465.00         0.40061
          439794.00    3765465.00         0.40059
439799.00    3765465.00         0.40056
          439804.00    3765465.00         0.40052
439809.00    3765465.00         0.40048
          439814.00    3765465.00         0.40044
439819.00    3765465.00         0.40038
```

```
         439824.00    3765465.00        0.40033
439829.00    3765465.00        0.40026
         439844.00    3765465.00        0.40004
439849.00    3765465.00        0.39996
         439854.00    3765465.00        0.39987
439859.00    3765465.00        0.39978
         439674.00    3765470.00        0.40762
439679.00    3765470.00        0.40770
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: FREEEXH ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439684.00	3765470.00	0.40780	439689.00	3765470.00	0.40787
439694.00	3765470.00	0.40796	439699.00	3765470.00	0.40803
439704.00	3765470.00	0.40810	439709.00	3765470.00	0.40816
439714.00	3765470.00	0.40822	439719.00	3765470.00	0.40828
439729.00	3765470.00	0.40838	439734.00	3765470.00	0.40841
439739.00	3765470.00	0.40845	439744.00	3765470.00	0.40848
439749.00	3765470.00	0.40852	439789.00	3765470.00	0.40854
439794.00	3765470.00	0.40852	439799.00	3765470.00	0.40849
439804.00	3765470.00	0.40847	439809.00	3765470.00	0.40843
439814.00	3765470.00	0.40839	439819.00	3765470.00	0.40834

```
         439824.00    3765470.00        0.40829
439829.00    3765470.00        0.40823
         439844.00    3765470.00        0.40803
439849.00    3765470.00        0.40795
         439854.00    3765470.00        0.40787
439859.00    3765470.00        0.40777
         439674.00    3765475.00        0.41568
439679.00    3765475.00        0.41579
         439684.00    3765475.00        0.41587
439689.00    3765475.00        0.41598
         439694.00    3765475.00        0.41605
439699.00    3765475.00        0.41614
         439704.00    3765475.00        0.41621
439709.00    3765475.00        0.41629
         439714.00    3765475.00        0.41635
439719.00    3765475.00        0.41642
         439729.00    3765475.00        0.41652
439734.00    3765475.00        0.41657
         439739.00    3765475.00        0.41661
439744.00    3765475.00        0.41665
         439749.00    3765475.00        0.41668
439754.00    3765475.00        0.41671
         439789.00    3765475.00        0.41676
439794.00    3765475.00        0.41675
         439799.00    3765475.00        0.41673
439804.00    3765475.00        0.41670
         439809.00    3765475.00        0.41668
439814.00    3765475.00        0.41664
         439819.00    3765475.00        0.41660
439824.00    3765475.00        0.41656
         439829.00    3765475.00        0.41650
439269.00    3764900.00        0.11272
         439369.00    3764900.00        0.11327
439469.00    3764900.00        0.11287
         439569.00    3764900.00        0.11148
439669.00    3764900.00        0.10909
         439769.00    3764900.00        0.10568
439869.00    3764900.00        0.10126
         439969.00    3764900.00        0.09589
440069.00    3764900.00        0.08965
         440169.00    3764900.00        0.08276
440269.00    3764900.00        0.07557
         439269.00    3765000.00        0.13139
439369.00    3765000.00        0.13256
         439469.00    3765000.00        0.13262
439569.00    3765000.00        0.13157
         439669.00    3765000.00        0.12939
439769.00    3765000.00        0.12601
         439869.00    3765000.00        0.12135
439969.00    3765000.00        0.11538
         440069.00    3765000.00        0.10815
440169.00    3765000.00        0.09983
```

```
         440269.00    3765000.00        0.09079
439269.00    3765100.00        0.15545
         439369.00    3765100.00        0.15738
439469.00    3765100.00        0.15803
         439569.00    3765100.00        0.15747
439669.00    3765100.00        0.15566
         439769.00    3765100.00        0.15251
439869.00    3765100.00        0.14786
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: FREEEXH ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439969.00	3765100.00	0.14152	440069.00	3765100.00	0.13338
440169.00	3765100.00	0.12349	440269.00	3765100.00	0.11214
439269.00	3765200.00	0.18773	439369.00	3765200.00	0.19063
439469.00	3765200.00	0.19207	439569.00	3765200.00	0.19216
439669.00	3765200.00	0.19092	439769.00	3765200.00	0.18826
439869.00	3765200.00	0.18395	439969.00	3765200.00	0.17767
440069.00	3765200.00	0.16900	440169.00	3765200.00	0.15761
440269.00	3765200.00	0.14351	439269.00	3765300.00	0.23357
439369.00	3765300.00	0.23782	439469.00	3765300.00	0.24036
439569.00	3765300.00	0.24142	439669.00	3765300.00	0.24107

```
         439769.00    3765300.00        0.23926
439869.00    3765300.00        0.23572
         439969.00    3765300.00        0.23002
440069.00    3765300.00        0.22147
         440169.00    3765300.00        0.20915
440269.00    3765300.00        0.19223
         439269.00    3765400.00        0.30461
439369.00    3765400.00        0.31095
         439469.00    3765400.00        0.31533
439569.00    3765400.00        0.31805
         439669.00    3765400.00        0.31926
439769.00    3765400.00        0.31883
         439869.00    3765400.00        0.31655
439969.00    3765400.00        0.31197
         440069.00    3765400.00        0.30429
440169.00    3765400.00        0.29215
         440269.00    3765400.00        0.27341
439269.00    3765500.00        0.43248
         439369.00    3765500.00        0.44306
439469.00    3765500.00        0.45116
         439569.00    3765500.00        0.45706
439669.00    3765500.00        0.46098
         439769.00    3765500.00        0.46288
439869.00    3765500.00        0.46261
         439969.00    3765500.00        0.45986
440069.00    3765500.00        0.45390
         440169.00    3765500.00        0.44334
440269.00    3765500.00        0.42515
         439269.00    3765600.00        0.75084
439369.00    3765600.00        0.77243
         439469.00    3765600.00        0.78930
439569.00    3765600.00        0.80230
         439669.00    3765600.00        0.81192
439769.00    3765600.00        0.81854
         439869.00    3765600.00        0.82228
439969.00    3765600.00        0.82306
         440069.00    3765600.00        0.82052
440169.00    3765600.00        0.81381
         440269.00    3765600.00        0.79979
439269.00    3765700.00        4.13462
         439369.00    3765700.00        4.32925
439469.00    3765700.00        4.52490
         439569.00    3765700.00        4.72540
439669.00    3765700.00        4.86807
         439769.00    3765700.00        4.98531
439869.00    3765700.00        5.05422
         439969.00    3765700.00        5.11092
440069.00    3765700.00        5.16995
         440169.00    3765700.00        5.20211
440269.00    3765700.00        5.23339
         439269.00    3765800.00        1.80341
439369.00    3765800.00        1.88088
```

```
         439469.00    3765800.00        1.92794
439569.00    3765800.00        1.95799
         439669.00    3765800.00        1.97776
439769.00    3765800.00        1.99076
         439869.00    3765800.00        1.99870
439969.00    3765800.00        2.00254
         440069.00    3765800.00        2.00199
440169.00    3765800.00        1.99518
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: FREEEXH ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
440269.00	3765800.00	1.97689	439269.00	3765900.00	0.56991
439369.00	3765900.00	0.65615	439469.00	3765900.00	0.71994
439569.00	3765900.00	0.76676	439669.00	3765900.00	0.80139
439769.00	3765900.00	0.82715	439869.00	3765900.00	0.84626
439969.00	3765900.00	0.86007	440069.00	3765900.00	0.86937
440169.00	3765900.00	0.87429	440269.00	3765900.00	0.87445
439649.00	3765310.00	0.24747	439679.00	3765310.00	0.24721
439709.00	3765310.00	0.24681	439739.00	3765310.00	0.24628
439769.00	3765310.00	0.24560	439799.00	3765310.00	0.24477
439829.00	3765310.00	0.24377	439859.00	3765310.00	0.24260

```
          439889.00    3765310.00        0.24124
439649.00    3765340.00        0.26788
          439679.00    3765340.00        0.26774
439709.00    3765340.00        0.26746
          439739.00    3765340.00        0.26703
439769.00    3765340.00        0.26646
          439799.00    3765340.00        0.26573
439829.00    3765340.00        0.26483
          439859.00    3765340.00        0.26376
439889.00    3765340.00        0.26249
          439649.00    3765370.00        0.29149
439679.00    3765370.00        0.29147
          439709.00    3765370.00        0.29133
439739.00    3765370.00        0.29103
          439769.00    3765370.00        0.29058
439799.00    3765370.00        0.28997
          439829.00    3765370.00        0.28919
439859.00    3765370.00        0.28823
          439889.00    3765370.00        0.28707
439649.00    3765400.00        0.31915
          439679.00    3765400.00        0.31929
439709.00    3765400.00        0.31930
          439739.00    3765400.00        0.31914
439769.00    3765400.00        0.31883
          439799.00    3765400.00        0.31835
439829.00    3765400.00        0.31770
          439859.00    3765400.00        0.31687
439889.00    3765400.00        0.31584
          439649.00    3765430.00        0.35203
439679.00    3765430.00        0.35235
          439709.00    3765430.00        0.35253
439739.00    3765430.00        0.35255
          439769.00    3765430.00        0.35241
439799.00    3765430.00        0.35209
          439829.00    3765430.00        0.35160
439859.00    3765430.00        0.35090
          439889.00    3765430.00        0.34999
439649.00    3765460.00        0.39185
          439679.00    3765460.00        0.39239
439709.00    3765460.00        0.39278
          439739.00    3765460.00        0.39300
439769.00    3765460.00        0.39304
          439799.00    3765460.00        0.39290
439829.00    3765460.00        0.39258
          439859.00    3765460.00        0.39205
439889.00    3765460.00        0.39132
          439649.00    3765490.00        0.44118
439679.00    3765490.00        0.44199
          439709.00    3765490.00        0.44261
439739.00    3765490.00        0.44305
          439769.00    3765490.00        0.44333
439799.00    3765490.00        0.44341
```

```
          439829.00    3765490.00        0.44329
439859.00    3765490.00        0.44297
          439889.00    3765490.00        0.44242
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONOFFEXH ***
INCLUDING SOURCE(S):
A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , A0000029 , A0000030 , A0000031 , A0000032 , A0000033 , A0000034 , A0000035 ,
A0000036 , A0000037 , A0000038 , A0000039 , A0000040 , A0000041 , A0000042 , A0000043 ,
A0000044 , A0000045 , A0000046 , A0000047 , A0000048 , A0000049 , A0000050 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439674.00	3765310.00	0.07741	439679.00	3765310.00	0.07746
439684.00	3765310.00	0.07751	439689.00	3765310.00	0.07755
439694.00	3765310.00	0.07759	439699.00	3765310.00	0.07762
439704.00	3765310.00	0.07766	439709.00	3765310.00	0.07769
439714.00	3765310.00	0.07772	439719.00	3765310.00	0.07774
439729.00	3765310.00	0.07778	439734.00	3765310.00	0.07780
439739.00	3765310.00	0.07781	439744.00	3765310.00	0.07782
439749.00	3765310.00	0.07782	439764.00	3765310.00	0.07782
439769.00	3765310.00	0.07781	439774.00	3765310.00	0.07780

```
         439779.00    3765310.00        0.07779
439784.00    3765310.00        0.07777
         439789.00    3765310.00        0.07774
439794.00    3765310.00        0.07771
         439799.00    3765310.00        0.07768
439804.00    3765310.00        0.07764
         439809.00    3765310.00        0.07760
439814.00    3765310.00        0.07755
         439819.00    3765310.00        0.07750
439824.00    3765310.00        0.07744
         439829.00    3765310.00        0.07738
439839.00    3765310.00        0.07724
         439844.00    3765310.00        0.07715
439849.00    3765310.00        0.07707
         439854.00    3765310.00        0.07698
439859.00    3765310.00        0.07688
         439864.00    3765310.00        0.07677
439869.00    3765310.00        0.07666
         439874.00    3765310.00        0.07654
439879.00    3765310.00        0.07642
         439884.00    3765310.00        0.07629
439674.00    3765315.00        0.07860
         439679.00    3765315.00        0.07865
439684.00    3765315.00        0.07870
         439689.00    3765315.00        0.07874
439694.00    3765315.00        0.07878
         439699.00    3765315.00        0.07882
439704.00    3765315.00        0.07885
         439709.00    3765315.00        0.07889
439714.00    3765315.00        0.07891
         439719.00    3765315.00        0.07894
439729.00    3765315.00        0.07898
         439734.00    3765315.00        0.07900
439739.00    3765315.00        0.07902
         439744.00    3765315.00        0.07903
439749.00    3765315.00        0.07904
         439764.00    3765315.00        0.07904
439769.00    3765315.00        0.07904
         439774.00    3765315.00        0.07903
439779.00    3765315.00        0.07902
         439784.00    3765315.00        0.07900
439789.00    3765315.00        0.07898
         439794.00    3765315.00        0.07895
439799.00    3765315.00        0.07892
         439804.00    3765315.00        0.07889
439809.00    3765315.00        0.07885
         439814.00    3765315.00        0.07880
439819.00    3765315.00        0.07876
         439824.00    3765315.00        0.07870
439829.00    3765315.00        0.07864
         439839.00    3765315.00        0.07850
439844.00    3765315.00        0.07843
```

```
         439849.00    3765315.00        0.07834
439854.00    3765315.00        0.07825
         439859.00    3765315.00        0.07816
439864.00    3765315.00        0.07805
         439869.00    3765315.00        0.07795
439874.00    3765315.00        0.07783
         439879.00    3765315.00        0.07771
439884.00    3765315.00        0.07758
         439674.00    3765320.00        0.07981
439679.00    3765320.00        0.07986
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONOFFEXH ***
INCLUDING SOURCE(S):
A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , A0000029 , A0000030 , A0000031 , A0000032 , A0000033 , A0000034 , A0000035 ,
A0000036 , A0000037 , A0000038 , A0000039 , A0000040 , A0000041 , A0000042 , A0000043 ,
A0000044 , A0000045 , A0000046 , A0000047 , A0000048 , A0000049 , A0000050 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439684.00	3765320.00	0.07991	439689.00	3765320.00	0.07996
439694.00	3765320.00	0.08000	439699.00	3765320.00	0.08004
439704.00	3765320.00	0.08008	439709.00	3765320.00	0.08011
439714.00	3765320.00	0.08014	439719.00	3765320.00	0.08017
439729.00	3765320.00	0.08022	439734.00	3765320.00	0.08024
439739.00	3765320.00	0.08025	439744.00	3765320.00	0.08027
439749.00	3765320.00	0.08028	439764.00	3765320.00	0.08029
439769.00	3765320.00	0.08029	439774.00	3765320.00	0.08028
439779.00	3765320.00	0.08027	439784.00	3765320.00	0.08026

```
         439789.00    3765320.00        0.08024
439794.00    3765320.00        0.08022
         439799.00    3765320.00        0.08020
439804.00    3765320.00        0.08016
         439809.00    3765320.00        0.08013
439814.00    3765320.00        0.08009
         439819.00    3765320.00        0.08004
439824.00    3765320.00        0.07999
         439829.00    3765320.00        0.07993
439839.00    3765320.00        0.07980
         439844.00    3765320.00        0.07973
439849.00    3765320.00        0.07965
         439854.00    3765320.00        0.07956
439859.00    3765320.00        0.07947
         439864.00    3765320.00        0.07937
439869.00    3765320.00        0.07926
         439874.00    3765320.00        0.07915
439879.00    3765320.00        0.07903
         439884.00    3765320.00        0.07891
439674.00    3765325.00        0.08105
         439679.00    3765325.00        0.08111
439684.00    3765325.00        0.08115
         439689.00    3765325.00        0.08120
439694.00    3765325.00        0.08125
         439699.00    3765325.00        0.08129
439704.00    3765325.00        0.08133
         439709.00    3765325.00        0.08136
439714.00    3765325.00        0.08140
         439719.00    3765325.00        0.08143
439729.00    3765325.00        0.08148
         439734.00    3765325.00        0.08150
439739.00    3765325.00        0.08152
         439744.00    3765325.00        0.08154
439749.00    3765325.00        0.08155
         439754.00    3765325.00        0.08156
439769.00    3765325.00        0.08157
         439774.00    3765325.00        0.08157
439779.00    3765325.00        0.08156
         439784.00    3765325.00        0.08155
439789.00    3765325.00        0.08154
         439794.00    3765325.00        0.08152
439799.00    3765325.00        0.08150
         439804.00    3765325.00        0.08147
439809.00    3765325.00        0.08144
         439814.00    3765325.00        0.08140
439819.00    3765325.00        0.08136
         439824.00    3765325.00        0.08131
439829.00    3765325.00        0.08126
         439839.00    3765325.00        0.08113
439844.00    3765325.00        0.08106
         439849.00    3765325.00        0.08098
439854.00    3765325.00        0.08090
```

```
          439859.00    3765325.00        0.08081
439864.00    3765325.00        0.08072
          439869.00    3765325.00        0.08061
439874.00    3765325.00        0.08051
          439879.00    3765325.00        0.08039
439884.00    3765325.00        0.08027
          439674.00    3765330.00        0.08233
439679.00    3765330.00        0.08238
          439684.00    3765330.00        0.08243
439689.00    3765330.00        0.08248
```

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONOFFEXH ***
INCLUDING SOURCE(S):
A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , A0000029 , A0000030 , A0000031 , A0000032 , A0000033 , A0000034 , A0000035 ,
A0000036 , A0000037 , A0000038 , A0000039 , A0000040 , A0000041 , A0000042 , A0000043 ,
A0000044 , A0000045 , A0000046 , A0000047 , A0000048 , A0000049 , A0000050 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439694.00	3765330.00	0.08253	439699.00	3765330.00	0.08257
439704.00	3765330.00	0.08261	439709.00	3765330.00	0.08265
439714.00	3765330.00	0.08268	439719.00	3765330.00	0.08272
439729.00	3765330.00	0.08277	439734.00	3765330.00	0.08280
439739.00	3765330.00	0.08282	439744.00	3765330.00	0.08284
439749.00	3765330.00	0.08285	439754.00	3765330.00	0.08287
439774.00	3765330.00	0.08289	439779.00	3765330.00	0.08288
439784.00	3765330.00	0.08288	439789.00	3765330.00	0.08287
439794.00	3765330.00	0.08285	439799.00	3765330.00	0.08283

```
          439804.00    3765330.00        0.08281
439809.00    3765330.00        0.08278
          439814.00    3765330.00        0.08274
439819.00    3765330.00        0.08271
          439824.00    3765330.00        0.08266
439829.00    3765330.00        0.08261
          439839.00    3765330.00        0.08250
439844.00    3765330.00        0.08243
          439849.00    3765330.00        0.08236
439854.00    3765330.00        0.08228
          439859.00    3765330.00        0.08219
439864.00    3765330.00        0.08210
          439869.00    3765330.00        0.08200
439874.00    3765330.00        0.08189
          439879.00    3765330.00        0.08178
439884.00    3765330.00        0.08166
          439674.00    3765335.00        0.08363
439679.00    3765335.00        0.08369
          439684.00    3765335.00        0.08374
439689.00    3765335.00        0.08380
          439694.00    3765335.00        0.08384
439699.00    3765335.00        0.08389
          439704.00    3765335.00        0.08393
439709.00    3765335.00        0.08397
          439714.00    3765335.00        0.08401
439719.00    3765335.00        0.08404
          439729.00    3765335.00        0.08410
439734.00    3765335.00        0.08413
          439739.00    3765335.00        0.08415
439744.00    3765335.00        0.08417
          439749.00    3765335.00        0.08419
439774.00    3765335.00        0.08424
          439779.00    3765335.00        0.08424
439784.00    3765335.00        0.08424
          439789.00    3765335.00        0.08423
439794.00    3765335.00        0.08421
          439839.00    3765335.00        0.08390
439844.00    3765335.00        0.08383
          439849.00    3765335.00        0.08376
439854.00    3765335.00        0.08369
          439859.00    3765335.00        0.08361
439864.00    3765335.00        0.08352
          439869.00    3765335.00        0.08342
439874.00    3765335.00        0.08332
          439879.00    3765335.00        0.08321
439884.00    3765335.00        0.08309
          439674.00    3765340.00        0.08497
439679.00    3765340.00        0.08503
          439684.00    3765340.00        0.08509
439689.00    3765340.00        0.08514
          439694.00    3765340.00        0.08519
439699.00    3765340.00        0.08524
```

```
         439704.00    3765340.00        0.08528
439709.00    3765340.00        0.08532
         439714.00    3765340.00        0.08536
439719.00    3765340.00        0.08540
         439729.00    3765340.00        0.08546
439734.00    3765340.00        0.08549
         439739.00    3765340.00        0.08552
439744.00    3765340.00        0.08554
         439749.00    3765340.00        0.08556
439774.00    3765340.00        0.08562
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONOFFEXH ***
INCLUDING SOURCE(S):
A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , A0000029 , A0000030 , A0000031 , A0000032 , A0000033 , A0000034 , A0000035 ,
A0000036 , A0000037 , A0000038 , A0000039 , A0000040 , A0000041 , A0000042 , A0000043 ,
A0000044 , A0000045 , A0000046 , A0000047 , A0000048 , A0000049 , A0000050 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439779.00	3765340.00	0.08562	439784.00	3765340.00	0.08562
439789.00	3765340.00	0.08562	439794.00	3765340.00	0.08561
439839.00	3765340.00	0.08533	439844.00	3765340.00	0.08527
439849.00	3765340.00	0.08521	439854.00	3765340.00	0.08514
439859.00	3765340.00	0.08506	439864.00	3765340.00	0.08497
439869.00	3765340.00	0.08488	439874.00	3765340.00	0.08478
439879.00	3765340.00	0.08468	439884.00	3765340.00	0.08456
439674.00	3765345.00	0.08635	439679.00	3765345.00	0.08641
439684.00	3765345.00	0.08647	439689.00	3765345.00	0.08652

```
          439694.00    3765345.00        0.08657
439699.00    3765345.00        0.08662
          439704.00    3765345.00        0.08667
439709.00    3765345.00        0.08671
          439714.00    3765345.00        0.08675
439719.00    3765345.00        0.08679
          439729.00    3765345.00        0.08686
439734.00    3765345.00        0.08689
          439739.00    3765345.00        0.08692
439744.00    3765345.00        0.08694
          439749.00    3765345.00        0.08697
439774.00    3765345.00        0.08704
          439779.00    3765345.00        0.08705
439784.00    3765345.00        0.08705
          439789.00    3765345.00        0.08705
439794.00    3765345.00        0.08705
          439839.00    3765345.00        0.08680
439844.00    3765345.00        0.08675
          439849.00    3765345.00        0.08669
439854.00    3765345.00        0.08662
          439859.00    3765345.00        0.08655
439864.00    3765345.00        0.08647
          439869.00    3765345.00        0.08638
439874.00    3765345.00        0.08629
          439879.00    3765345.00        0.08618
439884.00    3765345.00        0.08607
          439674.00    3765350.00        0.08777
439679.00    3765350.00        0.08783
          439684.00    3765350.00        0.08789
439689.00    3765350.00        0.08794
          439694.00    3765350.00        0.08799
439699.00    3765350.00        0.08804
          439704.00    3765350.00        0.08809
439709.00    3765350.00        0.08814
          439714.00    3765350.00        0.08818
439719.00    3765350.00        0.08822
          439729.00    3765350.00        0.08829
439734.00    3765350.00        0.08832
          439739.00    3765350.00        0.08835
439744.00    3765350.00        0.08838
          439749.00    3765350.00        0.08840
439774.00    3765350.00        0.08850
          439779.00    3765350.00        0.08851
439784.00    3765350.00        0.08851
          439789.00    3765350.00        0.08852
439794.00    3765350.00        0.08852
          439839.00    3765350.00        0.08832
439844.00    3765350.00        0.08827
          439849.00    3765350.00        0.08821
439854.00    3765350.00        0.08815
          439859.00    3765350.00        0.08808
439864.00    3765350.00        0.08800
```

```
         439869.00    3765350.00        0.08792
439874.00    3765350.00        0.08783
         439879.00    3765350.00        0.08773
439884.00    3765350.00        0.08763
         439674.00    3765355.00        0.08922
439679.00    3765355.00        0.08928
         439684.00    3765355.00        0.08934
439689.00    3765355.00        0.08940
         439694.00    3765355.00        0.08945
439699.00    3765355.00        0.08951
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONOFFEXH ***
INCLUDING SOURCE(S):
A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , A0000029 , A0000030 , A0000031 , A0000032 , A0000033 , A0000034 , A0000035 ,
A0000036 , A0000037 , A0000038 , A0000039 , A0000040 , A0000041 , A0000042 , A0000043 ,
A0000044 , A0000045 , A0000046 , A0000047 , A0000048 , A0000049 , A0000050 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439704.00	3765355.00	0.08956	439709.00	3765355.00	0.08960
439714.00	3765355.00	0.08964	439719.00	3765355.00	0.08969
439729.00	3765355.00	0.08976	439734.00	3765355.00	0.08980
439739.00	3765355.00	0.08983	439744.00	3765355.00	0.08986
439749.00	3765355.00	0.08989	439774.00	3765355.00	0.08999
439779.00	3765355.00	0.09001	439784.00	3765355.00	0.09002
439789.00	3765355.00	0.09002	439794.00	3765355.00	0.09003
439839.00	3765355.00	0.08987	439844.00	3765355.00	0.08983
439849.00	3765355.00	0.08977	439854.00	3765355.00	0.08972

```
          439859.00    3765355.00         0.08965
439864.00    3765355.00         0.08958
          439869.00    3765355.00         0.08950
439874.00    3765355.00         0.08942
          439879.00    3765355.00         0.08932
439884.00    3765355.00         0.08922
          439674.00    3765360.00         0.09071
439679.00    3765360.00         0.09078
          439684.00    3765360.00         0.09084
439689.00    3765360.00         0.09090
          439694.00    3765360.00         0.09096
439699.00    3765360.00         0.09101
          439704.00    3765360.00         0.09106
439709.00    3765360.00         0.09111
          439714.00    3765360.00         0.09115
439719.00    3765360.00         0.09119
          439729.00    3765360.00         0.09127
439734.00    3765360.00         0.09131
          439739.00    3765360.00         0.09134
439744.00    3765360.00         0.09138
          439749.00    3765360.00         0.09141
439774.00    3765360.00         0.09153
          439779.00    3765360.00         0.09154
439784.00    3765360.00         0.09156
          439789.00    3765360.00         0.09157
439794.00    3765360.00         0.09158
          439799.00    3765360.00         0.09158
439804.00    3765360.00         0.09158
          439809.00    3765360.00         0.09158
439814.00    3765360.00         0.09157
          439839.00    3765360.00         0.09146
439844.00    3765360.00         0.09142
          439849.00    3765360.00         0.09138
439854.00    3765360.00         0.09133
          439859.00    3765360.00         0.09127
439864.00    3765360.00         0.09120
          439869.00    3765360.00         0.09113
439874.00    3765360.00         0.09105
          439879.00    3765360.00         0.09096
439884.00    3765360.00         0.09086
          439674.00    3765365.00         0.09225
439679.00    3765365.00         0.09232
          439684.00    3765365.00         0.09238
439689.00    3765365.00         0.09244
          439694.00    3765365.00         0.09250
439699.00    3765365.00         0.09255
          439704.00    3765365.00         0.09260
439709.00    3765365.00         0.09265
          439714.00    3765365.00         0.09270
439719.00    3765365.00         0.09274
          439729.00    3765365.00         0.09282
439734.00    3765365.00         0.09286
```

```
         439739.00    3765365.00        0.09290
439744.00    3765365.00        0.09293
         439749.00    3765365.00        0.09297
439774.00    3765365.00        0.09310
         439779.00    3765365.00        0.09312
439784.00    3765365.00        0.09314
         439789.00    3765365.00        0.09316
439794.00    3765365.00        0.09317
         439799.00    3765365.00        0.09318
439804.00    3765365.00        0.09318
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONOFFEXH ***
INCLUDING SOURCE(S):
A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , A0000029 , A0000030 , A0000031 , A0000032 , A0000033 , A0000034 , A0000035 ,
A0000036 , A0000037 , A0000038 , A0000039 , A0000040 , A0000041 , A0000042 , A0000043 ,
A0000044 , A0000045 , A0000046 , A0000047 , A0000048 , A0000049 , A0000050 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439809.00	3765365.00	0.09319	439814.00	3765365.00	0.09318
439839.00	3765365.00	0.09310	439844.00	3765365.00	0.09307
439849.00	3765365.00	0.09303	439854.00	3765365.00	0.09298
439859.00	3765365.00	0.09293	439864.00	3765365.00	0.09287
439869.00	3765365.00	0.09280	439874.00	3765365.00	0.09273
439879.00	3765365.00	0.09264	439884.00	3765365.00	0.09255
439674.00	3765370.00	0.09383	439679.00	3765370.00	0.09390
439684.00	3765370.00	0.09397	439689.00	3765370.00	0.09403
439694.00	3765370.00	0.09409	439699.00	3765370.00	0.09414

```
          439704.00    3765370.00         0.09419
439709.00    3765370.00         0.09424
          439714.00    3765370.00         0.09429
439719.00    3765370.00         0.09434
          439729.00    3765370.00         0.09442
439734.00    3765370.00         0.09446
          439739.00    3765370.00         0.09450
439744.00    3765370.00         0.09454
          439749.00    3765370.00         0.09457
439774.00    3765370.00         0.09472
          439779.00    3765370.00         0.09474
439784.00    3765370.00         0.09477
          439789.00    3765370.00         0.09478
439794.00    3765370.00         0.09480
          439799.00    3765370.00         0.09482
439804.00    3765370.00         0.09483
          439809.00    3765370.00         0.09484
439814.00    3765370.00         0.09484
          439839.00    3765370.00         0.09479
439844.00    3765370.00         0.09476
          439849.00    3765370.00         0.09472
439854.00    3765370.00         0.09469
          439859.00    3765370.00         0.09464
439864.00    3765370.00         0.09458
          439869.00    3765370.00         0.09452
439874.00    3765370.00         0.09445
          439879.00    3765370.00         0.09437
439884.00    3765370.00         0.09429
          439674.00    3765375.00         0.09546
439679.00    3765375.00         0.09553
          439684.00    3765375.00         0.09560
439689.00    3765375.00         0.09566
          439694.00    3765375.00         0.09572
439699.00    3765375.00         0.09578
          439704.00    3765375.00         0.09583
439709.00    3765375.00         0.09588
          439714.00    3765375.00         0.09593
439719.00    3765375.00         0.09597
          439729.00    3765375.00         0.09606
439734.00    3765375.00         0.09611
          439739.00    3765375.00         0.09615
439744.00    3765375.00         0.09618
          439749.00    3765375.00         0.09622
439754.00    3765375.00         0.09625
          439774.00    3765375.00         0.09638
439779.00    3765375.00         0.09641
          439784.00    3765375.00         0.09644
439789.00    3765375.00         0.09646
          439794.00    3765375.00         0.09648
439799.00    3765375.00         0.09650
          439804.00    3765375.00         0.09652
439809.00    3765375.00         0.09653
```

```
         439814.00    3765375.00        0.09654
439839.00    3765375.00        0.09652
         439844.00    3765375.00        0.09650
439849.00    3765375.00        0.09647
         439854.00    3765375.00        0.09644
439859.00    3765375.00        0.09640
         439864.00    3765375.00        0.09635
439869.00    3765375.00        0.09629
         439874.00    3765375.00        0.09623
439879.00    3765375.00        0.09616
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONOFFEXH ***
INCLUDING SOURCE(S):
A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , A0000029 , A0000030 , A0000031 , A0000032 , A0000033 , A0000034 , A0000035 ,
A0000036 , A0000037 , A0000038 , A0000039 , A0000040 , A0000041 , A0000042 , A0000043 ,
A0000044 , A0000045 , A0000046 , A0000047 , A0000048 , A0000049 , A0000050 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439884.00	3765375.00	0.09608	439774.00	3765380.00	0.09809
439779.00	3765380.00	0.09813	439784.00	3765380.00	0.09815
439789.00	3765380.00	0.09818	439794.00	3765380.00	0.09821
439799.00	3765380.00	0.09823	439804.00	3765380.00	0.09825
439809.00	3765380.00	0.09827	439814.00	3765380.00	0.09829
439769.00	3765385.00	0.09982	439819.00	3765385.00	0.10011
439769.00	3765400.00	0.10541	439844.00	3765400.00	0.10599
439849.00	3765400.00	0.10600	439674.00	3765405.00	0.10636
439714.00	3765405.00	0.10686	439719.00	3765405.00	0.10692

```
          439734.00    3765405.00        0.10706
439749.00    3765405.00        0.10720
          439754.00    3765405.00        0.10725
439774.00    3765405.00        0.10744
          439779.00    3765405.00        0.10749
439784.00    3765405.00        0.10754
          439789.00    3765405.00        0.10759
439794.00    3765405.00        0.10764
          439799.00    3765405.00        0.10769
439804.00    3765405.00        0.10774
          439809.00    3765405.00        0.10778
439814.00    3765405.00        0.10783
          439819.00    3765405.00        0.10788
439824.00    3765405.00        0.10792
          439829.00    3765405.00        0.10797
439834.00    3765405.00        0.10800
          439839.00    3765405.00        0.10804
439844.00    3765405.00        0.10807
          439849.00    3765405.00        0.10809
439854.00    3765405.00        0.10811
          439859.00    3765405.00        0.10812
439674.00    3765410.00        0.10839
          439679.00    3765410.00        0.10847
439684.00    3765410.00        0.10854
          439689.00    3765410.00        0.10861
439694.00    3765410.00        0.10867
          439699.00    3765410.00        0.10873
439704.00    3765410.00        0.10879
          439709.00    3765410.00        0.10885
439714.00    3765410.00        0.10890
          439719.00    3765410.00        0.10895
439729.00    3765410.00        0.10905
          439734.00    3765410.00        0.10910
439739.00    3765410.00        0.10914
          439744.00    3765410.00        0.10919
439749.00    3765410.00        0.10924
          439774.00    3765410.00        0.10948
439779.00    3765410.00        0.10954
          439784.00    3765410.00        0.10959
439789.00    3765410.00        0.10964
          439794.00    3765410.00        0.10970
439799.00    3765410.00        0.10975
          439804.00    3765410.00        0.10981
439809.00    3765410.00        0.10987
          439814.00    3765410.00        0.10992
439819.00    3765410.00        0.10997
          439824.00    3765410.00        0.11003
439829.00    3765410.00        0.11008
          439834.00    3765410.00        0.11012
439839.00    3765410.00        0.11017
          439844.00    3765410.00        0.11021
439849.00    3765410.00        0.11024
```

```
         439854.00    3765410.00        0.11027
439859.00    3765410.00        0.11029
         439674.00    3765415.00        0.11049
439679.00    3765415.00        0.11057
         439684.00    3765415.00        0.11064
439689.00    3765415.00        0.11071
         439694.00    3765415.00        0.11077
439699.00    3765415.00        0.11083
         439704.00    3765415.00        0.11089
439709.00    3765415.00        0.11095
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONOFFEXH ***
INCLUDING SOURCE(S):
A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , A0000029 , A0000030 , A0000031 , A0000032 , A0000033 , A0000034 , A0000035 ,
A0000036 , A0000037 , A0000038 , A0000039 , A0000040 , A0000041 , A0000042 , A0000043 ,
A0000044 , A0000045 , A0000046 , A0000047 , A0000048 , A0000049 , A0000050 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439714.00	3765415.00	0.11100	439719.00	3765415.00	0.11105
439729.00	3765415.00	0.11115	439734.00	3765415.00	0.11120
439739.00	3765415.00	0.11125	439744.00	3765415.00	0.11129
439749.00	3765415.00	0.11134	439774.00	3765415.00	0.11160
439779.00	3765415.00	0.11165	439784.00	3765415.00	0.11171
439789.00	3765415.00	0.11177	439794.00	3765415.00	0.11183
439799.00	3765415.00	0.11189	439804.00	3765415.00	0.11195
439809.00	3765415.00	0.11201	439814.00	3765415.00	0.11207
439819.00	3765415.00	0.11214	439824.00	3765415.00	0.11220

```
          439829.00    3765415.00        0.11226
439834.00    3765415.00        0.11231
          439839.00    3765415.00        0.11237
439844.00    3765415.00        0.11242
          439849.00    3765415.00        0.11246
439854.00    3765415.00        0.11250
          439859.00    3765415.00        0.11254
439674.00    3765420.00        0.11266
          439679.00    3765420.00        0.11274
439684.00    3765420.00        0.11282
          439689.00    3765420.00        0.11288
439694.00    3765420.00        0.11295
          439699.00    3765420.00        0.11301
439704.00    3765420.00        0.11307
          439709.00    3765420.00        0.11312
439714.00    3765420.00        0.11317
          439719.00    3765420.00        0.11323
439729.00    3765420.00        0.11332
          439734.00    3765420.00        0.11337
439739.00    3765420.00        0.11342
          439744.00    3765420.00        0.11347
439749.00    3765420.00        0.11352
          439774.00    3765420.00        0.11378
439779.00    3765420.00        0.11384
          439784.00    3765420.00        0.11390
439789.00    3765420.00        0.11396
          439794.00    3765420.00        0.11403
439799.00    3765420.00        0.11409
          439804.00    3765420.00        0.11416
439809.00    3765420.00        0.11423
          439814.00    3765420.00        0.11430
439819.00    3765420.00        0.11437
          439824.00    3765420.00        0.11444
439829.00    3765420.00        0.11451
          439834.00    3765420.00        0.11457
439839.00    3765420.00        0.11464
          439844.00    3765420.00        0.11470
439849.00    3765420.00        0.11476
          439854.00    3765420.00        0.11481
439859.00    3765420.00        0.11485
          439674.00    3765425.00        0.11491
439679.00    3765425.00        0.11499
          439684.00    3765425.00        0.11507
439689.00    3765425.00        0.11514
          439694.00    3765425.00        0.11520
439699.00    3765425.00        0.11526
          439704.00    3765425.00        0.11532
439709.00    3765425.00        0.11538
          439714.00    3765425.00        0.11543
439719.00    3765425.00        0.11548
          439729.00    3765425.00        0.11558
439734.00    3765425.00        0.11562
```

```
         439739.00    3765425.00        0.11567
439744.00    3765425.00        0.11572
         439749.00    3765425.00        0.11577
439774.00    3765425.00        0.11604
         439779.00    3765425.00        0.11610
439784.00    3765425.00        0.11616
         439789.00    3765425.00        0.11622
439794.00    3765425.00        0.11630
         439799.00    3765425.00        0.11637
439804.00    3765425.00        0.11644
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONOFFEXH ***
INCLUDING SOURCE(S):
A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , A0000029 , A0000030 , A0000031 , A0000032 , A0000033 , A0000034 , A0000035 ,
A0000036 , A0000037 , A0000038 , A0000039 , A0000040 , A0000041 , A0000042 , A0000043 ,
A0000044 , A0000045 , A0000046 , A0000047 , A0000048 , A0000049 , A0000050 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439809.00	3765425.00	0.11652	439814.00	3765425.00	0.11660
439819.00	3765425.00	0.11667	439824.00	3765425.00	0.11675
439829.00	3765425.00	0.11683	439834.00	3765425.00	0.11691
439839.00	3765425.00	0.11699	439844.00	3765425.00	0.11706
439849.00	3765425.00	0.11713	439854.00	3765425.00	0.11719
439859.00	3765425.00	0.11725	439674.00	3765430.00	0.11724
439679.00	3765430.00	0.11733	439684.00	3765430.00	0.11740
439689.00	3765430.00	0.11747	439694.00	3765430.00	0.11754
439699.00	3765430.00	0.11760	439704.00	3765430.00	0.11766

```
          439709.00    3765430.00        0.11771
439714.00    3765430.00        0.11776
          439719.00    3765430.00        0.11781
439729.00    3765430.00        0.11791
          439734.00    3765430.00        0.11796
439739.00    3765430.00        0.11800
          439744.00    3765430.00        0.11805
439749.00    3765430.00        0.11810
          439774.00    3765430.00        0.11837
439779.00    3765430.00        0.11843
          439784.00    3765430.00        0.11850
439789.00    3765430.00        0.11857
          439794.00    3765430.00        0.11865
439799.00    3765430.00        0.11872
          439804.00    3765430.00        0.11880
439809.00    3765430.00        0.11889
          439814.00    3765430.00        0.11897
439819.00    3765430.00        0.11906
          439824.00    3765430.00        0.11915
439829.00    3765430.00        0.11924
          439834.00    3765430.00        0.11933
439839.00    3765430.00        0.11941
          439844.00    3765430.00        0.11950
439849.00    3765430.00        0.11958
          439854.00    3765430.00        0.11966
439859.00    3765430.00        0.11973
          439674.00    3765435.00        0.11967
439679.00    3765435.00        0.11974
          439684.00    3765435.00        0.11982
439689.00    3765435.00        0.11989
          439694.00    3765435.00        0.11996
439699.00    3765435.00        0.12002
          439704.00    3765435.00        0.12008
439709.00    3765435.00        0.12013
          439714.00    3765435.00        0.12018
439719.00    3765435.00        0.12023
          439729.00    3765435.00        0.12033
439734.00    3765435.00        0.12037
          439739.00    3765435.00        0.12042
439744.00    3765435.00        0.12047
          439749.00    3765435.00        0.12051
439774.00    3765435.00        0.12079
          439779.00    3765435.00        0.12086
439784.00    3765435.00        0.12093
          439789.00    3765435.00        0.12100
439794.00    3765435.00        0.12107
          439799.00    3765435.00        0.12116
439804.00    3765435.00        0.12124
          439809.00    3765435.00        0.12133
439814.00    3765435.00        0.12143
          439819.00    3765435.00        0.12152
439824.00    3765435.00        0.12162
```

```
         439829.00    3765435.00        0.12172
439834.00    3765435.00        0.12182
         439839.00    3765435.00        0.12192
439844.00    3765435.00        0.12203
         439849.00    3765435.00        0.12212
439854.00    3765435.00        0.12221
         439859.00    3765435.00        0.12230
439674.00    3765440.00        0.12217
         439679.00    3765440.00        0.12226
439684.00    3765440.00        0.12233
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONOFFEXH ***
INCLUDING SOURCE(S):
A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , A0000029 , A0000030 , A0000031 , A0000032 , A0000033 , A0000034 , A0000035 ,
A0000036 , A0000037 , A0000038 , A0000039 , A0000040 , A0000041 , A0000042 , A0000043 ,
A0000044 , A0000045 , A0000046 , A0000047 , A0000048 , A0000049 , A0000050 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439689.00	3765440.00	0.12240	439694.00	3765440.00	0.12247
439699.00	3765440.00	0.12253	439704.00	3765440.00	0.12259
439709.00	3765440.00	0.12265	439714.00	3765440.00	0.12269
439719.00	3765440.00	0.12274	439729.00	3765440.00	0.12284
439734.00	3765440.00	0.12288	439739.00	3765440.00	0.12293
439744.00	3765440.00	0.12297	439749.00	3765440.00	0.12302
439774.00	3765440.00	0.12330	439779.00	3765440.00	0.12337
439784.00	3765440.00	0.12344	439789.00	3765440.00	0.12351
439794.00	3765440.00	0.12360	439799.00	3765440.00	0.12368

```
          439804.00    3765440.00        0.12377
439809.00    3765440.00        0.12387
          439814.00    3765440.00        0.12397
439819.00    3765440.00        0.12408
          439824.00    3765440.00        0.12419
439829.00    3765440.00        0.12430
          439834.00    3765440.00        0.12441
439839.00    3765440.00        0.12452
          439844.00    3765440.00        0.12464
439849.00    3765440.00        0.12475
          439854.00    3765440.00        0.12486
439859.00    3765440.00        0.12496
          439674.00    3765445.00        0.12478
439679.00    3765445.00        0.12487
          439684.00    3765445.00        0.12494
439689.00    3765445.00        0.12502
          439694.00    3765445.00        0.12508
439699.00    3765445.00        0.12514
          439704.00    3765445.00        0.12520
439709.00    3765445.00        0.12525
          439714.00    3765445.00        0.12530
439719.00    3765445.00        0.12535
          439729.00    3765445.00        0.12545
439734.00    3765445.00        0.12549
          439739.00    3765445.00        0.12553
439744.00    3765445.00        0.12558
          439749.00    3765445.00        0.12562
439774.00    3765445.00        0.12590
          439779.00    3765445.00        0.12597
439784.00    3765445.00        0.12604
          439789.00    3765445.00        0.12612
439794.00    3765445.00        0.12621
          439799.00    3765445.00        0.12630
439804.00    3765445.00        0.12640
          439809.00    3765445.00        0.12650
439814.00    3765445.00        0.12661
          439819.00    3765445.00        0.12672
439824.00    3765445.00        0.12684
          439829.00    3765445.00        0.12696
439834.00    3765445.00        0.12709
          439839.00    3765445.00        0.12722
439844.00    3765445.00        0.12735
          439849.00    3765445.00        0.12747
439854.00    3765445.00        0.12760
          439859.00    3765445.00        0.12772
439674.00    3765450.00        0.12749
          439679.00    3765450.00        0.12758
439684.00    3765450.00        0.12766
          439689.00    3765450.00        0.12773
439694.00    3765450.00        0.12780
          439699.00    3765450.00        0.12786
439704.00    3765450.00        0.12792
```

```
         439709.00    3765450.00        0.12797
439714.00    3765450.00        0.12802
         439719.00    3765450.00        0.12807
439729.00    3765450.00        0.12815
         439734.00    3765450.00        0.12820
439739.00    3765450.00        0.12824
         439744.00    3765450.00        0.12829
439749.00    3765450.00        0.12833
         439774.00    3765450.00        0.12861
439844.00    3765450.00        0.13015
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONOFFEXH ***
INCLUDING SOURCE(S):
A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , A0000029 , A0000030 , A0000031 , A0000032 , A0000033 , A0000034 , A0000035 ,
A0000036 , A0000037 , A0000038 , A0000039 , A0000040 , A0000041 , A0000042 , A0000043 ,
A0000044 , A0000045 , A0000046 , A0000047 , A0000048 , A0000049 , A0000050 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439849.00	3765450.00	0.13030	439854.00	3765450.00	0.13044
439859.00	3765450.00	0.13059	439674.00	3765455.00	0.13031
439679.00	3765455.00	0.13040	439684.00	3765455.00	0.13048
439689.00	3765455.00	0.13055	439694.00	3765455.00	0.13062
439699.00	3765455.00	0.13068	439704.00	3765455.00	0.13074
439709.00	3765455.00	0.13079	439714.00	3765455.00	0.13084
439719.00	3765455.00	0.13089	439729.00	3765455.00	0.13098
439734.00	3765455.00	0.13102	439739.00	3765455.00	0.13106
439744.00	3765455.00	0.13110	439749.00	3765455.00	0.13115

```
          439844.00    3765455.00        0.13307
439849.00    3765455.00        0.13323
          439854.00    3765455.00        0.13340
439859.00    3765455.00        0.13356
          439674.00    3765460.00        0.13324
439679.00    3765460.00        0.13333
          439684.00    3765460.00        0.13342
439689.00    3765460.00        0.13349
          439694.00    3765460.00        0.13356
439699.00    3765460.00        0.13362
          439704.00    3765460.00        0.13368
439709.00    3765460.00        0.13374
          439714.00    3765460.00        0.13379
439719.00    3765460.00        0.13383
          439729.00    3765460.00        0.13392
439734.00    3765460.00        0.13396
          439739.00    3765460.00        0.13400
439744.00    3765460.00        0.13404
          439749.00    3765460.00        0.13408
439789.00    3765460.00        0.13457
          439794.00    3765460.00        0.13467
439799.00    3765460.00        0.13477
          439804.00    3765460.00        0.13488
439809.00    3765460.00        0.13500
          439814.00    3765460.00        0.13513
439819.00    3765460.00        0.13527
          439824.00    3765460.00        0.13542
439829.00    3765460.00        0.13558
          439844.00    3765460.00        0.13610
439849.00    3765460.00        0.13628
          439854.00    3765460.00        0.13646
439859.00    3765460.00        0.13665
          439674.00    3765465.00        0.13630
439679.00    3765465.00        0.13639
          439684.00    3765465.00        0.13648
439689.00    3765465.00        0.13656
          439694.00    3765465.00        0.13663
439699.00    3765465.00        0.13669
          439704.00    3765465.00        0.13675
439709.00    3765465.00        0.13680
          439714.00    3765465.00        0.13685
439719.00    3765465.00        0.13690
          439729.00    3765465.00        0.13698
439734.00    3765465.00        0.13702
          439739.00    3765465.00        0.13706
439744.00    3765465.00        0.13710
          439749.00    3765465.00        0.13714
439789.00    3765465.00        0.13763
          439794.00    3765465.00        0.13772
439799.00    3765465.00        0.13783
          439804.00    3765465.00        0.13794
439809.00    3765465.00        0.13807
```

```
         439814.00    3765465.00        0.13820
439819.00    3765465.00        0.13835
         439824.00    3765465.00        0.13851
439829.00    3765465.00        0.13868
         439844.00    3765465.00        0.13924
439849.00    3765465.00        0.13945
         439854.00    3765465.00        0.13965
439859.00    3765465.00        0.13986
         439674.00    3765470.00        0.13949
439679.00    3765470.00        0.13958
```

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONOFFEXH ***
INCLUDING SOURCE(S):
A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , A0000029 , A0000030 , A0000031 , A0000032 , A0000033 , A0000034 , A0000035 ,
A0000036 , A0000037 , A0000038 , A0000039 , A0000040 , A0000041 , A0000042 , A0000043 ,
A0000044 , A0000045 , A0000046 , A0000047 , A0000048 , A0000049 , A0000050 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439684.00	3765470.00	0.13967	439689.00	3765470.00	0.13975
439694.00	3765470.00	0.13982	439699.00	3765470.00	0.13989
439704.00	3765470.00	0.13995	439709.00	3765470.00	0.14000
439714.00	3765470.00	0.14006	439719.00	3765470.00	0.14010
439729.00	3765470.00	0.14019	439734.00	3765470.00	0.14022
439739.00	3765470.00	0.14026	439744.00	3765470.00	0.14030
439749.00	3765470.00	0.14034	439789.00	3765470.00	0.14081
439794.00	3765470.00	0.14091	439799.00	3765470.00	0.14101
439804.00	3765470.00	0.14113	439809.00	3765470.00	0.14126

```
          439814.00    3765470.00        0.14140
439819.00    3765470.00        0.14156
          439824.00    3765470.00        0.14173
439829.00    3765470.00        0.14191
          439844.00    3765470.00        0.14252
439849.00    3765470.00        0.14274
          439854.00    3765470.00        0.14297
439859.00    3765470.00        0.14320
          439674.00    3765475.00        0.14281
439679.00    3765475.00        0.14291
          439684.00    3765475.00        0.14301
439689.00    3765475.00        0.14309
          439694.00    3765475.00        0.14316
439699.00    3765475.00        0.14323
          439704.00    3765475.00        0.14329
439709.00    3765475.00        0.14335
          439714.00    3765475.00        0.14340
439719.00    3765475.00        0.14345
          439729.00    3765475.00        0.14353
439734.00    3765475.00        0.14357
          439739.00    3765475.00        0.14361
439744.00    3765475.00        0.14364
          439749.00    3765475.00        0.14368
439754.00    3765475.00        0.14372
          439789.00    3765475.00        0.14414
439794.00    3765475.00        0.14423
          439799.00    3765475.00        0.14434
439804.00    3765475.00        0.14446
          439809.00    3765475.00        0.14459
439814.00    3765475.00        0.14474
          439819.00    3765475.00        0.14490
439824.00    3765475.00        0.14508
          439829.00    3765475.00        0.14527
439269.00    3764900.00        0.02871
          439369.00    3764900.00        0.02965
439469.00    3764900.00        0.03007
          439569.00    3764900.00        0.02997
439669.00    3764900.00        0.02936
          439769.00    3764900.00        0.02825
439869.00    3764900.00        0.02670
          439969.00    3764900.00        0.02480
440069.00    3764900.00        0.02267
          440169.00    3764900.00        0.02047
440269.00    3764900.00        0.01834
          439269.00    3765000.00        0.03348
439369.00    3765000.00        0.03513
          439469.00    3765000.00        0.03608
439569.00    3765000.00        0.03634
          439669.00    3765000.00        0.03593
439769.00    3765000.00        0.03485
          439869.00    3765000.00        0.03307
439969.00    3765000.00        0.03069
```

```
         440069.00    3765000.00        0.02789
440169.00    3765000.00        0.02491
         440269.00    3765000.00        0.02202
439269.00    3765100.00        0.03935
         439369.00    3765100.00        0.04212
439469.00    3765100.00        0.04392
         439569.00    3765100.00        0.04477
439669.00    3765100.00        0.04478
         439769.00    3765100.00        0.04390
439869.00    3765100.00        0.04196
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONOFFEXH ***
INCLUDING SOURCE(S):
A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , A0000029 , A0000030 , A0000031 , A0000032 , A0000033 , A0000034 , A0000035 ,
A0000036 , A0000037 , A0000038 , A0000039 , A0000040 , A0000041 , A0000042 , A0000043 ,
A0000044 , A0000045 , A0000046 , A0000047 , A0000048 , A0000049 , A0000050 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439969.00	3765100.00	0.03903	440069.00	3765100.00	0.03532
440169.00	3765100.00	0.03121	440269.00	3765100.00	0.02717
439269.00	3765200.00	0.04669	439369.00	3765200.00	0.05136
439469.00	3765200.00	0.05458	439569.00	3765200.00	0.05639
439669.00	3765200.00	0.05707	439769.00	3765200.00	0.05666
439869.00	3765200.00	0.05479	439969.00	3765200.00	0.05135
440069.00	3765200.00	0.04650	440169.00	3765200.00	0.04076
440269.00	3765200.00	0.03486	439269.00	3765300.00	0.05587
439369.00	3765300.00	0.06414	439469.00	3765300.00	0.07002

```
         439569.00    3765300.00        0.07344
439669.00    3765300.00        0.07509
         439769.00    3765300.00        0.07545
439869.00    3765300.00        0.07419
         439969.00    3765300.00        0.07058
440069.00    3765300.00        0.06450
         440169.00    3765300.00        0.05647
440269.00    3765300.00        0.04748
         439269.00    3765400.00        0.06689
439369.00    3765400.00        0.08264
         439469.00    3765400.00        0.09448
439569.00    3765400.00        0.10132
         439669.00    3765400.00        0.10432
439769.00    3765400.00        0.10541
         439869.00    3765400.00        0.10599
439969.00    3765400.00        0.10352
         440069.00    3765400.00        0.09656
440169.00    3765400.00        0.08558
         440269.00    3765400.00        0.07127
439269.00    3765500.00        0.07824
         439369.00    3765500.00        0.11065
439469.00    3765500.00        0.13891
         439569.00    3765500.00        0.15530
439669.00    3765500.00        0.16175
         439769.00    3765500.00        0.16314
439869.00    3765500.00        0.16744
         439969.00    3765500.00        0.17292
440069.00    3765500.00        0.16606
         440169.00    3765500.00        0.15023
440269.00    3765500.00        0.12670
         439269.00    3765600.00        0.08414
439369.00    3765600.00        0.15237
         439469.00    3765600.00        0.24745
439569.00    3765600.00        0.30313
         439669.00    3765600.00        0.33142
439769.00    3765600.00        0.35795
         439869.00    3765600.00        0.37055
439969.00    3765600.00        0.46849
         440069.00    3765600.00        0.43901
440169.00    3765600.00        0.38301
         440269.00    3765600.00        0.32391
439269.00    3765700.00        0.07478
         439369.00    3765700.00        0.18371
439469.00    3765700.00        2.55756
         439569.00    3765700.00        2.83983
439669.00    3765700.00        1.80797
         439769.00    3765700.00        1.29619
439869.00    3765700.00        0.85891
         439969.00    3765700.00        0.65175
440069.00    3765700.00        0.98812
         440169.00    3765700.00        1.56800
440269.00    3765700.00        2.78830
```

```
         439269.00    3765800.00        0.05166
439369.00    3765800.00        0.09184
         439469.00    3765800.00        0.25257
439569.00    3765800.00        0.55015
         439669.00    3765800.00        0.82529
439769.00    3765800.00        1.25365
         439869.00    3765800.00        2.19339
439969.00    3765800.00        0.83984
         440069.00    3765800.00        0.53479
440169.00    3765800.00        0.45632
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONOFFEXH ***
INCLUDING SOURCE(S):
A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , A0000029 , A0000030 , A0000031 , A0000032 , A0000033 , A0000034 , A0000035 ,
A0000036 , A0000037 , A0000038 , A0000039 , A0000040 , A0000041 , A0000042 , A0000043 ,
A0000044 , A0000045 , A0000046 , A0000047 , A0000048 , A0000049 , A0000050 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
440269.00	3765800.00	0.45448	439269.00	3765900.00	0.03428
439369.00	3765900.00	0.04726	439469.00	3765900.00	0.06963
439569.00	3765900.00	0.10866	439669.00	3765900.00	0.16257
439769.00	3765900.00	0.22134	439869.00	3765900.00	0.27263
439969.00	3765900.00	0.29388	440069.00	3765900.00	0.27249
440169.00	3765900.00	0.24334	440269.00	3765900.00	0.22600
439649.00	3765310.00	0.07713	439679.00	3765310.00	0.07746
439709.00	3765310.00	0.07769	439739.00	3765310.00	0.07781
439769.00	3765310.00	0.07781	439799.00	3765310.00	0.07768

```
          439829.00    3765310.00        0.07738
439859.00    3765310.00        0.07688
          439889.00    3765310.00        0.07616
439649.00    3765340.00        0.08463
          439679.00    3765340.00        0.08503
439709.00    3765340.00        0.08532
          439739.00    3765340.00        0.08552
439769.00    3765340.00        0.08562
          439799.00    3765340.00        0.08560
439829.00    3765340.00        0.08543
          439859.00    3765340.00        0.08506
439889.00    3765340.00        0.08444
          439649.00    3765370.00        0.09343
439679.00    3765370.00        0.09390
          439709.00    3765370.00        0.09424
439739.00    3765370.00        0.09450
          439769.00    3765370.00        0.09469
439799.00    3765370.00        0.09482
          439829.00    3765370.00        0.09482
439859.00    3765370.00        0.09464
          439889.00    3765370.00        0.09420
439649.00    3765400.00        0.10395
          439679.00    3765400.00        0.10447
439709.00    3765400.00        0.10484
          439739.00    3765400.00        0.10514
439769.00    3765400.00        0.10541
          439799.00    3765400.00        0.10568
439829.00    3765400.00        0.10592
          439859.00    3765400.00        0.10601
439889.00    3765400.00        0.10584
          439649.00    3765430.00        0.11674
439679.00    3765430.00        0.11733
          439709.00    3765430.00        0.11771
439739.00    3765430.00        0.11800
          439769.00    3765430.00        0.11831
439799.00    3765430.00        0.11872
          439829.00    3765430.00        0.11924
439859.00    3765430.00        0.11973
          439889.00    3765430.00        0.12001
439649.00    3765460.00        0.13266
          439679.00    3765460.00        0.13333
439709.00    3765460.00        0.13374
          439739.00    3765460.00        0.13400
439769.00    3765460.00        0.13428
          439799.00    3765460.00        0.13477
439829.00    3765460.00        0.13558
          439859.00    3765460.00        0.13665
439889.00    3765460.00        0.13764
          439649.00    3765490.00        0.15297
439679.00    3765490.00        0.15384
          439709.00    3765490.00        0.15435
439739.00    3765490.00        0.15462
```

```
          439769.00    3765490.00        0.15484
439799.00    3765490.00        0.15529
          439829.00    3765490.00        0.15630
439859.00    3765490.00        0.15807
          439889.00    3765490.00        0.16025
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: FREEEVAP ***
INCLUDING SOURCE(S):
A0000067 , A0000068 , A0000069 , A0000070 , A0000071 ,
A0000072 , A0000073 , A0000074 , A0000075 , A0000076 , A0000077 , A0000078 , A0000079 ,
A0000080 , A0000081 , A0000082 , A0000083 , A0000084 , A0000085 , A0000086 , A0000087 ,
A0000088 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439674.00	3765310.00	0.14832	439679.00	3765310.00	0.14829
439684.00	3765310.00	0.14826	439689.00	3765310.00	0.14824
439694.00	3765310.00	0.14820	439699.00	3765310.00	0.14817
439704.00	3765310.00	0.14813	439709.00	3765310.00	0.14809
439714.00	3765310.00	0.14805	439719.00	3765310.00	0.14800
439729.00	3765310.00	0.14790	439734.00	3765310.00	0.14785
439739.00	3765310.00	0.14780	439744.00	3765310.00	0.14774
439749.00	3765310.00	0.14768	439764.00	3765310.00	0.14749
439769.00	3765310.00	0.14742	439774.00	3765310.00	0.14735
439779.00	3765310.00	0.14727	439784.00	3765310.00	0.14719

```
         439789.00    3765310.00        0.14711
439794.00    3765310.00        0.14703
         439799.00    3765310.00        0.14695
439804.00    3765310.00        0.14686
         439809.00    3765310.00        0.14677
439814.00    3765310.00        0.14667
         439819.00    3765310.00        0.14658
439824.00    3765310.00        0.14648
         439829.00    3765310.00        0.14637
439839.00    3765310.00        0.14616
         439844.00    3765310.00        0.14605
439849.00    3765310.00        0.14593
         439854.00    3765310.00        0.14582
439859.00    3765310.00        0.14570
         439864.00    3765310.00        0.14557
439869.00    3765310.00        0.14545
         439874.00    3765310.00        0.14531
439879.00    3765310.00        0.14518
         439884.00    3765310.00        0.14504
439674.00    3765315.00        0.15028
         439679.00    3765315.00        0.15026
439684.00    3765315.00        0.15023
         439689.00    3765315.00        0.15020
439694.00    3765315.00        0.15017
         439699.00    3765315.00        0.15014
439704.00    3765315.00        0.15010
         439709.00    3765315.00        0.15006
439714.00    3765315.00        0.15002
         439719.00    3765315.00        0.14998
439729.00    3765315.00        0.14988
         439734.00    3765315.00        0.14983
439739.00    3765315.00        0.14978
         439744.00    3765315.00        0.14973
439749.00    3765315.00        0.14967
         439764.00    3765315.00        0.14948
439769.00    3765315.00        0.14941
         439774.00    3765315.00        0.14934
439779.00    3765315.00        0.14927
         439784.00    3765315.00        0.14919
439789.00    3765315.00        0.14911
         439794.00    3765315.00        0.14903
439799.00    3765315.00        0.14895
         439804.00    3765315.00        0.14886
439809.00    3765315.00        0.14877
         439814.00    3765315.00        0.14868
439819.00    3765315.00        0.14859
         439824.00    3765315.00        0.14849
439829.00    3765315.00        0.14839
         439839.00    3765315.00        0.14818
439844.00    3765315.00        0.14807
         439849.00    3765315.00        0.14796
439854.00    3765315.00        0.14784
```

```
         439859.00    3765315.00        0.14772
439864.00    3765315.00        0.14760
         439869.00    3765315.00        0.14747
439874.00    3765315.00        0.14734
         439879.00    3765315.00        0.14721
439884.00    3765315.00        0.14708
         439674.00    3765320.00        0.15229
439679.00    3765320.00        0.15226
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: FREEEVAP ***
INCLUDING SOURCE(S):
A0000067 , A0000068 , A0000069 , A0000070 , A0000071 ,
A0000072 , A0000073 , A0000074 , A0000075 , A0000076 , A0000077 , A0000078 , A0000079 ,
A0000080 , A0000081 , A0000082 , A0000083 , A0000084 , A0000085 , A0000086 , A0000087 ,
A0000088 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439684.00	3765320.00	0.15224	439689.00	3765320.00	0.15221
439694.00	3765320.00	0.15218	439699.00	3765320.00	0.15215
439704.00	3765320.00	0.15212	439709.00	3765320.00	0.15208
439714.00	3765320.00	0.15204	439719.00	3765320.00	0.15200
439729.00	3765320.00	0.15191	439734.00	3765320.00	0.15186
439739.00	3765320.00	0.15181	439744.00	3765320.00	0.15176
439749.00	3765320.00	0.15170	439764.00	3765320.00	0.15152
439769.00	3765320.00	0.15145	439774.00	3765320.00	0.15138
439779.00	3765320.00	0.15131	439784.00	3765320.00	0.15124
439789.00	3765320.00	0.15116	439794.00	3765320.00	0.15108

```
          439799.00    3765320.00        0.15100
439804.00    3765320.00        0.15092
          439809.00    3765320.00        0.15083
439814.00    3765320.00        0.15074
          439819.00    3765320.00        0.15065
439824.00    3765320.00        0.15055
          439829.00    3765320.00        0.15045
439839.00    3765320.00        0.15024
          439844.00    3765320.00        0.15014
439849.00    3765320.00        0.15003
          439854.00    3765320.00        0.14991
439859.00    3765320.00        0.14979
          439864.00    3765320.00        0.14967
439869.00    3765320.00        0.14955
          439874.00    3765320.00        0.14942
439879.00    3765320.00        0.14929
          439884.00    3765320.00        0.14916
439674.00    3765325.00        0.15434
          439679.00    3765325.00        0.15432
439684.00    3765325.00        0.15429
          439689.00    3765325.00        0.15427
439694.00    3765325.00        0.15424
          439699.00    3765325.00        0.15421
439704.00    3765325.00        0.15418
          439709.00    3765325.00        0.15415
439714.00    3765325.00        0.15411
          439719.00    3765325.00        0.15407
439729.00    3765325.00        0.15398
          439734.00    3765325.00        0.15394
439739.00    3765325.00        0.15389
          439744.00    3765325.00        0.15384
439749.00    3765325.00        0.15378
          439754.00    3765325.00        0.15373
439769.00    3765325.00        0.15354
          439774.00    3765325.00        0.15347
439779.00    3765325.00        0.15341
          439784.00    3765325.00        0.15333
439789.00    3765325.00        0.15326
          439794.00    3765325.00        0.15318
439799.00    3765325.00        0.15310
          439804.00    3765325.00        0.15302
439809.00    3765325.00        0.15293
          439814.00    3765325.00        0.15284
439819.00    3765325.00        0.15275
          439824.00    3765325.00        0.15266
439829.00    3765325.00        0.15256
          439839.00    3765325.00        0.15236
439844.00    3765325.00        0.15225
          439849.00    3765325.00        0.15214
439854.00    3765325.00        0.15203
          439859.00    3765325.00        0.15191
439864.00    3765325.00        0.15179
```

```
         439869.00    3765325.00        0.15167
439874.00    3765325.00        0.15155
         439879.00    3765325.00        0.15142
439884.00    3765325.00        0.15128
         439674.00    3765330.00        0.15644
439679.00    3765330.00        0.15642
         439684.00    3765330.00        0.15640
439689.00    3765330.00        0.15638
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: FREEEVAP ***
INCLUDING SOURCE(S):
A0000067 , A0000068 , A0000069 , A0000070 , A0000071 ,
A0000072 , A0000073 , A0000074 , A0000075 , A0000076 , A0000077 , A0000078 , A0000079 ,
A0000080 , A0000081 , A0000082 , A0000083 , A0000084 , A0000085 , A0000086 , A0000087 ,
A0000088 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439694.00	3765330.00	0.15635	439699.00	3765330.00	0.15632
439704.00	3765330.00	0.15629	439709.00	3765330.00	0.15626
439714.00	3765330.00	0.15623	439719.00	3765330.00	0.15619
439729.00	3765330.00	0.15611	439734.00	3765330.00	0.15606
439739.00	3765330.00	0.15602	439744.00	3765330.00	0.15597
439749.00	3765330.00	0.15591	439754.00	3765330.00	0.15586
439774.00	3765330.00	0.15562	439779.00	3765330.00	0.15555
439784.00	3765330.00	0.15548	439789.00	3765330.00	0.15541
439794.00	3765330.00	0.15533	439799.00	3765330.00	0.15525
439804.00	3765330.00	0.15517	439809.00	3765330.00	0.15509

```
          439814.00    3765330.00        0.15500
439819.00    3765330.00        0.15491
          439824.00    3765330.00        0.15482
439829.00    3765330.00        0.15472
          439839.00    3765330.00        0.15452
439844.00    3765330.00        0.15442
          439849.00    3765330.00        0.15431
439854.00    3765330.00        0.15420
          439859.00    3765330.00        0.15408
439864.00    3765330.00        0.15397
          439869.00    3765330.00        0.15385
439874.00    3765330.00        0.15372
          439879.00    3765330.00        0.15360
439884.00    3765330.00        0.15347
          439674.00    3765335.00        0.15859
439679.00    3765335.00        0.15858
          439684.00    3765335.00        0.15856
439689.00    3765335.00        0.15854
          439694.00    3765335.00        0.15851
439699.00    3765335.00        0.15849
          439704.00    3765335.00        0.15846
439709.00    3765335.00        0.15843
          439714.00    3765335.00        0.15840
439719.00    3765335.00        0.15836
          439729.00    3765335.00        0.15828
439734.00    3765335.00        0.15824
          439739.00    3765335.00        0.15819
439744.00    3765335.00        0.15815
          439749.00    3765335.00        0.15810
439774.00    3765335.00        0.15781
          439779.00    3765335.00        0.15774
439784.00    3765335.00        0.15767
          439789.00    3765335.00        0.15760
439794.00    3765335.00        0.15753
          439839.00    3765335.00        0.15674
439844.00    3765335.00        0.15663
          439849.00    3765335.00        0.15653
439854.00    3765335.00        0.15642
          439859.00    3765335.00        0.15631
439864.00    3765335.00        0.15619
          439869.00    3765335.00        0.15608
439874.00    3765335.00        0.15595
          439879.00    3765335.00        0.15583
439884.00    3765335.00        0.15570
          439674.00    3765340.00        0.16080
439679.00    3765340.00        0.16078
          439684.00    3765340.00        0.16077
439689.00    3765340.00        0.16075
          439694.00    3765340.00        0.16073
439699.00    3765340.00        0.16070
          439704.00    3765340.00        0.16068
439709.00    3765340.00        0.16065
```

```
         439714.00    3765340.00        0.16062
439719.00    3765340.00        0.16058
         439729.00    3765340.00        0.16051
439734.00    3765340.00        0.16047
         439739.00    3765340.00        0.16043
439744.00    3765340.00        0.16038
         439749.00    3765340.00        0.16033
439774.00    3765340.00        0.16005
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: FREEEVAP ***
INCLUDING SOURCE(S):
A0000067 , A0000068 , A0000069 , A0000070 , A0000071 ,
A0000072 , A0000073 , A0000074 , A0000075 , A0000076 , A0000077 , A0000078 , A0000079 ,
A0000080 , A0000081 , A0000082 , A0000083 , A0000084 , A0000085 , A0000086 , A0000087 ,
A0000088 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439779.00	3765340.00	0.15999	439784.00	3765340.00	0.15992
439789.00	3765340.00	0.15986	439794.00	3765340.00	0.15978
439839.00	3765340.00	0.15901	439844.00	3765340.00	0.15891
439849.00	3765340.00	0.15880	439854.00	3765340.00	0.15870
439859.00	3765340.00	0.15859	439864.00	3765340.00	0.15847
439869.00	3765340.00	0.15836	439874.00	3765340.00	0.15823
439879.00	3765340.00	0.15811	439884.00	3765340.00	0.15798
439674.00	3765345.00	0.16306	439679.00	3765345.00	0.16305
439684.00	3765345.00	0.16303	439689.00	3765345.00	0.16301
439694.00	3765345.00	0.16300	439699.00	3765345.00	0.16297

```
         439704.00    3765345.00        0.16295
439709.00    3765345.00        0.16292
         439714.00    3765345.00        0.16289
439719.00    3765345.00        0.16286
         439729.00    3765345.00        0.16279
439734.00    3765345.00        0.16276
         439739.00    3765345.00        0.16272
439744.00    3765345.00        0.16267
         439749.00    3765345.00        0.16263
439774.00    3765345.00        0.16236
         439779.00    3765345.00        0.16230
439784.00    3765345.00        0.16223
         439789.00    3765345.00        0.16216
439794.00    3765345.00        0.16209
         439839.00    3765345.00        0.16134
439844.00    3765345.00        0.16124
         439849.00    3765345.00        0.16113
439854.00    3765345.00        0.16103
         439859.00    3765345.00        0.16092
439864.00    3765345.00        0.16081
         439869.00    3765345.00        0.16069
439874.00    3765345.00        0.16058
         439879.00    3765345.00        0.16045
439884.00    3765345.00        0.16033
         439674.00    3765350.00        0.16537
439679.00    3765350.00        0.16537
         439684.00    3765350.00        0.16535
439689.00    3765350.00        0.16534
         439694.00    3765350.00        0.16532
439699.00    3765350.00        0.16530
         439704.00    3765350.00        0.16528
439709.00    3765350.00        0.16526
         439714.00    3765350.00        0.16523
439719.00    3765350.00        0.16520
         439729.00    3765350.00        0.16513
439734.00    3765350.00        0.16510
         439739.00    3765350.00        0.16506
439744.00    3765350.00        0.16502
         439749.00    3765350.00        0.16497
439774.00    3765350.00        0.16472
         439779.00    3765350.00        0.16466
439784.00    3765350.00        0.16460
         439789.00    3765350.00        0.16453
439794.00    3765350.00        0.16446
         439839.00    3765350.00        0.16372
439844.00    3765350.00        0.16362
         439849.00    3765350.00        0.16353
439854.00    3765350.00        0.16342
         439859.00    3765350.00        0.16332
439864.00    3765350.00        0.16320
         439869.00    3765350.00        0.16309
439874.00    3765350.00        0.16297
```

```
         439879.00    3765350.00        0.16286
439884.00    3765350.00        0.16273
         439674.00    3765355.00        0.16775
439679.00    3765355.00        0.16774
         439684.00    3765355.00        0.16773
439689.00    3765355.00        0.16772
         439694.00    3765355.00        0.16771
439699.00    3765355.00        0.16769
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: FREEEVAP ***
INCLUDING SOURCE(S):
A0000067 , A0000068 , A0000069 , A0000070 , A0000071 ,
A0000072 , A0000073 , A0000074 , A0000075 , A0000076 , A0000077 , A0000078 , A0000079 ,
A0000080 , A0000081 , A0000082 , A0000083 , A0000084 , A0000085 , A0000086 , A0000087 ,
A0000088 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439704.00	3765355.00	0.16767	439709.00	3765355.00	0.16765
439714.00	3765355.00	0.16762	439719.00	3765355.00	0.16760
439729.00	3765355.00	0.16754	439734.00	3765355.00	0.16750
439739.00	3765355.00	0.16747	439744.00	3765355.00	0.16743
439749.00	3765355.00	0.16739	439774.00	3765355.00	0.16714
439779.00	3765355.00	0.16708	439784.00	3765355.00	0.16702
439789.00	3765355.00	0.16696	439794.00	3765355.00	0.16689
439839.00	3765355.00	0.16617	439844.00	3765355.00	0.16608
439849.00	3765355.00	0.16597	439854.00	3765355.00	0.16588
439859.00	3765355.00	0.16577	439864.00	3765355.00	0.16566

```
          439869.00    3765355.00        0.16555
439874.00    3765355.00        0.16543
          439879.00    3765355.00        0.16532
439884.00    3765355.00        0.16519
          439674.00    3765360.00        0.17019
439679.00    3765360.00        0.17018
          439684.00    3765360.00        0.17017
439689.00    3765360.00        0.17017
          439694.00    3765360.00        0.17015
439699.00    3765360.00        0.17014
          439704.00    3765360.00        0.17012
439709.00    3765360.00        0.17010
          439714.00    3765360.00        0.17008
439719.00    3765360.00        0.17005
          439729.00    3765360.00        0.17000
439734.00    3765360.00        0.16997
          439739.00    3765360.00        0.16993
439744.00    3765360.00        0.16990
          439749.00    3765360.00        0.16985
439774.00    3765360.00        0.16962
          439779.00    3765360.00        0.16956
439784.00    3765360.00        0.16951
          439789.00    3765360.00        0.16945
439794.00    3765360.00        0.16938
          439799.00    3765360.00        0.16932
439804.00    3765360.00        0.16924
          439809.00    3765360.00        0.16918
439814.00    3765360.00        0.16910
          439839.00    3765360.00        0.16868
439844.00    3765360.00        0.16858
          439849.00    3765360.00        0.16849
439854.00    3765360.00        0.16839
          439859.00    3765360.00        0.16829
439864.00    3765360.00        0.16818
          439869.00    3765360.00        0.16807
439874.00    3765360.00        0.16796
          439879.00    3765360.00        0.16784
439884.00    3765360.00        0.16772
          439674.00    3765365.00        0.17269
439679.00    3765365.00        0.17269
          439684.00    3765365.00        0.17268
439689.00    3765365.00        0.17268
          439694.00    3765365.00        0.17266
439699.00    3765365.00        0.17265
          439704.00    3765365.00        0.17264
439709.00    3765365.00        0.17262
          439714.00    3765365.00        0.17260
439719.00    3765365.00        0.17258
          439729.00    3765365.00        0.17253
439734.00    3765365.00        0.17250
          439739.00    3765365.00        0.17247
439744.00    3765365.00        0.17243
```

```
         439749.00    3765365.00        0.17239
439774.00    3765365.00        0.17217
         439779.00    3765365.00        0.17211
439784.00    3765365.00        0.17206
         439789.00    3765365.00        0.17200
439794.00    3765365.00        0.17194
         439799.00    3765365.00        0.17187
439804.00    3765365.00        0.17181
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: FREEEVAP ***
INCLUDING SOURCE(S):
A0000067 , A0000068 , A0000069 , A0000070 , A0000071 ,
A0000072 , A0000073 , A0000074 , A0000075 , A0000076 , A0000077 , A0000078 , A0000079 ,
A0000080 , A0000081 , A0000082 , A0000083 , A0000084 , A0000085 , A0000086 , A0000087 ,
A0000088 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439809.00	3765365.00	0.17173	439814.00	3765365.00	0.17167
439839.00	3765365.00	0.17125	439844.00	3765365.00	0.17116
439849.00	3765365.00	0.17107	439854.00	3765365.00	0.17097
439859.00	3765365.00	0.17087	439864.00	3765365.00	0.17076
439869.00	3765365.00	0.17066	439874.00	3765365.00	0.17054
439879.00	3765365.00	0.17044	439884.00	3765365.00	0.17031
439674.00	3765370.00	0.17526	439679.00	3765370.00	0.17526
439684.00	3765370.00	0.17526	439689.00	3765370.00	0.17525
439694.00	3765370.00	0.17524	439699.00	3765370.00	0.17523
439704.00	3765370.00	0.17522	439709.00	3765370.00	0.17521

```
          439714.00    3765370.00        0.17519
439719.00    3765370.00        0.17517
          439729.00    3765370.00        0.17512
439734.00    3765370.00        0.17509
          439739.00    3765370.00        0.17506
439744.00    3765370.00        0.17503
          439749.00    3765370.00        0.17500
439774.00    3765370.00        0.17478
          439779.00    3765370.00        0.17473
439784.00    3765370.00        0.17468
          439789.00    3765370.00        0.17462
439794.00    3765370.00        0.17456
          439799.00    3765370.00        0.17450
439804.00    3765370.00        0.17444
          439809.00    3765370.00        0.17437
439814.00    3765370.00        0.17430
          439839.00    3765370.00        0.17390
439844.00    3765370.00        0.17381
          439849.00    3765370.00        0.17371
439854.00    3765370.00        0.17362
          439859.00    3765370.00        0.17352
439864.00    3765370.00        0.17342
          439869.00    3765370.00        0.17331
439874.00    3765370.00        0.17321
          439879.00    3765370.00        0.17309
439884.00    3765370.00        0.17298
          439674.00    3765375.00        0.17789
439679.00    3765375.00        0.17790
          439684.00    3765375.00        0.17790
439689.00    3765375.00        0.17790
          439694.00    3765375.00        0.17789
439699.00    3765375.00        0.17788
          439704.00    3765375.00        0.17787
439709.00    3765375.00        0.17786
          439714.00    3765375.00        0.17785
439719.00    3765375.00        0.17783
          439729.00    3765375.00        0.17778
439734.00    3765375.00        0.17777
          439739.00    3765375.00        0.17773
439744.00    3765375.00        0.17771
          439749.00    3765375.00        0.17767
439754.00    3765375.00        0.17764
          439774.00    3765375.00        0.17747
439779.00    3765375.00        0.17742
          439784.00    3765375.00        0.17737
439789.00    3765375.00        0.17731
          439794.00    3765375.00        0.17726
439799.00    3765375.00        0.17720
          439804.00    3765375.00        0.17713
439809.00    3765375.00        0.17707
          439814.00    3765375.00        0.17699
439839.00    3765375.00        0.17662
```

```
         439844.00    3765375.00        0.17652
439849.00    3765375.00        0.17644
         439854.00    3765375.00        0.17634
439859.00    3765375.00        0.17625
         439864.00    3765375.00        0.17614
439869.00    3765375.00        0.17605
         439874.00    3765375.00        0.17593
439879.00    3765375.00        0.17583
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: FREEEVAP ***
INCLUDING SOURCE(S):
A0000067 , A0000068 , A0000069 , A0000070 , A0000071 ,
A0000072 , A0000073 , A0000074 , A0000075 , A0000076 , A0000077 , A0000078 , A0000079 ,
A0000080 , A0000081 , A0000082 , A0000083 , A0000084 , A0000085 , A0000086 , A0000087 ,
A0000088 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439884.00	3765375.00	0.17571	439774.00	3765380.00	0.18023
439779.00	3765380.00	0.18018	439784.00	3765380.00	0.18013
439789.00	3765380.00	0.18008	439794.00	3765380.00	0.18003
439799.00	3765380.00	0.17997	439804.00	3765380.00	0.17991
439809.00	3765380.00	0.17984	439814.00	3765380.00	0.17979
439769.00	3765385.00	0.18311	439819.00	3765385.00	0.18257
439769.00	3765400.00	0.19211	439844.00	3765400.00	0.19129
439849.00	3765400.00	0.19122	439674.00	3765405.00	0.19536
439714.00	3765405.00	0.19544	439719.00	3765405.00	0.19545
439734.00	3765405.00	0.19543	439749.00	3765405.00	0.19538

```
          439754.00    3765405.00        0.19536
439774.00    3765405.00        0.19525
          439779.00    3765405.00        0.19522
439784.00    3765405.00        0.19518
          439789.00    3765405.00        0.19514
439794.00    3765405.00        0.19510
          439799.00    3765405.00        0.19506
439804.00    3765405.00        0.19501
          439809.00    3765405.00        0.19495
439814.00    3765405.00        0.19491
          439819.00    3765405.00        0.19484
439824.00    3765405.00        0.19479
          439829.00    3765405.00        0.19472
439834.00    3765405.00        0.19466
          439839.00    3765405.00        0.19458
439844.00    3765405.00        0.19451
          439849.00    3765405.00        0.19444
439854.00    3765405.00        0.19435
          439859.00    3765405.00        0.19427
439674.00    3765410.00        0.19858
          439679.00    3765410.00        0.19860
439684.00    3765410.00        0.19862
          439689.00    3765410.00        0.19864
439694.00    3765410.00        0.19866
          439699.00    3765410.00        0.19866
439704.00    3765410.00        0.19868
          439709.00    3765410.00        0.19868
439714.00    3765410.00        0.19869
          439719.00    3765410.00        0.19868
439729.00    3765410.00        0.19868
          439734.00    3765410.00        0.19868
439739.00    3765410.00        0.19867
          439744.00    3765410.00        0.19866
439749.00    3765410.00        0.19864
          439774.00    3765410.00        0.19853
439779.00    3765410.00        0.19850
          439784.00    3765410.00        0.19846
439789.00    3765410.00        0.19843
          439794.00    3765410.00        0.19839
439799.00    3765410.00        0.19834
          439804.00    3765410.00        0.19830
439809.00    3765410.00        0.19826
          439814.00    3765410.00        0.19819
439819.00    3765410.00        0.19815
          439824.00    3765410.00        0.19808
439829.00    3765410.00        0.19803
          439834.00    3765410.00        0.19795
439839.00    3765410.00        0.19790
          439844.00    3765410.00        0.19782
439849.00    3765410.00        0.19775
          439854.00    3765410.00        0.19767
439859.00    3765410.00        0.19759
```

```
         439674.00    3765415.00        0.20190
439679.00    3765415.00        0.20192
         439684.00    3765415.00        0.20194
439689.00    3765415.00        0.20197
         439694.00    3765415.00        0.20198
439699.00    3765415.00        0.20200
         439704.00    3765415.00        0.20201
439709.00    3765415.00        0.20202
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: FREEEVAP ***
INCLUDING SOURCE(S):
A0000067 , A0000068 , A0000069 , A0000070 , A0000071 ,
A0000072 , A0000073 , A0000074 , A0000075 , A0000076 , A0000077 , A0000078 , A0000079 ,
A0000080 , A0000081 , A0000082 , A0000083 , A0000084 , A0000085 , A0000086 , A0000087 ,
A0000088 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439714.00	3765415.00	0.20202	439719.00	3765415.00	0.20204
439729.00	3765415.00	0.20204	439734.00	3765415.00	0.20203
439739.00	3765415.00	0.20203	439744.00	3765415.00	0.20201
439749.00	3765415.00	0.20201	439774.00	3765415.00	0.20190
439779.00	3765415.00	0.20188	439784.00	3765415.00	0.20185
439789.00	3765415.00	0.20181	439794.00	3765415.00	0.20177
439799.00	3765415.00	0.20174	439804.00	3765415.00	0.20169
439809.00	3765415.00	0.20164	439814.00	3765415.00	0.20160
439819.00	3765415.00	0.20154	439824.00	3765415.00	0.20149
439829.00	3765415.00	0.20143	439834.00	3765415.00	0.20138

```
          439839.00    3765415.00        0.20130
439844.00    3765415.00        0.20124
          439849.00    3765415.00        0.20117
439854.00    3765415.00        0.20109
          439859.00    3765415.00        0.20101
439674.00    3765420.00        0.20532
          439679.00    3765420.00        0.20535
439684.00    3765420.00        0.20537
          439689.00    3765420.00        0.20539
439694.00    3765420.00        0.20542
          439699.00    3765420.00        0.20543
439704.00    3765420.00        0.20545
          439709.00    3765420.00        0.20546
439714.00    3765420.00        0.20548
          439719.00    3765420.00        0.20548
439729.00    3765420.00        0.20549
          439734.00    3765420.00        0.20549
439739.00    3765420.00        0.20549
          439744.00    3765420.00        0.20548
439749.00    3765420.00        0.20547
          439774.00    3765420.00        0.20539
439779.00    3765420.00        0.20536
          439784.00    3765420.00        0.20533
439789.00    3765420.00        0.20531
          439794.00    3765420.00        0.20527
439799.00    3765420.00        0.20523
          439804.00    3765420.00        0.20519
439809.00    3765420.00        0.20515
          439814.00    3765420.00        0.20509
439819.00    3765420.00        0.20505
          439824.00    3765420.00        0.20500
439829.00    3765420.00        0.20495
          439834.00    3765420.00        0.20488
439839.00    3765420.00        0.20483
          439844.00    3765420.00        0.20475
439849.00    3765420.00        0.20469
          439854.00    3765420.00        0.20461
439859.00    3765420.00        0.20454
          439674.00    3765425.00        0.20884
439679.00    3765425.00        0.20888
          439684.00    3765425.00        0.20891
439689.00    3765425.00        0.20894
          439694.00    3765425.00        0.20895
439699.00    3765425.00        0.20898
          439704.00    3765425.00        0.20900
439709.00    3765425.00        0.20902
          439714.00    3765425.00        0.20903
439719.00    3765425.00        0.20904
          439729.00    3765425.00        0.20905
439734.00    3765425.00        0.20906
          439739.00    3765425.00        0.20906
439744.00    3765425.00        0.20905
```

```
         439749.00    3765425.00        0.20905
439774.00    3765425.00        0.20898
         439779.00    3765425.00        0.20896
439784.00    3765425.00        0.20893
         439789.00    3765425.00        0.20890
439794.00    3765425.00        0.20887
         439799.00    3765425.00        0.20884
439804.00    3765425.00        0.20880
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: FREEEVAP ***
INCLUDING SOURCE(S):
A0000067 , A0000068 , A0000069 , A0000070 , A0000071 ,
A0000072 , A0000073 , A0000074 , A0000075 , A0000076 , A0000077 , A0000078 , A0000079 ,
A0000080 , A0000081 , A0000082 , A0000083 , A0000084 , A0000085 , A0000086 , A0000087 ,
A0000088 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439809.00	3765425.00	0.20875	439814.00	3765425.00	0.20872
439819.00	3765425.00	0.20866	439824.00	3765425.00	0.20862
439829.00	3765425.00	0.20856	439834.00	3765425.00	0.20851
439839.00	3765425.00	0.20844	439844.00	3765425.00	0.20839
439849.00	3765425.00	0.20832	439854.00	3765425.00	0.20825
439859.00	3765425.00	0.20818	439674.00	3765430.00	0.21249
439679.00	3765430.00	0.21253	439684.00	3765430.00	0.21256
439689.00	3765430.00	0.21259	439694.00	3765430.00	0.21262
439699.00	3765430.00	0.21264	439704.00	3765430.00	0.21266
439709.00	3765430.00	0.21268	439714.00	3765430.00	0.21270

```
         439719.00    3765430.00        0.21271
439729.00    3765430.00        0.21273
         439734.00    3765430.00        0.21274
439739.00    3765430.00        0.21274
         439744.00    3765430.00        0.21274
439749.00    3765430.00        0.21274
         439774.00    3765430.00        0.21269
439779.00    3765430.00        0.21267
         439784.00    3765430.00        0.21264
439789.00    3765430.00        0.21262
         439794.00    3765430.00        0.21259
439799.00    3765430.00        0.21256
         439804.00    3765430.00        0.21252
439809.00    3765430.00        0.21249
         439814.00    3765430.00        0.21244
439819.00    3765430.00        0.21241
         439824.00    3765430.00        0.21235
439829.00    3765430.00        0.21231
         439834.00    3765430.00        0.21225
439839.00    3765430.00        0.21220
         439844.00    3765430.00        0.21213
439849.00    3765430.00        0.21207
         439854.00    3765430.00        0.21200
439859.00    3765430.00        0.21194
         439674.00    3765435.00        0.21625
439679.00    3765435.00        0.21630
         439684.00    3765435.00        0.21633
439689.00    3765435.00        0.21637
         439694.00    3765435.00        0.21639
439699.00    3765435.00        0.21642
         439704.00    3765435.00        0.21645
439709.00    3765435.00        0.21647
         439714.00    3765435.00        0.21649
439719.00    3765435.00        0.21651
         439729.00    3765435.00        0.21654
439734.00    3765435.00        0.21655
         439739.00    3765435.00        0.21655
439744.00    3765435.00        0.21655
         439749.00    3765435.00        0.21655
439774.00    3765435.00        0.21652
         439779.00    3765435.00        0.21650
439784.00    3765435.00        0.21648
         439789.00    3765435.00        0.21646
439794.00    3765435.00        0.21643
         439799.00    3765435.00        0.21640
439804.00    3765435.00        0.21637
         439809.00    3765435.00        0.21634
439814.00    3765435.00        0.21630
         439819.00    3765435.00        0.21626
439824.00    3765435.00        0.21622
         439829.00    3765435.00        0.21616
439834.00    3765435.00        0.21612
```

```
         439839.00    3765435.00        0.21606
439844.00    3765435.00        0.21601
         439849.00    3765435.00        0.21594
439854.00    3765435.00        0.21588
         439859.00    3765435.00        0.21581
439674.00    3765440.00        0.22014
         439679.00    3765440.00        0.22019
439684.00    3765440.00        0.22023
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: FREEEVAP ***
INCLUDING SOURCE(S):
A0000067 , A0000068 , A0000069 , A0000070 , A0000071 ,
A0000072 , A0000073 , A0000074 , A0000075 , A0000076 , A0000077 , A0000078 , A0000079 ,
A0000080 , A0000081 , A0000082 , A0000083 , A0000084 , A0000085 , A0000086 , A0000087 ,
A0000088 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439689.00	3765440.00	0.22026	439694.00	3765440.00	0.22030
439699.00	3765440.00	0.22033	439704.00	3765440.00	0.22036
439709.00	3765440.00	0.22039	439714.00	3765440.00	0.22041
439719.00	3765440.00	0.22043	439729.00	3765440.00	0.22046
439734.00	3765440.00	0.22047	439739.00	3765440.00	0.22048
439744.00	3765440.00	0.22049	439749.00	3765440.00	0.22050
439774.00	3765440.00	0.22047	439779.00	3765440.00	0.22046
439784.00	3765440.00	0.22044	439789.00	3765440.00	0.22043
439794.00	3765440.00	0.22040	439799.00	3765440.00	0.22038
439804.00	3765440.00	0.22035	439809.00	3765440.00	0.22032

```
          439814.00    3765440.00        0.22028
439819.00    3765440.00        0.22025
          439824.00    3765440.00        0.22020
439829.00    3765440.00        0.22016
          439834.00    3765440.00        0.22011
439839.00    3765440.00        0.22006
          439844.00    3765440.00        0.22000
439849.00    3765440.00        0.21995
          439854.00    3765440.00        0.21989
439859.00    3765440.00        0.21982
          439674.00    3765445.00        0.22417
439679.00    3765445.00        0.22422
          439684.00    3765445.00        0.22426
439689.00    3765445.00        0.22430
          439694.00    3765445.00        0.22434
439699.00    3765445.00        0.22437
          439704.00    3765445.00        0.22440
439709.00    3765445.00        0.22444
          439714.00    3765445.00        0.22446
439719.00    3765445.00        0.22449
          439729.00    3765445.00        0.22453
439734.00    3765445.00        0.22454
          439739.00    3765445.00        0.22456
439744.00    3765445.00        0.22457
          439749.00    3765445.00        0.22457
439774.00    3765445.00        0.22457
          439779.00    3765445.00        0.22455
439784.00    3765445.00        0.22455
          439789.00    3765445.00        0.22453
439794.00    3765445.00        0.22451
          439799.00    3765445.00        0.22448
439804.00    3765445.00        0.22446
          439809.00    3765445.00        0.22443
439814.00    3765445.00        0.22440
          439819.00    3765445.00        0.22436
439824.00    3765445.00        0.22433
          439829.00    3765445.00        0.22428
439834.00    3765445.00        0.22424
          439839.00    3765445.00        0.22419
439844.00    3765445.00        0.22414
          439849.00    3765445.00        0.22408
439854.00    3765445.00        0.22403
          439859.00    3765445.00        0.22396
439674.00    3765450.00        0.22833
          439679.00    3765450.00        0.22838
439684.00    3765450.00        0.22843
          439689.00    3765450.00        0.22847
439694.00    3765450.00        0.22851
          439699.00    3765450.00        0.22855
439704.00    3765450.00        0.22859
          439709.00    3765450.00        0.22862
439714.00    3765450.00        0.22866
```

```
         439719.00    3765450.00        0.22868
439729.00    3765450.00        0.22873
         439734.00    3765450.00        0.22875
439739.00    3765450.00        0.22877
         439744.00    3765450.00        0.22878
439749.00    3765450.00        0.22879
         439774.00    3765450.00        0.22880
439844.00    3765450.00        0.22842
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: FREEEVAP ***
INCLUDING SOURCE(S):
A0000067 , A0000068 , A0000069 , A0000070 , A0000071 ,
A0000072 , A0000073 , A0000074 , A0000075 , A0000076 , A0000077 , A0000078 , A0000079 ,
A0000080 , A0000081 , A0000082 , A0000083 , A0000084 , A0000085 , A0000086 , A0000087 ,
A0000088 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439849.00	3765450.00	0.22837	439854.00	3765450.00	0.22831
439859.00	3765450.00	0.22826	439674.00	3765455.00	0.23264
439679.00	3765455.00	0.23270	439684.00	3765455.00	0.23275
439689.00	3765455.00	0.23280	439694.00	3765455.00	0.23284
439699.00	3765455.00	0.23288	439704.00	3765455.00	0.23292
439709.00	3765455.00	0.23296	439714.00	3765455.00	0.23300
439719.00	3765455.00	0.23303	439729.00	3765455.00	0.23308
439734.00	3765455.00	0.23310	439739.00	3765455.00	0.23313
439744.00	3765455.00	0.23314	439749.00	3765455.00	0.23316
439844.00	3765455.00	0.23285	439849.00	3765455.00	0.23280

```
          439854.00    3765455.00        0.23275
439859.00    3765455.00        0.23269
          439674.00    3765460.00        0.23711
439679.00    3765460.00        0.23717
          439684.00    3765460.00        0.23722
439689.00    3765460.00        0.23727
          439694.00    3765460.00        0.23732
439699.00    3765460.00        0.23737
          439704.00    3765460.00        0.23742
439709.00    3765460.00        0.23745
          439714.00    3765460.00        0.23749
439719.00    3765460.00        0.23753
          439729.00    3765460.00        0.23759
439734.00    3765460.00        0.23762
          439739.00    3765460.00        0.23764
439744.00    3765460.00        0.23766
          439749.00    3765460.00        0.23768
439789.00    3765460.00        0.23772
          439794.00    3765460.00        0.23771
439799.00    3765460.00        0.23770
          439804.00    3765460.00        0.23768
439809.00    3765460.00        0.23766
          439814.00    3765460.00        0.23764
439819.00    3765460.00        0.23762
          439824.00    3765460.00        0.23759
439829.00    3765460.00        0.23756
          439844.00    3765460.00        0.23744
439849.00    3765460.00        0.23739
          439854.00    3765460.00        0.23735
439859.00    3765460.00        0.23729
          439674.00    3765465.00        0.24174
439679.00    3765465.00        0.24181
          439684.00    3765465.00        0.24186
439689.00    3765465.00        0.24192
          439694.00    3765465.00        0.24197
439699.00    3765465.00        0.24202
          439704.00    3765465.00        0.24207
439709.00    3765465.00        0.24212
          439714.00    3765465.00        0.24216
439719.00    3765465.00        0.24220
          439729.00    3765465.00        0.24227
439734.00    3765465.00        0.24230
          439739.00    3765465.00        0.24232
439744.00    3765465.00        0.24235
          439749.00    3765465.00        0.24237
439789.00    3765465.00        0.24244
          439794.00    3765465.00        0.24243
439799.00    3765465.00        0.24243
          439804.00    3765465.00        0.24241
439809.00    3765465.00        0.24240
          439814.00    3765465.00        0.24238
439819.00    3765465.00        0.24236
```

```
         439824.00    3765465.00        0.24233
439829.00    3765465.00        0.24230
         439844.00    3765465.00        0.24220
439849.00    3765465.00        0.24216
         439854.00    3765465.00        0.24211
439859.00    3765465.00        0.24206
         439674.00    3765470.00        0.24655
439679.00    3765470.00        0.24661
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: FREEEVAP ***
INCLUDING SOURCE(S):
A0000067 , A0000068 , A0000069 , A0000070 , A0000071 ,
A0000072 , A0000073 , A0000074 , A0000075 , A0000076 , A0000077 , A0000078 , A0000079 ,
A0000080 , A0000081 , A0000082 , A0000083 , A0000084 , A0000085 , A0000086 , A0000087 ,
A0000088 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439684.00	3765470.00	0.24668	439689.00	3765470.00	0.24673
439694.00	3765470.00	0.24680	439699.00	3765470.00	0.24685
439704.00	3765470.00	0.24690	439709.00	3765470.00	0.24695
439714.00	3765470.00	0.24700	439719.00	3765470.00	0.24704
439729.00	3765470.00	0.24712	439734.00	3765470.00	0.24715
439739.00	3765470.00	0.24719	439744.00	3765470.00	0.24721
439749.00	3765470.00	0.24724	439789.00	3765470.00	0.24733
439794.00	3765470.00	0.24734	439799.00	3765470.00	0.24733
439804.00	3765470.00	0.24732	439809.00	3765470.00	0.24731
439814.00	3765470.00	0.24729	439819.00	3765470.00	0.24727

```
         439824.00    3765470.00        0.24725
439829.00    3765470.00        0.24723
         439844.00    3765470.00        0.24713
439849.00    3765470.00        0.24709
         439854.00    3765470.00        0.24705
439859.00    3765470.00        0.24700
         439674.00    3765475.00        0.25153
439679.00    3765475.00        0.25161
         439684.00    3765475.00        0.25167
439689.00    3765475.00        0.25175
         439694.00    3765475.00        0.25180
439699.00    3765475.00        0.25187
         439704.00    3765475.00        0.25192
439709.00    3765475.00        0.25197
         439714.00    3765475.00        0.25203
439719.00    3765475.00        0.25207
         439729.00    3765475.00        0.25216
439734.00    3765475.00        0.25220
         439739.00    3765475.00        0.25223
439744.00    3765475.00        0.25227
         439749.00    3765475.00        0.25229
439754.00    3765475.00        0.25232
         439789.00    3765475.00        0.25242
439794.00    3765475.00        0.25242
         439799.00    3765475.00        0.25242
439804.00    3765475.00        0.25241
         439809.00    3765475.00        0.25241
439814.00    3765475.00        0.25240
         439819.00    3765475.00        0.25238
439824.00    3765475.00        0.25236
         439829.00    3765475.00        0.25234
439269.00    3764900.00        0.06694
         439369.00    3764900.00        0.06730
439469.00    3764900.00        0.06709
         439569.00    3764900.00        0.06629
439669.00    3764900.00        0.06490
         439769.00    3764900.00        0.06291
439869.00    3764900.00        0.06032
         439969.00    3764900.00        0.05716
440069.00    3764900.00        0.05349
         440169.00    3764900.00        0.04945
440269.00    3764900.00        0.04523
         439269.00    3765000.00        0.07813
439369.00    3765000.00        0.07886
         439469.00    3765000.00        0.07894
439569.00    3765000.00        0.07835
         439669.00    3765000.00        0.07708
439769.00    3765000.00        0.07510
         439869.00    3765000.00        0.07237
439969.00    3765000.00        0.06886
         440069.00    3765000.00        0.06460
440169.00    3765000.00        0.05970
```

```
         440269.00    3765000.00        0.05439
439269.00    3765100.00        0.09256
         439369.00    3765100.00        0.09377
439469.00    3765100.00        0.09421
         439569.00    3765100.00        0.09392
439669.00    3765100.00        0.09289
         439769.00    3765100.00        0.09105
439869.00    3765100.00        0.08832
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: FREEEVAP ***
INCLUDING SOURCE(S):
A0000067 , A0000068 , A0000069 , A0000070 , A0000071 ,
A0000072 , A0000073 , A0000074 , A0000075 , A0000076 , A0000077 , A0000078 , A0000079 ,
A0000080 , A0000081 , A0000082 , A0000083 , A0000084 , A0000085 , A0000086 , A0000087 ,
A0000088 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439969.00	3765100.00	0.08459	440069.00	3765100.00	0.07979
440169.00	3765100.00	0.07394	440269.00	3765100.00	0.06726
439269.00	3765200.00	0.11197	439369.00	3765200.00	0.11379
439469.00	3765200.00	0.11472	439569.00	3765200.00	0.11484
439669.00	3765200.00	0.11417	439769.00	3765200.00	0.11263
439869.00	3765200.00	0.11012	439969.00	3765200.00	0.10642
440069.00	3765200.00	0.10129	440169.00	3765200.00	0.09455
440269.00	3765200.00	0.08621	439269.00	3765300.00	0.13962
439369.00	3765300.00	0.14229	439469.00	3765300.00	0.14392
439569.00	3765300.00	0.14466	439669.00	3765300.00	0.14456

```
         439769.00    3765300.00        0.14356
439869.00    3765300.00        0.14152
         439969.00    3765300.00        0.13819
440069.00    3765300.00        0.13313
         440169.00    3765300.00        0.12583
440269.00    3765300.00        0.11578
         439269.00    3765400.00        0.18272
439369.00    3765400.00        0.18672
         439469.00    3765400.00        0.18953
439569.00    3765400.00        0.19134
         439669.00    3765400.00        0.19222
439769.00    3765400.00        0.19211
         439869.00    3765400.00        0.19087
439969.00    3765400.00        0.18824
         440069.00    3765400.00        0.18373
440169.00    3765400.00        0.17654
         440269.00    3765400.00        0.16538
439269.00    3765500.00        0.26115
         439369.00    3765500.00        0.26790
439469.00    3765500.00        0.27312
         439569.00    3765500.00        0.27697
439669.00    3765500.00        0.27960
         439769.00    3765500.00        0.28098
439869.00    3765500.00        0.28103
         439969.00    3765500.00        0.27957
440069.00    3765500.00        0.27615
         440169.00    3765500.00        0.26992
440269.00    3765500.00        0.25909
         439269.00    3765600.00        0.46137
439369.00    3765600.00        0.47549
         439469.00    3765600.00        0.48661
439569.00    3765600.00        0.49522
         439669.00    3765600.00        0.50162
439769.00    3765600.00        0.50609
         439869.00    3765600.00        0.50871
439969.00    3765600.00        0.50950
         440069.00    3765600.00        0.50821
440169.00    3765600.00        0.50426
         440269.00    3765600.00        0.49585
439269.00    3765700.00        2.98095
         439369.00    3765700.00        3.14515
439469.00    3765700.00        3.31373
         439569.00    3765700.00        3.49248
439669.00    3765700.00        3.61893
         439769.00    3765700.00        3.72200
439869.00    3765700.00        3.77977
         439969.00    3765700.00        3.82780
440069.00    3765700.00        3.87835
         440169.00    3765700.00        3.89913
440269.00    3765700.00        3.91286
         439269.00    3765800.00        1.09061
439369.00    3765800.00        1.13970
```

```
         439469.00    3765800.00        1.16949
439569.00    3765800.00        1.18842
         439669.00    3765800.00        1.20093
439769.00    3765800.00        1.20953
         439869.00    3765800.00        1.21519
439969.00    3765800.00        1.21847
         440069.00    3765800.00        1.21911
440169.00    3765800.00        1.21623
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: FREEEVAP ***
INCLUDING SOURCE(S):
A0000067 , A0000068 , A0000069 , A0000070 , A0000071 ,
A0000072 , A0000073 , A0000074 , A0000075 , A0000076 , A0000077 , A0000078 , A0000079 ,
A0000080 , A0000081 , A0000082 , A0000083 , A0000084 , A0000085 , A0000086 , A0000087 ,
A0000088 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
440269.00	3765800.00	1.20733	439269.00	3765900.00	0.34806
439369.00	3765900.00	0.40226	439469.00	3765900.00	0.44251
439569.00	3765900.00	0.47214	439669.00	3765900.00	0.49409
439769.00	3765900.00	0.51049	439869.00	3765900.00	0.52275
439969.00	3765900.00	0.53176	440069.00	3765900.00	0.53800
440169.00	3765900.00	0.54159	440269.00	3765900.00	0.54233
439649.00	3765310.00	0.14842	439679.00	3765310.00	0.14829
439709.00	3765310.00	0.14809	439739.00	3765310.00	0.14780
439769.00	3765310.00	0.14742	439799.00	3765310.00	0.14695
439829.00	3765310.00	0.14637	439859.00	3765310.00	0.14570

```
          439889.00    3765310.00        0.14491
439649.00    3765340.00        0.16084
          439679.00    3765340.00        0.16078
439709.00    3765340.00        0.16065
          439739.00    3765340.00        0.16043
439769.00    3765340.00        0.16012
          439799.00    3765340.00        0.15971
439829.00    3765340.00        0.15920
          439859.00    3765340.00        0.15859
439889.00    3765340.00        0.15786
          439649.00    3765370.00        0.17522
439679.00    3765370.00        0.17526
          439709.00    3765370.00        0.17521
439739.00    3765370.00        0.17506
          439769.00    3765370.00        0.17483
439799.00    3765370.00        0.17450
          439829.00    3765370.00        0.17406
439859.00    3765370.00        0.17352
          439889.00    3765370.00        0.17286
439649.00    3765400.00        0.19212
          439679.00    3765400.00        0.19225
439709.00    3765400.00        0.19230
          439739.00    3765400.00        0.19225
439769.00    3765400.00        0.19211
          439799.00    3765400.00        0.19186
439829.00    3765400.00        0.19151
          439859.00    3765400.00        0.19105
439889.00    3765400.00        0.19047
          439649.00    3765430.00        0.21228
439679.00    3765430.00        0.21253
          439709.00    3765430.00        0.21268
439739.00    3765430.00        0.21274
          439769.00    3765430.00        0.21271
439799.00    3765430.00        0.21256
          439829.00    3765430.00        0.21231
439859.00    3765430.00        0.21194
          439889.00    3765430.00        0.21144
439649.00    3765460.00        0.23678
          439679.00    3765460.00        0.23717
439709.00    3765460.00        0.23745
          439739.00    3765460.00        0.23764
439769.00    3765460.00        0.23773
          439799.00    3765460.00        0.23770
439829.00    3765460.00        0.23756
          439859.00    3765460.00        0.23729
439889.00    3765460.00        0.23690
          439649.00    3765490.00        0.26728
439679.00    3765490.00        0.26783
          439709.00    3765490.00        0.26827
439739.00    3765490.00        0.26860
          439769.00    3765490.00        0.26884
439799.00    3765490.00        0.26895
```

```
          439829.00    3765490.00        0.26894
439859.00    3765490.00        0.26880
          439889.00    3765490.00        0.26853
```

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONOFFEVA ***
INCLUDING SOURCE(S):
A0000089 , A0000090 , A0000091 , A0000092 , A0000093 ,
A0000094 , A0000095 , A0000096 , A0000097 , A0000098 , A0000099 , A0000100 , A0000101 ,
A0000102 , A0000103 , A0000104 , A0000105 , A0000106 , A0000107 , A0000108 , A0000109 ,
A0000110 , A0000111 , A0000112 , A0000113 , A0000114 , A0000115 ,
A0000116 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439674.00	3765310.00	0.06511	439679.00	3765310.00	0.06537
439684.00	3765310.00	0.06564	439689.00	3765310.00	0.06591
439694.00	3765310.00	0.06618	439699.00	3765310.00	0.06644
439704.00	3765310.00	0.06671	439709.00	3765310.00	0.06698
439714.00	3765310.00	0.06725	439719.00	3765310.00	0.06751
439729.00	3765310.00	0.06804	439734.00	3765310.00	0.06830
439739.00	3765310.00	0.06857	439744.00	3765310.00	0.06882
439749.00	3765310.00	0.06908	439764.00	3765310.00	0.06983
439769.00	3765310.00	0.07007	439774.00	3765310.00	0.07031

```
         439779.00    3765310.00        0.07055
439784.00    3765310.00        0.07077
         439789.00    3765310.00        0.07100
439794.00    3765310.00        0.07122
         439799.00    3765310.00        0.07143
439804.00    3765310.00        0.07164
         439809.00    3765310.00        0.07184
439814.00    3765310.00        0.07203
         439819.00    3765310.00        0.07221
439824.00    3765310.00        0.07239
         439829.00    3765310.00        0.07256
439839.00    3765310.00        0.07288
         439844.00    3765310.00        0.07302
439849.00    3765310.00        0.07316
         439854.00    3765310.00        0.07329
439859.00    3765310.00        0.07340
         439864.00    3765310.00        0.07351
439869.00    3765310.00        0.07361
         439874.00    3765310.00        0.07370
439879.00    3765310.00        0.07378
         439884.00    3765310.00        0.07385
439674.00    3765315.00        0.06589
         439679.00    3765315.00        0.06616
439684.00    3765315.00        0.06644
         439689.00    3765315.00        0.06671
439694.00    3765315.00        0.06699
         439699.00    3765315.00        0.06727
439704.00    3765315.00        0.06754
         439709.00    3765315.00        0.06782
439714.00    3765315.00        0.06809
         439719.00    3765315.00        0.06837
439729.00    3765315.00        0.06892
         439734.00    3765315.00        0.06919
439739.00    3765315.00        0.06946
         439744.00    3765315.00        0.06973
439749.00    3765315.00        0.07000
         439764.00    3765315.00        0.07078
439769.00    3765315.00        0.07104
         439774.00    3765315.00        0.07129
439779.00    3765315.00        0.07153
         439784.00    3765315.00        0.07177
439789.00    3765315.00        0.07201
         439794.00    3765315.00        0.07224
439799.00    3765315.00        0.07246
         439804.00    3765315.00        0.07268
439809.00    3765315.00        0.07290
         439814.00    3765315.00        0.07310
439819.00    3765315.00        0.07330
         439824.00    3765315.00        0.07349
439829.00    3765315.00        0.07367
         439839.00    3765315.00        0.07401
439844.00    3765315.00        0.07416
```

```
         439849.00    3765315.00        0.07431
439854.00    3765315.00        0.07445
         439859.00    3765315.00        0.07458
439864.00    3765315.00        0.07470
         439869.00    3765315.00        0.07481
439874.00    3765315.00        0.07491
         439879.00    3765315.00        0.07500
439884.00    3765315.00        0.07508
         439674.00    3765320.00        0.06669
439679.00    3765320.00        0.06697
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONOFFEVA ***
INCLUDING SOURCE(S):
A0000089 , A0000090 , A0000091 , A0000092 , A0000093 ,
A0000094 , A0000095 , A0000096 , A0000097 , A0000098 , A0000099 , A0000100 , A0000101 ,
A0000102 , A0000103 , A0000104 , A0000105 , A0000106 , A0000107 , A0000108 , A0000109 ,
A0000110 , A0000111 , A0000112 , A0000113 , A0000114 , A0000115 ,
A0000116 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439684.00	3765320.00	0.06725	439689.00	3765320.00	0.06753
439694.00	3765320.00	0.06782	439699.00	3765320.00	0.06810
439704.00	3765320.00	0.06838	439709.00	3765320.00	0.06867
439714.00	3765320.00	0.06895	439719.00	3765320.00	0.06924
439729.00	3765320.00	0.06981	439734.00	3765320.00	0.07009
439739.00	3765320.00	0.07037	439744.00	3765320.00	0.07065
439749.00	3765320.00	0.07093	439764.00	3765320.00	0.07175
439769.00	3765320.00	0.07202	439774.00	3765320.00	0.07228
439779.00	3765320.00	0.07254	439784.00	3765320.00	0.07279

```
          439789.00    3765320.00         0.07304
439794.00    3765320.00         0.07328
          439799.00    3765320.00         0.07352
439804.00    3765320.00         0.07375
          439809.00    3765320.00         0.07397
439814.00    3765320.00         0.07419
          439819.00    3765320.00         0.07440
439824.00    3765320.00         0.07461
          439829.00    3765320.00         0.07480
439839.00    3765320.00         0.07516
          439844.00    3765320.00         0.07533
439849.00    3765320.00         0.07549
          439854.00    3765320.00         0.07564
439859.00    3765320.00         0.07578
          439864.00    3765320.00         0.07591
439869.00    3765320.00         0.07603
          439874.00    3765320.00         0.07615
439879.00    3765320.00         0.07625
          439884.00    3765320.00         0.07634
439674.00    3765325.00         0.06749
          439679.00    3765325.00         0.06778
439684.00    3765325.00         0.06807
          439689.00    3765325.00         0.06836
439694.00    3765325.00         0.06865
          439699.00    3765325.00         0.06895
439704.00    3765325.00         0.06924
          439709.00    3765325.00         0.06953
439714.00    3765325.00         0.06983
          439719.00    3765325.00         0.07012
439729.00    3765325.00         0.07071
          439734.00    3765325.00         0.07100
439739.00    3765325.00         0.07130
          439744.00    3765325.00         0.07159
439749.00    3765325.00         0.07188
          439754.00    3765325.00         0.07216
439769.00    3765325.00         0.07301
          439774.00    3765325.00         0.07329
439779.00    3765325.00         0.07356
          439784.00    3765325.00         0.07382
439789.00    3765325.00         0.07409
          439794.00    3765325.00         0.07434
439799.00    3765325.00         0.07459
          439804.00    3765325.00         0.07484
439809.00    3765325.00         0.07508
          439814.00    3765325.00         0.07531
439819.00    3765325.00         0.07553
          439824.00    3765325.00         0.07575
439829.00    3765325.00         0.07595
          439839.00    3765325.00         0.07635
439844.00    3765325.00         0.07652
          439849.00    3765325.00         0.07670
439854.00    3765325.00         0.07686
```

```
         439859.00    3765325.00        0.07701
439864.00    3765325.00        0.07716
         439869.00    3765325.00        0.07729
439874.00    3765325.00        0.07741
         439879.00    3765325.00        0.07752
439884.00    3765325.00        0.07763
         439674.00    3765330.00        0.06832
439679.00    3765330.00        0.06861
         439684.00    3765330.00        0.06891
439689.00    3765330.00        0.06920
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONOFFEVA ***
INCLUDING SOURCE(S):
A0000089 , A0000090 , A0000091 , A0000092 , A0000093 ,
A0000094 , A0000095 , A0000096 , A0000097 , A0000098 , A0000099 , A0000100 , A0000101 ,
A0000102 , A0000103 , A0000104 , A0000105 , A0000106 , A0000107 , A0000108 , A0000109 ,
A0000110 , A0000111 , A0000112 , A0000113 , A0000114 , A0000115 ,
A0000116 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439694.00	3765330.00	0.06951	439699.00	3765330.00	0.06981
439704.00	3765330.00	0.07011	439709.00	3765330.00	0.07041
439714.00	3765330.00	0.07071	439719.00	3765330.00	0.07102
439729.00	3765330.00	0.07163	439734.00	3765330.00	0.07193
439739.00	3765330.00	0.07224	439744.00	3765330.00	0.07254
439749.00	3765330.00	0.07284	439754.00	3765330.00	0.07314
439774.00	3765330.00	0.07431	439779.00	3765330.00	0.07460
439784.00	3765330.00	0.07488	439789.00	3765330.00	0.07515
439794.00	3765330.00	0.07542	439799.00	3765330.00	0.07569

```
          439804.00    3765330.00         0.07595
439809.00    3765330.00         0.07620
          439814.00    3765330.00         0.07644
439819.00    3765330.00         0.07668
          439824.00    3765330.00         0.07691
439829.00    3765330.00         0.07713
          439839.00    3765330.00         0.07755
439844.00    3765330.00         0.07774
          439849.00    3765330.00         0.07793
439854.00    3765330.00         0.07811
          439859.00    3765330.00         0.07827
439864.00    3765330.00         0.07843
          439869.00    3765330.00         0.07857
439874.00    3765330.00         0.07871
          439879.00    3765330.00         0.07883
439884.00    3765330.00         0.07894
          439674.00    3765335.00         0.06915
439679.00    3765335.00         0.06945
          439684.00    3765335.00         0.06976
439689.00    3765335.00         0.07006
          439694.00    3765335.00         0.07037
439699.00    3765335.00         0.07068
          439704.00    3765335.00         0.07099
439709.00    3765335.00         0.07130
          439714.00    3765335.00         0.07162
439719.00    3765335.00         0.07193
          439729.00    3765335.00         0.07256
439734.00    3765335.00         0.07288
          439739.00    3765335.00         0.07319
439744.00    3765335.00         0.07351
          439749.00    3765335.00         0.07382
439774.00    3765335.00         0.07536
          439779.00    3765335.00         0.07566
439784.00    3765335.00         0.07595
          439789.00    3765335.00         0.07624
439794.00    3765335.00         0.07652
          439839.00    3765335.00         0.07878
439844.00    3765335.00         0.07899
          439849.00    3765335.00         0.07919
439854.00    3765335.00         0.07938
          439859.00    3765335.00         0.07956
439864.00    3765335.00         0.07973
          439869.00    3765335.00         0.07989
439874.00    3765335.00         0.08004
          439879.00    3765335.00         0.08017
439884.00    3765335.00         0.08030
          439674.00    3765340.00         0.07000
439679.00    3765340.00         0.07031
          439684.00    3765340.00         0.07062
439689.00    3765340.00         0.07093
          439694.00    3765340.00         0.07125
439699.00    3765340.00         0.07157
```

```
         439704.00    3765340.00        0.07189
439709.00    3765340.00        0.07221
         439714.00    3765340.00        0.07253
439719.00    3765340.00        0.07286
         439729.00    3765340.00        0.07351
439734.00    3765340.00        0.07383
         439739.00    3765340.00        0.07416
439744.00    3765340.00        0.07449
         439749.00    3765340.00        0.07481
439774.00    3765340.00        0.07642
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONOFFEVA ***
INCLUDING SOURCE(S):
A0000089 , A0000090 , A0000091 , A0000092 , A0000093 ,
A0000094 , A0000095 , A0000096 , A0000097 , A0000098 , A0000099 , A0000100 , A0000101 ,
A0000102 , A0000103 , A0000104 , A0000105 , A0000106 , A0000107 , A0000108 , A0000109 ,
A0000110 , A0000111 , A0000112 , A0000113 , A0000114 , A0000115 ,
A0000116 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439779.00	3765340.00	0.07673	439784.00	3765340.00	0.07704
439789.00	3765340.00	0.07735	439794.00	3765340.00	0.07765
439839.00	3765340.00	0.08004	439844.00	3765340.00	0.08026
439849.00	3765340.00	0.08048	439854.00	3765340.00	0.08068
439859.00	3765340.00	0.08088	439864.00	3765340.00	0.08106
439869.00	3765340.00	0.08123	439874.00	3765340.00	0.08140
439879.00	3765340.00	0.08154	439884.00	3765340.00	0.08168
439674.00	3765345.00	0.07086	439679.00	3765345.00	0.07118
439684.00	3765345.00	0.07150	439689.00	3765345.00	0.07182

```
          439694.00    3765345.00         0.07214
439699.00    3765345.00         0.07247
          439704.00    3765345.00         0.07280
439709.00    3765345.00         0.07313
          439714.00    3765345.00         0.07346
439719.00    3765345.00         0.07380
          439729.00    3765345.00         0.07447
439734.00    3765345.00         0.07481
          439739.00    3765345.00         0.07515
439744.00    3765345.00         0.07548
          439749.00    3765345.00         0.07583
439774.00    3765345.00         0.07750
          439779.00    3765345.00         0.07783
439784.00    3765345.00         0.07815
          439789.00    3765345.00         0.07847
439794.00    3765345.00         0.07879
          439839.00    3765345.00         0.08133
439844.00    3765345.00         0.08157
          439849.00    3765345.00         0.08180
439854.00    3765345.00         0.08202
          439859.00    3765345.00         0.08223
439864.00    3765345.00         0.08242
          439869.00    3765345.00         0.08261
439874.00    3765345.00         0.08279
          439879.00    3765345.00         0.08295
439884.00    3765345.00         0.08310
          439674.00    3765350.00         0.07175
439679.00    3765350.00         0.07207
          439684.00    3765350.00         0.07239
439689.00    3765350.00         0.07272
          439694.00    3765350.00         0.07305
439699.00    3765350.00         0.07339
          439704.00    3765350.00         0.07373
439709.00    3765350.00         0.07407
          439714.00    3765350.00         0.07441
439719.00    3765350.00         0.07475
          439729.00    3765350.00         0.07545
439734.00    3765350.00         0.07580
          439739.00    3765350.00         0.07615
439744.00    3765350.00         0.07650
          439749.00    3765350.00         0.07685
439774.00    3765350.00         0.07860
          439779.00    3765350.00         0.07894
439784.00    3765350.00         0.07928
          439789.00    3765350.00         0.07962
439794.00    3765350.00         0.07995
          439839.00    3765350.00         0.08264
439844.00    3765350.00         0.08290
          439849.00    3765350.00         0.08315
439854.00    3765350.00         0.08338
          439859.00    3765350.00         0.08361
439864.00    3765350.00         0.08382
```

```
          439869.00    3765350.00        0.08403
439874.00    3765350.00        0.08421
          439879.00    3765350.00        0.08439
439884.00    3765350.00        0.08456
          439674.00    3765355.00        0.07264
439679.00    3765355.00        0.07297
          439684.00    3765355.00        0.07330
439689.00    3765355.00        0.07364
          439694.00    3765355.00        0.07398
439699.00    3765355.00        0.07432
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONOFFEVA ***
INCLUDING SOURCE(S):
A0000089 , A0000090 , A0000091 , A0000092 , A0000093 ,
A0000094 , A0000095 , A0000096 , A0000097 , A0000098 , A0000099 , A0000100 , A0000101 ,
A0000102 , A0000103 , A0000104 , A0000105 , A0000106 , A0000107 , A0000108 , A0000109 ,
A0000110 , A0000111 , A0000112 , A0000113 , A0000114 , A0000115 ,
A0000116 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439704.00	3765355.00	0.07467	439709.00	3765355.00	0.07502
439714.00	3765355.00	0.07537	439719.00	3765355.00	0.07572
439729.00	3765355.00	0.07644	439734.00	3765355.00	0.07681
439739.00	3765355.00	0.07717	439744.00	3765355.00	0.07753
439749.00	3765355.00	0.07790	439774.00	3765355.00	0.07972
439779.00	3765355.00	0.08008	439784.00	3765355.00	0.08043
439789.00	3765355.00	0.08079	439794.00	3765355.00	0.08113
439839.00	3765355.00	0.08399	439844.00	3765355.00	0.08426
439849.00	3765355.00	0.08452	439854.00	3765355.00	0.08478

```
          439859.00    3765355.00         0.08502
439864.00    3765355.00         0.08525
          439869.00    3765355.00         0.08547
439874.00    3765355.00         0.08568
          439879.00    3765355.00         0.08587
439884.00    3765355.00         0.08606
          439674.00    3765360.00         0.07355
439679.00    3765360.00         0.07389
          439684.00    3765360.00         0.07423
439689.00    3765360.00         0.07457
          439694.00    3765360.00         0.07492
439699.00    3765360.00         0.07527
          439704.00    3765360.00         0.07563
439709.00    3765360.00         0.07598
          439714.00    3765360.00         0.07635
439719.00    3765360.00         0.07671
          439729.00    3765360.00         0.07745
439734.00    3765360.00         0.07783
          439739.00    3765360.00         0.07820
439744.00    3765360.00         0.07858
          439749.00    3765360.00         0.07896
439774.00    3765360.00         0.08085
          439779.00    3765360.00         0.08123
439784.00    3765360.00         0.08160
          439789.00    3765360.00         0.08197
439794.00    3765360.00         0.08234
          439799.00    3765360.00         0.08270
439804.00    3765360.00         0.08306
          439809.00    3765360.00         0.08341
439814.00    3765360.00         0.08375
          439839.00    3765360.00         0.08536
439844.00    3765360.00         0.08565
          439849.00    3765360.00         0.08594
439854.00    3765360.00         0.08621
          439859.00    3765360.00         0.08647
439864.00    3765360.00         0.08672
          439869.00    3765360.00         0.08696
439874.00    3765360.00         0.08718
          439879.00    3765360.00         0.08739
439884.00    3765360.00         0.08759
          439674.00    3765365.00         0.07448
439679.00    3765365.00         0.07482
          439684.00    3765365.00         0.07517
439689.00    3765365.00         0.07552
          439694.00    3765365.00         0.07587
439699.00    3765365.00         0.07623
          439704.00    3765365.00         0.07660
439709.00    3765365.00         0.07697
          439714.00    3765365.00         0.07734
439719.00    3765365.00         0.07771
          439729.00    3765365.00         0.07848
439734.00    3765365.00         0.07887
```

```
         439739.00    3765365.00        0.07925
439744.00    3765365.00        0.07964
         439749.00    3765365.00        0.08004
439774.00    3765365.00        0.08201
         439779.00    3765365.00        0.08240
439784.00    3765365.00        0.08280
         439789.00    3765365.00        0.08318
439794.00    3765365.00        0.08357
         439799.00    3765365.00        0.08395
439804.00    3765365.00        0.08433
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONOFFEVA ***
INCLUDING SOURCE(S):
A0000089 , A0000090 , A0000091 , A0000092 , A0000093 ,
A0000094 , A0000095 , A0000096 , A0000097 , A0000098 , A0000099 , A0000100 , A0000101 ,
A0000102 , A0000103 , A0000104 , A0000105 , A0000106 , A0000107 , A0000108 , A0000109 ,
A0000110 , A0000111 , A0000112 , A0000113 , A0000114 , A0000115 ,
A0000116 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439809.00	3765365.00	0.08470	439814.00	3765365.00	0.08506
439839.00	3765365.00	0.08676	439844.00	3765365.00	0.08708
439849.00	3765365.00	0.08738	439854.00	3765365.00	0.08767
439859.00	3765365.00	0.08795	439864.00	3765365.00	0.08822
439869.00	3765365.00	0.08848	439874.00	3765365.00	0.08872
439879.00	3765365.00	0.08895	439884.00	3765365.00	0.08916
439674.00	3765370.00	0.07543	439679.00	3765370.00	0.07577
439684.00	3765370.00	0.07613	439689.00	3765370.00	0.07648
439694.00	3765370.00	0.07685	439699.00	3765370.00	0.07722

```
          439704.00    3765370.00         0.07759
439709.00    3765370.00         0.07797
          439714.00    3765370.00         0.07835
439719.00    3765370.00         0.07874
          439729.00    3765370.00         0.07952
439734.00    3765370.00         0.07992
          439739.00    3765370.00         0.08032
439744.00    3765370.00         0.08073
          439749.00    3765370.00         0.08113
439774.00    3765370.00         0.08319
          439779.00    3765370.00         0.08360
439784.00    3765370.00         0.08401
          439789.00    3765370.00         0.08442
439794.00    3765370.00         0.08482
          439799.00    3765370.00         0.08522
439804.00    3765370.00         0.08562
          439809.00    3765370.00         0.08601
439814.00    3765370.00         0.08639
          439839.00    3765370.00         0.08820
439844.00    3765370.00         0.08854
          439849.00    3765370.00         0.08886
439854.00    3765370.00         0.08917
          439859.00    3765370.00         0.08947
439864.00    3765370.00         0.08976
          439869.00    3765370.00         0.09004
439874.00    3765370.00         0.09030
          439879.00    3765370.00         0.09055
439884.00    3765370.00         0.09078
          439674.00    3765375.00         0.07639
439679.00    3765375.00         0.07674
          439684.00    3765375.00         0.07710
439689.00    3765375.00         0.07747
          439694.00    3765375.00         0.07784
439699.00    3765375.00         0.07822
          439704.00    3765375.00         0.07860
439709.00    3765375.00         0.07899
          439714.00    3765375.00         0.07938
439719.00    3765375.00         0.07977
          439729.00    3765375.00         0.08058
439734.00    3765375.00         0.08099
          439739.00    3765375.00         0.08141
439744.00    3765375.00         0.08183
          439749.00    3765375.00         0.08225
439754.00    3765375.00         0.08267
          439774.00    3765375.00         0.08439
439779.00    3765375.00         0.08482
          439784.00    3765375.00         0.08525
439789.00    3765375.00         0.08567
          439794.00    3765375.00         0.08610
439799.00    3765375.00         0.08652
          439804.00    3765375.00         0.08693
439809.00    3765375.00         0.08735
```

```
         439814.00    3765375.00        0.08775
439839.00    3765375.00        0.08967
         439844.00    3765375.00        0.09003
439849.00    3765375.00        0.09038
         439854.00    3765375.00        0.09071
439859.00    3765375.00        0.09103
         439864.00    3765375.00        0.09134
439869.00    3765375.00        0.09164
         439874.00    3765375.00        0.09192
439879.00    3765375.00        0.09219
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONOFFEVA ***
INCLUDING SOURCE(S):
A0000089 , A0000090 , A0000091 , A0000092 , A0000093 ,
A0000094 , A0000095 , A0000096 , A0000097 , A0000098 , A0000099 , A0000100 , A0000101 ,
A0000102 , A0000103 , A0000104 , A0000105 , A0000106 , A0000107 , A0000108 , A0000109 ,
A0000110 , A0000111 , A0000112 , A0000113 , A0000114 , A0000115 ,
A0000116 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439884.00	3765375.00	0.09244	439774.00	3765380.00	0.08561
439779.00	3765380.00	0.08606	439784.00	3765380.00	0.08650
439789.00	3765380.00	0.08695	439794.00	3765380.00	0.08740
439799.00	3765380.00	0.08784	439804.00	3765380.00	0.08828
439809.00	3765380.00	0.08871	439814.00	3765380.00	0.08914
439769.00	3765385.00	0.08638	439819.00	3765385.00	0.09100
439769.00	3765400.00	0.09017	439844.00	3765400.00	0.09804
439849.00	3765400.00	0.09852	439674.00	3765405.00	0.08262
439714.00	3765405.00	0.08594	439719.00	3765405.00	0.08640

```
          439734.00    3765405.00        0.08783
439749.00    3765405.00        0.08935
          439754.00    3765405.00        0.08987
439774.00    3765405.00        0.09203
          439779.00    3765405.00        0.09259
439784.00    3765405.00        0.09314
          439789.00    3765405.00        0.09370
439794.00    3765405.00        0.09427
          439799.00    3765405.00        0.09483
439804.00    3765405.00        0.09539
          439809.00    3765405.00        0.09596
439814.00    3765405.00        0.09652
          439819.00    3765405.00        0.09707
439824.00    3765405.00        0.09763
          439829.00    3765405.00        0.09817
439834.00    3765405.00        0.09871
          439839.00    3765405.00        0.09924
439844.00    3765405.00        0.09976
          439849.00    3765405.00        0.10027
439854.00    3765405.00        0.10077
          439859.00    3765405.00        0.10125
439674.00    3765410.00        0.08374
          439679.00    3765410.00        0.08412
439684.00    3765410.00        0.08452
          439689.00    3765410.00        0.08493
439694.00    3765410.00        0.08534
          439699.00    3765410.00        0.08577
439704.00    3765410.00        0.08620
          439709.00    3765410.00        0.08665
439714.00    3765410.00        0.08711
          439719.00    3765410.00        0.08758
439729.00    3765410.00        0.08854
          439734.00    3765410.00        0.08904
439739.00    3765410.00        0.08955
          439744.00    3765410.00        0.09008
439749.00    3765410.00        0.09060
          439774.00    3765410.00        0.09338
439779.00    3765410.00        0.09396
          439784.00    3765410.00        0.09454
439789.00    3765410.00        0.09513
          439794.00    3765410.00        0.09572
439799.00    3765410.00        0.09631
          439804.00    3765410.00        0.09690
439809.00    3765410.00        0.09750
          439814.00    3765410.00        0.09809
439819.00    3765410.00        0.09867
          439824.00    3765410.00        0.09926
439829.00    3765410.00        0.09984
          439834.00    3765410.00        0.10041
439839.00    3765410.00        0.10097
          439844.00    3765410.00        0.10152
439849.00    3765410.00        0.10207
```

```
         439854.00    3765410.00        0.10260
439859.00    3765410.00        0.10311
         439674.00    3765415.00        0.08488
439679.00    3765415.00        0.08528
         439684.00    3765415.00        0.08567
439689.00    3765415.00        0.08609
         439694.00    3765415.00        0.08651
439699.00    3765415.00        0.08694
         439704.00    3765415.00        0.08738
439709.00    3765415.00        0.08783
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONOFFEVA ***
INCLUDING SOURCE(S):
A0000089 , A0000090 , A0000091 , A0000092 , A0000093 ,
A0000094 , A0000095 , A0000096 , A0000097 , A0000098 , A0000099 , A0000100 , A0000101 ,
A0000102 , A0000103 , A0000104 , A0000105 , A0000106 , A0000107 , A0000108 , A0000109 ,
A0000110 , A0000111 , A0000112 , A0000113 , A0000114 , A0000115 ,
A0000116 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439714.00	3765415.00	0.08830	439719.00	3765415.00	0.08878
439729.00	3765415.00	0.08977	439734.00	3765415.00	0.09028
439739.00	3765415.00	0.09080	439744.00	3765415.00	0.09134
439749.00	3765415.00	0.09188	439774.00	3765415.00	0.09476
439779.00	3765415.00	0.09536	439784.00	3765415.00	0.09597
439789.00	3765415.00	0.09658	439794.00	3765415.00	0.09720
439799.00	3765415.00	0.09782	439804.00	3765415.00	0.09844
439809.00	3765415.00	0.09906	439814.00	3765415.00	0.09969
439819.00	3765415.00	0.10031	439824.00	3765415.00	0.10092

```
          439829.00    3765415.00        0.10154
439834.00    3765415.00        0.10214
          439839.00    3765415.00        0.10274
439844.00    3765415.00        0.10333
          439849.00    3765415.00        0.10391
439854.00    3765415.00        0.10447
          439859.00    3765415.00        0.10503
439674.00    3765420.00        0.08607
          439679.00    3765420.00        0.08646
439684.00    3765420.00        0.08686
          439689.00    3765420.00        0.08727
439694.00    3765420.00        0.08770
          439699.00    3765420.00        0.08814
439704.00    3765420.00        0.08858
          439709.00    3765420.00        0.08904
439714.00    3765420.00        0.08952
          439719.00    3765420.00        0.09000
439729.00    3765420.00        0.09101
          439734.00    3765420.00        0.09154
439739.00    3765420.00        0.09207
          439744.00    3765420.00        0.09262
439749.00    3765420.00        0.09318
          439774.00    3765420.00        0.09616
439779.00    3765420.00        0.09679
          439784.00    3765420.00        0.09742
439789.00    3765420.00        0.09806
          439794.00    3765420.00        0.09871
439799.00    3765420.00        0.09935
          439804.00    3765420.00        0.10001
439809.00    3765420.00        0.10066
          439814.00    3765420.00        0.10132
439819.00    3765420.00        0.10197
          439824.00    3765420.00        0.10263
439829.00    3765420.00        0.10327
          439834.00    3765420.00        0.10392
439839.00    3765420.00        0.10455
          439844.00    3765420.00        0.10518
439849.00    3765420.00        0.10579
          439854.00    3765420.00        0.10640
439859.00    3765420.00        0.10699
          439674.00    3765425.00        0.08727
439679.00    3765425.00        0.08767
          439684.00    3765425.00        0.08807
439689.00    3765425.00        0.08849
          439694.00    3765425.00        0.08892
439699.00    3765425.00        0.08936
          439704.00    3765425.00        0.08981
439709.00    3765425.00        0.09028
          439714.00    3765425.00        0.09076
439719.00    3765425.00        0.09125
          439729.00    3765425.00        0.09228
439734.00    3765425.00        0.09282
```

```
         439739.00    3765425.00        0.09337
439744.00    3765425.00        0.09393
         439749.00    3765425.00        0.09451
439774.00    3765425.00        0.09759
         439779.00    3765425.00        0.09824
439784.00    3765425.00        0.09890
         439789.00    3765425.00        0.09956
439794.00    3765425.00        0.10024
         439799.00    3765425.00        0.10092
439804.00    3765425.00        0.10161
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONOFFEVA ***
INCLUDING SOURCE(S):
A0000089 , A0000090 , A0000091 , A0000092 , A0000093 ,
A0000094 , A0000095 , A0000096 , A0000097 , A0000098 , A0000099 , A0000100 , A0000101 ,
A0000102 , A0000103 , A0000104 , A0000105 , A0000106 , A0000107 , A0000108 , A0000109 ,
A0000110 , A0000111 , A0000112 , A0000113 , A0000114 , A0000115 ,
A0000116 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439809.00	3765425.00	0.10229	439814.00	3765425.00	0.10299
439819.00	3765425.00	0.10368	439824.00	3765425.00	0.10437
439829.00	3765425.00	0.10505	439834.00	3765425.00	0.10573
439839.00	3765425.00	0.10641	439844.00	3765425.00	0.10707
439849.00	3765425.00	0.10773	439854.00	3765425.00	0.10838
439859.00	3765425.00	0.10901	439674.00	3765430.00	0.08852
439679.00	3765430.00	0.08891	439684.00	3765430.00	0.08932
439689.00	3765430.00	0.08974	439694.00	3765430.00	0.09017
439699.00	3765430.00	0.09061	439704.00	3765430.00	0.09107

```
          439709.00    3765430.00        0.09154
439714.00    3765430.00        0.09203
          439719.00    3765430.00        0.09253
439729.00    3765430.00        0.09358
          439734.00    3765430.00        0.09413
439739.00    3765430.00        0.09469
          439744.00    3765430.00        0.09527
439749.00    3765430.00        0.09586
          439774.00    3765430.00        0.09904
439779.00    3765430.00        0.09972
          439784.00    3765430.00        0.10040
439789.00    3765430.00        0.10110
          439794.00    3765430.00        0.10180
439799.00    3765430.00        0.10252
          439804.00    3765430.00        0.10324
439809.00    3765430.00        0.10396
          439814.00    3765430.00        0.10469
439819.00    3765430.00        0.10541
          439824.00    3765430.00        0.10615
439829.00    3765430.00        0.10687
          439834.00    3765430.00        0.10759
439839.00    3765430.00        0.10831
          439844.00    3765430.00        0.10902
439849.00    3765430.00        0.10972
          439854.00    3765430.00        0.11041
439859.00    3765430.00        0.11108
          439674.00    3765435.00        0.08980
439679.00    3765435.00        0.09019
          439684.00    3765435.00        0.09060
439689.00    3765435.00        0.09102
          439694.00    3765435.00        0.09145
439699.00    3765435.00        0.09190
          439704.00    3765435.00        0.09236
439709.00    3765435.00        0.09284
          439714.00    3765435.00        0.09333
439719.00    3765435.00        0.09384
          439729.00    3765435.00        0.09491
439734.00    3765435.00        0.09546
          439739.00    3765435.00        0.09604
439744.00    3765435.00        0.09663
          439749.00    3765435.00        0.09724
439774.00    3765435.00        0.10052
          439779.00    3765435.00        0.10122
439784.00    3765435.00        0.10193
          439789.00    3765435.00        0.10266
439794.00    3765435.00        0.10340
          439799.00    3765435.00        0.10414
439804.00    3765435.00        0.10490
          439809.00    3765435.00        0.10566
439814.00    3765435.00        0.10642
          439819.00    3765435.00        0.10719
439824.00    3765435.00        0.10796
```

```
         439829.00    3765435.00        0.10873
439834.00    3765435.00        0.10949
         439839.00    3765435.00        0.11025
439844.00    3765435.00        0.11101
         439849.00    3765435.00        0.11176
439854.00    3765435.00        0.11249
         439859.00    3765435.00        0.11321
439674.00    3765440.00        0.09111
         439679.00    3765440.00        0.09150
439684.00    3765440.00        0.09191
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONOFFEVA ***
INCLUDING SOURCE(S):
A0000089 , A0000090 , A0000091 , A0000092 , A0000093 ,
A0000094 , A0000095 , A0000096 , A0000097 , A0000098 , A0000099 , A0000100 , A0000101 ,
A0000102 , A0000103 , A0000104 , A0000105 , A0000106 , A0000107 , A0000108 , A0000109 ,
A0000110 , A0000111 , A0000112 , A0000113 , A0000114 , A0000115 ,
A0000116 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439689.00	3765440.00	0.09233	439694.00	3765440.00	0.09277
439699.00	3765440.00	0.09322	439704.00	3765440.00	0.09368
439709.00	3765440.00	0.09417	439714.00	3765440.00	0.09466
439719.00	3765440.00	0.09518	439729.00	3765440.00	0.09626
439734.00	3765440.00	0.09683	439739.00	3765440.00	0.09741
439744.00	3765440.00	0.09802	439749.00	3765440.00	0.09864
439774.00	3765440.00	0.10203	439779.00	3765440.00	0.10275
439784.00	3765440.00	0.10350	439789.00	3765440.00	0.10425
439794.00	3765440.00	0.10502	439799.00	3765440.00	0.10580

```
          439804.00    3765440.00        0.10659
439809.00    3765440.00        0.10739
          439814.00    3765440.00        0.10819
439819.00    3765440.00        0.10901
          439824.00    3765440.00        0.10982
439829.00    3765440.00        0.11063
          439834.00    3765440.00        0.11144
439839.00    3765440.00        0.11225
          439844.00    3765440.00        0.11305
439849.00    3765440.00        0.11385
          439854.00    3765440.00        0.11463
439859.00    3765440.00        0.11540
          439674.00    3765445.00        0.09246
439679.00    3765445.00        0.09286
          439684.00    3765445.00        0.09326
439689.00    3765445.00        0.09369
          439694.00    3765445.00        0.09412
439699.00    3765445.00        0.09457
          439704.00    3765445.00        0.09504
439709.00    3765445.00        0.09553
          439714.00    3765445.00        0.09603
439719.00    3765445.00        0.09655
          439729.00    3765445.00        0.09765
439734.00    3765445.00        0.09822
          439739.00    3765445.00        0.09882
439744.00    3765445.00        0.09944
          439749.00    3765445.00        0.10008
439774.00    3765445.00        0.10356
          439779.00    3765445.00        0.10431
439784.00    3765445.00        0.10508
          439789.00    3765445.00        0.10587
439794.00    3765445.00        0.10667
          439799.00    3765445.00        0.10749
439804.00    3765445.00        0.10831
          439809.00    3765445.00        0.10915
439814.00    3765445.00        0.11000
          439819.00    3765445.00        0.11086
439824.00    3765445.00        0.11171
          439829.00    3765445.00        0.11257
439834.00    3765445.00        0.11343
          439839.00    3765445.00        0.11429
439844.00    3765445.00        0.11515
          439849.00    3765445.00        0.11599
439854.00    3765445.00        0.11683
          439859.00    3765445.00        0.11765
439674.00    3765450.00        0.09386
          439679.00    3765450.00        0.09425
439684.00    3765450.00        0.09466
          439689.00    3765450.00        0.09508
439694.00    3765450.00        0.09551
          439699.00    3765450.00        0.09597
439704.00    3765450.00        0.09643
```

```
         439709.00    3765450.00        0.09692
439714.00    3765450.00        0.09743
         439719.00    3765450.00        0.09795
439729.00    3765450.00        0.09906
         439734.00    3765450.00        0.09965
439739.00    3765450.00        0.10026
         439744.00    3765450.00        0.10089
439749.00    3765450.00        0.10154
         439774.00    3765450.00        0.10512
439844.00    3765450.00        0.11729
```

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONOFFEVA ***
INCLUDING SOURCE(S):
A0000089 , A0000090 , A0000091 , A0000092 , A0000093 ,
A0000094 , A0000095 , A0000096 , A0000097 , A0000098 , A0000099 , A0000100 , A0000101 ,
A0000102 , A0000103 , A0000104 , A0000105 , A0000106 , A0000107 , A0000108 , A0000109 ,
A0000110 , A0000111 , A0000112 , A0000113 , A0000114 , A0000115 ,
A0000116 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439849.00	3765450.00	0.11819	439854.00	3765450.00	0.11909
439859.00	3765450.00	0.11997	439674.00	3765455.00	0.09530
439679.00	3765455.00	0.09569	439684.00	3765455.00	0.09609
439689.00	3765455.00	0.09651	439694.00	3765455.00	0.09695
439699.00	3765455.00	0.09740	439704.00	3765455.00	0.09787
439709.00	3765455.00	0.09836	439714.00	3765455.00	0.09887
439719.00	3765455.00	0.09939	439729.00	3765455.00	0.10052
439734.00	3765455.00	0.10111	439739.00	3765455.00	0.10173
439744.00	3765455.00	0.10237	439749.00	3765455.00	0.10304

```
          439844.00    3765455.00        0.11949
439849.00    3765455.00        0.12045
          439854.00    3765455.00        0.12141
439859.00    3765455.00        0.12235
          439674.00    3765460.00        0.09679
439679.00    3765460.00        0.09717
          439684.00    3765460.00        0.09757
439689.00    3765460.00        0.09799
          439694.00    3765460.00        0.09842
439699.00    3765460.00        0.09887
          439704.00    3765460.00        0.09934
439709.00    3765460.00        0.09983
          439714.00    3765460.00        0.10034
439719.00    3765460.00        0.10087
          439729.00    3765460.00        0.10201
439734.00    3765460.00        0.10261
          439739.00    3765460.00        0.10324
439744.00    3765460.00        0.10389
          439749.00    3765460.00        0.10456
439789.00    3765460.00        0.11092
          439794.00    3765460.00        0.11182
439799.00    3765460.00        0.11275
          439804.00    3765460.00        0.11370
439809.00    3765460.00        0.11466
          439814.00    3765460.00        0.11564
439819.00    3765460.00        0.11664
          439824.00    3765460.00        0.11765
439829.00    3765460.00        0.11867
          439844.00    3765460.00        0.12175
439849.00    3765460.00        0.12277
          439854.00    3765460.00        0.12379
439859.00    3765460.00        0.12480
          439674.00    3765465.00        0.09833
439679.00    3765465.00        0.09871
          439684.00    3765465.00        0.09910
439689.00    3765465.00        0.09952
          439694.00    3765465.00        0.09995
439699.00    3765465.00        0.10040
          439704.00    3765465.00        0.10087
439709.00    3765465.00        0.10135
          439714.00    3765465.00        0.10186
439719.00    3765465.00        0.10240
          439729.00    3765465.00        0.10354
439734.00    3765465.00        0.10415
          439739.00    3765465.00        0.10478
439744.00    3765465.00        0.10544
          439749.00    3765465.00        0.10613
439789.00    3765465.00        0.11266
          439794.00    3765465.00        0.11360
439799.00    3765465.00        0.11457
          439804.00    3765465.00        0.11556
439809.00    3765465.00        0.11657
```

```
         439814.00    3765465.00        0.11760
439819.00    3765465.00        0.11865
         439824.00    3765465.00        0.11971
439829.00    3765465.00        0.12079
         439844.00    3765465.00        0.12406
439849.00    3765465.00        0.12515
         439854.00    3765465.00        0.12624
439859.00    3765465.00        0.12732
         439674.00    3765470.00        0.09992
439679.00    3765470.00        0.10030
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONOFFEVA ***
INCLUDING SOURCE(S):
A0000089 , A0000090 , A0000091 , A0000092 , A0000093 ,
A0000094 , A0000095 , A0000096 , A0000097 , A0000098 , A0000099 , A0000100 , A0000101 ,
A0000102 , A0000103 , A0000104 , A0000105 , A0000106 , A0000107 , A0000108 , A0000109 ,
A0000110 , A0000111 , A0000112 , A0000113 , A0000114 , A0000115 ,
A0000116 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439684.00	3765470.00	0.10069	439689.00	3765470.00	0.10110
439694.00	3765470.00	0.10152	439699.00	3765470.00	0.10197
439704.00	3765470.00	0.10244	439709.00	3765470.00	0.10292
439714.00	3765470.00	0.10344	439719.00	3765470.00	0.10397
439729.00	3765470.00	0.10511	439734.00	3765470.00	0.10572
439739.00	3765470.00	0.10636	439744.00	3765470.00	0.10704
439749.00	3765470.00	0.10774	439789.00	3765470.00	0.11445
439794.00	3765470.00	0.11542	439799.00	3765470.00	0.11643
439804.00	3765470.00	0.11746	439809.00	3765470.00	0.11852

```
         439814.00    3765470.00        0.11960
439819.00    3765470.00        0.12070
         439824.00    3765470.00        0.12182
439829.00    3765470.00        0.12296
         439844.00    3765470.00        0.12643
439849.00    3765470.00        0.12760
         439854.00    3765470.00        0.12876
439859.00    3765470.00        0.12991
         439674.00    3765475.00        0.10157
439679.00    3765475.00        0.10194
         439684.00    3765475.00        0.10233
439689.00    3765475.00        0.10273
         439694.00    3765475.00        0.10315
439699.00    3765475.00        0.10360
         439704.00    3765475.00        0.10406
439709.00    3765475.00        0.10454
         439714.00    3765475.00        0.10505
439719.00    3765475.00        0.10559
         439729.00    3765475.00        0.10673
439734.00    3765475.00        0.10735
         439739.00    3765475.00        0.10800
439744.00    3765475.00        0.10867
         439749.00    3765475.00        0.10938
439754.00    3765475.00        0.11012
         439789.00    3765475.00        0.11626
439794.00    3765475.00        0.11727
         439799.00    3765475.00        0.11832
439804.00    3765475.00        0.11940
         439809.00    3765475.00        0.12050
439814.00    3765475.00        0.12164
         439819.00    3765475.00        0.12279
439824.00    3765475.00        0.12397
         439829.00    3765475.00        0.12518
439269.00    3764900.00        0.02450
         439369.00    3764900.00        0.02574
439469.00    3764900.00        0.02664
         439569.00    3764900.00        0.02713
439669.00    3764900.00        0.02715
         439769.00    3764900.00        0.02665
439869.00    3764900.00        0.02563
         439969.00    3764900.00        0.02416
440069.00    3764900.00        0.02237
         440169.00    3764900.00        0.02044
440269.00    3764900.00        0.01853
         439269.00    3765000.00        0.02795
439369.00    3765000.00        0.02982
         439469.00    3765000.00        0.03134
439569.00    3765000.00        0.03243
         439669.00    3765000.00        0.03297
439769.00    3765000.00        0.03281
         439869.00    3765000.00        0.03183
439969.00    3765000.00        0.03008
```

```
         440069.00    3765000.00        0.02775
440169.00    3765000.00        0.02513
         440269.00    3765000.00        0.02251
439269.00    3765100.00        0.03203
         439369.00    3765100.00        0.03473
439469.00    3765100.00        0.03709
         439569.00    3765100.00        0.03906
439669.00    3765100.00        0.04053
         439769.00    3765100.00        0.04112
439869.00    3765100.00        0.04047
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONOFFEVA ***
INCLUDING SOURCE(S):
A0000089 , A0000090 , A0000091 , A0000092 , A0000093 ,
A0000094 , A0000095 , A0000096 , A0000097 , A0000098 , A0000099 , A0000100 , A0000101 ,
A0000102 , A0000103 , A0000104 , A0000105 , A0000106 , A0000107 , A0000108 , A0000109 ,
A0000110 , A0000111 , A0000112 , A0000113 , A0000114 , A0000115 ,
A0000116 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439969.00	3765100.00	0.03853	440069.00	3765100.00	0.03552
440169.00	3765100.00	0.03191	440269.00	3765100.00	0.02815
439269.00	3765200.00	0.03705	439369.00	3765200.00	0.04090
439469.00	3765200.00	0.04431	439569.00	3765200.00	0.04746
439669.00	3765200.00	0.05037	439769.00	3765200.00	0.05248
439869.00	3765200.00	0.05287	439969.00	3765200.00	0.05111
440069.00	3765200.00	0.04739	440169.00	3765200.00	0.04233
440269.00	3765200.00	0.03668	439269.00	3765300.00	0.04349
439369.00	3765300.00	0.04928	439469.00	3765300.00	0.05409

```
         439569.00    3765300.00        0.05852
439669.00    3765300.00        0.06333
         439769.00    3765300.00        0.06819
439869.00    3765300.00        0.07130
         439969.00    3765300.00        0.07091
440069.00    3765300.00        0.06684
         440169.00    3765300.00        0.05973
440269.00    3765300.00        0.05075
         439269.00    3765400.00        0.05175
439369.00    3765400.00        0.06170
         439469.00    3765400.00        0.06921
439569.00    3765400.00        0.07494
         439669.00    3765400.00        0.08115
439769.00    3765400.00        0.09017
         439869.00    3765400.00        0.10030
439969.00    3765400.00        0.10493
         440069.00    3765400.00        0.10202
440169.00    3765400.00        0.09226
         440269.00    3765400.00        0.07730
439269.00    3765500.00        0.06140
         439369.00    3765500.00        0.08150
439469.00    3765500.00        0.09671
         439569.00    3765500.00        0.10526
439669.00    3765500.00        0.11056
         439769.00    3765500.00        0.12174
439869.00    3765500.00        0.15064
         439969.00    3765500.00        0.17642
440069.00    3765500.00        0.17862
         440169.00    3765500.00        0.16481
440269.00    3765500.00        0.13993
         439269.00    3765600.00        0.06865
439369.00    3765600.00        0.11561
         439469.00    3765600.00        0.16096
439569.00    3765600.00        0.18097
         439669.00    3765600.00        0.18447
439769.00    3765600.00        0.18856
         439869.00    3765600.00        0.24142
439969.00    3765600.00        0.48202
         440069.00    3765600.00        0.48365
440169.00    3765600.00        0.43362
         440269.00    3765600.00        0.37185
439269.00    3765700.00        0.06381
         439369.00    3765700.00        0.16443
439469.00    3765700.00        0.75902
         439569.00    3765700.00        0.84610
439669.00    3765700.00        0.64623
         439769.00    3765700.00        0.50617
439869.00    3765700.00        0.37198
         439969.00    3765700.00        0.46383
440069.00    3765700.00        1.11334
         440169.00    3765700.00        1.94871
440269.00    3765700.00        3.58358
```

```
         439269.00    3765800.00        0.04509
439369.00    3765800.00        0.08363
         439469.00    3765800.00        0.26310
439569.00    3765800.00        0.59270
         439669.00    3765800.00        0.88694
439769.00    3765800.00        1.41727
         439869.00    3765800.00        2.65078
439969.00    3765800.00        0.88228
         440069.00    3765800.00        0.52756
440169.00    3765800.00        0.46924
```

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONOFFEVA ***
INCLUDING SOURCE(S):
A0000089 , A0000090 , A0000091 , A0000092 , A0000093 ,
A0000094 , A0000095 , A0000096 , A0000097 , A0000098 , A0000099 , A0000100 , A0000101 ,
A0000102 , A0000103 , A0000104 , A0000105 , A0000106 , A0000107 , A0000108 , A0000109 ,
A0000110 , A0000111 , A0000112 , A0000113 , A0000114 , A0000115 ,
A0000116 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
440269.00	3765800.00	0.50096	439269.00	3765900.00	0.02997
439369.00	3765900.00	0.04194	439469.00	3765900.00	0.06370
439569.00	3765900.00	0.10296	439669.00	3765900.00	0.15851
439769.00	3765900.00	0.21901	439869.00	3765900.00	0.27358
439969.00	3765900.00	0.29639	440069.00	3765900.00	0.26864
440169.00	3765900.00	0.23552	440269.00	3765900.00	0.22265
439649.00	3765310.00	0.06379	439679.00	3765310.00	0.06537
439709.00	3765310.00	0.06698	439739.00	3765310.00	0.06857
439769.00	3765310.00	0.07007	439799.00	3765310.00	0.07143

```
          439829.00    3765310.00        0.07256
439859.00    3765310.00        0.07340
          439889.00    3765310.00        0.07391
439649.00    3765340.00        0.06850
          439679.00    3765340.00        0.07031
439709.00    3765340.00        0.07221
          439739.00    3765340.00        0.07416
439769.00    3765340.00        0.07610
          439799.00    3765340.00        0.07794
439829.00    3765340.00        0.07956
          439859.00    3765340.00        0.08088
439889.00    3765340.00        0.08181
          439649.00    3765370.00        0.07376
439679.00    3765370.00        0.07577
          439709.00    3765370.00        0.07797
439739.00    3765370.00        0.08032
          439769.00    3765370.00        0.08278
439799.00    3765370.00        0.08522
          439829.00    3765370.00        0.08750
439859.00    3765370.00        0.08947
          439889.00    3765370.00        0.09100
439649.00    3765400.00        0.07974
          439679.00    3765400.00        0.08190
439709.00    3765400.00        0.08435
          439739.00    3765400.00        0.08713
439769.00    3765400.00        0.09017
          439799.00    3765400.00        0.09338
439829.00    3765400.00        0.09655
          439859.00    3765400.00        0.09944
439889.00    3765400.00        0.10183
          439649.00    3765430.00        0.08670
439679.00    3765430.00        0.08891
          439709.00    3765430.00        0.09154
439739.00    3765430.00        0.09469
          439769.00    3765430.00        0.09838
439799.00    3765430.00        0.10252
          439829.00    3765430.00        0.10687
439859.00    3765430.00        0.11108
          439889.00    3765430.00        0.11477
439649.00    3765460.00        0.09505
          439679.00    3765460.00        0.09717
439709.00    3765460.00        0.09983
          439739.00    3765460.00        0.10324
439769.00    3765460.00        0.10753
          439799.00    3765460.00        0.11275
439829.00    3765460.00        0.11867
          439859.00    3765460.00        0.12480
439889.00    3765460.00        0.13049
          439649.00    3765490.00        0.10539
439679.00    3765490.00        0.10727
          439709.00    3765490.00        0.10975
439739.00    3765490.00        0.11318
```

```
          439769.00    3765490.00        0.11792
439799.00    3765490.00        0.12423
          439829.00    3765490.00        0.13212
439859.00    3765490.00        0.14106
          439889.00    3765490.00        0.14996
```

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439674.00	3765310.00	0.53810	439679.00	3765310.00	0.53834
439684.00	3765310.00	0.53856	439689.00	3765310.00	0.53878
439694.00	3765310.00	0.53899	439699.00	3765310.00	0.53919
439704.00	3765310.00	0.53939	439709.00	3765310.00	0.53957
439714.00	3765310.00	0.53974	439719.00	3765310.00	0.53990
439729.00	3765310.00	0.54020	439734.00	3765310.00	0.54033
439739.00	3765310.00	0.54045	439744.00	3765310.00	0.54056
439749.00	3765310.00	0.54065	439764.00	3765310.00	0.54086
439769.00	3765310.00	0.54090	439774.00	3765310.00	0.54093

```
         439779.00    3765310.00        0.54095
439784.00    3765310.00        0.54094
         439789.00    3765310.00        0.54092
439794.00    3765310.00        0.54088
         439799.00    3765310.00        0.54082
439804.00    3765310.00        0.54075
         439809.00    3765310.00        0.54066
439814.00    3765310.00        0.54055
         439819.00    3765310.00        0.54041
439824.00    3765310.00        0.54025
         439829.00    3765310.00        0.54009
439839.00    3765310.00        0.53967
         439844.00    3765310.00        0.53943
439849.00    3765310.00        0.53917
         439854.00    3765310.00        0.53889
439859.00    3765310.00        0.53858
         439864.00    3765310.00        0.53824
439869.00    3765310.00        0.53789
         439874.00    3765310.00        0.53750
439879.00    3765310.00        0.53710
         439884.00    3765310.00        0.53667
439674.00    3765315.00        0.54525
         439679.00    3765315.00        0.54550
439684.00    3765315.00        0.54575
         439689.00    3765315.00        0.54597
439694.00    3765315.00        0.54619
         439699.00    3765315.00        0.54642
439704.00    3765315.00        0.54662
         439709.00    3765315.00        0.54682
439714.00    3765315.00        0.54701
         439719.00    3765315.00        0.54719
439729.00    3765315.00        0.54751
         439734.00    3765315.00        0.54766
439739.00    3765315.00        0.54780
         439744.00    3765315.00        0.54792
439749.00    3765315.00        0.54804
         439764.00    3765315.00        0.54830
439769.00    3765315.00        0.54837
         439774.00    3765315.00        0.54841
439779.00    3765315.00        0.54844
         439784.00    3765315.00        0.54846
439789.00    3765315.00        0.54846
         439794.00    3765315.00        0.54844
439799.00    3765315.00        0.54840
         439804.00    3765315.00        0.54835
439809.00    3765315.00        0.54828
         439814.00    3765315.00        0.54818
439819.00    3765315.00        0.54807
         439824.00    3765315.00        0.54793
439829.00    3765315.00        0.54778
         439839.00    3765315.00        0.54740
439844.00    3765315.00        0.54718
```

```
          439849.00    3765315.00        0.54695
439854.00    3765315.00        0.54667
          439859.00    3765315.00        0.54638
439864.00    3765315.00        0.54607
          439869.00    3765315.00        0.54572
439874.00    3765315.00        0.54536
          439879.00    3765315.00        0.54497
439884.00    3765315.00        0.54456
          439674.00    3765320.00        0.55257
439679.00    3765320.00        0.55282
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439684.00	3765320.00	0.55309	439689.00	3765320.00	0.55333
439694.00	3765320.00	0.55357	439699.00	3765320.00	0.55380
439704.00	3765320.00	0.55402	439709.00	3765320.00	0.55423
439714.00	3765320.00	0.55444	439719.00	3765320.00	0.55464
439729.00	3765320.00	0.55500	439734.00	3765320.00	0.55516
439739.00	3765320.00	0.55532	439744.00	3765320.00	0.55546
439749.00	3765320.00	0.55559	439764.00	3765320.00	0.55591
439769.00	3765320.00	0.55600	439774.00	3765320.00	0.55606
439779.00	3765320.00	0.55611	439784.00	3765320.00	0.55615

```
         439789.00    3765320.00        0.55616
439794.00    3765320.00        0.55616
         439799.00    3765320.00        0.55616
439804.00    3765320.00        0.55612
         439809.00    3765320.00        0.55606
439814.00    3765320.00        0.55599
         439819.00    3765320.00        0.55590
439824.00    3765320.00        0.55579
         439829.00    3765320.00        0.55565
439839.00    3765320.00        0.55532
         439844.00    3765320.00        0.55512
439849.00    3765320.00        0.55490
         439854.00    3765320.00        0.55464
439859.00    3765320.00        0.55437
         439864.00    3765320.00        0.55408
439869.00    3765320.00        0.55375
         439874.00    3765320.00        0.55341
439879.00    3765320.00        0.55304
         439884.00    3765320.00        0.55263
439674.00    3765325.00        0.56004
         439679.00    3765325.00        0.56033
439684.00    3765325.00        0.56058
         439689.00    3765325.00        0.56085
439694.00    3765325.00        0.56110
         439699.00    3765325.00        0.56135
439704.00    3765325.00        0.56159
         439709.00    3765325.00        0.56182
439714.00    3765325.00        0.56204
         439719.00    3765325.00        0.56225
439729.00    3765325.00        0.56264
         439734.00    3765325.00        0.56283
439739.00    3765325.00        0.56300
         439744.00    3765325.00        0.56317
439749.00    3765325.00        0.56332
         439754.00    3765325.00        0.56345
439769.00    3765325.00        0.56379
         439774.00    3765325.00        0.56388
439779.00    3765325.00        0.56395
         439784.00    3765325.00        0.56400
439789.00    3765325.00        0.56405
         439794.00    3765325.00        0.56407
439799.00    3765325.00        0.56408
         439804.00    3765325.00        0.56406
439809.00    3765325.00        0.56403
         439814.00    3765325.00        0.56399
439819.00    3765325.00        0.56391
         439824.00    3765325.00        0.56382
439829.00    3765325.00        0.56371
         439839.00    3765325.00        0.56342
439844.00    3765325.00        0.56323
         439849.00    3765325.00        0.56303
439854.00    3765325.00        0.56280
```

```
         439859.00    3765325.00        0.56255
439864.00    3765325.00        0.56227
         439869.00    3765325.00        0.56197
439874.00    3765325.00        0.56164
         439879.00    3765325.00        0.56129
439884.00    3765325.00        0.56090
         439674.00    3765330.00        0.56770
439679.00    3765330.00        0.56798
         439684.00    3765330.00        0.56827
439689.00    3765330.00        0.56854
```

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439694.00	3765330.00	0.56882	439699.00	3765330.00	0.56907
439704.00	3765330.00	0.56933	439709.00	3765330.00	0.56958
439714.00	3765330.00	0.56981	439719.00	3765330.00	0.57004
439729.00	3765330.00	0.57047	439734.00	3765330.00	0.57067
439739.00	3765330.00	0.57087	439744.00	3765330.00	0.57104
439749.00	3765330.00	0.57121	439754.00	3765330.00	0.57138
439774.00	3765330.00	0.57188	439779.00	3765330.00	0.57197
439784.00	3765330.00	0.57205	439789.00	3765330.00	0.57212
439794.00	3765330.00	0.57216	439799.00	3765330.00	0.57218

```
          439804.00    3765330.00         0.57220
439809.00    3765330.00         0.57219
          439814.00    3765330.00         0.57216
439819.00    3765330.00         0.57211
          439824.00    3765330.00         0.57204
439829.00    3765330.00         0.57195
          439839.00    3765330.00         0.57170
439844.00    3765330.00         0.57154
          439849.00    3765330.00         0.57136
439854.00    3765330.00         0.57116
          439859.00    3765330.00         0.57092
439864.00    3765330.00         0.57067
          439869.00    3765330.00         0.57038
439874.00    3765330.00         0.57007
          439879.00    3765330.00         0.56974
439884.00    3765330.00         0.56938
          439674.00    3765335.00         0.57552
439679.00    3765335.00         0.57583
          439684.00    3765335.00         0.57612
439689.00    3765335.00         0.57643
          439694.00    3765335.00         0.57670
439699.00    3765335.00         0.57698
          439704.00    3765335.00         0.57725
439709.00    3765335.00         0.57751
          439714.00    3765335.00         0.57777
439719.00    3765335.00         0.57801
          439729.00    3765335.00         0.57848
439734.00    3765335.00         0.57870
          439739.00    3765335.00         0.57890
439744.00    3765335.00         0.57911
          439749.00    3765335.00         0.57930
439774.00    3765335.00         0.58006
          439779.00    3765335.00         0.58018
439784.00    3765335.00         0.58029
          439789.00    3765335.00         0.58036
439794.00    3765335.00         0.58043
          439839.00    3765335.00         0.58019
439844.00    3765335.00         0.58005
          439849.00    3765335.00         0.57990
439854.00    3765335.00         0.57971
          439859.00    3765335.00         0.57950
439864.00    3765335.00         0.57926
          439869.00    3765335.00         0.57900
439874.00    3765335.00         0.57871
          439879.00    3765335.00         0.57840
439884.00    3765335.00         0.57805
          439674.00    3765340.00         0.58355
439679.00    3765340.00         0.58386
          439684.00    3765340.00         0.58418
439689.00    3765340.00         0.58448
          439694.00    3765340.00         0.58478
439699.00    3765340.00         0.58507
```

```
         439704.00    3765340.00        0.58536
439709.00    3765340.00        0.58563
         439714.00    3765340.00        0.58590
439719.00    3765340.00        0.58617
         439729.00    3765340.00        0.58667
439734.00    3765340.00        0.58691
         439739.00    3765340.00        0.58714
439744.00    3765340.00        0.58736
         439749.00    3765340.00        0.58757
439774.00    3765340.00        0.58845
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439779.00	3765340.00	0.58858	439784.00	3765340.00	0.58870
439789.00	3765340.00	0.58882	439794.00	3765340.00	0.58891
439839.00	3765340.00	0.58887	439844.00	3765340.00	0.58877
439849.00	3765340.00	0.58863	439854.00	3765340.00	0.58847
439859.00	3765340.00	0.58828	439864.00	3765340.00	0.58807
439869.00	3765340.00	0.58783	439874.00	3765340.00	0.58757
439879.00	3765340.00	0.58727	439884.00	3765340.00	0.58694
439674.00	3765345.00	0.59176	439679.00	3765345.00	0.59209
439684.00	3765345.00	0.59242	439689.00	3765345.00	0.59274

```
          439694.00    3765345.00        0.59305
439699.00    3765345.00        0.59336
          439704.00    3765345.00        0.59366
439709.00    3765345.00        0.59395
          439714.00    3765345.00        0.59424
439719.00    3765345.00        0.59452
          439729.00    3765345.00        0.59506
439734.00    3765345.00        0.59532
          439739.00    3765345.00        0.59557
439744.00    3765345.00        0.59580
          439749.00    3765345.00        0.59604
439774.00    3765345.00        0.59702
          439779.00    3765345.00        0.59719
439784.00    3765345.00        0.59733
          439789.00    3765345.00        0.59746
439794.00    3765345.00        0.59758
          439839.00    3765345.00        0.59778
439844.00    3765345.00        0.59770
          439849.00    3765345.00        0.59758
439854.00    3765345.00        0.59745
          439859.00    3765345.00        0.59729
439864.00    3765345.00        0.59710
          439869.00    3765345.00        0.59688
439874.00    3765345.00        0.59664
          439879.00    3765345.00        0.59636
439884.00    3765345.00        0.59607
          439674.00    3765350.00        0.60017
439679.00    3765350.00        0.60052
          439684.00    3765350.00        0.60085
439689.00    3765350.00        0.60120
          439694.00    3765350.00        0.60152
439699.00    3765350.00        0.60185
          439704.00    3765350.00        0.60216
439709.00    3765350.00        0.60248
          439714.00    3765350.00        0.60278
439719.00    3765350.00        0.60308
          439729.00    3765350.00        0.60365
439734.00    3765350.00        0.60393
          439739.00    3765350.00        0.60419
439744.00    3765350.00        0.60447
          439749.00    3765350.00        0.60470
439774.00    3765350.00        0.60581
          439779.00    3765350.00        0.60600
439784.00    3765350.00        0.60617
          439789.00    3765350.00        0.60632
439794.00    3765350.00        0.60646
          439839.00    3765350.00        0.60691
439844.00    3765350.00        0.60684
          439849.00    3765350.00        0.60677
439854.00    3765350.00        0.60665
          439859.00    3765350.00        0.60651
439864.00    3765350.00        0.60634
```

```
         439869.00    3765350.00        0.60616
439874.00    3765350.00        0.60593
         439879.00    3765350.00        0.60570
439884.00    3765350.00        0.60542
         439674.00    3765355.00        0.60880
439679.00    3765355.00        0.60915
         439684.00    3765355.00        0.60951
439689.00    3765355.00        0.60985
         439694.00    3765355.00        0.61021
439699.00    3765355.00        0.61055
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439704.00	3765355.00	0.61088	439709.00	3765355.00	0.61121
439714.00	3765355.00	0.61153	439719.00	3765355.00	0.61185
439729.00	3765355.00	0.61246	439734.00	3765355.00	0.61275
439739.00	3765355.00	0.61305	439744.00	3765355.00	0.61331
439749.00	3765355.00	0.61360	439774.00	3765355.00	0.61481
439779.00	3765355.00	0.61502	439784.00	3765355.00	0.61522
439789.00	3765355.00	0.61540	439794.00	3765355.00	0.61557
439839.00	3765355.00	0.61625	439844.00	3765355.00	0.61623
439849.00	3765355.00	0.61616	439854.00	3765355.00	0.61609

```
          439859.00    3765355.00         0.61597
439864.00    3765355.00         0.61584
          439869.00    3765355.00         0.61567
439874.00    3765355.00         0.61548
          439879.00    3765355.00         0.61526
439884.00    3765355.00         0.61501
          439674.00    3765360.00         0.61763
439679.00    3765360.00         0.61801
          439684.00    3765360.00         0.61838
439689.00    3765360.00         0.61875
          439694.00    3765360.00         0.61911
439699.00    3765360.00         0.61946
          439704.00    3765360.00         0.61981
439709.00    3765360.00         0.62015
          439714.00    3765360.00         0.62050
439719.00    3765360.00         0.62083
          439729.00    3765360.00         0.62147
439734.00    3765360.00         0.62180
          439739.00    3765360.00         0.62210
439744.00    3765360.00         0.62241
          439749.00    3765360.00         0.62269
439774.00    3765360.00         0.62403
          439779.00    3765360.00         0.62427
439784.00    3765360.00         0.62449
          439789.00    3765360.00         0.62471
439794.00    3765360.00         0.62490
          439799.00    3765360.00         0.62508
439804.00    3765360.00         0.62524
          439809.00    3765360.00         0.62539
439814.00    3765360.00         0.62551
          439839.00    3765360.00         0.62586
439844.00    3765360.00         0.62583
          439849.00    3765360.00         0.62582
439854.00    3765360.00         0.62576
          439859.00    3765360.00         0.62569
439864.00    3765360.00         0.62557
          439869.00    3765360.00         0.62543
439874.00    3765360.00         0.62527
          439879.00    3765360.00         0.62507
439884.00    3765360.00         0.62486
          439674.00    3765365.00         0.62670
439679.00    3765365.00         0.62709
          439684.00    3765365.00         0.62748
439689.00    3765365.00         0.62787
          439694.00    3765365.00         0.62823
439699.00    3765365.00         0.62861
          439704.00    3765365.00         0.62897
439709.00    3765365.00         0.62934
          439714.00    3765365.00         0.62969
439719.00    3765365.00         0.63004
          439729.00    3765365.00         0.63073
439734.00    3765365.00         0.63106
```

```
         439739.00    3765365.00        0.63140
439744.00    3765365.00        0.63171
         439749.00    3765365.00        0.63203
439774.00    3765365.00        0.63349
         439779.00    3765365.00        0.63375
439784.00    3765365.00        0.63401
         439789.00    3765365.00        0.63424
439794.00    3765365.00        0.63446
         439799.00    3765365.00        0.63467
439804.00    3765365.00        0.63487
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439809.00	3765365.00	0.63503	439814.00	3765365.00	0.63521
439839.00	3765365.00	0.63568	439844.00	3765365.00	0.63572
439849.00	3765365.00	0.63572	439854.00	3765365.00	0.63569
439859.00	3765365.00	0.63564	439864.00	3765365.00	0.63556
439869.00	3765365.00	0.63546	439874.00	3765365.00	0.63531
439879.00	3765365.00	0.63516	439884.00	3765365.00	0.63494
439674.00	3765370.00	0.63601	439679.00	3765370.00	0.63641
439684.00	3765370.00	0.63682	439689.00	3765370.00	0.63720
439694.00	3765370.00	0.63761	439699.00	3765370.00	0.63798

```
         439704.00    3765370.00        0.63837
439709.00    3765370.00        0.63875
         439714.00    3765370.00        0.63912
439719.00    3765370.00        0.63949
         439729.00    3765370.00        0.64022
439734.00    3765370.00        0.64057
         439739.00    3765370.00        0.64092
439744.00    3765370.00        0.64126
         439749.00    3765370.00        0.64160
439774.00    3765370.00        0.64318
         439779.00    3765370.00        0.64348
439784.00    3765370.00        0.64374
         439789.00    3765370.00        0.64402
439794.00    3765370.00        0.64427
         439799.00    3765370.00        0.64451
439804.00    3765370.00        0.64473
         439809.00    3765370.00        0.64494
439814.00    3765370.00        0.64513
         439839.00    3765370.00        0.64578
439844.00    3765370.00        0.64584
         439849.00    3765370.00        0.64587
439854.00    3765370.00        0.64589
         439859.00    3765370.00        0.64586
439864.00    3765370.00        0.64582
         439869.00    3765370.00        0.64573
439874.00    3765370.00        0.64564
         439879.00    3765370.00        0.64548
439884.00    3765370.00        0.64533
         439674.00    3765375.00        0.64555
439679.00    3765375.00        0.64599
         439684.00    3765375.00        0.64639
439689.00    3765375.00        0.64681
         439694.00    3765375.00        0.64720
439699.00    3765375.00        0.64761
         439704.00    3765375.00        0.64801
439709.00    3765375.00        0.64841
         439714.00    3765375.00        0.64880
439719.00    3765375.00        0.64917
         439729.00    3765375.00        0.64994
439734.00    3765375.00        0.65034
         439739.00    3765375.00        0.65068
439744.00    3765375.00        0.65106
         439749.00    3765375.00        0.65141
439754.00    3765375.00        0.65179
         439774.00    3765375.00        0.65314
439779.00    3765375.00        0.65345
         439784.00    3765375.00        0.65376
439789.00    3765375.00        0.65405
         439794.00    3765375.00        0.65433
439799.00    3765375.00        0.65461
         439804.00    3765375.00        0.65486
439809.00    3765375.00        0.65510
```

```
         439814.00    3765375.00        0.65531
439839.00    3765375.00        0.65614
         439844.00    3765375.00        0.65623
439849.00    3765375.00        0.65632
         439854.00    3765375.00        0.65634
439859.00    3765375.00        0.65636
         439864.00    3765375.00        0.65634
439869.00    3765375.00        0.65631
         439874.00    3765375.00        0.65623
439879.00    3765375.00        0.65612
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439884.00	3765375.00	0.65598	439774.00	3765380.00	0.66333
439779.00	3765380.00	0.66369	439784.00	3765380.00	0.66402
439789.00	3765380.00	0.66433	439794.00	3765380.00	0.66467
439799.00	3765380.00	0.66496	439804.00	3765380.00	0.66526
439809.00	3765380.00	0.66551	439814.00	3765380.00	0.66580
439769.00	3765385.00	0.67343	439819.00	3765385.00	0.67681
439769.00	3765400.00	0.70652	439844.00	3765400.00	0.71263
439849.00	3765400.00	0.71291	439674.00	3765405.00	0.70872
439714.00	3765405.00	0.71266	439719.00	3765405.00	0.71317

```
          439734.00    3765405.00        0.71465
439749.00    3765405.00        0.71616
          439754.00    3765405.00        0.71665
439774.00    3765405.00        0.71866
          439779.00    3765405.00        0.71918
439784.00    3765405.00        0.71967
          439789.00    3765405.00        0.72016
439794.00    3765405.00        0.72065
          439799.00    3765405.00        0.72115
439804.00    3765405.00        0.72161
          439809.00    3765405.00        0.72207
439814.00    3765405.00        0.72254
          439819.00    3765405.00        0.72296
439824.00    3765405.00        0.72340
          439829.00    3765405.00        0.72379
439834.00    3765405.00        0.72419
          439839.00    3765405.00        0.72454
439844.00    3765405.00        0.72490
          439849.00    3765405.00        0.72521
439854.00    3765405.00        0.72550
          439859.00    3765405.00        0.72576
439674.00    3765410.00        0.72034
          439679.00    3765410.00        0.72085
439684.00    3765410.00        0.72136
          439689.00    3765410.00        0.72186
439694.00    3765410.00        0.72238
          439699.00    3765410.00        0.72287
439704.00    3765410.00        0.72338
          439709.00    3765410.00        0.72389
439714.00    3765410.00        0.72440
          439719.00    3765410.00        0.72490
439729.00    3765410.00        0.72594
          439734.00    3765410.00        0.72646
439739.00    3765410.00        0.72697
          439744.00    3765410.00        0.72751
439749.00    3765410.00        0.72803
          439774.00    3765410.00        0.73070
439779.00    3765410.00        0.73122
          439784.00    3765410.00        0.73175
439789.00    3765410.00        0.73229
          439794.00    3765410.00        0.73282
439799.00    3765410.00        0.73334
          439804.00    3765410.00        0.73385
439809.00    3765410.00        0.73438
          439814.00    3765410.00        0.73484
439819.00    3765410.00        0.73535
          439824.00    3765410.00        0.73581
439829.00    3765410.00        0.73628
          439834.00    3765410.00        0.73668
439839.00    3765410.00        0.73713
          439844.00    3765410.00        0.73750
439849.00    3765410.00        0.73788
```

```
         439854.00    3765410.00        0.73822
439859.00    3765410.00        0.73854
         439674.00    3765415.00        0.73231
439679.00    3765415.00        0.73284
         439684.00    3765415.00        0.73335
439689.00    3765415.00        0.73389
         439694.00    3765415.00        0.73438
439699.00    3765415.00        0.73492
         439704.00    3765415.00        0.73544
439709.00    3765415.00        0.73596
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439714.00	3765415.00	0.73648	439719.00	3765415.00	0.73703
439729.00	3765415.00	0.73809	439734.00	3765415.00	0.73861
439739.00	3765415.00	0.73917	439744.00	3765415.00	0.73970
439749.00	3765415.00	0.74026	439774.00	3765415.00	0.74306
439779.00	3765415.00	0.74363	439784.00	3765415.00	0.74421
439789.00	3765415.00	0.74477	439794.00	3765415.00	0.74534
439799.00	3765415.00	0.74590	439804.00	3765415.00	0.74646
439809.00	3765415.00	0.74699	439814.00	3765415.00	0.74757
439819.00	3765415.00	0.74807	439824.00	3765415.00	0.74861

```
          439829.00    3765415.00        0.74909
439834.00    3765415.00        0.74961
          439839.00    3765415.00        0.75004
439844.00    3765415.00        0.75051
          439849.00    3765415.00        0.75092
439854.00    3765415.00        0.75132
          439859.00    3765415.00        0.75169
439674.00    3765420.00        0.74468
          439679.00    3765420.00        0.74520
439684.00    3765420.00        0.74574
          439689.00    3765420.00        0.74625
439694.00    3765420.00        0.74682
          439699.00    3765420.00        0.74732
439704.00    3765420.00        0.74786
          439709.00    3765420.00        0.74839
439714.00    3765420.00        0.74895
          439719.00    3765420.00        0.74948
439729.00    3765420.00        0.75058
          439734.00    3765420.00        0.75115
439739.00    3765420.00        0.75171
          439744.00    3765420.00        0.75228
439749.00    3765420.00        0.75285
          439774.00    3765420.00        0.75581
439779.00    3765420.00        0.75641
          439784.00    3765420.00        0.75701
439789.00    3765420.00        0.75763
          439794.00    3765420.00        0.75822
439799.00    3765420.00        0.75883
          439804.00    3765420.00        0.75942
439809.00    3765420.00        0.76005
          439814.00    3765420.00        0.76060
439819.00    3765420.00        0.76121
          439824.00    3765420.00        0.76176
439829.00    3765420.00        0.76234
          439834.00    3765420.00        0.76285
439839.00    3765420.00        0.76341
          439844.00    3765420.00        0.76388
439849.00    3765420.00        0.76437
          439854.00    3765420.00        0.76482
439859.00    3765420.00        0.76525
          439674.00    3765425.00        0.75740
439679.00    3765425.00        0.75796
          439684.00    3765425.00        0.75849
439689.00    3765425.00        0.75905
          439694.00    3765425.00        0.75957
439699.00    3765425.00        0.76014
          439704.00    3765425.00        0.76068
439709.00    3765425.00        0.76125
          439714.00    3765425.00        0.76177
439719.00    3765425.00        0.76236
          439729.00    3765425.00        0.76349
439734.00    3765425.00        0.76406
```

```
         439739.00    3765425.00        0.76464
439744.00    3765425.00        0.76523
         439749.00    3765425.00        0.76584
439774.00    3765425.00        0.76893
         439779.00    3765425.00        0.76957
439784.00    3765425.00        0.77022
         439789.00    3765425.00        0.77084
439794.00    3765425.00        0.77151
         439799.00    3765425.00        0.77215
439804.00    3765425.00        0.77281
```

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439809.00	3765425.00	0.77343	439814.00	3765425.00	0.77410
439819.00	3765425.00	0.77470	439824.00	3765425.00	0.77535
439829.00	3765425.00	0.77594	439834.00	3765425.00	0.77656
439839.00	3765425.00	0.77711	439844.00	3765425.00	0.77770
439849.00	3765425.00	0.77823	439854.00	3765425.00	0.77874
439859.00	3765425.00	0.77922	439674.00	3765430.00	0.77057
439679.00	3765430.00	0.77112	439684.00	3765430.00	0.77168
439689.00	3765430.00	0.77222	439694.00	3765430.00	0.77280
439699.00	3765430.00	0.77333	439704.00	3765430.00	0.77391

```
          439709.00    3765430.00         0.77446
439714.00    3765430.00         0.77505
          439719.00    3765430.00         0.77561
439729.00    3765430.00         0.77678
          439734.00    3765430.00         0.77738
439739.00    3765430.00         0.77798
          439744.00    3765430.00         0.77860
439749.00    3765430.00         0.77923
          439774.00    3765430.00         0.78246
439779.00    3765430.00         0.78313
          439784.00    3765430.00         0.78381
439789.00    3765430.00         0.78451
          439794.00    3765430.00         0.78519
439799.00    3765430.00         0.78588
          439804.00    3765430.00         0.78657
439809.00    3765430.00         0.78729
          439814.00    3765430.00         0.78795
439819.00    3765430.00         0.78866
          439824.00    3765430.00         0.78932
439829.00    3765430.00         0.79001
          439834.00    3765430.00         0.79064
439839.00    3765430.00         0.79131
          439844.00    3765430.00         0.79191
439849.00    3765430.00         0.79252
          439854.00    3765430.00         0.79309
439859.00    3765430.00         0.79365
          439674.00    3765435.00         0.78415
439679.00    3765435.00         0.78472
          439684.00    3765435.00         0.78528
439689.00    3765435.00         0.78586
          439694.00    3765435.00         0.78640
439699.00    3765435.00         0.78700
          439704.00    3765435.00         0.78755
439709.00    3765435.00         0.78814
          439714.00    3765435.00         0.78872
439719.00    3765435.00         0.78932
          439729.00    3765435.00         0.79052
439734.00    3765435.00         0.79113
          439739.00    3765435.00         0.79176
439744.00    3765435.00         0.79239
          439749.00    3765435.00         0.79303
439774.00    3765435.00         0.79642
          439779.00    3765435.00         0.79713
439784.00    3765435.00         0.79785
          439789.00    3765435.00         0.79857
439794.00    3765435.00         0.79931
          439799.00    3765435.00         0.80004
439804.00    3765435.00         0.80079
          439809.00    3765435.00         0.80153
439814.00    3765435.00         0.80229
          439819.00    3765435.00         0.80301
439824.00    3765435.00         0.80377
```

```
         439829.00    3765435.00        0.80448
439834.00    3765435.00        0.80522
         439839.00    3765435.00        0.80590
439844.00    3765435.00        0.80661
         439849.00    3765435.00        0.80726
439854.00    3765435.00        0.80792
         439859.00    3765435.00        0.80853
439674.00    3765440.00        0.79819
         439679.00    3765440.00        0.79877
439684.00    3765440.00        0.79935
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439689.00	3765440.00	0.79991	439694.00	3765440.00	0.80051
439699.00	3765440.00	0.80107	439704.00	3765440.00	0.80168
439709.00	3765440.00	0.80226	439714.00	3765440.00	0.80286
439719.00	3765440.00	0.80346	439729.00	3765440.00	0.80470
439734.00	3765440.00	0.80533	439739.00	3765440.00	0.80597
439744.00	3765440.00	0.80663	439749.00	3765440.00	0.80730
439774.00	3765440.00	0.81082	439779.00	3765440.00	0.81157
439784.00	3765440.00	0.81232	439789.00	3765440.00	0.81309
439794.00	3765440.00	0.81387	439799.00	3765440.00	0.81466

```
          439804.00    3765440.00        0.81545
439809.00    3765440.00        0.81625
          439814.00    3765440.00        0.81703
439819.00    3765440.00        0.81786
          439824.00    3765440.00        0.81864
439829.00    3765440.00        0.81945
          439834.00    3765440.00        0.82021
439839.00    3765440.00        0.82101
          439844.00    3765440.00        0.82175
439849.00    3765440.00        0.82250
          439854.00    3765440.00        0.82321
439859.00    3765440.00        0.82390
          439674.00    3765445.00        0.81272
439679.00    3765445.00        0.81331
          439684.00    3765445.00        0.81388
439689.00    3765445.00        0.81448
          439694.00    3765445.00        0.81506
439699.00    3765445.00        0.81566
          439704.00    3765445.00        0.81625
439709.00    3765445.00        0.81686
          439714.00    3765445.00        0.81747
439719.00    3765445.00        0.81809
          439729.00    3765445.00        0.81936
439734.00    3765445.00        0.82000
          439739.00    3765445.00        0.82067
439744.00    3765445.00        0.82134
          439749.00    3765445.00        0.82203
439774.00    3765445.00        0.82571
          439779.00    3765445.00        0.82648
439784.00    3765445.00        0.82728
          439789.00    3765445.00        0.82809
439794.00    3765445.00        0.82892
          439799.00    3765445.00        0.82974
439804.00    3765445.00        0.83059
          439809.00    3765445.00        0.83143
439814.00    3765445.00        0.83231
          439819.00    3765445.00        0.83315
439824.00    3765445.00        0.83402
          439829.00    3765445.00        0.83487
439834.00    3765445.00        0.83574
          439839.00    3765445.00        0.83657
439844.00    3765445.00        0.83741
          439849.00    3765445.00        0.83821
439854.00    3765445.00        0.83902
          439859.00    3765445.00        0.83978
439674.00    3765450.00        0.82775
          439679.00    3765450.00        0.82834
439684.00    3765450.00        0.82894
          439689.00    3765450.00        0.82953
439694.00    3765450.00        0.83014
          439699.00    3765450.00        0.83074
439704.00    3765450.00        0.83135
```

```
         439709.00    3765450.00        0.83196
439714.00    3765450.00        0.83259
         439719.00    3765450.00        0.83322
439729.00    3765450.00        0.83451
         439734.00    3765450.00        0.83518
439739.00    3765450.00        0.83586
         439744.00    3765450.00        0.83656
439749.00    3765450.00        0.83727
         439774.00    3765450.00        0.84107
439844.00    3765450.00        0.85358
```

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439849.00	3765450.00	0.85449	439854.00	3765450.00	0.85535
439859.00	3765450.00	0.85622	439674.00	3765455.00	0.84331
439679.00	3765455.00	0.84392	439684.00	3765455.00	0.84453
439689.00	3765455.00	0.84514	439694.00	3765455.00	0.84574
439699.00	3765455.00	0.84636	439704.00	3765455.00	0.84697
439709.00	3765455.00	0.84760	439714.00	3765455.00	0.84824
439719.00	3765455.00	0.84888	439729.00	3765455.00	0.85021
439734.00	3765455.00	0.85089	439739.00	3765455.00	0.85158
439744.00	3765455.00	0.85230	439749.00	3765455.00	0.85303

```
          439844.00    3765455.00        0.87032
439849.00    3765455.00        0.87129
          439854.00    3765455.00        0.87226
439859.00    3765455.00        0.87320
          439674.00    3765460.00        0.85945
439679.00    3765460.00        0.86007
          439684.00    3765460.00        0.86068
439689.00    3765460.00        0.86129
          439694.00    3765460.00        0.86192
439699.00    3765460.00        0.86253
          439704.00    3765460.00        0.86317
439709.00    3765460.00        0.86380
          439714.00    3765460.00        0.86445
439719.00    3765460.00        0.86510
          439729.00    3765460.00        0.86646
439734.00    3765460.00        0.86715
          439739.00    3765460.00        0.86788
439744.00    3765460.00        0.86861
          439749.00    3765460.00        0.86936
439789.00    3765460.00        0.87618
          439794.00    3765460.00        0.87714
439799.00    3765460.00        0.87812
          439804.00    3765460.00        0.87912
439809.00    3765460.00        0.88014
          439814.00    3765460.00        0.88118
439819.00    3765460.00        0.88224
          439824.00    3765460.00        0.88330
439829.00    3765460.00        0.88439
          439844.00    3765460.00        0.88763
439849.00    3765460.00        0.88869
          439854.00    3765460.00        0.88976
439859.00    3765460.00        0.89080
          439674.00    3765465.00        0.87619
439679.00    3765465.00        0.87682
          439684.00    3765465.00        0.87743
439689.00    3765465.00        0.87807
          439694.00    3765465.00        0.87868
439699.00    3765465.00        0.87932
          439704.00    3765465.00        0.87996
439709.00    3765465.00        0.88061
          439714.00    3765465.00        0.88126
439719.00    3765465.00        0.88193
          439729.00    3765465.00        0.88330
439734.00    3765465.00        0.88403
          439739.00    3765465.00        0.88475
439744.00    3765465.00        0.88550
          439749.00    3765465.00        0.88627
439789.00    3765465.00        0.89334
          439794.00    3765465.00        0.89435
439799.00    3765465.00        0.89538
          439804.00    3765465.00        0.89644
439809.00    3765465.00        0.89752
```

```
         439814.00    3765465.00        0.89862
439819.00    3765465.00        0.89975
         439824.00    3765465.00        0.90089
439829.00    3765465.00        0.90204
         439844.00    3765465.00        0.90554
439849.00    3765465.00        0.90672
         439854.00    3765465.00        0.90787
439859.00    3765465.00        0.90902
         439674.00    3765470.00        0.89358
439679.00    3765470.00        0.89419
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439684.00	3765470.00	0.89484	439689.00	3765470.00	0.89545
439694.00	3765470.00	0.89610	439699.00	3765470.00	0.89674
439704.00	3765470.00	0.89739	439709.00	3765470.00	0.89804
439714.00	3765470.00	0.89871	439719.00	3765470.00	0.89939
439729.00	3765470.00	0.90080	439734.00	3765470.00	0.90151
439739.00	3765470.00	0.90227	439744.00	3765470.00	0.90303
439749.00	3765470.00	0.90383	439789.00	3765470.00	0.91113
439794.00	3765470.00	0.91219	439799.00	3765470.00	0.91326
439804.00	3765470.00	0.91438	439809.00	3765470.00	0.91552

```
          439814.00    3765470.00         0.91669
439819.00    3765470.00         0.91788
          439824.00    3765470.00         0.91910
439829.00    3765470.00         0.92033
          439844.00    3765470.00         0.92412
439849.00    3765470.00         0.92538
          439854.00    3765470.00         0.92665
439859.00    3765470.00         0.92789
          439674.00    3765475.00         0.91159
439679.00    3765475.00         0.91226
          439684.00    3765475.00         0.91288
439689.00    3765475.00         0.91354
          439694.00    3765475.00         0.91417
439699.00    3765475.00         0.91484
          439704.00    3765475.00         0.91549
439709.00    3765475.00         0.91616
          439714.00    3765475.00         0.91683
439719.00    3765475.00         0.91752
          439729.00    3765475.00         0.91894
439734.00    3765475.00         0.91968
          439739.00    3765475.00         0.92045
439744.00    3765475.00         0.92124
          439749.00    3765475.00         0.92203
439754.00    3765475.00         0.92288
          439789.00    3765475.00         0.92958
439794.00    3765475.00         0.93067
          439799.00    3765475.00         0.93181
439804.00    3765475.00         0.93297
          439809.00    3765475.00         0.93418
439814.00    3765475.00         0.93542
          439819.00    3765475.00         0.93668
439824.00    3765475.00         0.93798
          439829.00    3765475.00         0.93930
439269.00    3764900.00         0.23287
          439369.00    3764900.00         0.23596
439469.00    3764900.00         0.23666
          439569.00    3764900.00         0.23487
439669.00    3764900.00         0.23049
          439769.00    3764900.00         0.22349
439869.00    3764900.00         0.21392
          439969.00    3764900.00         0.20201
440069.00    3764900.00         0.18818
          440169.00    3764900.00         0.17312
440269.00    3764900.00         0.15767
          439269.00    3765000.00         0.27095
439369.00    3765000.00         0.27637
          439469.00    3765000.00         0.27898
439569.00    3765000.00         0.27869
          439669.00    3765000.00         0.27538
439769.00    3765000.00         0.26878
          439869.00    3765000.00         0.25862
439969.00    3765000.00         0.24502
```

```
         440069.00    3765000.00        0.22839
440169.00    3765000.00        0.20957
         440269.00    3765000.00        0.18971
439269.00    3765100.00        0.31939
         439369.00    3765100.00        0.32800
439469.00    3765100.00        0.33326
         439569.00    3765100.00        0.33523
439669.00    3765100.00        0.33386
         439769.00    3765100.00        0.32859
439869.00    3765100.00        0.31861
```

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439969.00	3765100.00	0.30367	440069.00	3765100.00	0.28402
440169.00	3765100.00	0.26055	440269.00	3765100.00	0.23472
439269.00	3765200.00	0.38343	439369.00	3765200.00	0.39668
439469.00	3765200.00	0.40568	439569.00	3765200.00	0.41085
439669.00	3765200.00	0.41253	439769.00	3765200.00	0.41003
439869.00	3765200.00	0.40173	439969.00	3765200.00	0.38655
440069.00	3765200.00	0.36419	440169.00	3765200.00	0.33524
440269.00	3765200.00	0.30127	439269.00	3765300.00	0.47255
439369.00	3765300.00	0.49353	439469.00	3765300.00	0.50839

```
         439569.00    3765300.00        0.51804
439669.00    3765300.00        0.52405
         439769.00    3765300.00        0.52646
439869.00    3765300.00        0.52273
         439969.00    3765300.00        0.50970
440069.00    3765300.00        0.48594
         440169.00    3765300.00        0.45117
440269.00    3765300.00        0.40624
         439269.00    3765400.00        0.60597
439369.00    3765400.00        0.64201
         439469.00    3765400.00        0.66855
439569.00    3765400.00        0.68565
         439669.00    3765400.00        0.69695
439769.00    3765400.00        0.70652
         439869.00    3765400.00        0.71371
439969.00    3765400.00        0.70865
         440069.00    3765400.00        0.68661
440169.00    3765400.00        0.64653
         440269.00    3765400.00        0.58737
439269.00    3765500.00        0.83327
         439369.00    3765500.00        0.90310
439469.00    3765500.00        0.95989
         439569.00    3765500.00        0.99459
439669.00    3765500.00        1.01288
         439769.00    3765500.00        1.02874
439869.00    3765500.00        1.06171
         439969.00    3765500.00        1.08877
440069.00    3765500.00        1.07473
         440169.00    3765500.00        1.02830
440269.00    3765500.00        0.95087
         439269.00    3765600.00        1.36500
439369.00    3765600.00        1.51590
         439469.00    3765600.00        1.68432
439569.00    3765600.00        1.78162
         439669.00    3765600.00        1.82944
439769.00    3765600.00        1.87113
         439869.00    3765600.00        1.94297
439969.00    3765600.00        2.28307
         440069.00    3765600.00        2.25139
440169.00    3765600.00        2.13470
         440269.00    3765600.00        1.99139
439269.00    3765700.00        7.25416
         439369.00    3765700.00        7.82253
439469.00    3765700.00       11.15521
         439569.00    3765700.00       11.90380
439669.00    3765700.00       10.94120
         439769.00    3765700.00       10.50967
439869.00    3765700.00       10.06488
         439969.00    3765700.00       10.05430
440069.00    3765700.00       11.14977
         440169.00    3765700.00       12.61795
440269.00    3765700.00       15.51813
```

```
         439269.00    3765800.00        2.99077
439369.00    3765800.00        3.19606
         439469.00    3765800.00        3.61311
439569.00    3765800.00        4.28926
         439669.00    3765800.00        4.89092
439769.00    3765800.00        5.87121
         439869.00    3765800.00        8.05806
439969.00    3765800.00        4.94313
         440069.00    3765800.00        4.28344
440169.00    3765800.00        4.13698
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
440269.00	3765800.00	4.13966	439269.00	3765900.00	0.98221
439369.00	3765900.00	1.14760	439469.00	3765900.00	1.29578
439569.00	3765900.00	1.45052	439669.00	3765900.00	1.61656
439769.00	3765900.00	1.77799	439869.00	3765900.00	1.91522
439969.00	3765900.00	1.98210	440069.00	3765900.00	1.94850
440169.00	3765900.00	1.89475	440269.00	3765900.00	1.86543
439649.00	3765310.00	0.53681	439679.00	3765310.00	0.53834
439709.00	3765310.00	0.53957	439739.00	3765310.00	0.54045
439769.00	3765310.00	0.54090	439799.00	3765310.00	0.54082

```
          439829.00    3765310.00        0.54009
439859.00    3765310.00        0.53858
          439889.00    3765310.00        0.53621
439649.00    3765340.00        0.58184
          439679.00    3765340.00        0.58386
439709.00    3765340.00        0.58563
          439739.00    3765340.00        0.58714
439769.00    3765340.00        0.58830
          439799.00    3765340.00        0.58898
439829.00    3765340.00        0.58903
          439859.00    3765340.00        0.58828
439889.00    3765340.00        0.58660
          439649.00    3765370.00        0.63390
439679.00    3765370.00        0.63641
          439709.00    3765370.00        0.63875
439739.00    3765370.00        0.64092
          439769.00    3765370.00        0.64289
439799.00    3765370.00        0.64451
          439829.00    3765370.00        0.64558
439859.00    3765370.00        0.64586
          439889.00    3765370.00        0.64512
439649.00    3765400.00        0.69496
          439679.00    3765400.00        0.69792
439709.00    3765400.00        0.70079
          439739.00    3765400.00        0.70365
439769.00    3765400.00        0.70652
          439799.00    3765400.00        0.70927
439829.00    3765400.00        0.71168
          439859.00    3765400.00        0.71336
439889.00    3765400.00        0.71398
          439649.00    3765430.00        0.76775
439679.00    3765430.00        0.77112
          439709.00    3765430.00        0.77446
439739.00    3765430.00        0.77798
          439769.00    3765430.00        0.78180
439799.00    3765430.00        0.78588
          439829.00    3765430.00        0.79001
439859.00    3765430.00        0.79365
          439889.00    3765430.00        0.79621
439649.00    3765460.00        0.85632
          439679.00    3765460.00        0.86007
439709.00    3765460.00        0.86380
          439739.00    3765460.00        0.86788
439769.00    3765460.00        0.87258
          439799.00    3765460.00        0.87812
439829.00    3765460.00        0.88439
          439859.00    3765460.00        0.89080
439889.00    3765460.00        0.89635
          439649.00    3765490.00        0.96681
439679.00    3765490.00        0.97094
          439709.00    3765490.00        0.97497
439739.00    3765490.00        0.97946
```

```
         439769.00    3765490.00        0.98493
439799.00    3765490.00        0.99188
         439829.00    3765490.00        1.00065
439859.00    3765490.00        1.01090
         439889.00    3765490.00        1.02117
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: EXH ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439674.00	3765310.00	4.80622	(12010217)	439679.00	3765310.00	4.79062	(12010217)
439684.00	3765310.00	4.77559	(12010217)	439689.00	3765310.00	4.75935	(12010217)
439694.00	3765310.00	4.74398	(12010217)	439699.00	3765310.00	4.72759	(12010217)
439704.00	3765310.00	4.71189	(12010217)	439709.00	3765310.00	4.69850	(13121718)
439714.00	3765310.00	4.69178	(13121718)	439719.00	3765310.00	4.68119	(13121718)
439729.00	3765310.00	4.66061	(13121718)	439734.00	3765310.00	4.65045	(13121718)
439739.00	3765310.00	4.63862	(13121718)	439744.00	3765310.00	4.62535	(13121718)
439749.00	3765310.00	4.61261	(12011808)	439764.00	3765310.00	4.60027	(15010717)
439769.00	3765310.00	4.62296	(15010717)				

439774.00 3765310.00 4.64394 (15010717)
439779.00 3765310.00 4.66491 (15010717)
439784.00 3765310.00 4.68481 (15010717)
439789.00 3765310.00 4.70391 (15010717)
439794.00 3765310.00 4.72243 (15010717)
439799.00 3765310.00 4.73988 (15010717)
439804.00 3765310.00 4.75670 (15010717)
439809.00 3765310.00 4.77290 (15010717)
439814.00 3765310.00 4.78799 (15010717)
439819.00 3765310.00 4.80271 (15010717)
439824.00 3765310.00 4.81596 (15010717)
439829.00 3765310.00 4.83014 (15010717)
439839.00 3765310.00 4.85418 (15010717)
439844.00 3765310.00 4.86513 (15010717)
439849.00 3765310.00 4.87620 (15010717)
439854.00 3765310.00 4.88503 (15010717)
439859.00 3765310.00 4.89602 (15010717)
439864.00 3765310.00 4.90426 (15010717)
439869.00 3765310.00 4.91305 (15010717)
439874.00 3765310.00 4.92030 (15010717)
439879.00 3765310.00 4.92816 (15010717)
439884.00 3765310.00 4.93499 (15010717)
439674.00 3765315.00 4.85276 (12010217)
439679.00 3765315.00 4.83691 (12010217)
439684.00 3765315.00 4.82170 (12010217)
439689.00 3765315.00 4.80536 (12010217)
439694.00 3765315.00 4.78990 (12010217)
439699.00 3765315.00 4.77303 (12010217)
439704.00 3765315.00 4.76368 (13121718)
439709.00 3765315.00 4.75553 (13121718)
439714.00 3765315.00 4.74835 (13121718)
439719.00 3765315.00 4.74074 (13121718)
439729.00 3765315.00 4.72200 (13121718)
439734.00 3765315.00 4.71092 (13121718)
439739.00 3765315.00 4.70041 (13121718)
439744.00 3765315.00 4.68859 (13121718)
439749.00 3765315.00 4.67621 (13121718)
439764.00 3765315.00 4.65516 (15010717)
439769.00 3765315.00 4.67741 (15010717)
439774.00 3765315.00 4.69854 (15010717)
439779.00 3765315.00 4.71890 (15010717)
439784.00 3765315.00 4.73931 (15010717)
439789.00 3765315.00 4.75727 (15010717)
439794.00 3765315.00 4.77545 (15010717)
439799.00 3765315.00 4.79306 (15010717)
439804.00 3765315.00 4.80917 (15010717)
439809.00 3765315.00 4.82493 (15010717)
439814.00 3765315.00 4.83983 (15010717)
439819.00 3765315.00 4.85416 (15010717)
439824.00 3765315.00 4.86772 (15010717)
439829.00 3765315.00 4.88038 (15010717)
439839.00 3765315.00 4.90373 (15010717)

```
439844.00   3765315.00        4.91513  (15010717)
        439849.00   3765315.00        4.92499  (15010717)
439854.00   3765315.00        4.93506  (15010717)
        439859.00   3765315.00        4.94381  (15010717)
439864.00   3765315.00        4.95333  (15010717)
        439869.00   3765315.00        4.96070  (15010717)
439874.00   3765315.00        4.96809  (15010717)
        439879.00   3765315.00        4.97601  (15010717)
439884.00   3765315.00        4.98284  (15010717)
        439674.00   3765320.00        4.90035  (12010217)
439679.00   3765320.00        4.88586  (12010217)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: EXH ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439684.00	3765320.00	4.86914	(12010217)
439689.00	3765320.00	4.85374	(12010217)
439694.00	3765320.00	4.83675	(12010217)
439699.00	3765320.00	4.82488	(13121718)
439704.00	3765320.00	4.81978	(13121718)
439709.00	3765320.00	4.81509	(13121718)
439714.00	3765320.00	4.80637	(13121718)
439719.00	3765320.00	4.79943	(13121718)
439729.00	3765320.00	4.78318	(13121718)
439734.00	3765320.00	4.77404	(13121718)
439739.00	3765320.00	4.76187	(13121718)
439744.00	3765320.00	4.75238	(13121718)
439749.00	3765320.00	4.73871	(13121718)
439764.00	3765320.00	4.71141	(15010717)
439769.00	3765320.00	4.73226	(15010717)
439774.00	3765320.00	4.75425	(15010717)
439779.00	3765320.00	4.77418	(15010717)

439784.00 3765320.00 4.79366 (15010717)
439789.00 3765320.00 4.81182 (15010717)
439794.00 3765320.00 4.82967 (15010717)
439799.00 3765320.00 4.84681 (15010717)
439804.00 3765320.00 4.86291 (15010717)
439809.00 3765320.00 4.87805 (15010717)
439814.00 3765320.00 4.89281 (15010717)
439819.00 3765320.00 4.90667 (15010717)
439824.00 3765320.00 4.91997 (15010717)
439829.00 3765320.00 4.93195 (15010717)
439839.00 3765320.00 4.95494 (15010717)
439844.00 3765320.00 4.96584 (15010717)
439849.00 3765320.00 4.97560 (15010717)
439854.00 3765320.00 4.98578 (15010717)
439859.00 3765320.00 4.99363 (15010717)
439864.00 3765320.00 5.00238 (15010717)
439869.00 3765320.00 5.01029 (15010717)
439874.00 3765320.00 5.01804 (15010717)
439879.00 3765320.00 5.02389 (15010717)
439884.00 3765320.00 5.03125 (15010717)
439674.00 3765325.00 4.94954 (12010217)
439679.00 3765325.00 4.93405 (12010217)
439684.00 3765325.00 4.91797 (12010217)
439689.00 3765325.00 4.90220 (12010217)
439694.00 3765325.00 4.88543 (13121718)
439699.00 3765325.00 4.87990 (13121718)
439704.00 3765325.00 4.87569 (13121718)
439709.00 3765325.00 4.87054 (13121718)
439714.00 3765325.00 4.86643 (13121718)
439719.00 3765325.00 4.85876 (13121718)
439729.00 3765325.00 4.84329 (13121718)
439734.00 3765325.00 4.83443 (13121718)
439739.00 3765325.00 4.82682 (13121718)
439744.00 3765325.00 4.81402 (13121718)
439749.00 3765325.00 4.80516 (13121718)
439754.00 3765325.00 4.79035 (13121718)
439769.00 3765325.00 4.78928 (15010717)
439774.00 3765325.00 4.81010 (15010717)
439779.00 3765325.00 4.83052 (15010717)
439784.00 3765325.00 4.84892 (15010717)
439789.00 3765325.00 4.86746 (15010717)
439794.00 3765325.00 4.88471 (15010717)
439799.00 3765325.00 4.90127 (15010717)
439804.00 3765325.00 4.91748 (15010717)
439809.00 3765325.00 4.93165 (15010717)
439814.00 3765325.00 4.94632 (15010717)
439819.00 3765325.00 4.95949 (15010717)
439824.00 3765325.00 4.97253 (15010717)
439829.00 3765325.00 4.98461 (15010717)
439839.00 3765325.00 5.00671 (15010717)
439844.00 3765325.00 5.01687 (15010717)
439849.00 3765325.00 5.02674 (15010717)

```
439854.00   3765325.00        5.03569  (15010717)
        439859.00   3765325.00        5.04473  (15010717)
439864.00   3765325.00        5.05179  (15010717)
        439869.00   3765325.00        5.06029  (15010717)
439874.00   3765325.00        5.06708  (15010717)
        439879.00   3765325.00        5.07333  (15010717)
439884.00   3765325.00        5.07951  (15010717)
        439674.00   3765330.00        4.99987  (12010217)
439679.00   3765330.00        4.98352  (12010217)
        439684.00   3765330.00        4.96823  (12010217)
439689.00   3765330.00        4.95164  (12010217)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: EXH ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439694.00	3765330.00	4.93755	(13121718)	439699.00	3765330.00	4.93661	(13121718)
439704.00	3765330.00	4.93307	(13121718)	439709.00	3765330.00	4.92805	(13121718)
439714.00	3765330.00	4.92277	(13121718)	439719.00	3765330.00	4.91817	(13121718)
439729.00	3765330.00	4.90459	(13121718)	439734.00	3765330.00	4.89623	(13121718)
439739.00	3765330.00	4.88742	(13121718)	439744.00	3765330.00	4.87954	(13121718)
439749.00	3765330.00	4.86820	(13121718)	439754.00	3765330.00	4.85827	(13121718)
439774.00	3765330.00	4.86691	(15010717)	439779.00	3765330.00	4.88764	(15010717)
439784.00	3765330.00	4.90559	(15010717)	439789.00	3765330.00	4.92354	(15010717)
439794.00	3765330.00	4.94046	(15010717)				

439799.00 3765330.00 4.95710 (15010717)
439804.00 3765330.00 4.97191 (15010717)
439809.00 3765330.00 4.98673 (15010717)
439814.00 3765330.00 5.00037 (15010717)
439819.00 3765330.00 5.01391 (15010717)
439824.00 3765330.00 5.02625 (15010717)
439829.00 3765330.00 5.03826 (15010717)
439839.00 3765330.00 5.05950 (15010717)
439844.00 3765330.00 5.06939 (15010717)
439849.00 3765330.00 5.07876 (15010717)
439854.00 3765330.00 5.08718 (15010717)
439859.00 3765330.00 5.09607 (15010717)
439864.00 3765330.00 5.10341 (15010717)
439869.00 3765330.00 5.11029 (15010717)
439874.00 3765330.00 5.11754 (15010717)
439879.00 3765330.00 5.12426 (15010717)
439884.00 3765330.00 5.12868 (15010717)
439674.00 3765335.00 5.05096 (12010217)
439679.00 3765335.00 5.03514 (12010217)
439684.00 3765335.00 5.01899 (12010217)
439689.00 3765335.00 5.00269 (12010217)
439694.00 3765335.00 4.99205 (13121718)
439699.00 3765335.00 4.99055 (13121718)
439704.00 3765335.00 4.98819 (13121718)
439709.00 3765335.00 4.98671 (13121718)
439714.00 3765335.00 4.98197 (13121718)
439719.00 3765335.00 4.97617 (13121718)
439729.00 3765335.00 4.96550 (13121718)
439734.00 3765335.00 4.95975 (13121718)
439739.00 3765335.00 4.95021 (13121718)
439744.00 3765335.00 4.94226 (13121718)
439749.00 3765335.00 4.93274 (13121718)
439774.00 3765335.00 4.92605 (15010717)
439779.00 3765335.00 4.94451 (15010717)
439784.00 3765335.00 4.96343 (15010717)
439789.00 3765335.00 4.98029 (15010717)
439794.00 3765335.00 4.99757 (15010717)
439839.00 3765335.00 5.11250 (15010717)
439844.00 3765335.00 5.12202 (15010717)
439849.00 3765335.00 5.13147 (15010717)
439854.00 3765335.00 5.13957 (15010717)
439859.00 3765335.00 5.14723 (15010717)
439864.00 3765335.00 5.15585 (15010717)
439869.00 3765335.00 5.16158 (15010717)
439874.00 3765335.00 5.16863 (15010717)
439879.00 3765335.00 5.17483 (15010717)
439884.00 3765335.00 5.18047 (15010717)
439674.00 3765340.00 5.10336 (12010217)
439679.00 3765340.00 5.08731 (12010217)
439684.00 3765340.00 5.07149 (12010217)
439689.00 3765340.00 5.05468 (12010217)
439694.00 3765340.00 5.04964 (13121718)

```
439699.00   3765340.00        5.04635  (13121718)
        439704.00   3765340.00        5.04478  (13121718)
439709.00   3765340.00        5.04222  (13121718)
        439714.00   3765340.00        5.04031  (13121718)
439719.00   3765340.00        5.03791  (13121718)
        439729.00   3765340.00        5.02674  (13121718)
439734.00   3765340.00        5.01959  (13121718)
        439739.00   3765340.00        5.01535  (13121718)
439744.00   3765340.00        5.00580  (13121718)
        439749.00   3765340.00        4.99820  (13121718)
439774.00   3765340.00        4.98533  (15010717)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: EXH ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439779.00	3765340.00	5.00343	(15010717)	439784.00	3765340.00	5.02156	(15010717)
439789.00	3765340.00	5.03873	(15010717)	439794.00	3765340.00	5.05532	(15010717)
439839.00	3765340.00	5.16672	(15010717)	439844.00	3765340.00	5.17605	(15010717)
439849.00	3765340.00	5.18495	(15010717)	439854.00	3765340.00	5.19314	(15010717)
439859.00	3765340.00	5.20046	(15010717)	439864.00	3765340.00	5.20779	(15010717)
439869.00	3765340.00	5.21508	(15010717)	439874.00	3765340.00	5.22016	(15010717)
439879.00	3765340.00	5.22614	(15010717)	439884.00	3765340.00	5.23273	(15010717)
439674.00	3765345.00	5.15677	(12010217)	439679.00	3765345.00	5.14093	(12010217)
439684.00	3765345.00	5.12501	(12010217)				

439689.00 3765345.00 5.10765 (12010217)
439694.00 3765345.00 5.10064 (13121718)
439699.00 3765345.00 5.10258 (13121718)
439704.00 3765345.00 5.10257 (13121718)
439709.00 3765345.00 5.09988 (13121718)
439714.00 3765345.00 5.09779 (13121718)
439719.00 3765345.00 5.09458 (13121718)
439729.00 3765345.00 5.08758 (13121718)
439734.00 3765345.00 5.08297 (13121718)
439739.00 3765345.00 5.07569 (13121718)
439744.00 3765345.00 5.07142 (13121718)
439749.00 3765345.00 5.06283 (13121718)
439774.00 3765345.00 5.04421 (15010717)
439779.00 3765345.00 5.06417 (15010717)
439784.00 3765345.00 5.08038 (15010717)
439789.00 3765345.00 5.09809 (15010717)
439794.00 3765345.00 5.11320 (15010717)
439839.00 3765345.00 5.22204 (15010717)
439844.00 3765345.00 5.23112 (15010717)
439849.00 3765345.00 5.23885 (15010717)
439854.00 3765345.00 5.24747 (15010717)
439859.00 3765345.00 5.25437 (15010717)
439864.00 3765345.00 5.26074 (15010717)
439869.00 3765345.00 5.26791 (15010717)
439874.00 3765345.00 5.27356 (15010717)
439879.00 3765345.00 5.27921 (15010717)
439884.00 3765345.00 5.28417 (15010717)
439674.00 3765350.00 5.21159 (12010217)
439679.00 3765350.00 5.19634 (12010217)
439684.00 3765350.00 5.17922 (12010217)
439689.00 3765350.00 5.16256 (12010217)
439694.00 3765350.00 5.15650 (13121718)
439699.00 3765350.00 5.15658 (13121718)
439704.00 3765350.00 5.15673 (13121718)
439709.00 3765350.00 5.15857 (13121718)
439714.00 3765350.00 5.15689 (13121718)
439719.00 3765350.00 5.15478 (13121718)
439729.00 3765350.00 5.14986 (13121718)
439734.00 3765350.00 5.14512 (13121718)
439739.00 3765350.00 5.14095 (13121718)
439744.00 3765350.00 5.13309 (13121718)
439749.00 3765350.00 5.12912 (13121718)
439774.00 3765350.00 5.10656 (15010717)
439779.00 3765350.00 5.12370 (15010717)
439784.00 3765350.00 5.14189 (15010717)
439789.00 3765350.00 5.15728 (15010717)
439794.00 3765350.00 5.17310 (15010717)
439839.00 3765350.00 5.27801 (15010717)
439844.00 3765350.00 5.28638 (15010717)
439849.00 3765350.00 5.29461 (15010717)
439854.00 3765350.00 5.30177 (15010717)
439859.00 3765350.00 5.30965 (15010717)

```
439864.00   3765350.00        5.31546  (15010717)
        439869.00   3765350.00        5.32136  (15010717)
439874.00   3765350.00        5.32871  (15010717)
        439879.00   3765350.00        5.33271  (15010717)
439884.00   3765350.00        5.33775  (15010717)
        439674.00   3765355.00        5.26807  (12010217)
439679.00   3765355.00        5.25214  (12010217)
        439684.00   3765355.00        5.23554  (12010217)
439689.00   3765355.00        5.21871  (12010217)
        439694.00   3765355.00        5.21097  (13121718)
439699.00   3765355.00        5.21384  (13121718)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: EXH ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439704.00	3765355.00	5.21382	(13121718)
439709.00	3765355.00	5.21316	(13121718)
439714.00	3765355.00	5.21486	(13121718)
439719.00	3765355.00	5.21488	(13121718)
439729.00	3765355.00	5.20928	(13121718)
439734.00	3765355.00	5.20761	(13121718)
439739.00	3765355.00	5.20307	(13121718)
439744.00	3765355.00	5.20074	(13121718)
439749.00	3765355.00	5.19161	(13121718)
439774.00	3765355.00	5.16837	(15010717)
439779.00	3765355.00	5.18572	(15010717)
439784.00	3765355.00	5.20316	(15010717)
439789.00	3765355.00	5.21842	(15010717)
439794.00	3765355.00	5.23379	(15010717)
439839.00	3765355.00	5.33438	(15010717)
439844.00	3765355.00	5.34321	(15010717)
439849.00	3765355.00	5.35133	(15010717)

439854.00 3765355.00 5.35760 (15010717)
439859.00 3765355.00 5.36517 (15010717)
439864.00 3765355.00 5.37124 (15010717)
439869.00 3765355.00 5.37702 (15010717)
439874.00 3765355.00 5.38211 (15010717)
439879.00 3765355.00 5.38793 (15010717)
439884.00 3765355.00 5.39246 (15010717)
439674.00 3765360.00 5.35165 (12011417)
439679.00 3765360.00 5.33658 (12011417)
439684.00 3765360.00 5.32170 (12011417)
439689.00 3765360.00 5.30373 (12011417)
439694.00 3765360.00 5.28669 (12011417)
439699.00 3765360.00 5.26723 (12011417)
439704.00 3765360.00 5.27108 (13121718)
439709.00 3765360.00 5.27282 (13121718)
439714.00 3765360.00 5.27178 (13121718)
439719.00 3765360.00 5.27291 (13121718)
439729.00 3765360.00 5.27327 (13121718)
439734.00 3765360.00 5.26929 (13121718)
439739.00 3765360.00 5.26706 (13121718)
439744.00 3765360.00 5.26213 (13121718)
439749.00 3765360.00 5.26043 (13121718)
439774.00 3765360.00 5.23100 (15010717)
439779.00 3765360.00 5.24969 (15010717)
439784.00 3765360.00 5.26454 (15010717)
439789.00 3765360.00 5.28152 (15010717)
439794.00 3765360.00 5.29429 (15010717)
439799.00 3765360.00 5.30906 (15010717)
439804.00 3765360.00 5.32148 (15010717)
439809.00 3765360.00 5.33417 (15010717)
439814.00 3765360.00 5.34496 (15010717)
439839.00 3765360.00 5.39270 (15010717)
439844.00 3765360.00 5.40098 (15010717)
439849.00 3765360.00 5.40842 (15010717)
439854.00 3765360.00 5.41538 (15010717)
439859.00 3765360.00 5.42100 (15010717)
439864.00 3765360.00 5.42810 (15010717)
439869.00 3765360.00 5.43335 (15010717)
439874.00 3765360.00 5.43829 (15010717)
439879.00 3765360.00 5.44337 (15010717)
439884.00 3765360.00 5.44815 (15010717)
439674.00 3765365.00 5.44073 (12011417)
439679.00 3765365.00 5.42622 (12011417)
439684.00 3765365.00 5.41159 (12011417)
439689.00 3765365.00 5.39656 (12011417)
439694.00 3765365.00 5.38023 (12011417)
439699.00 3765365.00 5.36344 (12011417)
439704.00 3765365.00 5.34403 (12011417)
439709.00 3765365.00 5.32890 (13121718)
439714.00 3765365.00 5.33272 (13121718)
439719.00 3765365.00 5.33250 (13121718)
439729.00 3765365.00 5.33271 (13121718)

```
439734.00   3765365.00        5.33328  (13121718)
        439739.00   3765365.00        5.33168  (13121718)
439744.00   3765365.00        5.32787  (13121718)
        439749.00   3765365.00        5.32403  (13121718)
439774.00   3765365.00        5.29627  (15010717)
        439779.00   3765365.00        5.31208  (15010717)
439784.00   3765365.00        5.32935  (15010717)
        439789.00   3765365.00        5.34283  (15010717)
439794.00   3765365.00        5.35804  (15010717)
        439799.00   3765365.00        5.37086  (15010717)
439804.00   3765365.00        5.38344  (15010717)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: EXH ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439809.00	3765365.00	5.39522	(15010717)	439814.00	3765365.00	5.40561	(15010717)
439839.00	3765365.00	5.45198	(15010717)	439844.00	3765365.00	5.45900	(15010717)
439849.00	3765365.00	5.46624	(15010717)	439854.00	3765365.00	5.47288	(15010717)
439859.00	3765365.00	5.47922	(15010717)	439864.00	3765365.00	5.48511	(15010717)
439869.00	3765365.00	5.49030	(15010717)	439874.00	3765365.00	5.49621	(15010717)
439879.00	3765365.00	5.49977	(15010717)	439884.00	3765365.00	5.50476	(15010717)
439674.00	3765370.00	5.52913	(12011417)	439679.00	3765370.00	5.51709	(12011417)
439684.00	3765370.00	5.50310	(12011417)	439689.00	3765370.00	5.48819	(12011417)
439694.00	3765370.00	5.47358	(12011417)				

439699.00 3765370.00 5.45728 (12011417)
439704.00 3765370.00 5.44217 (12011417)
439709.00 3765370.00 5.42264 (12011417)
439714.00 3765370.00 5.40367 (12011417)
439719.00 3765370.00 5.39224 (13121718)
439729.00 3765370.00 5.39377 (13121718)
439734.00 3765370.00 5.39486 (13121718)
439739.00 3765370.00 5.39378 (13121718)
439744.00 3765370.00 5.39489 (13121718)
439749.00 3765370.00 5.39053 (13121718)
439774.00 3765370.00 5.36546 (13121718)
439779.00 3765370.00 5.37776 (15010717)
439784.00 3765370.00 5.39305 (15010717)
439789.00 3765370.00 5.40736 (15010717)
439794.00 3765370.00 5.42154 (15010717)
439799.00 3765370.00 5.43404 (15010717)
439804.00 3765370.00 5.44658 (15010717)
439809.00 3765370.00 5.45652 (15010717)
439814.00 3765370.00 5.46844 (15010717)
439839.00 3765370.00 5.51175 (15010717)
439844.00 3765370.00 5.51960 (15010717)
439849.00 3765370.00 5.52549 (15010717)
439854.00 3765370.00 5.53239 (15010717)
439859.00 3765370.00 5.53871 (15010717)
439864.00 3765370.00 5.54365 (15010717)
439869.00 3765370.00 5.54931 (15010717)
439874.00 3765370.00 5.55377 (15010717)
439879.00 3765370.00 5.55903 (15010717)
439884.00 3765370.00 5.56206 (15010717)
439674.00 3765375.00 5.61757 (12011417)
439679.00 3765375.00 5.60613 (12011417)
439684.00 3765375.00 5.59447 (12011417)
439689.00 3765375.00 5.58212 (12011417)
439694.00 3765375.00 5.56715 (12011417)
439699.00 3765375.00 5.55218 (12011417)
439704.00 3765375.00 5.53612 (12011417)
439709.00 3765375.00 5.52089 (12011417)
439714.00 3765375.00 5.50271 (12011417)
439719.00 3765375.00 5.48447 (12011417)
439729.00 3765375.00 5.45843 (13121718)
439734.00 3765375.00 5.45736 (13121718)
439739.00 3765375.00 5.45895 (13121718)
439744.00 3765375.00 5.45641 (13121718)
439749.00 3765375.00 5.45877 (13121718)
439754.00 3765375.00 5.45501 (13121718)
439774.00 3765375.00 5.43743 (13121718)
439779.00 3765375.00 5.44502 (15010717)
439784.00 3765375.00 5.45778 (15010717)
439789.00 3765375.00 5.47380 (15010717)
439794.00 3765375.00 5.48536 (15010717)
439799.00 3765375.00 5.49953 (15010717)
439804.00 3765375.00 5.50913 (15010717)

```
439809.00   3765375.00        5.52140  (15010717)
        439814.00   3765375.00        5.53054  (15010717)
439839.00   3765375.00        5.57340  (15010717)
        439844.00   3765375.00        5.58020  (15010717)
439849.00   3765375.00        5.58669  (15010717)
        439854.00   3765375.00        5.59302  (15010717)
439859.00   3765375.00        5.59833  (15010717)
        439864.00   3765375.00        5.60393  (15010717)
439869.00   3765375.00        5.60834  (15010717)
        439874.00   3765375.00        5.61336  (15010717)
439879.00   3765375.00        5.61762  (15010717)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: EXH ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439884.00	3765375.00	5.62143	(15010717)	439774.00	3765380.00	5.50932	(13121718)
439779.00	3765380.00	5.51090	(15010717)	439784.00	3765380.00	5.52701	(15010717)
439789.00	3765380.00	5.53798	(15010717)	439794.00	3765380.00	5.55308	(15010717)
439799.00	3765380.00	5.56306	(15010717)	439804.00	3765380.00	5.57511	(15010717)
439809.00	3765380.00	5.58508	(15010717)	439814.00	3765380.00	5.59547	(15010717)
439769.00	3765385.00	5.58677	(13121718)	439819.00	3765385.00	5.66851	(15010717)
439769.00	3765400.00	5.81101	(12011417)	439844.00	3765400.00	5.90403	(15010717)
439849.00	3765400.00	5.90818	(15010717)	439674.00	3765405.00	6.14460	(12011417)
439714.00	3765405.00	6.09757	(12011417)				

439719.00 3765405.00 6.08786 (12011417)
439734.00 3765405.00 6.05022 (12011417)
439749.00 3765405.00 6.00486 (12011417)
439754.00 3765405.00 5.98650 (12011417)
439774.00 3765405.00 5.90468 (12011417)
439779.00 3765405.00 5.88021 (12011417)
439784.00 3765405.00 5.87970 (15010717)
439789.00 3765405.00 5.89034 (15010717)
439794.00 3765405.00 5.90112 (15010717)
439799.00 3765405.00 5.91050 (15010717)
439804.00 3765405.00 5.91864 (15010717)
439809.00 3765405.00 5.92784 (15010717)
439814.00 3765405.00 5.93456 (15010717)
439819.00 3765405.00 5.94402 (15010717)
439824.00 3765405.00 5.94848 (15010717)
439829.00 3765405.00 5.95649 (15010717)
439834.00 3765405.00 5.96027 (15010717)
439839.00 3765405.00 5.96884 (15010717)
439844.00 3765405.00 5.97177 (15010717)
439849.00 3765405.00 5.97863 (15010717)
439854.00 3765405.00 5.98121 (15010717)
439859.00 3765405.00 5.98816 (15010717)
439674.00 3765410.00 6.23092 (12011417)
439679.00 3765410.00 6.22950 (12011417)
439684.00 3765410.00 6.22873 (12011417)
439689.00 3765410.00 6.22494 (12011417)
439694.00 3765410.00 6.22138 (12011417)
439699.00 3765410.00 6.21571 (12011417)
439704.00 3765410.00 6.21171 (12011417)
439709.00 3765410.00 6.20509 (12011417)
439714.00 3765410.00 6.19748 (12011417)
439719.00 3765410.00 6.18798 (12011417)
439729.00 3765410.00 6.16940 (12011417)
439734.00 3765410.00 6.15796 (12011417)
439739.00 3765410.00 6.14370 (12011417)
439744.00 3765410.00 6.12923 (12011417)
439749.00 3765410.00 6.11459 (12011417)
439774.00 3765410.00 6.02213 (12011417)
439779.00 3765410.00 6.00027 (12011417)
439784.00 3765410.00 5.97619 (12011417)
439789.00 3765410.00 5.96450 (15010717)
439794.00 3765410.00 5.97625 (15010717)
439799.00 3765410.00 5.98347 (15010717)
439804.00 3765410.00 5.99380 (15010717)
439809.00 3765410.00 5.99889 (15010717)
439814.00 3765410.00 6.00914 (15010717)
439819.00 3765410.00 6.01345 (15010717)
439824.00 3765410.00 6.02266 (15010717)
439829.00 3765410.00 6.02601 (15010717)
439834.00 3765410.00 6.03430 (15010717)
439839.00 3765410.00 6.03672 (15010717)
439844.00 3765410.00 6.04460 (15010717)

```
439849.00   3765410.00        6.04693  (15010717)
        439854.00   3765410.00        6.05372  (15010717)
439859.00   3765410.00        6.05638  (15010717)
        439674.00   3765415.00        6.31834  (12011417)
439679.00   3765415.00        6.31813  (12011417)
        439684.00   3765415.00        6.31661  (12011417)
439689.00   3765415.00        6.31672  (12011417)
        439694.00   3765415.00        6.31429  (12011417)
439699.00   3765415.00        6.31171  (12011417)
        439704.00   3765415.00        6.30649  (12011417)
439709.00   3765415.00        6.30220  (12011417)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: EXH ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439714.00	3765415.00	6.29665	(12011417)
439719.00	3765415.00	6.29028	(12011417)
439729.00	3765415.00	6.27248	(12011417)
439734.00	3765415.00	6.26267	(12011417)
439739.00	3765415.00	6.25205	(12011417)
439744.00	3765415.00	6.23986	(12011417)
439749.00	3765415.00	6.22617	(12011417)
439774.00	3765415.00	6.13941	(12011417)
439779.00	3765415.00	6.11892	(12011417)
439784.00	3765415.00	6.09798	(12011417)
439789.00	3765415.00	6.07491	(12011417)
439794.00	3765415.00	6.04996	(12011417)
439799.00	3765415.00	6.06049	(15010717)
439804.00	3765415.00	6.06579	(15010717)
439809.00	3765415.00	6.07651	(15010717)
439814.00	3765415.00	6.08004	(15010717)
439819.00	3765415.00	6.08903	(15010717)

439824.00 3765415.00 6.09291 (15010717)
439829.00 3765415.00 6.10121 (15010717)
439834.00 3765415.00 6.10498 (15010717)
439839.00 3765415.00 6.11137 (15010717)
439844.00 3765415.00 6.11472 (15010717)
439849.00 3765415.00 6.12053 (15010717)
439854.00 3765415.00 6.12473 (15010717)
439859.00 3765415.00 6.12908 (15010717)
439674.00 3765420.00 6.40360 (12011417)
439679.00 3765420.00 6.40630 (12011417)
439684.00 3765420.00 6.40704 (12011417)
439689.00 3765420.00 6.40671 (12011417)
439694.00 3765420.00 6.40558 (12011417)
439699.00 3765420.00 6.40522 (12011417)
439704.00 3765420.00 6.40338 (12011417)
439709.00 3765420.00 6.40001 (12011417)
439714.00 3765420.00 6.39576 (12011417)
439719.00 3765420.00 6.39004 (12011417)
439729.00 3765420.00 6.37827 (12011417)
439734.00 3765420.00 6.36957 (12011417)
439739.00 3765420.00 6.35857 (12011417)
439744.00 3765420.00 6.34822 (12011417)
439749.00 3765420.00 6.33777 (12011417)
439774.00 3765420.00 6.25975 (12011417)
439779.00 3765420.00 6.24000 (12011417)
439784.00 3765420.00 6.21832 (12011417)
439789.00 3765420.00 6.19764 (12011417)
439794.00 3765420.00 6.17583 (12011417)
439799.00 3765420.00 6.15117 (12011417)
439804.00 3765420.00 6.14414 (15010717)
439809.00 3765420.00 6.15013 (15010717)
439814.00 3765420.00 6.15823 (15010717)
439819.00 3765420.00 6.16292 (15010717)
439824.00 3765420.00 6.16931 (15010717)
439829.00 3765420.00 6.17509 (15010717)
439834.00 3765420.00 6.18011 (15010717)
439839.00 3765420.00 6.18520 (15010717)
439844.00 3765420.00 6.18983 (15010717)
439849.00 3765420.00 6.19474 (15010717)
439854.00 3765420.00 6.19846 (15010717)
439859.00 3765420.00 6.20386 (15010717)
439674.00 3765425.00 6.49080 (12011417)
439679.00 3765425.00 6.49246 (12011417)
439684.00 3765425.00 6.49584 (12011417)
439689.00 3765425.00 6.49831 (12011417)
439694.00 3765425.00 6.49916 (12011417)
439699.00 3765425.00 6.49855 (12011417)
439704.00 3765425.00 6.49749 (12011417)
439709.00 3765425.00 6.49730 (12011417)
439714.00 3765425.00 6.49520 (12011417)
439719.00 3765425.00 6.49195 (12011417)
439729.00 3765425.00 6.48145 (12011417)

```
439734.00   3765425.00        6.47546  (12011417)
        439739.00   3765425.00        6.46881  (12011417)
439744.00   3765425.00        6.45858  (12011417)
        439749.00   3765425.00        6.44816  (12011417)
439774.00   3765425.00        6.37867  (12011417)
        439779.00   3765425.00        6.36177  (12011417)
439784.00   3765425.00        6.34259  (12011417)
        439789.00   3765425.00        6.32205  (12011417)
439794.00   3765425.00        6.29951  (12011417)
        439799.00   3765425.00        6.27808  (12011417)
439804.00   3765425.00        6.25437  (12011417)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: EXH ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439809.00	3765425.00	6.22939	(12011417)	439814.00	3765425.00	6.23534	(15010717)
439819.00	3765425.00	6.24064	(15010717)	439824.00	3765425.00	6.24735	(15010717)
439829.00	3765425.00	6.25107	(15010717)	439834.00	3765425.00	6.25782	(15010717)
439839.00	3765425.00	6.26035	(15010717)	439844.00	3765425.00	6.26730	(15010717)
439849.00	3765425.00	6.26981	(15010717)	439854.00	3765425.00	6.27599	(15010717)
439859.00	3765425.00	6.27784	(15010717)	439674.00	3765430.00	6.57625	(12011417)
439679.00	3765430.00	6.58147	(12011417)	439684.00	3765430.00	6.58408	(12011417)
439689.00	3765430.00	6.58727	(12011417)	439694.00	3765430.00	6.59009	(12011417)
439699.00	3765430.00	6.59307	(12011417)				

439704.00 3765430.00 6.59401 (12011417)
439709.00 3765430.00 6.59378 (12011417)
439714.00 3765430.00 6.59284 (12011417)
439719.00 3765430.00 6.59225 (12011417)
439729.00 3765430.00 6.58658 (12011417)
439734.00 3765430.00 6.58122 (12011417)
439739.00 3765430.00 6.57493 (12011417)
439744.00 3765430.00 6.56913 (12011417)
439749.00 3765430.00 6.56167 (12011417)
439774.00 3765430.00 6.50073 (12011417)
439779.00 3765430.00 6.48349 (12011417)
439784.00 3765430.00 6.46604 (12011417)
439789.00 3765430.00 6.44764 (12011417)
439794.00 3765430.00 6.42851 (12011417)
439799.00 3765430.00 6.40583 (12011417)
439804.00 3765430.00 6.38289 (12011417)
439809.00 3765430.00 6.36009 (12011417)
439814.00 3765430.00 6.33531 (12011417)
439819.00 3765430.00 6.32120 (15010717)
439824.00 3765430.00 6.32419 (15010717)
439829.00 3765430.00 6.33159 (15010717)
439834.00 3765430.00 6.33392 (15010717)
439839.00 3765430.00 6.34162 (15010717)
439844.00 3765430.00 6.34234 (15010717)
439849.00 3765430.00 6.34992 (15010717)
439854.00 3765430.00 6.35133 (15010717)
439859.00 3765430.00 6.35829 (15010717)
439674.00 3765435.00 6.66228 (12011417)
439679.00 3765435.00 6.66723 (12011417)
439684.00 3765435.00 6.67384 (12011417)
439689.00 3765435.00 6.67883 (12011417)
439694.00 3765435.00 6.68258 (12011417)
439699.00 3765435.00 6.68507 (12011417)
439704.00 3765435.00 6.68849 (12011417)
439709.00 3765435.00 6.69137 (12011417)
439714.00 3765435.00 6.69275 (12011417)
439719.00 3765435.00 6.69216 (12011417)
439729.00 3765435.00 6.69046 (12011417)
439734.00 3765435.00 6.68862 (12011417)
439739.00 3765435.00 6.68422 (12011417)
439744.00 3765435.00 6.67817 (12011417)
439749.00 3765435.00 6.67283 (12011417)
439774.00 3765435.00 6.62163 (12011417)
439779.00 3765435.00 6.60812 (12011417)
439784.00 3765435.00 6.59220 (12011417)
439789.00 3765435.00 6.57370 (12011417)
439794.00 3765435.00 6.55525 (12011417)
439799.00 3765435.00 6.53637 (12011417)
439804.00 3765435.00 6.51518 (12011417)
439809.00 3765435.00 6.49160 (12011417)
439814.00 3765435.00 6.46758 (12011417)
439819.00 3765435.00 6.44365 (12011417)

```
439824.00   3765435.00        6.41879  (12011417)
        439829.00   3765435.00        6.40929  (15010717)
439834.00   3765435.00        6.41688  (15010717)
        439839.00   3765435.00        6.41875  (15010717)
439844.00   3765435.00        6.42605  (15010717)
        439849.00   3765435.00        6.42710  (15010717)
439854.00   3765435.00        6.43413  (15010717)
        439859.00   3765435.00        6.43616  (15010717)
439674.00   3765440.00        6.74892  (12011417)
        439679.00   3765440.00        6.75625  (12011417)
439684.00   3765440.00        6.76115  (12011417)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: EXH ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439689.00	3765440.00	6.76730	(12011417)
439694.00	3765440.00	6.77402	(12011417)
439699.00	3765440.00	6.77963	(12011417)
439704.00	3765440.00	6.78377	(12011417)
439709.00	3765440.00	6.78642	(12011417)
439714.00	3765440.00	6.79054	(12011417)
439719.00	3765440.00	6.79298	(12011417)
439729.00	3765440.00	6.79439	(12011417)
439734.00	3765440.00	6.79359	(12011417)
439739.00	3765440.00	6.79194	(12011417)
439744.00	3765440.00	6.78975	(12011417)
439749.00	3765440.00	6.78566	(12011417)
439774.00	3765440.00	6.74417	(12011417)
439779.00	3765440.00	6.73102	(12011417)
439784.00	3765440.00	6.71758	(12011417)
439789.00	3765440.00	6.70300	(12011417)
439794.00	3765440.00	6.68590	(12011417)

439799.00 3765440.00 6.66619 (12011417)
439804.00 3765440.00 6.64708 (12011417)
439809.00 3765440.00 6.62688 (12011417)
439814.00 3765440.00 6.60437 (12011417)
439819.00 3765440.00 6.57960 (12011417)
439824.00 3765440.00 6.55446 (12011417)
439829.00 3765440.00 6.53009 (12011417)
439834.00 3765440.00 6.50369 (12011417)
439839.00 3765440.00 6.50375 (15010717)
439844.00 3765440.00 6.50635 (15010717)
439849.00 3765440.00 6.51193 (15010717)
439854.00 3765440.00 6.51552 (15010717)
439859.00 3765440.00 6.52029 (15010717)
439674.00 3765445.00 6.83390 (12011417)
439679.00 3765445.00 6.84328 (12011417)
439684.00 3765445.00 6.85139 (12011417)
439689.00 3765445.00 6.85920 (12011417)
439694.00 3765445.00 6.86420 (12011417)
439699.00 3765445.00 6.87147 (12011417)
439704.00 3765445.00 6.87863 (12011417)
439709.00 3765445.00 6.88495 (12011417)
439714.00 3765445.00 6.88835 (12011417)
439719.00 3765445.00 6.89201 (12011417)
439729.00 3765445.00 6.89867 (12011417)
439734.00 3765445.00 6.90115 (12011417)
439739.00 3765445.00 6.89962 (12011417)
439744.00 3765445.00 6.89931 (12011417)
439749.00 3765445.00 6.89731 (12011417)
439774.00 3765445.00 6.86760 (12011417)
439779.00 3765445.00 6.85745 (12011417)
439784.00 3765445.00 6.84499 (12011417)
439789.00 3765445.00 6.83024 (12011417)
439794.00 3765445.00 6.81661 (12011417)
439799.00 3765445.00 6.80000 (12011417)
439804.00 3765445.00 6.78183 (12011417)
439809.00 3765445.00 6.76092 (12011417)
439814.00 3765445.00 6.74113 (12011417)
439819.00 3765445.00 6.71921 (12011417)
439824.00 3765445.00 6.69633 (12011417)
439829.00 3765445.00 6.66946 (12011417)
439834.00 3765445.00 6.64389 (12011417)
439839.00 3765445.00 6.61852 (12011417)
439844.00 3765445.00 6.59247 (15010717)
439849.00 3765445.00 6.59669 (15010717)
439854.00 3765445.00 6.60119 (15010717)
439859.00 3765445.00 6.60545 (15010717)
439674.00 3765450.00 6.92216 (12011417)
439679.00 3765450.00 6.93016 (12011417)
439684.00 3765450.00 6.93884 (12011417)
439689.00 3765450.00 6.94834 (12011417)
439694.00 3765450.00 6.95762 (12011417)
439699.00 3765450.00 6.96523 (12011417)

```
439704.00   3765450.00        6.97227  (12011417)
        439709.00   3765450.00        6.97907  (12011417)
439714.00   3765450.00        6.98754  (12011417)
        439719.00   3765450.00        6.99276  (12011417)
439729.00   3765450.00        7.00146  (12011417)
        439734.00   3765450.00        7.00595  (12011417)
439739.00   3765450.00        7.00880  (12011417)
        439744.00   3765450.00        7.01041  (12011417)
439749.00   3765450.00        7.01003  (12011417)
        439774.00   3765450.00        6.99008  (12011417)
439844.00   3765450.00        6.73600  (12011417)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: EXH ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439849.00	3765450.00	6.70820	(12011417)	439854.00	3765450.00	6.68941	(15010717)
439859.00	3765450.00	6.69138	(15010717)	439674.00	3765455.00	7.00704	(12011417)
439679.00	3765455.00	7.01906	(12011417)	439684.00	3765455.00	7.02899	(12011417)
439689.00	3765455.00	7.03913	(12011417)	439694.00	3765455.00	7.04727	(12011417)
439699.00	3765455.00	7.05830	(12011417)	439704.00	3765455.00	7.06787	(12011417)
439709.00	3765455.00	7.07701	(12011417)	439714.00	3765455.00	7.08421	(12011417)
439719.00	3765455.00	7.09183	(12011417)	439729.00	3765455.00	7.10633	(12011417)
439734.00	3765455.00	7.11201	(12011417)	439739.00	3765455.00	7.11507	(12011417)
439744.00	3765455.00	7.12035	(12011417)				

439749.00 3765455.00 7.12245 (12011417)
439844.00 3765455.00 6.88554 (12011417)
439849.00 3765455.00 6.85741 (12011417)
439854.00 3765455.00 6.82910 (12011417)
439859.00 3765455.00 6.80196 (12011417)
439674.00 3765460.00 7.09678 (12011417)
439679.00 3765460.00 7.10569 (12011417)
439684.00 3765460.00 7.11790 (12011417)
439689.00 3765460.00 7.12893 (12011417)
439694.00 3765460.00 7.14162 (12011417)
439699.00 3765460.00 7.15096 (12011417)
439704.00 3765460.00 7.16099 (12011417)
439709.00 3765460.00 7.17247 (12011417)
439714.00 3765460.00 7.18331 (12011417)
439719.00 3765460.00 7.19314 (12011417)
439729.00 3765460.00 7.20872 (12011417)
439734.00 3765460.00 7.21721 (12011417)
439739.00 3765460.00 7.22458 (12011417)
439744.00 3765460.00 7.22983 (12011417)
439749.00 3765460.00 7.23440 (12011417)
439789.00 3765460.00 7.22474 (12011417)
439794.00 3765460.00 7.21538 (12011417)
439799.00 3765460.00 7.20505 (12011417)
439804.00 3765460.00 7.19341 (12011417)
439809.00 3765460.00 7.17972 (12011417)
439814.00 3765460.00 7.16330 (12011417)
439819.00 3765460.00 7.14505 (12011417)
439824.00 3765460.00 7.12749 (12011417)
439829.00 3765460.00 7.10695 (12011417)
439844.00 3765460.00 7.03641 (12011417)
439849.00 3765460.00 7.01063 (12011417)
439854.00 3765460.00 6.98501 (12011417)
439859.00 3765460.00 6.95384 (12011417)
439674.00 3765465.00 7.18306 (12011417)
439679.00 3765465.00 7.19686 (12011417)
439684.00 3765465.00 7.20832 (12011417)
439689.00 3765465.00 7.22047 (12011417)
439694.00 3765465.00 7.23177 (12011417)
439699.00 3765465.00 7.24607 (12011417)
439704.00 3765465.00 7.25777 (12011417)
439709.00 3765465.00 7.26888 (12011417)
439714.00 3765465.00 7.27932 (12011417)
439719.00 3765465.00 7.29183 (12011417)
439729.00 3765465.00 7.31355 (12011417)
439734.00 3765465.00 7.32204 (12011417)
439739.00 3765465.00 7.33024 (12011417)
439744.00 3765465.00 7.34044 (12011417)
439749.00 3765465.00 7.34673 (12011417)
439789.00 3765465.00 7.35675 (12011417)
439794.00 3765465.00 7.35138 (12011417)
439799.00 3765465.00 7.34321 (12011417)
439804.00 3765465.00 7.33247 (12011417)

```
439809.00   3765465.00        7.32088  (12011417)
        439814.00   3765465.00        7.30807  (12011417)
439819.00   3765465.00        7.29300  (12011417)
        439824.00   3765465.00        7.27532  (12011417)
439829.00   3765465.00        7.25501  (12011417)
        439844.00   3765465.00        7.19085  (12011417)
439849.00   3765465.00        7.16399  (12011417)
        439854.00   3765465.00        7.13949  (12011417)
439859.00   3765465.00        7.11335  (12011417)
        439674.00   3765470.00        7.27547  (12011417)
439679.00   3765470.00        7.28567  (12011417)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: EXH ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439684.00	3765470.00	7.29965	(12011417)
439689.00	3765470.00	7.31276	(12011417)
439694.00	3765470.00	7.32699	(12011417)
439699.00	3765470.00	7.33847	(12011417)
439704.00	3765470.00	7.35199	(12011417)
439709.00	3765470.00	7.36583	(12011417)
439714.00	3765470.00	7.37924	(12011417)
439719.00	3765470.00	7.39130	(12011417)
439729.00	3765470.00	7.41558	(12011417)
439734.00	3765470.00	7.42855	(12011417)
439739.00	3765470.00	7.43892	(12011417)
439744.00	3765470.00	7.44937	(12011417)
439749.00	3765470.00	7.45779	(12011417)
439789.00	3765470.00	7.48991	(12011417)
439794.00	3765470.00	7.48687	(12011417)
439799.00	3765470.00	7.48153	(12011417)
439804.00	3765470.00	7.47488	(12011417)

439809.00 3765470.00 7.46599 (12011417)
439814.00 3765470.00 7.45289 (12011417)
439819.00 3765470.00 7.44105 (12011417)
439824.00 3765470.00 7.42564 (12011417)
439829.00 3765470.00 7.41016 (12011417)
439844.00 3765470.00 7.34728 (12011417)
439849.00 3765470.00 7.32520 (12011417)
439854.00 3765470.00 7.29919 (12011417)
439859.00 3765470.00 7.27173 (12011417)
439674.00 3765475.00 7.36588 (12011417)
439679.00 3765475.00 7.37894 (12011417)
439684.00 3765475.00 7.39379 (12011417)
439689.00 3765475.00 7.40499 (12011417)
439694.00 3765475.00 7.42040 (12011417)
439699.00 3765475.00 7.43450 (12011417)
439704.00 3765475.00 7.44969 (12011417)
439709.00 3765475.00 7.46235 (12011417)
439714.00 3765475.00 7.47638 (12011417)
439719.00 3765475.00 7.49174 (12011417)
439729.00 3765475.00 7.52011 (12011417)
439734.00 3765475.00 7.53115 (12011417)
439739.00 3765475.00 7.54691 (12011417)
439744.00 3765475.00 7.55783 (12011417)
439749.00 3765475.00 7.57207 (12011417)
439754.00 3765475.00 7.58080 (12011417)
439789.00 3765475.00 7.62507 (12011417)
439794.00 3765475.00 7.62430 (12011417)
439799.00 3765475.00 7.62225 (12011417)
439804.00 3765475.00 7.61713 (12011417)
439809.00 3765475.00 7.61095 (12011417)
439814.00 3765475.00 7.60333 (12011417)
439819.00 3765475.00 7.59158 (12011417)
439824.00 3765475.00 7.57872 (12011417)
439829.00 3765475.00 7.56238 (12011417)
439269.00 3764900.00 2.97087 (12010217)
439369.00 3764900.00 3.07668 (12010217)
439469.00 3764900.00 3.04623 (12010217)
439569.00 3764900.00 2.95377 (12010217)
439669.00 3764900.00 2.88814 (12010217)
439769.00 3764900.00 2.88485 (12010217)
439869.00 3764900.00 2.88747 (12010217)
439969.00 3764900.00 2.81715 (12010217)
440069.00 3764900.00 2.89558 (15010717)
440169.00 3764900.00 2.99345 (15010717)
440269.00 3764900.00 3.00251 (15010717)
439269.00 3765000.00 3.25836 (13120808)
439369.00 3765000.00 3.36620 (12010217)
439469.00 3765000.00 3.36719 (12010217)
439569.00 3765000.00 3.26121 (12010217)
439669.00 3765000.00 3.15697 (12010217)
439769.00 3765000.00 3.14168 (12010217)
439869.00 3765000.00 3.17226 (12010217)

```
439969.00   3765000.00        3.14178  (12010217)
        440069.00   3765000.00        3.26769  (15010717)
440169.00   3765000.00        3.30441  (15010717)
        440269.00   3765000.00        3.26504  (15010717)
439269.00   3765100.00        3.67937  (13120808)
        439369.00   3765100.00        3.71144  (12010217)
439469.00   3765100.00        3.76894  (12010217)
        439569.00   3765100.00        3.66393  (12010217)
439669.00   3765100.00        3.51008  (12010217)
        439769.00   3765100.00        3.48842  (13120808)
439869.00   3765100.00        3.51503  (12010217)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: EXH ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439969.00	3765100.00	3.59595	(15010717)	440069.00	3765100.00	3.68584	(15010717)
440169.00	3765100.00	3.64905	(15010717)	440269.00	3765100.00	3.59995	(13121617)
439269.00	3765200.00	4.17879	(13120808)	439369.00	3765200.00	4.13881	(13120808)
439469.00	3765200.00	4.28020	(12010217)	439569.00	3765200.00	4.20085	(12010217)
439669.00	3765200.00	4.00256	(12010217)	439769.00	3765200.00	3.97139	(13120808)
439869.00	3765200.00	3.99629	(15010717)	439969.00	3765200.00	4.17378	(15010717)
440069.00	3765200.00	4.16495	(15010717)	440169.00	3765200.00	4.09008	(13121617)
440269.00	3765200.00	4.00315	(13121617)	439269.00	3765300.00	5.02021	(12011417)
439369.00	3765300.00	4.93067	(12011417)				

```
439469.00   3765300.00        4.96615  (12010217)
        439569.00   3765300.00        4.93597  (12010217)
439669.00   3765300.00        4.73012  (12010217)
        439769.00   3765300.00        4.53191  (13120808)
439869.00   3765300.00        4.81818  (15010717)
        439969.00   3765300.00        4.88794  (15010717)
440069.00   3765300.00        4.78366  (13121617)
        440169.00   3765300.00        4.65320  (13121617)
440269.00   3765300.00        4.74019  (15113017)
        439269.00   3765400.00        6.28944  (12011417)
439369.00   3765400.00        6.11194  (12011417)
        439469.00   3765400.00        6.01219  (12011417)
439569.00   3765400.00        6.03626  (12011417)
        439669.00   3765400.00        6.06112  (12011417)
439769.00   3765400.00        5.81101  (12011417)
        439869.00   3765400.00        5.92634  (15010717)
439969.00   3765400.00        5.86005  (15010717)
        440069.00   3765400.00        5.74292  (15113017)
440169.00   3765400.00        5.80414  (15113017)
        440269.00   3765400.00        5.77875  (15113017)
439269.00   3765500.00        8.37509  (12011417)
        439369.00   3765500.00        8.28211  (12011417)
439469.00   3765500.00        7.98044  (12011417)
        439569.00   3765500.00        7.80175  (12010217)
439669.00   3765500.00        7.84573  (12011417)
        439769.00   3765500.00        8.21963  (12011417)
439869.00   3765500.00        8.27613  (12011417)
        439969.00   3765500.00        7.70639  (15113017)
440069.00   3765500.00        7.56986  (15113017)
        440169.00   3765500.00        7.68656  (12011608)
440269.00   3765500.00        7.69585  (12011608)
        439269.00   3765600.00       11.93099  (12101307)
439369.00   3765600.00       12.78097  (12011417)
        439469.00   3765600.00       12.90728  (12011417)
439569.00   3765600.00       12.48171  (12011417)
        439669.00   3765600.00       12.08891  (12010217)
439769.00   3765600.00       12.14326  (12111318)
        439869.00   3765600.00       13.07918  (12111318)
439969.00   3765600.00       14.34372  (12011417)
        440069.00   3765600.00       13.45690  (14101107)
440169.00   3765600.00       13.61672  (14101107)
        440269.00   3765600.00       13.49207  (15112218)
439269.00   3765700.00       38.72172  (14012908)
        439369.00   3765700.00       41.71967  (14012908)
439469.00   3765700.00       64.80176  (14012908)
        439569.00   3765700.00       45.37790  (14120118)
439669.00   3765700.00       43.65966  (14101107)
        439769.00   3765700.00       43.36961  (14101107)
439869.00   3765700.00       43.00590  (14101107)
        439969.00   3765700.00       42.99646  (14101107)
440069.00   3765700.00       42.79688  (12101207)
        440169.00   3765700.00       43.88667  (12101207)
```

```
440269.00   3765700.00       47.73044  (12101207)
        439269.00   3765800.00       18.24251  (12111317)
439369.00   3765800.00       19.16371  (12111317)
        439469.00   3765800.00       19.00569  (15120818)
439569.00   3765800.00       18.86644  (15120818)
        439669.00   3765800.00       19.46034  (13111217)
439769.00   3765800.00       21.82387  (13111217)
        439869.00   3765800.00       27.48026  (13111217)
439969.00   3765800.00       19.36738  (15120418)
        440069.00   3765800.00       17.00581  (15120418)
440169.00   3765800.00       16.25707  (15120418)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: EXH ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
440269.00	3765800.00	16.24944	(15120418)
439269.00	3765900.00	10.25288	(15120818)
439369.00	3765900.00	10.15744	(15120818)
439469.00	3765900.00	9.93477	(15120818)
439569.00	3765900.00	9.68519	(15120818)
439669.00	3765900.00	9.46283	(15112217)
439769.00	3765900.00	9.81099	(13111217)
439869.00	3765900.00	10.50865	(13111217)
439969.00	3765900.00	10.64239	(13111217)
440069.00	3765900.00	10.28217	(12011717)
440169.00	3765900.00	9.80618	(12011717)
440269.00	3765900.00	9.41116	(12011717)
439649.00	3765310.00	4.87629	(12010217)
439679.00	3765310.00	4.79062	(12010217)
439709.00	3765310.00	4.69850	(13121718)
439739.00	3765310.00	4.63862	(13121718)
439769.00	3765310.00	4.62296	(15010717)

```
439799.00   3765310.00        4.73988  (15010717)
        439829.00   3765310.00        4.83014  (15010717)
439859.00   3765310.00        4.89602  (15010717)
        439889.00   3765310.00        4.94112  (15010717)
439649.00   3765340.00        5.17460  (12010217)
        439679.00   3765340.00        5.08731  (12010217)
439709.00   3765340.00        5.04222  (13121718)
        439739.00   3765340.00        5.01535  (13121718)
439769.00   3765340.00        4.96480  (15010717)
        439799.00   3765340.00        5.07010  (15010717)
439829.00   3765340.00        5.14669  (15010717)
        439859.00   3765340.00        5.20046  (15010717)
439889.00   3765340.00        5.23656  (15010717)
        439649.00   3765370.00        5.57992  (12011417)
439679.00   3765370.00        5.51709  (12011417)
        439709.00   3765370.00        5.42264  (12011417)
439739.00   3765370.00        5.39378  (13121718)
        439769.00   3765370.00        5.37300  (13121718)
439799.00   3765370.00        5.43404  (15010717)
        439829.00   3765370.00        5.49535  (15010717)
439859.00   3765370.00        5.53871  (15010717)
        439889.00   3765370.00        5.56558  (15010717)
439649.00   3765400.00        6.06862  (12011417)
        439679.00   3765400.00        6.05206  (12011417)
439709.00   3765400.00        6.00934  (12011417)
        439739.00   3765400.00        5.92967  (12011417)
439769.00   3765400.00        5.81101  (12011417)
        439799.00   3765400.00        5.83919  (15010717)
439829.00   3765400.00        5.88509  (15010717)
        439859.00   3765400.00        5.91806  (15010717)
439889.00   3765400.00        5.93992  (15010717)
        439649.00   3765430.00        6.54926  (12011417)
439679.00   3765430.00        6.58147  (12011417)
        439709.00   3765430.00        6.59378  (12011417)
439739.00   3765430.00        6.57493  (12011417)
        439769.00   3765430.00        6.51528  (12011417)
439799.00   3765430.00        6.40583  (12011417)
        439829.00   3765430.00        6.33159  (15010717)
439859.00   3765430.00        6.35829  (15010717)
        439889.00   3765430.00        6.37641  (15010717)
439649.00   3765460.00        7.04202  (12011417)
        439679.00   3765460.00        7.10569  (12011417)
439709.00   3765460.00        7.17247  (12011417)
        439739.00   3765460.00        7.22458  (12011417)
439769.00   3765460.00        7.24141  (12011417)
        439799.00   3765460.00        7.20505  (12011417)
439829.00   3765460.00        7.10695  (12011417)
        439859.00   3765460.00        6.95384  (12011417)
439889.00   3765460.00        6.89519  (15010717)
        439649.00   3765490.00        7.59356  (12011417)
439679.00   3765490.00        7.66667  (12011417)
        439709.00   3765490.00        7.76249  (12011417)
```

```
439739.00   3765490.00        7.87108  (12011417)
        439769.00   3765490.00        7.97472  (12011417)
439799.00   3765490.00        8.04495  (12011417)
        439829.00   3765490.00        8.04340  (12011417)
439859.00   3765490.00        7.94983  (12011417)
        439889.00   3765490.00        7.79856  (12011417)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: EVAP ***
INCLUDING SOURCE(S):
A0000067 , A0000068 , A0000069 , A0000070 , A0000071 ,
A0000072 , A0000073 , A0000074 , A0000075 , A0000076 , A0000077 , A0000078 , A0000079 ,
A0000080 , A0000081 , A0000082 , A0000083 , A0000084 , A0000085 , A0000086 , A0000087 ,
A0000088 , A0000089 , A0000090 , A0000091 , A0000092 , A0000093 ,
A0000094 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439674.00	3765310.00	4.20365	(13121718)	439679.00	3765310.00	4.20586	(13121718)
439684.00	3765310.00	4.20572	(13121718)	439689.00	3765310.00	4.20698	(13121718)
439694.00	3765310.00	4.20522	(13121718)	439699.00	3765310.00	4.20166	(13121718)
439704.00	3765310.00	4.19804	(13121718)	439709.00	3765310.00	4.19288	(13121718)
439714.00	3765310.00	4.18822	(13121718)	439719.00	3765310.00	4.17941	(13121718)
439729.00	3765310.00	4.16201	(13121718)	439734.00	3765310.00	4.15263	(13121718)
439739.00	3765310.00	4.14087	(13121718)	439744.00	3765310.00	4.12844	(13121718)
439749.00	3765310.00	4.11495	(13121718)	439764.00	3765310.00	4.11098	(15111218)
439769.00	3765310.00	4.11152	(15111218)				

439774.00 3765310.00 4.11402 (15111218)
439779.00 3765310.00 4.11315 (15111218)
439784.00 3765310.00 4.11225 (15111218)
439789.00 3765310.00 4.10945 (15111218)
439794.00 3765310.00 4.10622 (15111218)
439799.00 3765310.00 4.10787 (13121618)
439804.00 3765310.00 4.11639 (13121618)
439809.00 3765310.00 4.12406 (13121618)
439814.00 3765310.00 4.13011 (13121618)
439819.00 3765310.00 4.13515 (13121618)
439824.00 3765310.00 4.13952 (13120808)
439829.00 3765310.00 4.15061 (13120808)
439839.00 3765310.00 4.16869 (13120808)
439844.00 3765310.00 4.17567 (13120808)
439849.00 3765310.00 4.18052 (13120808)
439854.00 3765310.00 4.18527 (13120808)
439859.00 3765310.00 4.18703 (13120808)
439864.00 3765310.00 4.18872 (13120808)
439869.00 3765310.00 4.19015 (13120808)
439874.00 3765310.00 4.18892 (13120808)
439879.00 3765310.00 4.18816 (13120808)
439884.00 3765310.00 4.18626 (13120808)
439674.00 3765315.00 4.24842 (13121718)
439679.00 3765315.00 4.25053 (13121718)
439684.00 3765315.00 4.25269 (13121718)
439689.00 3765315.00 4.25226 (13121718)
439694.00 3765315.00 4.25381 (13121718)
439699.00 3765315.00 4.25250 (13121718)
439704.00 3765315.00 4.24979 (13121718)
439709.00 3765315.00 4.24515 (13121718)
439714.00 3765315.00 4.24066 (13121718)
439719.00 3765315.00 4.23539 (13121718)
439729.00 3765315.00 4.21988 (13121718)
439734.00 3765315.00 4.20994 (13121718)
439739.00 3765315.00 4.20046 (13121718)
439744.00 3765315.00 4.18843 (13121718)
439749.00 3765315.00 4.17653 (13121718)
439764.00 3765315.00 4.14808 (15111218)
439769.00 3765315.00 4.15324 (15111218)
439774.00 3765315.00 4.15380 (15111218)
439779.00 3765315.00 4.15588 (15111218)
439784.00 3765315.00 4.15460 (15111218)
439789.00 3765315.00 4.15398 (15111218)
439794.00 3765315.00 4.15033 (15111218)
439799.00 3765315.00 4.14726 (15111218)
439804.00 3765315.00 4.15119 (13121618)
439809.00 3765315.00 4.15929 (13121618)
439814.00 3765315.00 4.16669 (13121618)
439819.00 3765315.00 4.17195 (13121618)
439824.00 3765315.00 4.17623 (13121618)
439829.00 3765315.00 4.18442 (13120808)
439839.00 3765315.00 4.20451 (13120808)

```
439844.00   3765315.00        4.21105  (13120808)
        439849.00   3765315.00        4.21905  (13120808)
439854.00   3765315.00        4.22200  (13120808)
        439859.00   3765315.00        4.22609  (13120808)
439864.00   3765315.00        4.22793  (13120808)
        439869.00   3765315.00        4.22910  (13120808)
439874.00   3765315.00        4.22902  (13120808)
        439879.00   3765315.00        4.22856  (13120808)
439884.00   3765315.00        4.22689  (13120808)
        439674.00   3765320.00        4.28852  (13121718)
439679.00   3765320.00        4.29466  (13121718)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: EVAP ***
INCLUDING SOURCE(S):
A0000067 , A0000068 , A0000069 , A0000070 , A0000071 ,
A0000072 , A0000073 , A0000074 , A0000075 , A0000076 , A0000077 , A0000078 , A0000079 ,
A0000080 , A0000081 , A0000082 , A0000083 , A0000084 , A0000085 , A0000086 , A0000087 ,
A0000088 , A0000089 , A0000090 , A0000091 , A0000092 , A0000093 ,
A0000094 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439684.00	3765320.00	4.29789	(13121718)
439689.00	3765320.00	4.30105	(13121718)
439694.00	3765320.00	4.30029	(13121718)
439699.00	3765320.00	4.30173	(13121718)
439704.00	3765320.00	4.30060	(13121718)
439709.00	3765320.00	4.29902	(13121718)
439714.00	3765320.00	4.29375	(13121718)
439719.00	3765320.00	4.28953	(13121718)
439729.00	3765320.00	4.27704	(13121718)
439734.00	3765320.00	4.26945	(13121718)
439739.00	3765320.00	4.25863	(13121718)
439744.00	3765320.00	4.24995	(13121718)
439749.00	3765320.00	4.23653	(13121718)
439764.00	3765320.00	4.19770	(13121718)
439769.00	3765320.00	4.19159	(15111218)
439774.00	3765320.00	4.19596	(15111218)
439779.00	3765320.00	4.19710	(15111218)

439784.00 3765320.00 4.19811 (15111218)
439789.00 3765320.00 4.19698 (15111218)
439794.00 3765320.00 4.19617 (15111218)
439799.00 3765320.00 4.19252 (15111218)
439804.00 3765320.00 4.18845 (15111218)
439809.00 3765320.00 4.19508 (13121618)
439814.00 3765320.00 4.20273 (13121618)
439819.00 3765320.00 4.20914 (13121618)
439824.00 3765320.00 4.21536 (13121618)
439829.00 3765320.00 4.21826 (13120808)
439839.00 3765320.00 4.23989 (13120808)
439844.00 3765320.00 4.24933 (13120808)
439849.00 3765320.00 4.25501 (13120808)
439854.00 3765320.00 4.26121 (13120808)
439859.00 3765320.00 4.26492 (13120808)
439864.00 3765320.00 4.26813 (13120808)
439869.00 3765320.00 4.26860 (13120808)
439874.00 3765320.00 4.27091 (13120808)
439879.00 3765320.00 4.26895 (13120808)
439884.00 3765320.00 4.26775 (13120808)
439674.00 3765325.00 4.33186 (13121718)
439679.00 3765325.00 4.33651 (13121718)
439684.00 3765325.00 4.34229 (13121718)
439689.00 3765325.00 4.34565 (13121718)
439694.00 3765325.00 4.35020 (13121718)
439699.00 3765325.00 4.34971 (13121718)
439704.00 3765325.00 4.35060 (13121718)
439709.00 3765325.00 4.34934 (13121718)
439714.00 3765325.00 4.34862 (13121718)
439719.00 3765325.00 4.34380 (13121718)
439729.00 3765325.00 4.33365 (13121718)
439734.00 3765325.00 4.32672 (13121718)
439739.00 3765325.00 4.31955 (13121718)
439744.00 3765325.00 4.30847 (13121718)
439749.00 3765325.00 4.30020 (13121718)
439754.00 3765325.00 4.28605 (13121718)
439769.00 3765325.00 4.24767 (13121718)
439774.00 3765325.00 4.23609 (15111218)
439779.00 3765325.00 4.23928 (15111218)
439784.00 3765325.00 4.24094 (15111218)
439789.00 3765325.00 4.24165 (15111218)
439794.00 3765325.00 4.24015 (15111218)
439799.00 3765325.00 4.23895 (15111218)
439804.00 3765325.00 4.23533 (15111218)
439809.00 3765325.00 4.23104 (15111218)
439814.00 3765325.00 4.23975 (13121618)
439819.00 3765325.00 4.24790 (13121618)
439824.00 3765325.00 4.25349 (13121618)
439829.00 3765325.00 4.25857 (13121618)
439839.00 3765325.00 4.27687 (13120808)
439844.00 3765325.00 4.28588 (13120808)
439849.00 3765325.00 4.29341 (13120808)

```
439854.00   3765325.00        4.30012  (13120808)
        439859.00   3765325.00        4.30486  (13120808)
439864.00   3765325.00        4.30728  (13120808)
        439869.00   3765325.00        4.31079  (13120808)
439874.00   3765325.00        4.31041  (13120808)
        439879.00   3765325.00        4.31151  (13120808)
439884.00   3765325.00        4.30997  (13120808)
        439674.00   3765330.00        4.37197  (13121718)
439679.00   3765330.00        4.38039  (13121718)
        439684.00   3765330.00        4.38604  (13121718)
439689.00   3765330.00        4.39100  (13121718)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: EVAP ***
INCLUDING SOURCE(S):
A0000067 , A0000068 , A0000069 , A0000070 , A0000071 ,
A0000072 , A0000073 , A0000074 , A0000075 , A0000076 , A0000077 , A0000078 , A0000079 ,
A0000080 , A0000081 , A0000082 , A0000083 , A0000084 , A0000085 , A0000086 , A0000087 ,
A0000088 , A0000089 , A0000090 , A0000091 , A0000092 , A0000093 ,
A0000094 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439694.00	3765330.00	4.39476	(13121718)	439699.00	3765330.00	4.39971	(13121718)
439704.00	3765330.00	4.40046	(13121718)	439709.00	3765330.00	4.40107	(13121718)
439714.00	3765330.00	4.39931	(13121718)	439719.00	3765330.00	4.39900	(13121718)
439729.00	3765330.00	4.39069	(13121718)	439734.00	3765330.00	4.38416	(13121718)
439739.00	3765330.00	4.37783	(13121718)	439744.00	3765330.00	4.37024	(13121718)
439749.00	3765330.00	4.36005	(13121718)	439754.00	3765330.00	4.35080	(13121718)
439774.00	3765330.00	4.29822	(13121718)	439779.00	3765330.00	4.28179	(13121718)
439784.00	3765330.00	4.28396	(15111218)	439789.00	3765330.00	4.28577	(15111218)
439794.00	3765330.00	4.28616	(15111218)				

```
439799.00   3765330.00        4.28454  (15111218)
        439804.00   3765330.00        4.28291  (15111218)
439809.00   3765330.00        4.27889  (15111218)
        439814.00   3765330.00        4.27743  (13121618)
439819.00   3765330.00        4.28542  (13121618)
        439824.00   3765330.00        4.29262  (13121618)
439829.00   3765330.00        4.29860  (13121618)
        439839.00   3765330.00        4.31378  (13120808)
439844.00   3765330.00        4.32316  (13120808)
        439849.00   3765330.00        4.33314  (13120808)
439854.00   3765330.00        4.33895  (13120808)
        439859.00   3765330.00        4.34504  (13120808)
439864.00   3765330.00        4.34890  (13120808)
        439869.00   3765330.00        4.35080  (13120808)
439874.00   3765330.00        4.35338  (13120808)
        439879.00   3765330.00        4.35314  (13120808)
439884.00   3765330.00        4.35376  (13120808)
        439674.00   3765335.00        4.41245  (12011417)
439679.00   3765335.00        4.42082  (13121718)
        439684.00   3765335.00        4.42900  (13121718)
439689.00   3765335.00        4.43722  (13121718)
        439694.00   3765335.00        4.44109  (13121718)
439699.00   3765335.00        4.44538  (13121718)
        439704.00   3765335.00        4.44967  (13121718)
439709.00   3765335.00        4.45191  (13121718)
        439714.00   3765335.00        4.45287  (13121718)
439719.00   3765335.00        4.45061  (13121718)
        439729.00   3765335.00        4.44639  (13121718)
439734.00   3765335.00        4.44350  (13121718)
        439739.00   3765335.00        4.43593  (13121718)
439744.00   3765335.00        4.43019  (13121718)
        439749.00   3765335.00        4.42180  (13121718)
439774.00   3765335.00        4.36372  (13121718)
        439779.00   3765335.00        4.34994  (13121718)
439784.00   3765335.00        4.33365  (13121718)
        439789.00   3765335.00        4.33002  (15111218)
439794.00   3765335.00        4.33154  (15111218)
        439839.00   3765335.00        4.34994  (13120808)
439844.00   3765335.00        4.36253  (13120808)
        439849.00   3765335.00        4.37115  (13120808)
439854.00   3765335.00        4.38008  (13120808)
        439859.00   3765335.00        4.38507  (13120808)
439864.00   3765335.00        4.39133  (13120808)
        439869.00   3765335.00        4.39350  (13120808)
439874.00   3765335.00        4.39578  (13120808)
        439879.00   3765335.00        4.39710  (13120808)
439884.00   3765335.00        4.39628  (13120808)
        439674.00   3765340.00        4.49676  (12011417)
439679.00   3765340.00        4.47831  (12011417)
        439684.00   3765340.00        4.47132  (13121718)
439689.00   3765340.00        4.47865  (13121718)
        439694.00   3765340.00        4.48858  (13121718)
```

```
439699.00   3765340.00        4.49308  (13121718)
        439704.00   3765340.00        4.49748  (13121718)
439709.00   3765340.00        4.50141  (13121718)
        439714.00   3765340.00        4.50405  (13121718)
439719.00   3765340.00        4.50627  (13121718)
        439729.00   3765340.00        4.50348  (13121718)
439734.00   3765340.00        4.49905  (13121718)
        439739.00   3765340.00        4.49684  (13121718)
439744.00   3765340.00        4.48948  (13121718)
        439749.00   3765340.00        4.48372  (13121718)
439774.00   3765340.00        4.43115  (13121718)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: EVAP ***
INCLUDING SOURCE(S):
A0000067 , A0000068 , A0000069 , A0000070 , A0000071 ,
A0000072 , A0000073 , A0000074 , A0000075 , A0000076 , A0000077 , A0000078 , A0000079 ,
A0000080 , A0000081 , A0000082 , A0000083 , A0000084 , A0000085 , A0000086 , A0000087 ,
A0000088 , A0000089 , A0000090 , A0000091 , A0000092 , A0000093 ,
A0000094 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439779.00	3765340.00	4.41652	(13121718)	439784.00	3765340.00	4.40266	(13121718)
439789.00	3765340.00	4.38670	(13121718)	439794.00	3765340.00	4.37703	(15111218)
439839.00	3765340.00	4.39042	(13121618)	439844.00	3765340.00	4.40037	(13120808)
439849.00	3765340.00	4.41192	(13120808)	439854.00	3765340.00	4.41960	(13120808)
439859.00	3765340.00	4.42823	(13120808)	439864.00	3765340.00	4.43218	(13120808)
439869.00	3765340.00	4.43770	(13120808)	439874.00	3765340.00	4.43881	(13120808)
439879.00	3765340.00	4.44123	(13120808)	439884.00	3765340.00	4.44059	(13120808)
439674.00	3765345.00	4.57888	(12011417)	439679.00	3765345.00	4.56386	(12011417)
439684.00	3765345.00	4.54591	(12011417)				

439689.00 3765345.00 4.52790 (12011417)
439694.00 3765345.00 4.53033 (13121718)
439699.00 3765345.00 4.53986 (13121718)
439704.00 3765345.00 4.54668 (13121718)
439709.00 3765345.00 4.55080 (13121718)
439714.00 3765345.00 4.55462 (13121718)
439719.00 3765345.00 4.55691 (13121718)
439729.00 3765345.00 4.55795 (13121718)
439734.00 3765345.00 4.55740 (13121718)
439739.00 3765345.00 4.55327 (13121718)
439744.00 3765345.00 4.55110 (13121718)
439749.00 3765345.00 4.54417 (13121718)
439774.00 3765345.00 4.49795 (13121718)
439779.00 3765345.00 4.48554 (13121718)
439784.00 3765345.00 4.47103 (13121718)
439789.00 3765345.00 4.45613 (13121718)
439794.00 3765345.00 4.44092 (13121718)
439839.00 3765345.00 4.43409 (13121618)
439844.00 3765345.00 4.43996 (13120808)
439849.00 3765345.00 4.45131 (13120808)
439854.00 3765345.00 4.46221 (13120808)
439859.00 3765345.00 4.46905 (13120808)
439864.00 3765345.00 4.47620 (13120808)
439869.00 3765345.00 4.47970 (13120808)
439874.00 3765345.00 4.48512 (13120808)
439879.00 3765345.00 4.48475 (13120808)
439884.00 3765345.00 4.48751 (13120808)
439674.00 3765350.00 4.66167 (12011417)
439679.00 3765350.00 4.64671 (12011417)
439684.00 3765350.00 4.63217 (12011417)
439689.00 3765350.00 4.61460 (12011417)
439694.00 3765350.00 4.59709 (12011417)
439699.00 3765350.00 4.58362 (13121718)
439704.00 3765350.00 4.59228 (13121718)
439709.00 3765350.00 4.60057 (13121718)
439714.00 3765350.00 4.60565 (13121718)
439719.00 3765350.00 4.60943 (13121718)
439729.00 3765350.00 4.61469 (13121718)
439734.00 3765350.00 4.61353 (13121718)
439739.00 3765350.00 4.61315 (13121718)
439744.00 3765350.00 4.60875 (13121718)
439749.00 3765350.00 4.60703 (13121718)
439774.00 3765350.00 4.56482 (13121718)
439779.00 3765350.00 4.55378 (13121718)
439784.00 3765350.00 4.54094 (13121718)
439789.00 3765350.00 4.52703 (13121718)
439794.00 3765350.00 4.51134 (13121718)
439839.00 3765350.00 4.47714 (13121618)
439844.00 3765350.00 4.48285 (13121618)
439849.00 3765350.00 4.49223 (13120808)
439854.00 3765350.00 4.50344 (13120808)
439859.00 3765350.00 4.51249 (13120808)

```
439864.00   3765350.00        4.51924  (13120808)
        439869.00   3765350.00        4.52572  (13120808)
439874.00   3765350.00        4.52836  (13120808)
        439879.00   3765350.00        4.53258  (13120808)
439884.00   3765350.00        4.53227  (13120808)
        439674.00   3765355.00        4.74435  (12011417)
439679.00   3765355.00        4.73131  (12011417)
        439684.00   3765355.00        4.71616  (12011417)
439689.00   3765355.00        4.70164  (12011417)
        439694.00   3765355.00        4.68465  (12011417)
439699.00   3765355.00        4.66771  (12011417)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: EVAP ***
INCLUDING SOURCE(S):
A0000067 , A0000068 , A0000069 , A0000070 , A0000071 ,
A0000072 , A0000073 , A0000074 , A0000075 , A0000076 , A0000077 , A0000078 , A0000079 ,
A0000080 , A0000081 , A0000082 , A0000083 , A0000084 , A0000085 , A0000086 , A0000087 ,
A0000088 , A0000089 , A0000090 , A0000091 , A0000092 , A0000093 ,
A0000094 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439704.00	3765355.00	4.64772	(12011417)	439709.00	3765355.00	4.64661	(13121718)
439714.00	3765355.00	4.65504	(13121718)	439719.00	3765355.00	4.66174	(13121718)
439729.00	3765355.00	4.66779	(13121718)	439734.00	3765355.00	4.67054	(13121718)
439739.00	3765355.00	4.67011	(13121718)	439744.00	3765355.00	4.67038	(13121718)
439749.00	3765355.00	4.66522	(13121718)	439774.00	3765355.00	4.63379	(13121718)
439779.00	3765355.00	4.62200	(13121718)	439784.00	3765355.00	4.61041	(13121718)
439789.00	3765355.00	4.59784	(13121718)	439794.00	3765355.00	4.58365	(13121718)
439839.00	3765355.00	4.52190	(13121618)	439844.00	3765355.00	4.52740	(13121618)
439849.00	3765355.00	4.53398	(13120808)				

439854.00 3765355.00 4.54559 (13120808)
439859.00 3765355.00 4.55639 (13120808)
439864.00 3765355.00 4.56438 (13120808)
439869.00 3765355.00 4.57047 (13120808)
439874.00 3765355.00 4.57496 (13120808)
439879.00 3765355.00 4.57807 (13120808)
439884.00 3765355.00 4.58032 (13120808)
439674.00 3765360.00 4.82576 (12011417)
439679.00 3765360.00 4.81431 (12011417)
439684.00 3765360.00 4.80254 (12011417)
439689.00 3765360.00 4.78762 (12011417)
439694.00 3765360.00 4.77308 (12011417)
439699.00 3765360.00 4.75572 (12011417)
439704.00 3765360.00 4.73954 (12011417)
439709.00 3765360.00 4.71990 (12011417)
439714.00 3765360.00 4.70317 (13121718)
439719.00 3765360.00 4.71088 (13121718)
439729.00 3765360.00 4.72343 (13121718)
439734.00 3765360.00 4.72595 (13121718)
439739.00 3765360.00 4.72779 (13121718)
439744.00 3765360.00 4.72789 (13121718)
439749.00 3765360.00 4.72838 (13121718)
439774.00 3765360.00 4.70075 (13121718)
439779.00 3765360.00 4.69158 (13121718)
439784.00 3765360.00 4.68090 (13121718)
439789.00 3765360.00 4.66811 (13121718)
439794.00 3765360.00 4.65584 (13121718)
439799.00 3765360.00 4.64166 (13121718)
439804.00 3765360.00 4.62628 (13121718)
439809.00 3765360.00 4.60930 (13121718)
439814.00 3765360.00 4.59241 (13121718)
439839.00 3765360.00 4.56650 (13121618)
439844.00 3765360.00 4.57345 (13121618)
439849.00 3765360.00 4.57964 (13121618)
439854.00 3765360.00 4.58945 (13120808)
439859.00 3765360.00 4.59965 (13120808)
439864.00 3765360.00 4.60976 (13120808)
439869.00 3765360.00 4.61615 (13120808)
439874.00 3765360.00 4.62258 (13120808)
439879.00 3765360.00 4.62560 (13120808)
439884.00 3765360.00 4.62881 (13120808)
439674.00 3765365.00 4.90670 (12011417)
439679.00 3765365.00 4.89686 (12011417)
439684.00 3765365.00 4.88603 (12011417)
439689.00 3765365.00 4.87434 (12011417)
439694.00 3765365.00 4.86074 (12011417)
439699.00 3765365.00 4.84646 (12011417)
439704.00 3765365.00 4.82923 (12011417)
439709.00 3765365.00 4.81254 (12011417)
439714.00 3765365.00 4.79372 (12011417)
439719.00 3765365.00 4.77469 (12011417)
439729.00 3765365.00 4.77631 (13121718)

```
439734.00   3765365.00        4.78195  (13121718)
        439739.00   3765365.00        4.78603  (13121718)
439744.00   3765365.00        4.78681  (13121718)
        439749.00   3765365.00        4.78754  (13121718)
439774.00   3765365.00        4.76930  (13121718)
        439779.00   3765365.00        4.76076  (13121718)
439784.00   3765365.00        4.75122  (13121718)
        439789.00   3765365.00        4.74054  (13121718)
439794.00   3765365.00        4.72800  (13121718)
        439799.00   3765365.00        4.71506  (13121718)
439804.00   3765365.00        4.70075  (13121718)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: EVAP ***
INCLUDING SOURCE(S):
A0000067 , A0000068 , A0000069 , A0000070 , A0000071 ,
A0000072 , A0000073 , A0000074 , A0000075 , A0000076 , A0000077 , A0000078 , A0000079 ,
A0000080 , A0000081 , A0000082 , A0000083 , A0000084 , A0000085 , A0000086 , A0000087 ,
A0000088 , A0000089 , A0000090 , A0000091 , A0000092 , A0000093 ,
A0000094 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439809.00	3765365.00	4.68558	(13121718)	439814.00	3765365.00	4.66883	(13121718)
439839.00	3765365.00	4.61652	(15111218)	439844.00	3765365.00	4.62075	(13121618)
439849.00	3765365.00	4.62586	(13121618)	439854.00	3765365.00	4.63204	(13121618)
439859.00	3765365.00	4.64585	(13120808)	439864.00	3765365.00	4.65486	(13120808)
439869.00	3765365.00	4.66468	(13120808)	439874.00	3765365.00	4.66944	(13120808)
439879.00	3765365.00	4.67552	(13120808)	439884.00	3765365.00	4.67710	(13120808)
439674.00	3765370.00	4.98691	(12011417)	439679.00	3765370.00	4.97953	(12011417)
439684.00	3765370.00	4.97011	(12011417)	439689.00	3765370.00	4.95927	(12011417)
439694.00	3765370.00	4.94812	(12011417)				

439699.00 3765370.00 4.93460 (12011417)
439704.00 3765370.00 4.92175 (12011417)
439709.00 3765370.00 4.90464 (12011417)
439714.00 3765370.00 4.88761 (12011417)
439719.00 3765370.00 4.86861 (12011417)
439729.00 3765370.00 4.82862 (12011417)
439734.00 3765370.00 4.83620 (13121718)
439739.00 3765370.00 4.84129 (13121718)
439744.00 3765370.00 4.84711 (13121718)
439749.00 3765370.00 4.84784 (13121718)
439774.00 3765370.00 4.83619 (13121718)
439779.00 3765370.00 4.83061 (13121718)
439784.00 3765370.00 4.82175 (13121718)
439789.00 3765370.00 4.81210 (13121718)
439794.00 3765370.00 4.80155 (13121718)
439799.00 3765370.00 4.78935 (13121718)
439804.00 3765370.00 4.77552 (13121718)
439809.00 3765370.00 4.76132 (13121718)
439814.00 3765370.00 4.74609 (13121718)
439839.00 3765370.00 4.67537 (15111218)
439844.00 3765370.00 4.66911 (15111218)
439849.00 3765370.00 4.67516 (13121618)
439854.00 3765370.00 4.68020 (13121618)
439859.00 3765370.00 4.68980 (13120808)
439864.00 3765370.00 4.70336 (13120808)
439869.00 3765370.00 4.71011 (13120808)
439874.00 3765370.00 4.72014 (13120808)
439879.00 3765370.00 4.72325 (13120808)
439884.00 3765370.00 4.72855 (13120808)
439674.00 3765375.00 5.06589 (12011417)
439679.00 3765375.00 5.06013 (12011417)
439684.00 3765375.00 5.05351 (12011417)
439689.00 3765375.00 5.04554 (12011417)
439694.00 3765375.00 5.03482 (12011417)
439699.00 3765375.00 5.02345 (12011417)
439704.00 3765375.00 5.01043 (12011417)
439709.00 3765375.00 4.99754 (12011417)
439714.00 3765375.00 4.98148 (12011417)
439719.00 3765375.00 4.96512 (12011417)
439729.00 3765375.00 4.92723 (12011417)
439734.00 3765375.00 4.90627 (12011417)
439739.00 3765375.00 4.89818 (13121718)
439744.00 3765375.00 4.90231 (13121718)
439749.00 3765375.00 4.90931 (13121718)
439754.00 3765375.00 4.91050 (13121718)
439774.00 3765375.00 4.90516 (13121718)
439779.00 3765375.00 4.89931 (13121718)
439784.00 3765375.00 4.89313 (13121718)
439789.00 3765375.00 4.88463 (13121718)
439794.00 3765375.00 4.87467 (13121718)
439799.00 3765375.00 4.86375 (13121718)
439804.00 3765375.00 4.85198 (13121718)

```
439809.00   3765375.00        4.83828  (13121718)
        439814.00   3765375.00        4.82338  (13121718)
439839.00   3765375.00        4.73454  (13121718)
        439844.00   3765375.00        4.72832  (15111218)
439849.00   3765375.00        4.72343  (13121618)
        439854.00   3765375.00        4.73084  (13121618)
439859.00   3765375.00        4.73680  (13120808)
        439864.00   3765375.00        4.74857  (13120808)
439869.00   3765375.00        4.76177  (13120808)
        439874.00   3765375.00        4.76760  (13120808)
439879.00   3765375.00        4.77595  (13120808)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: EVAP ***
INCLUDING SOURCE(S):
A0000067 , A0000068 , A0000069 , A0000070 , A0000071 ,
A0000072 , A0000073 , A0000074 , A0000075 , A0000076 , A0000077 , A0000078 , A0000079 ,
A0000080 , A0000081 , A0000082 , A0000083 , A0000084 , A0000085 , A0000086 , A0000087 ,
A0000088 , A0000089 , A0000090 , A0000091 , A0000092 , A0000093 ,
A0000094 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439884.00	3765375.00	4.77871	(13120808)	439774.00	3765380.00	4.97278	(13121718)
439779.00	3765380.00	4.96938	(13121718)	439784.00	3765380.00	4.96396	(13121718)
439789.00	3765380.00	4.95725	(13121718)	439794.00	3765380.00	4.94868	(13121718)
439799.00	3765380.00	4.93889	(13121718)	439804.00	3765380.00	4.92754	(13121718)
439809.00	3765380.00	4.91614	(13121718)	439814.00	3765380.00	4.90186	(13121718)
439769.00	3765385.00	5.04212	(13121718)	439819.00	3765385.00	4.96693	(13121718)
439769.00	3765400.00	5.27891	(12011417)	439844.00	3765400.00	5.14042	(13121718)
439849.00	3765400.00	5.12475	(13121718)	439674.00	3765405.00	5.51188	(12011417)
439714.00	3765405.00	5.53580	(12011417)				

439719.00 3765405.00 5.53136 (12011417)
439734.00 3765405.00 5.50662 (12011417)
439749.00 3765405.00 5.46756 (12011417)
439754.00 3765405.00 5.45097 (12011417)
439774.00 3765405.00 5.36931 (12011417)
439779.00 3765405.00 5.34440 (12011417)
439784.00 3765405.00 5.32228 (13121718)
439789.00 3765405.00 5.32320 (13121718)
439794.00 3765405.00 5.32453 (13121718)
439799.00 3765405.00 5.32123 (13121718)
439804.00 3765405.00 5.31863 (13121718)
439809.00 3765405.00 5.31180 (13121718)
439814.00 3765405.00 5.30572 (13121718)
439819.00 3765405.00 5.29540 (13121718)
439824.00 3765405.00 5.28573 (13121718)
439829.00 3765405.00 5.27295 (13121718)
439834.00 3765405.00 5.26097 (13121718)
439839.00 3765405.00 5.24505 (13121718)
439844.00 3765405.00 5.22960 (13121718)
439849.00 3765405.00 5.21202 (13121718)
439854.00 3765405.00 5.19645 (13121718)
439859.00 3765405.00 5.17528 (13121718)
439674.00 3765410.00 5.57975 (12011417)
439679.00 3765410.00 5.59097 (12011417)
439684.00 3765410.00 5.60162 (12011417)
439689.00 3765410.00 5.60897 (12011417)
439694.00 3765410.00 5.61617 (12011417)
439699.00 3765410.00 5.62040 (12011417)
439704.00 3765410.00 5.62486 (12011417)
439709.00 3765410.00 5.62605 (12011417)
439714.00 3765410.00 5.62588 (12011417)
439719.00 3765410.00 5.62317 (12011417)
439729.00 3765410.00 5.61455 (12011417)
439734.00 3765410.00 5.60721 (12011417)
439739.00 3765410.00 5.59738 (12011417)
439744.00 3765410.00 5.58556 (12011417)
439749.00 3765410.00 5.57312 (12011417)
439774.00 3765410.00 5.48415 (12011417)
439779.00 3765410.00 5.46159 (12011417)
439784.00 3765410.00 5.43734 (12011417)
439789.00 3765410.00 5.41182 (12011417)
439794.00 3765410.00 5.39887 (13121718)
439799.00 3765410.00 5.40049 (13121718)
439804.00 3765410.00 5.39710 (13121718)
439809.00 3765410.00 5.39407 (13121718)
439814.00 3765410.00 5.38716 (13121718)
439819.00 3765410.00 5.38098 (13121718)
439824.00 3765410.00 5.37070 (13121718)
439829.00 3765410.00 5.36057 (13121718)
439834.00 3765410.00 5.34783 (13121718)
439839.00 3765410.00 5.33509 (13121718)
439844.00 3765410.00 5.31940 (13121718)

```
439849.00   3765410.00        5.30376  (13121718)
        439854.00   3765410.00        5.28555  (13121718)
439859.00   3765410.00        5.26956  (13121718)
        439674.00   3765415.00        5.64534  (12011417)
439679.00   3765415.00        5.65959  (12011417)
        439684.00   3765415.00        5.67187  (12011417)
439689.00   3765415.00        5.68404  (12011417)
        439694.00   3765415.00        5.69318  (12011417)
439699.00   3765415.00        5.70115  (12011417)
        439704.00   3765415.00        5.70654  (12011417)
439709.00   3765415.00        5.71143  (12011417)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: EVAP ***
INCLUDING SOURCE(S):
A0000067 , A0000068 , A0000069 , A0000070 , A0000071 ,
A0000072 , A0000073 , A0000074 , A0000075 , A0000076 , A0000077 , A0000078 , A0000079 ,
A0000080 , A0000081 , A0000082 , A0000083 , A0000084 , A0000085 , A0000086 , A0000087 ,
A0000088 , A0000089 , A0000090 , A0000091 , A0000092 , A0000093 ,
A0000094 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439714.00	3765415.00	5.71389	(12011417)	439719.00	3765415.00	5.71505	(12011417)
439729.00	3765415.00	5.71038	(12011417)	439734.00	3765415.00	5.70524	(12011417)
439739.00	3765415.00	5.69860	(12011417)	439744.00	3765415.00	5.69039	(12011417)
439749.00	3765415.00	5.67986	(12011417)	439774.00	3765415.00	5.59919	(12011417)
439779.00	3765415.00	5.57827	(12011417)	439784.00	3765415.00	5.55650	(12011417)
439789.00	3765415.00	5.53247	(12011417)	439794.00	3765415.00	5.50674	(12011417)
439799.00	3765415.00	5.47984	(12011417)	439804.00	3765415.00	5.47803	(13121718)
439809.00	3765415.00	5.47477	(13121718)	439814.00	3765415.00	5.47178	(13121718)
439819.00	3765415.00	5.46530	(13121718)				

439824.00 3765415.00 5.45754 (13121718)
439829.00 3765415.00 5.44853 (13121718)
439834.00 3765415.00 5.43780 (13121718)
439839.00 3765415.00 5.42450 (13121718)
439844.00 3765415.00 5.41126 (13121718)
439849.00 3765415.00 5.39576 (13121718)
439854.00 3765415.00 5.38019 (13121718)
439859.00 3765415.00 5.36136 (13121718)
439674.00 3765420.00 5.70825 (12011417)
439679.00 3765420.00 5.72605 (12011417)
439684.00 3765420.00 5.74101 (12011417)
439689.00 3765420.00 5.75515 (12011417)
439694.00 3765420.00 5.76730 (12011417)
439699.00 3765420.00 5.77908 (12011417)
439704.00 3765420.00 5.78794 (12011417)
439709.00 3765420.00 5.79525 (12011417)
439714.00 3765420.00 5.80077 (12011417)
439719.00 3765420.00 5.80393 (12011417)
439729.00 3765420.00 5.80631 (12011417)
439734.00 3765420.00 5.80415 (12011417)
439739.00 3765420.00 5.79899 (12011417)
439744.00 3765420.00 5.79233 (12011417)
439749.00 3765420.00 5.78555 (12011417)
439774.00 3765420.00 5.71632 (12011417)
439779.00 3765420.00 5.69707 (12011417)
439784.00 3765420.00 5.67538 (12011417)
439789.00 3765420.00 5.65355 (12011417)
439794.00 3765420.00 5.63026 (12011417)
439799.00 3765420.00 5.60450 (12011417)
439804.00 3765420.00 5.57737 (12011417)
439809.00 3765420.00 5.55807 (13121718)
439814.00 3765420.00 5.55497 (13121718)
439819.00 3765420.00 5.55194 (13121718)
439824.00 3765420.00 5.54540 (13121718)
439829.00 3765420.00 5.53747 (13121718)
439834.00 3765420.00 5.52796 (13121718)
439839.00 3765420.00 5.51670 (13121718)
439844.00 3765420.00 5.50406 (13121718)
439849.00 3765420.00 5.48939 (13121718)
439854.00 3765420.00 5.47398 (13121718)
439859.00 3765420.00 5.45867 (13121718)
439674.00 3765425.00 5.76923 (12011417)
439679.00 3765425.00 5.78832 (12011417)
439684.00 3765425.00 5.80799 (12011417)
439689.00 3765425.00 5.82518 (12011417)
439694.00 3765425.00 5.84050 (12011417)
439699.00 3765425.00 5.85384 (12011417)
439704.00 3765425.00 5.86605 (12011417)
439709.00 3765425.00 5.87704 (12011417)
439714.00 3765425.00 5.88589 (12011417)
439719.00 3765425.00 5.89266 (12011417)
439729.00 3765425.00 5.89972 (12011417)

```
439734.00   3765425.00        5.90029  (12011417)
        439739.00   3765425.00        5.90010  (12011417)
439744.00   3765425.00        5.89587  (12011417)
        439749.00   3765425.00        5.89018  (12011417)
439774.00   3765425.00        5.83252  (12011417)
        439779.00   3765425.00        5.81583  (12011417)
439784.00   3765425.00        5.79670  (12011417)
        439789.00   3765425.00        5.77633  (12011417)
439794.00   3765425.00        5.75305  (12011417)
        439799.00   3765425.00        5.72996  (12011417)
439804.00   3765425.00        5.70466  (12011417)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: EVAP ***
INCLUDING SOURCE(S):
A0000067 , A0000068 , A0000069 , A0000070 , A0000071 ,
A0000072 , A0000073 , A0000074 , A0000075 , A0000076 , A0000077 , A0000078 , A0000079 ,
A0000080 , A0000081 , A0000082 , A0000083 , A0000084 , A0000085 , A0000086 , A0000087 ,
A0000088 , A0000089 , A0000090 , A0000091 , A0000092 , A0000093 ,
A0000094 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439809.00	3765425.00	5.67801	(12011417)	439814.00	3765425.00	5.64927	(12011417)
439819.00	3765425.00	5.63779	(13121718)	439824.00	3765425.00	5.63373	(13121718)
439829.00	3765425.00	5.62789	(13121718)	439834.00	3765425.00	5.61966	(13121718)
439839.00	3765425.00	5.60988	(13121718)	439844.00	3765425.00	5.59843	(13121718)
439849.00	3765425.00	5.58539	(13121718)	439854.00	3765425.00	5.57030	(13121718)
439859.00	3765425.00	5.55429	(13121718)	439674.00	3765430.00	5.82689	(12011417)
439679.00	3765430.00	5.85031	(12011417)	439684.00	3765430.00	5.87056	(12011417)
439689.00	3765430.00	5.89136	(12011417)	439694.00	3765430.00	5.91011	(12011417)
439699.00	3765430.00	5.92800	(12011417)				

439704.00 3765430.00 5.94270 (12011417)
439709.00 3765430.00 5.95652 (12011417)
439714.00 3765430.00 5.96790 (12011417)
439719.00 3765430.00 5.97860 (12011417)
439729.00 3765430.00 5.99284 (12011417)
439734.00 3765430.00 5.99631 (12011417)
439739.00 3765430.00 5.99728 (12011417)
439744.00 3765430.00 5.99768 (12011417)
439749.00 3765430.00 5.99563 (12011417)
439774.00 3765430.00 5.95108 (12011417)
439779.00 3765430.00 5.93540 (12011417)
439784.00 3765430.00 5.91801 (12011417)
439789.00 3765430.00 5.89958 (12011417)
439794.00 3765430.00 5.87959 (12011417)
439799.00 3765430.00 5.85677 (12011417)
439804.00 3765430.00 5.83244 (12011417)
439809.00 3765430.00 5.80773 (12011417)
439814.00 3765430.00 5.78087 (12011417)
439819.00 3765430.00 5.75285 (12011417)
439824.00 3765430.00 5.72353 (13121718)
439829.00 3765430.00 5.71872 (13121718)
439834.00 3765430.00 5.71277 (13121718)
439839.00 3765430.00 5.70393 (13121718)
439844.00 3765430.00 5.69409 (13121718)
439849.00 3765430.00 5.68189 (13121718)
439854.00 3765430.00 5.66891 (13121718)
439859.00 3765430.00 5.65392 (13121718)
439674.00 3765435.00 5.88193 (12011417)
439679.00 3765435.00 5.90738 (12011417)
439684.00 3765435.00 5.93280 (12011417)
439689.00 3765435.00 5.95600 (12011417)
439694.00 3765435.00 5.97762 (12011417)
439699.00 3765435.00 5.99752 (12011417)
439704.00 3765435.00 6.01669 (12011417)
439709.00 3765435.00 6.03417 (12011417)
439714.00 3765435.00 6.04928 (12011417)
439719.00 3765435.00 6.06209 (12011417)
439729.00 3765435.00 6.08311 (12011417)
439734.00 3765435.00 6.09082 (12011417)
439739.00 3765435.00 6.09584 (12011417)
439744.00 3765435.00 6.09787 (12011417)
439749.00 3765435.00 6.09895 (12011417)
439774.00 3765435.00 6.06816 (12011417)
439779.00 3765435.00 6.05600 (12011417)
439784.00 3765435.00 6.04163 (12011417)
439789.00 3765435.00 6.02379 (12011417)
439794.00 3765435.00 6.00507 (12011417)
439799.00 3765435.00 5.98516 (12011417)
439804.00 3765435.00 5.96305 (12011417)
439809.00 3765435.00 5.93834 (12011417)
439814.00 3765435.00 5.91304 (12011417)
439819.00 3765435.00 5.88653 (12011417)

```
439824.00   3765435.00        5.85894  (12011417)
        439829.00   3765435.00        5.82893  (12011417)
439834.00   3765435.00        5.80691  (13121718)
        439839.00   3765435.00        5.79993  (13121718)
439844.00   3765435.00        5.79121  (13121718)
        439849.00   3765435.00        5.78096  (13121718)
439854.00   3765435.00        5.76791  (13121718)
        439859.00   3765435.00        5.75447  (13121718)
439674.00   3765440.00        5.93455  (12011417)
        439679.00   3765440.00        5.96319  (12011417)
439684.00   3765440.00        5.98984  (12011417)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: EVAP ***
INCLUDING SOURCE(S):
A0000067 , A0000068 , A0000069 , A0000070 , A0000071 ,
A0000072 , A0000073 , A0000074 , A0000075 , A0000076 , A0000077 , A0000078 , A0000079 ,
A0000080 , A0000081 , A0000082 , A0000083 , A0000084 , A0000085 , A0000086 , A0000087 ,
A0000088 , A0000089 , A0000090 , A0000091 , A0000092 , A0000093 ,
A0000094 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439689.00	3765440.00	6.01639	(12011417)	439694.00	3765440.00	6.04240	(12011417)
439699.00	3765440.00	6.06591	(12011417)	439704.00	3765440.00	6.08795	(12011417)
439709.00	3765440.00	6.10771	(12011417)	439714.00	3765440.00	6.12741	(12011417)
439719.00	3765440.00	6.14397	(12011417)	439729.00	3765440.00	6.17181	(12011417)
439734.00	3765440.00	6.18255	(12011417)	439739.00	3765440.00	6.19094	(12011417)
439744.00	3765440.00	6.19777	(12011417)	439749.00	3765440.00	6.20203	(12011417)
439774.00	3765440.00	6.18665	(12011417)	439779.00	3765440.00	6.17613	(12011417)
439784.00	3765440.00	6.16382	(12011417)	439789.00	3765440.00	6.15018	(12011417)
439794.00	3765440.00	6.13342	(12011417)				

439799.00 3765440.00 6.11412 (12011417)
439804.00 3765440.00 6.09394 (12011417)
439809.00 3765440.00 6.07235 (12011417)
439814.00 3765440.00 6.04822 (12011417)
439819.00 3765440.00 6.02225 (12011417)
439824.00 3765440.00 5.99506 (12011417)
439829.00 3765440.00 5.96771 (12011417)
439834.00 3765440.00 5.93846 (12011417)
439839.00 3765440.00 5.90717 (12011417)
439844.00 3765440.00 5.89046 (13121718)
439849.00 3765440.00 5.88102 (13121718)
439854.00 3765440.00 5.87085 (13121718)
439859.00 3765440.00 5.85697 (13121718)
439674.00 3765445.00 5.98289 (12011417)
439679.00 3765445.00 6.01541 (12011417)
439684.00 3765445.00 6.04569 (12011417)
439689.00 3765445.00 6.07544 (12011417)
439694.00 3765445.00 6.10216 (12011417)
439699.00 3765445.00 6.13026 (12011417)
439704.00 3765445.00 6.15624 (12011417)
439709.00 3765445.00 6.18089 (12011417)
439714.00 3765445.00 6.20193 (12011417)
439719.00 3765445.00 6.22269 (12011417)
439729.00 3765445.00 6.25831 (12011417)
439734.00 3765445.00 6.27352 (12011417)
439739.00 3765445.00 6.28479 (12011417)
439744.00 3765445.00 6.29520 (12011417)
439749.00 3765445.00 6.30226 (12011417)
439774.00 3765445.00 6.30431 (12011417)
439779.00 3765445.00 6.29724 (12011417)
439784.00 3765445.00 6.28820 (12011417)
439789.00 3765445.00 6.27505 (12011417)
439794.00 3765445.00 6.26212 (12011417)
439799.00 3765445.00 6.24551 (12011417)
439804.00 3765445.00 6.22745 (12011417)
439809.00 3765445.00 6.20598 (12011417)
439814.00 3765445.00 6.18473 (12011417)
439819.00 3765445.00 6.16068 (12011417)
439824.00 3765445.00 6.13569 (12011417)
439829.00 3765445.00 6.10710 (12011417)
439834.00 3765445.00 6.07916 (12011417)
439839.00 3765445.00 6.05053 (12011417)
439844.00 3765445.00 6.01950 (12011417)
439849.00 3765445.00 5.98718 (12011417)
439854.00 3765445.00 5.97249 (13121718)
439859.00 3765445.00 5.96290 (13121718)
439674.00 3765450.00 6.02985 (12011417)
439679.00 3765450.00 6.06333 (12011417)
439684.00 3765450.00 6.09684 (12011417)
439689.00 3765450.00 6.12991 (12011417)
439694.00 3765450.00 6.16185 (12011417)
439699.00 3765450.00 6.19147 (12011417)

```
439704.00   3765450.00        6.22056  (12011417)
        439709.00   3765450.00        6.24778  (12011417)
439714.00   3765450.00        6.27552  (12011417)
        439719.00   3765450.00        6.29886  (12011417)
439729.00   3765450.00        6.34148  (12011417)
        439734.00   3765450.00        6.36066  (12011417)
439739.00   3765450.00        6.37694  (12011417)
        439744.00   3765450.00        6.39110  (12011417)
439749.00   3765450.00        6.40238  (12011417)
        439774.00   3765450.00        6.42159  (12011417)
439844.00   3765450.00        6.16562  (12011417)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: EVAP ***
INCLUDING SOURCE(S):
A0000067 , A0000068 , A0000069 , A0000070 , A0000071 ,
A0000072 , A0000073 , A0000074 , A0000075 , A0000076 , A0000077 , A0000078 , A0000079 ,
A0000080 , A0000081 , A0000082 , A0000083 , A0000084 , A0000085 , A0000086 , A0000087 ,
A0000088 , A0000089 , A0000090 , A0000091 , A0000092 , A0000093 ,
A0000094 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439849.00	3765450.00	6.13443	(12011417)	439854.00	3765450.00	6.10321	(12011417)
439859.00	3765450.00	6.06899	(13121718)	439674.00	3765455.00	6.07155	(12011417)
439679.00	3765455.00	6.10951	(12011417)	439684.00	3765455.00	6.14564	(12011417)
439689.00	3765455.00	6.18133	(12011417)	439694.00	3765455.00	6.21529	(12011417)
439699.00	3765455.00	6.24991	(12011417)	439704.00	3765455.00	6.28283	(12011417)
439709.00	3765455.00	6.31394	(12011417)	439714.00	3765455.00	6.34332	(12011417)
439719.00	3765455.00	6.37158	(12011417)	439729.00	3765455.00	6.42289	(12011417)
439734.00	3765455.00	6.44573	(12011417)	439739.00	3765455.00	6.46503	(12011417)
439744.00	3765455.00	6.48428	(12011417)				

```
439749.00   3765455.00        6.49911  (12011417)
        439844.00   3765455.00        6.31450  (12011417)
439849.00   3765455.00        6.28403  (12011417)
        439854.00   3765455.00        6.25275  (12011417)
439859.00   3765455.00        6.22182  (12011417)
        439674.00   3765460.00        6.11230  (12011417)
439679.00   3765460.00        6.15062  (12011417)
        439684.00   3765460.00        6.19059  (12011417)
439689.00   3765460.00        6.22896  (12011417)
        439694.00   3765460.00        6.26800  (12011417)
439699.00   3765460.00        6.30396  (12011417)
        439704.00   3765460.00        6.33972  (12011417)
439709.00   3765460.00        6.37573  (12011417)
        439714.00   3765460.00        6.40968  (12011417)
439719.00   3765460.00        6.44186  (12011417)
        439729.00   3765460.00        6.50021  (12011417)
439734.00   3765460.00        6.52701  (12011417)
        439739.00   3765460.00        6.55221  (12011417)
439744.00   3765460.00        6.57399  (12011417)
        439749.00   3765460.00        6.59433  (12011417)
439789.00   3765460.00        6.65676  (12011417)
        439794.00   3765460.00        6.65209  (12011417)
439799.00   3765460.00        6.64348  (12011417)
        439804.00   3765460.00        6.63370  (12011417)
439809.00   3765460.00        6.62028  (12011417)
        439814.00   3765460.00        6.60497  (12011417)
439819.00   3765460.00        6.58581  (12011417)
        439824.00   3765460.00        6.56700  (12011417)
439829.00   3765460.00        6.54414  (12011417)
        439844.00   3765460.00        6.46677  (12011417)
439849.00   3765460.00        6.43723  (12011417)
        439854.00   3765460.00        6.40850  (12011417)
439859.00   3765460.00        6.37422  (12011417)
        439674.00   3765465.00        6.14745  (12011417)
439679.00   3765465.00        6.19088  (12011417)
        439684.00   3765465.00        6.23202  (12011417)
439689.00   3765465.00        6.27394  (12011417)
        439694.00   3765465.00        6.31448  (12011417)
439699.00   3765465.00        6.35606  (12011417)
        439704.00   3765465.00        6.39560  (12011417)
439709.00   3765465.00        6.43301  (12011417)
        439714.00   3765465.00        6.47033  (12011417)
439719.00   3765465.00        6.50685  (12011417)
        439729.00   3765465.00        6.57450  (12011417)
439734.00   3765465.00        6.60550  (12011417)
        439739.00   3765465.00        6.63332  (12011417)
439744.00   3765465.00        6.66236  (12011417)
        439749.00   3765465.00        6.68532  (12011417)
439789.00   3765465.00        6.78330  (12011417)
        439794.00   3765465.00        6.78211  (12011417)
439799.00   3765465.00        6.77822  (12011417)
        439804.00   3765465.00        6.77034  (12011417)
```

```
439809.00   3765465.00        6.76046  (12011417)
        439814.00   3765465.00        6.74782  (12011417)
439819.00   3765465.00        6.73289  (12011417)
        439824.00   3765465.00        6.71469  (12011417)
439829.00   3765465.00        6.69350  (12011417)
        439844.00   3765465.00        6.62156  (12011417)
439849.00   3765465.00        6.59270  (12011417)
        439854.00   3765465.00        6.56412  (12011417)
439859.00   3765465.00        6.53488  (12011417)
        439674.00   3765470.00        6.18344  (12011417)
439679.00   3765470.00        6.22594  (12011417)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: EVAP ***
INCLUDING SOURCE(S):
A0000067 , A0000068 , A0000069 , A0000070 , A0000071 ,
A0000072 , A0000073 , A0000074 , A0000075 , A0000076 , A0000077 , A0000078 , A0000079 ,
A0000080 , A0000081 , A0000082 , A0000083 , A0000084 , A0000085 , A0000086 , A0000087 ,
A0000088 , A0000089 , A0000090 , A0000091 , A0000092 , A0000093 ,
A0000094 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439684.00	3765470.00	6.27100	(12011417)	439689.00	3765470.00	6.31497	(12011417)
439694.00	3765470.00	6.35972	(12011417)	439699.00	3765470.00	6.40214	(12011417)
439704.00	3765470.00	6.44515	(12011417)	439709.00	3765470.00	6.48792	(12011417)
439714.00	3765470.00	6.52880	(12011417)	439719.00	3765470.00	6.56849	(12011417)
439729.00	3765470.00	6.64430	(12011417)	439734.00	3765470.00	6.68049	(12011417)
439739.00	3765470.00	6.71372	(12011417)	439744.00	3765470.00	6.74517	(12011417)
439749.00	3765470.00	6.77412	(12011417)	439789.00	3765470.00	6.90898	(12011417)
439794.00	3765470.00	6.91302	(12011417)	439799.00	3765470.00	6.91166	(12011417)
439804.00	3765470.00	6.90910	(12011417)				

```
439809.00   3765470.00        6.90219  (12011417)
        439814.00   3765470.00        6.89236  (12011417)
439819.00   3765470.00        6.87999  (12011417)
        439824.00   3765470.00        6.86497  (12011417)
439829.00   3765470.00        6.84786  (12011417)
        439844.00   3765470.00        6.77988  (12011417)
439849.00   3765470.00        6.75415  (12011417)
        439854.00   3765470.00        6.72548  (12011417)
439859.00   3765470.00        6.69459  (12011417)
        439674.00   3765475.00        6.21367  (12011417)
439679.00   3765475.00        6.25976  (12011417)
        439684.00   3765475.00        6.30738  (12011417)
439689.00   3765475.00        6.35218  (12011417)
        439694.00   3765475.00        6.40003  (12011417)
439699.00   3765475.00        6.44595  (12011417)
        439704.00   3765475.00        6.49305  (12011417)
439709.00   3765475.00        6.53664  (12011417)
        439714.00   3765475.00        6.58222  (12011417)
439719.00   3765475.00        6.62606  (12011417)
        439729.00   3765475.00        6.71051  (12011417)
439734.00   3765475.00        6.74929  (12011417)
        439739.00   3765475.00        6.78948  (12011417)
439744.00   3765475.00        6.82461  (12011417)
        439749.00   3765475.00        6.86026  (12011417)
439754.00   3765475.00        6.89081  (12011417)
        439789.00   3765475.00        7.03478  (12011417)
439794.00   3765475.00        7.04195  (12011417)
        439799.00   3765475.00        7.04709  (12011417)
439804.00   3765475.00        7.04751  (12011417)
        439809.00   3765475.00        7.04451  (12011417)
439814.00   3765475.00        7.03934  (12011417)
        439819.00   3765475.00        7.02957  (12011417)
439824.00   3765475.00        7.01748  (12011417)
        439829.00   3765475.00        7.00120  (12011417)
439269.00   3764900.00        2.26883  (12010217)
        439369.00   3764900.00        2.32826  (12010217)
439469.00   3764900.00        2.33864  (13121618)
        439569.00   3764900.00        2.40492  (13120808)
439669.00   3764900.00        2.39228  (13120808)
        439769.00   3764900.00        2.49239  (12010217)
439869.00   3764900.00        2.56135  (12010217)
        439969.00   3764900.00        2.49107  (12010217)
440069.00   3764900.00        2.26374  (12010217)
        440169.00   3764900.00        2.29152  (12121717)
440269.00   3764900.00        2.33441  (15010717)
        439269.00   3765000.00        2.52866  (13121718)
439369.00   3765000.00        2.55194  (12010217)
        439469.00   3765000.00        2.55029  (15111218)
439569.00   3765000.00        2.61294  (13121618)
        439669.00   3765000.00        2.69018  (13120808)
439769.00   3765000.00        2.68031  (12010217)
        439869.00   3765000.00        2.81692  (12010217)
```

```
439969.00   3765000.00        2.80057  (12010217)
        440069.00   3765000.00        2.62153  (12010217)
440169.00   3765000.00        2.51545  (12121717)
        440269.00   3765000.00        2.60696  (15010717)
439269.00   3765100.00        2.83308  (13121718)
        439369.00   3765100.00        2.88636  (13121718)
439469.00   3765100.00        2.84538  (13121718)
        439569.00   3765100.00        2.90121  (15111218)
439669.00   3765100.00        2.96718  (13121618)
        439769.00   3765100.00        3.03215  (13120808)
439869.00   3765100.00        3.11662  (12010217)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: EVAP ***
INCLUDING SOURCE(S):
A0000067 , A0000068 , A0000069 , A0000070 , A0000071 ,
A0000072 , A0000073 , A0000074 , A0000075 , A0000076 , A0000077 , A0000078 , A0000079 ,
A0000080 , A0000081 , A0000082 , A0000083 , A0000084 , A0000085 , A0000086 , A0000087 ,
A0000088 , A0000089 , A0000090 , A0000091 , A0000092 , A0000093 ,
A0000094 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439969.00	3765100.00	3.16265	(12010217)	440069.00	3765100.00	3.03647	(12010217)
440169.00	3765100.00	2.83242	(15010717)	440269.00	3765100.00	2.95842	(15010717)
439269.00	3765200.00	3.43205	(12011417)	439369.00	3765200.00	3.42292	(12011417)
439469.00	3765200.00	3.33629	(13121718)	439569.00	3765200.00	3.37807	(13121718)
439669.00	3765200.00	3.37210	(15111218)	439769.00	3765200.00	3.45650	(13120808)
439869.00	3765200.00	3.48320	(12010217)	439969.00	3765200.00	3.61328	(12010217)
440069.00	3765200.00	3.53502	(12010217)	440169.00	3765200.00	3.27704	(12010217)
440269.00	3765200.00	3.42852	(15010717)	439269.00	3765300.00	3.91214	(12011417)
439369.00	3765300.00	4.01072	(12011417)				

```
439469.00   3765300.00        4.16100  (12011417)
        439569.00   3765300.00        4.17043  (12011417)
439669.00   3765300.00        4.11482  (13121718)
        439769.00   3765300.00        4.03333  (15111218)
439869.00   3765300.00        4.11281  (13120808)
        439969.00   3765300.00        4.22900  (12010217)
440069.00   3765300.00        4.18335  (12010217)
        440169.00   3765300.00        4.00050  (12010217)
440269.00   3765300.00        4.05902  (15010717)
        439269.00   3765400.00        4.70222  (12011417)
439369.00   3765400.00        4.59715  (12011417)
        439469.00   3765400.00        4.70698  (12011417)
439569.00   3765400.00        5.08080  (12011417)
        439669.00   3765400.00        5.43417  (12011417)
439769.00   3765400.00        5.27891  (12011417)
        439869.00   3765400.00        5.04605  (13121718)
439969.00   3765400.00        5.18170  (12010217)
        440069.00   3765400.00        5.13807  (12010217)
440169.00   3765400.00        5.00741  (12010217)
        440269.00   3765400.00        4.93714  (15010717)
439269.00   3765500.00        6.38059  (12011417)
        439369.00   3765500.00        6.12426  (12011417)
439469.00   3765500.00        5.80236  (12010217)
        439569.00   3765500.00        5.92510  (12111318)
439669.00   3765500.00        6.31511  (12111318)
        439769.00   3765500.00        7.44022  (12011417)
439869.00   3765500.00        7.70848  (12011417)
        439969.00   3765500.00        6.97693  (12010217)
440069.00   3765500.00        6.86275  (12010217)
        440169.00   3765500.00        6.69653  (12010217)
440269.00   3765500.00        6.65742  (15113017)
        439269.00   3765600.00        9.25759  (12011417)
439369.00   3765600.00        9.82959  (12011417)
        439469.00   3765600.00        9.53965  (12011417)
439569.00   3765600.00        8.82329  (12010217)
        439669.00   3765600.00        8.71555  (12010217)
439769.00   3765600.00        9.47435  (12111318)
        439869.00   3765600.00       12.63496  (12111318)
439969.00   3765600.00       14.10435  (12011417)
        440069.00   3765600.00       12.64241  (12011417)
440169.00   3765600.00       11.41122  (15112218)
        440269.00   3765600.00       11.69157  (15112218)
439269.00   3765700.00       33.25245  (14120118)
        439369.00   3765700.00       35.95023  (16121918)
439469.00   3765700.00       41.11105  (12011417)
        439569.00   3765700.00       39.29646  (12011417)
439669.00   3765700.00       37.94666  (12011417)
        439769.00   3765700.00       37.72060  (15112218)
439869.00   3765700.00       37.94103  (14012117)
        439969.00   3765700.00       38.40239  (14120118)
440069.00   3765700.00       39.34749  (14120118)
        440169.00   3765700.00       40.99246  (14120118)
```

```
440269.00   3765700.00       44.95572  (14120118)
        439269.00   3765800.00       13.93840  (12111317)
439369.00   3765800.00       15.43680  (12111317)
        439469.00   3765800.00       15.51166  (12111317)
439569.00   3765800.00       15.97378  (12111317)
        439669.00   3765800.00       17.00163  (15120818)
439769.00   3765800.00       19.58230  (15120818)
        439869.00   3765800.00       26.80093  (13111217)
439969.00   3765800.00       16.09687  (14121418)
        440069.00   3765800.00       12.99105  (14121418)
440169.00   3765800.00       12.55724  (15112217)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: EVAP ***
INCLUDING SOURCE(S):
A0000067 , A0000068 , A0000069 , A0000070 , A0000071 ,
A0000072 , A0000073 , A0000074 , A0000075 , A0000076 , A0000077 , A0000078 , A0000079 ,
A0000080 , A0000081 , A0000082 , A0000083 , A0000084 , A0000085 , A0000086 , A0000087 ,
A0000088 , A0000089 , A0000090 , A0000091 , A0000092 , A0000093 ,
A0000094 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
440269.00	3765800.00	13.45956	(13111217)	439269.00	3765900.00	7.94782	(15120818)
439369.00	3765900.00	8.14089	(15120818)	439469.00	3765900.00	8.27114	(15120818)
439569.00	3765900.00	8.32374	(15120818)	439669.00	3765900.00	8.38585	(15112217)
439769.00	3765900.00	7.86510	(13111218)	439869.00	3765900.00	8.50095	(13111217)
439969.00	3765900.00	8.60629	(13111217)	440069.00	3765900.00	8.29356	(12011717)
440169.00	3765900.00	7.52624	(12011717)	440269.00	3765900.00	7.02371	(12011717)
439649.00	3765310.00	4.18052	(13121718)	439679.00	3765310.00	4.20586	(13121718)
439709.00	3765310.00	4.19288	(13121718)	439739.00	3765310.00	4.14087	(13121718)
439769.00	3765310.00	4.11152	(15111218)				

```
439799.00   3765310.00        4.10787  (13121618)
        439829.00   3765310.00        4.15061  (13120808)
439859.00   3765310.00        4.18703  (13120808)
        439889.00   3765310.00        4.18375  (13120808)
439649.00   3765340.00        4.56653  (12011417)
        439679.00   3765340.00        4.47831  (12011417)
439709.00   3765340.00        4.50141  (13121718)
        439739.00   3765340.00        4.49684  (13121718)
439769.00   3765340.00        4.44349  (13121718)
        439799.00   3765340.00        4.37801  (15111218)
439829.00   3765340.00        4.37974  (13121618)
        439859.00   3765340.00        4.42823  (13120808)
439889.00   3765340.00        4.44093  (13120808)
        439649.00   3765370.00        5.00516  (12011417)
439679.00   3765370.00        4.97953  (12011417)
        439709.00   3765370.00        4.90464  (12011417)
439739.00   3765370.00        4.84129  (13121718)
        439769.00   3765370.00        4.84257  (13121718)
439799.00   3765370.00        4.78935  (13121718)
        439829.00   3765370.00        4.69322  (13121718)
439859.00   3765370.00        4.68980  (13120808)
        439889.00   3765370.00        4.72982  (13120808)
439649.00   3765400.00        5.39114  (12011417)
        439679.00   3765400.00        5.44715  (12011417)
439709.00   3765400.00        5.45072  (12011417)
        439739.00   3765400.00        5.39379  (12011417)
439769.00   3765400.00        5.27891  (12011417)
        439799.00   3765400.00        5.24472  (13121718)
439829.00   3765400.00        5.18857  (13121718)
        439859.00   3765400.00        5.08655  (13121718)
439889.00   3765400.00        5.06190  (13120808)
        439649.00   3765430.00        5.69806  (12011417)
439679.00   3765430.00        5.85031  (12011417)
        439709.00   3765430.00        5.95652  (12011417)
439739.00   3765430.00        5.99728  (12011417)
        439769.00   3765430.00        5.96373  (12011417)
439799.00   3765430.00        5.85677  (12011417)
        439829.00   3765430.00        5.71872  (13121718)
439859.00   3765430.00        5.65392  (13121718)
        439889.00   3765430.00        5.54429  (13121718)
439649.00   3765460.00        5.91281  (12011417)
        439679.00   3765460.00        6.15062  (12011417)
439709.00   3765460.00        6.37573  (12011417)
        439739.00   3765460.00        6.55221  (12011417)
439769.00   3765460.00        6.64799  (12011417)
        439799.00   3765460.00        6.64348  (12011417)
439829.00   3765460.00        6.54414  (12011417)
        439859.00   3765460.00        6.37422  (12011417)
439889.00   3765460.00        6.20978  (13121718)
        439649.00   3765490.00        6.06152  (12011417)
439679.00   3765490.00        6.34426  (12011417)
        439709.00   3765490.00        6.66442  (12011417)
```

```
439739.00   3765490.00        6.98809  (12011417)
        439769.00   3765490.00        7.26624  (12011417)
439799.00   3765490.00        7.44319  (12011417)
        439829.00   3765490.00        7.48076  (12011417)
439859.00   3765490.00        7.38232  (12011417)
        439889.00   3765490.00        7.20575  (12011417)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: FREEEXH ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439674.00	3765310.00	3.46749	(13121718)	439679.00	3765310.00	3.46458	(13121718)
439684.00	3765310.00	3.45958	(13121718)	439689.00	3765310.00	3.45775	(13121718)
439694.00	3765310.00	3.45340	(13121718)	439699.00	3765310.00	3.44869	(13121718)
439704.00	3765310.00	3.44389	(13121718)	439709.00	3765310.00	3.43971	(13121718)
439714.00	3765310.00	3.43637	(13121718)	439719.00	3765310.00	3.43602	(12010217)
439729.00	3765310.00	3.43629	(12010217)	439734.00	3765310.00	3.43584	(12010217)
439739.00	3765310.00	3.43657	(12010217)	439744.00	3765310.00	3.43589	(12010217)
439749.00	3765310.00	3.43669	(12010217)	439764.00	3765310.00	3.43602	(12010217)
439769.00	3765310.00	3.43692	(12010217)	439774.00	3765310.00	3.43643	(12010217)
439779.00	3765310.00	3.43712	(12010217)				

439784.00 3765310.00 3.43633 (12010217)
439789.00 3765310.00 3.43722 (12010217)
439794.00 3765310.00 3.43677 (12010217)
439799.00 3765310.00 3.43708 (12010217)
439804.00 3765310.00 3.43673 (12010217)
439809.00 3765310.00 3.43731 (12010217)
439814.00 3765310.00 3.43663 (12010217)
439819.00 3765310.00 3.43714 (12010217)
439824.00 3765310.00 3.43673 (12010217)
439829.00 3765310.00 3.43700 (12010217)
439839.00 3765310.00 3.43697 (12010217)
439844.00 3765310.00 3.43694 (12010217)
439849.00 3765310.00 3.43686 (12010217)
439854.00 3765310.00 3.43732 (12010217)
439859.00 3765310.00 3.43676 (12010217)
439864.00 3765310.00 3.43713 (12010217)
439869.00 3765310.00 3.43664 (12010217)
439874.00 3765310.00 3.43744 (12010217)
439879.00 3765310.00 3.43647 (12010217)
439884.00 3765310.00 3.43762 (12010217)
439674.00 3765315.00 3.50435 (13121718)
439679.00 3765315.00 3.50016 (13121718)
439684.00 3765315.00 3.49690 (13121718)
439689.00 3765315.00 3.49139 (13121718)
439694.00 3765315.00 3.48954 (13121718)
439699.00 3765315.00 3.48560 (13121718)
439704.00 3765315.00 3.48162 (13121718)
439709.00 3765315.00 3.47608 (13121718)
439714.00 3765315.00 3.47224 (13121718)
439719.00 3765315.00 3.46818 (13121718)
439729.00 3765315.00 3.46481 (12010217)
439734.00 3765315.00 3.46520 (12010217)
439739.00 3765315.00 3.46490 (12010217)
439744.00 3765315.00 3.46529 (12010217)
439749.00 3765315.00 3.46474 (12010217)
439764.00 3765315.00 3.46515 (12010217)
439769.00 3765315.00 3.46514 (12010217)
439774.00 3765315.00 3.46519 (12010217)
439779.00 3765315.00 3.46545 (12010217)
439784.00 3765315.00 3.46479 (12010217)
439789.00 3765315.00 3.46551 (12010217)
439794.00 3765315.00 3.46514 (12010217)
439799.00 3765315.00 3.46564 (12010217)
439804.00 3765315.00 3.46511 (12010217)
439809.00 3765315.00 3.46592 (12010217)
439814.00 3765315.00 3.46514 (12010217)
439819.00 3765315.00 3.46604 (12010217)
439824.00 3765315.00 3.46537 (12010217)
439829.00 3765315.00 3.46581 (12010217)
439839.00 3765315.00 3.46588 (12010217)
439844.00 3765315.00 3.46553 (12010217)
439849.00 3765315.00 3.46574 (12010217)

```
439854.00   3765315.00        3.46586  (12010217)
        439859.00   3765315.00        3.46581  (12010217)
439864.00   3765315.00        3.46568  (12010217)
        439869.00   3765315.00        3.46576  (12010217)
439874.00   3765315.00        3.46597  (12010217)
        439879.00   3765315.00        3.46543  (12010217)
439884.00   3765315.00        3.46565  (12010217)
        439674.00   3765320.00        3.53780  (13121718)
439679.00   3765320.00        3.53604  (13121718)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: FREEEXH ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439684.00	3765320.00	3.53257	(13121718)	439689.00	3765320.00	3.53026	(13121718)
439694.00	3765320.00	3.52435	(13121718)	439699.00	3765320.00	3.52216	(13121718)
439704.00	3765320.00	3.51812	(13121718)	439709.00	3765320.00	3.51525	(13121718)
439714.00	3765320.00	3.50938	(13121718)	439719.00	3765320.00	3.50548	(13121718)
439729.00	3765320.00	3.49693	(13121718)	439734.00	3765320.00	3.49436	(12010217)
439739.00	3765320.00	3.49378	(12010217)	439744.00	3765320.00	3.49457	(12010217)
439749.00	3765320.00	3.49382	(12010217)	439764.00	3765320.00	3.49463	(12010217)
439769.00	3765320.00	3.49414	(12010217)	439774.00	3765320.00	3.49492	(12010217)
439779.00	3765320.00	3.49452	(12010217)	439784.00	3765320.00	3.49499	(12010217)
439789.00	3765320.00	3.49447	(12010217)				

439794.00 3765320.00 3.49512 (12010217)
439799.00 3765320.00 3.49445 (12010217)
439804.00 3765320.00 3.49502 (12010217)
439809.00 3765320.00 3.49453 (12010217)
439814.00 3765320.00 3.49491 (12010217)
439819.00 3765320.00 3.49475 (12010217)
439824.00 3765320.00 3.49482 (12010217)
439829.00 3765320.00 3.49462 (12010217)
439839.00 3765320.00 3.49510 (12010217)
439844.00 3765320.00 3.49458 (12010217)
439849.00 3765320.00 3.49512 (12010217)
439854.00 3765320.00 3.49456 (12010217)
439859.00 3765320.00 3.49532 (12010217)
439864.00 3765320.00 3.49448 (12010217)
439869.00 3765320.00 3.49538 (12010217)
439874.00 3765320.00 3.49479 (12010217)
439879.00 3765320.00 3.49528 (12010217)
439884.00 3765320.00 3.49476 (12010217)
439674.00 3765325.00 3.57611 (13121718)
439679.00 3765325.00 3.57135 (13121718)
439684.00 3765325.00 3.56884 (13121718)
439689.00 3765325.00 3.56501 (13121718)
439694.00 3765325.00 3.56375 (13121718)
439699.00 3765325.00 3.55844 (13121718)
439704.00 3765325.00 3.55501 (13121718)
439709.00 3765325.00 3.55109 (13121718)
439714.00 3765325.00 3.54852 (13121718)
439719.00 3765325.00 3.54358 (13121718)
439729.00 3765325.00 3.53489 (13121718)
439734.00 3765325.00 3.53002 (13121718)
439739.00 3765325.00 3.52704 (13121718)
439744.00 3765325.00 3.52393 (12010217)
439749.00 3765325.00 3.52444 (12010217)
439754.00 3765325.00 3.52406 (12010217)
439769.00 3765325.00 3.52412 (12010217)
439774.00 3765325.00 3.52445 (12010217)
439779.00 3765325.00 3.52405 (12010217)
439784.00 3765325.00 3.52471 (12010217)
439789.00 3765325.00 3.52420 (12010217)
439794.00 3765325.00 3.52471 (12010217)
439799.00 3765325.00 3.52449 (12010217)
439804.00 3765325.00 3.52493 (12010217)
439809.00 3765325.00 3.52439 (12010217)
439814.00 3765325.00 3.52490 (12010217)
439819.00 3765325.00 3.52483 (12010217)
439824.00 3765325.00 3.52472 (12010217)
439829.00 3765325.00 3.52466 (12010217)
439839.00 3765325.00 3.52505 (12010217)
439844.00 3765325.00 3.52464 (12010217)
439849.00 3765325.00 3.52516 (12010217)
439854.00 3765325.00 3.52493 (12010217)
439859.00 3765325.00 3.52512 (12010217)

```
439864.00   3765325.00        3.52481  (12010217)
        439869.00   3765325.00        3.52485  (12010217)
439874.00   3765325.00        3.52471  (12010217)
        439879.00   3765325.00        3.52492  (12010217)
439884.00   3765325.00        3.52467  (12010217)
        439674.00   3765330.00        3.61112  (13121718)
439679.00   3765330.00        3.60972  (13121718)
        439684.00   3765330.00        3.60588  (13121718)
439689.00   3765330.00        3.60204  (13121718)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: FREEEXH ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439694.00	3765330.00	3.59857	(13121718)	439699.00	3765330.00	3.59696	(13121718)
439704.00	3765330.00	3.59337	(13121718)	439709.00	3765330.00	3.58897	(13121718)
439714.00	3765330.00	3.58504	(13121718)	439719.00	3765330.00	3.58184	(13121718)
439729.00	3765330.00	3.57364	(13121718)	439734.00	3765330.00	3.56915	(13121718)
439739.00	3765330.00	3.56443	(13121718)	439744.00	3765330.00	3.56118	(13121718)
439749.00	3765330.00	3.55540	(13121718)	439754.00	3765330.00	3.55452	(12010217)
439774.00	3765330.00	3.55470	(12010217)	439779.00	3765330.00	3.55502	(12010217)
439784.00	3765330.00	3.55499	(12010217)	439789.00	3765330.00	3.55526	(12010217)
439794.00	3765330.00	3.55461	(12010217)	439799.00	3765330.00	3.55558	(12010217)
439804.00	3765330.00	3.55505	(12010217)				

439809.00 3765330.00 3.55514 (12010217)
439814.00 3765330.00 3.55517 (12010217)
439819.00 3765330.00 3.55551 (12010217)
439824.00 3765330.00 3.55519 (12010217)
439829.00 3765330.00 3.55490 (12010217)
439839.00 3765330.00 3.55502 (12010217)
439844.00 3765330.00 3.55543 (12010217)
439849.00 3765330.00 3.55506 (12010217)
439854.00 3765330.00 3.55571 (12010217)
439859.00 3765330.00 3.55477 (12010217)
439864.00 3765330.00 3.55597 (12010217)
439869.00 3765330.00 3.55506 (12010217)
439874.00 3765330.00 3.55568 (12010217)
439879.00 3765330.00 3.55524 (12010217)
439884.00 3765330.00 3.55561 (12010217)
439674.00 3765335.00 3.64863 (12011417)
439679.00 3765335.00 3.64535 (13121718)
439684.00 3765335.00 3.64268 (13121718)
439689.00 3765335.00 3.64161 (13121718)
439694.00 3765335.00 3.63612 (13121718)
439699.00 3765335.00 3.63333 (13121718)
439704.00 3765335.00 3.63018 (13121718)
439709.00 3765335.00 3.62851 (13121718)
439714.00 3765335.00 3.62395 (13121718)
439719.00 3765335.00 3.61949 (13121718)
439729.00 3765335.00 3.61274 (13121718)
439734.00 3765335.00 3.60960 (13121718)
439739.00 3765335.00 3.60388 (13121718)
439744.00 3765335.00 3.60015 (13121718)
439749.00 3765335.00 3.59530 (13121718)
439774.00 3765335.00 3.58583 (12010217)
439779.00 3765335.00 3.58617 (12010217)
439784.00 3765335.00 3.58620 (12010217)
439789.00 3765335.00 3.58632 (12010217)
439794.00 3765335.00 3.58599 (12010217)
439839.00 3765335.00 3.58640 (12010217)
439844.00 3765335.00 3.58682 (12010217)
439849.00 3765335.00 3.58663 (12010217)
439854.00 3765335.00 3.58671 (12010217)
439859.00 3765335.00 3.58651 (12010217)
439864.00 3765335.00 3.58693 (12010217)
439869.00 3765335.00 3.58660 (12010217)
439874.00 3765335.00 3.58664 (12010217)
439879.00 3765335.00 3.58659 (12010217)
439884.00 3765335.00 3.58687 (12010217)
439674.00 3765340.00 3.70633 (12011417)
439679.00 3765340.00 3.69462 (12011417)
439684.00 3765340.00 3.68393 (12011417)
439689.00 3765340.00 3.67629 (13121718)
439694.00 3765340.00 3.67692 (13121718)
439699.00 3765340.00 3.67169 (13121718)
439704.00 3765340.00 3.66878 (13121718)

```
439709.00   3765340.00        3.66523  (13121718)
        439714.00   3765340.00        3.66316  (13121718)
439719.00   3765340.00        3.66059  (13121718)
        439729.00   3765340.00        3.65202  (13121718)
439734.00   3765340.00        3.64745  (13121718)
        439739.00   3765340.00        3.64574  (13121718)
439744.00   3765340.00        3.63965  (13121718)
        439749.00   3765340.00        3.63630  (13121718)
439774.00   3765340.00        3.61780  (12010217)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: FREEEXH ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439779.00	3765340.00	3.61795	(12010217)	439784.00	3765340.00	3.61822	(12010217)
439789.00	3765340.00	3.61798	(12010217)	439794.00	3765340.00	3.61808	(12010217)
439839.00	3765340.00	3.61861	(12010217)	439844.00	3765340.00	3.61821	(12010217)
439849.00	3765340.00	3.61898	(12010217)	439854.00	3765340.00	3.61811	(12010217)
439859.00	3765340.00	3.61889	(12010217)	439864.00	3765340.00	3.61840	(12010217)
439869.00	3765340.00	3.61873	(12010217)	439874.00	3765340.00	3.61824	(12010217)
439879.00	3765340.00	3.61880	(12010217)	439884.00	3765340.00	3.61843	(12010217)
439674.00	3765345.00	3.76232	(12011417)	439679.00	3765345.00	3.75266	(12011417)
439684.00	3765345.00	3.74124	(12011417)	439689.00	3765345.00	3.73053	(12011417)
439694.00	3765345.00	3.71845	(12011417)				

439699.00 3765345.00 3.71125 (13121718)
439704.00 3765345.00 3.70875 (13121718)
439709.00 3765345.00 3.70453 (13121718)
439714.00 3765345.00 3.70128 (13121718)
439719.00 3765345.00 3.69786 (13121718)
439729.00 3765345.00 3.69150 (13121718)
439734.00 3765345.00 3.68833 (13121718)
439739.00 3765345.00 3.68343 (13121718)
439744.00 3765345.00 3.68183 (13121718)
439749.00 3765345.00 3.67651 (13121718)
439774.00 3765345.00 3.65465 (13121718)
439779.00 3765345.00 3.65070 (12010217)
439784.00 3765345.00 3.65060 (12010217)
439789.00 3765345.00 3.65058 (12010217)
439794.00 3765345.00 3.65052 (12010217)
439839.00 3765345.00 3.65071 (12010217)
439844.00 3765345.00 3.65131 (12010217)
439849.00 3765345.00 3.65101 (12010217)
439854.00 3765345.00 3.65089 (12010217)
439859.00 3765345.00 3.65114 (12010217)
439864.00 3765345.00 3.65134 (12010217)
439869.00 3765345.00 3.65097 (12010217)
439874.00 3765345.00 3.65125 (12010217)
439879.00 3765345.00 3.65140 (12010217)
439884.00 3765345.00 3.65097 (12010217)
439674.00 3765350.00 3.81948 (12011417)
439679.00 3765350.00 3.80907 (12011417)
439684.00 3765350.00 3.79950 (12011417)
439689.00 3765350.00 3.78852 (12011417)
439694.00 3765350.00 3.77826 (12011417)
439699.00 3765350.00 3.76640 (12011417)
439704.00 3765350.00 3.75538 (12011417)
439709.00 3765350.00 3.74522 (13121718)
439714.00 3765350.00 3.74171 (13121718)
439719.00 3765350.00 3.73828 (13121718)
439729.00 3765350.00 3.73278 (13121718)
439734.00 3765350.00 3.72866 (13121718)
439739.00 3765350.00 3.72574 (13121718)
439744.00 3765350.00 3.72010 (13121718)
439749.00 3765350.00 3.71891 (13121718)
439774.00 3765350.00 3.69593 (13121718)
439779.00 3765350.00 3.69286 (13121718)
439784.00 3765350.00 3.68674 (13121718)
439789.00 3765350.00 3.68398 (12010217)
439794.00 3765350.00 3.68428 (12010217)
439839.00 3765350.00 3.68413 (12010217)
439844.00 3765350.00 3.68489 (12010217)
439849.00 3765350.00 3.68434 (12010217)
439854.00 3765350.00 3.68461 (12010217)
439859.00 3765350.00 3.68452 (12010217)
439864.00 3765350.00 3.68474 (12010217)
439869.00 3765350.00 3.68434 (12010217)

```
439874.00   3765350.00        3.68485  (12010217)
        439879.00   3765350.00        3.68468  (12010217)
439884.00   3765350.00        3.68465  (12010217)
        439674.00   3765355.00        3.87713  (12011417)
439679.00   3765355.00        3.86760  (12011417)
        439684.00   3765355.00        3.85682  (12011417)
439689.00   3765355.00        3.84729  (12011417)
        439694.00   3765355.00        3.83664  (12011417)
439699.00   3765355.00        3.82688  (12011417)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: FREEEXH ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439704.00	3765355.00	3.81490	(12011417)	439709.00	3765355.00	3.80391	(12011417)
439714.00	3765355.00	3.79186	(12011417)	439719.00	3765355.00	3.78075	(12011417)
439729.00	3765355.00	3.77150	(13121718)	439734.00	3765355.00	3.76971	(13121718)
439739.00	3765355.00	3.76574	(13121718)	439744.00	3765355.00	3.76455	(13121718)
439749.00	3765355.00	3.75743	(13121718)	439774.00	3765355.00	3.73969	(13121718)
439779.00	3765355.00	3.73434	(13121718)	439784.00	3765355.00	3.73056	(13121718)
439789.00	3765355.00	3.72624	(13121718)	439794.00	3765355.00	3.72044	(13121718)
439839.00	3765355.00	3.71889	(12010217)	439844.00	3765355.00	3.71854	(12010217)
439849.00	3765355.00	3.71868	(12010217)	439854.00	3765355.00	3.71851	(12010217)
439859.00	3765355.00	3.71888	(12010217)				

439864.00 3765355.00 3.71841 (12010217)
439869.00 3765355.00 3.71872 (12010217)
439874.00 3765355.00 3.71869 (12010217)
439879.00 3765355.00 3.71863 (12010217)
439884.00 3765355.00 3.71863 (12010217)
439674.00 3765360.00 3.93439 (12011417)
439679.00 3765360.00 3.92489 (12011417)
439684.00 3765360.00 3.91642 (12011417)
439689.00 3765360.00 3.90569 (12011417)
439694.00 3765360.00 3.89602 (12011417)
439699.00 3765360.00 3.88508 (12011417)
439704.00 3765360.00 3.87564 (12011417)
439709.00 3765360.00 3.86419 (12011417)
439714.00 3765360.00 3.85355 (12011417)
439719.00 3765360.00 3.84164 (12011417)
439729.00 3765360.00 3.81800 (12011417)
439734.00 3765360.00 3.81005 (13121718)
439739.00 3765360.00 3.80783 (13121718)
439744.00 3765360.00 3.80320 (13121718)
439749.00 3765360.00 3.80268 (13121718)
439774.00 3765360.00 3.78316 (13121718)
439779.00 3765360.00 3.77811 (13121718)
439784.00 3765360.00 3.77443 (13121718)
439789.00 3765360.00 3.76855 (13121718)
439794.00 3765360.00 3.76581 (13121718)
439799.00 3765360.00 3.75991 (13121718)
439804.00 3765360.00 3.75492 (13121718)
439809.00 3765360.00 3.75359 (12010217)
439814.00 3765360.00 3.75288 (12010217)
439839.00 3765360.00 3.75355 (12010217)
439844.00 3765360.00 3.75333 (12010217)
439849.00 3765360.00 3.75340 (12010217)
439854.00 3765360.00 3.75374 (12010217)
439859.00 3765360.00 3.75351 (12010217)
439864.00 3765360.00 3.75364 (12010217)
439869.00 3765360.00 3.75372 (12010217)
439874.00 3765360.00 3.75380 (12010217)
439879.00 3765360.00 3.75347 (12010217)
439884.00 3765360.00 3.75375 (12010217)
439674.00 3765365.00 3.99249 (12011417)
439679.00 3765365.00 3.98312 (12011417)
439684.00 3765365.00 3.97393 (12011417)
439689.00 3765365.00 3.96501 (12011417)
439694.00 3765365.00 3.95544 (12011417)
439699.00 3765365.00 3.94614 (12011417)
439704.00 3765365.00 3.93502 (12011417)
439709.00 3765365.00 3.92514 (12011417)
439714.00 3765365.00 3.91435 (12011417)
439719.00 3765365.00 3.90436 (12011417)
439729.00 3765365.00 3.88087 (12011417)
439734.00 3765365.00 3.86858 (12011417)
439739.00 3765365.00 3.85716 (12011417)

```
439744.00   3765365.00        3.84648  (13121718)
        439749.00   3765365.00        3.84290  (13121718)
439774.00   3765365.00        3.82600  (13121718)
        439779.00   3765365.00        3.82308  (13121718)
439784.00   3765365.00        3.81807  (13121718)
        439789.00   3765365.00        3.81452  (13121718)
439794.00   3765365.00        3.80865  (13121718)
        439799.00   3765365.00        3.80536  (13121718)
439804.00   3765365.00        3.80046  (13121718)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: FREEEXH ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439809.00	3765365.00	3.79540	(13121718)	439814.00	3765365.00	3.78954	(13121718)
439839.00	3765365.00	3.78951	(12010217)	439844.00	3765365.00	3.78911	(12010217)
439849.00	3765365.00	3.78953	(12010217)	439854.00	3765365.00	3.78946	(12010217)
439859.00	3765365.00	3.78925	(12010217)	439864.00	3765365.00	3.78937	(12010217)
439869.00	3765365.00	3.78975	(12010217)	439874.00	3765365.00	3.78940	(12010217)
439879.00	3765365.00	3.78928	(12010217)	439884.00	3765365.00	3.78972	(12010217)
439674.00	3765370.00	4.05045	(12011417)	439679.00	3765370.00	4.04228	(12011417)
439684.00	3765370.00	4.03326	(12011417)	439689.00	3765370.00	4.02383	(12011417)
439694.00	3765370.00	4.01522	(12011417)	439699.00	3765370.00	4.00543	(12011417)
439704.00	3765370.00	3.99736	(12011417)				

439709.00 3765370.00 3.98616 (12011417)
439714.00 3765370.00 3.97582 (12011417)
439719.00 3765370.00 3.96506 (12011417)
439729.00 3765370.00 3.94364 (12011417)
439734.00 3765370.00 3.93241 (12011417)
439739.00 3765370.00 3.92025 (12011417)
439744.00 3765370.00 3.90882 (12011417)
439749.00 3765370.00 3.89740 (12011417)
439774.00 3765370.00 3.87018 (13121718)
439779.00 3765370.00 3.86659 (13121718)
439784.00 3765370.00 3.86319 (13121718)
439789.00 3765370.00 3.85890 (13121718)
439794.00 3765370.00 3.85532 (13121718)
439799.00 3765370.00 3.84980 (13121718)
439804.00 3765370.00 3.84571 (13121718)
439809.00 3765370.00 3.84128 (13121718)
439814.00 3765370.00 3.83694 (13121718)
439839.00 3765370.00 3.82568 (12010217)
439844.00 3765370.00 3.82587 (12010217)
439849.00 3765370.00 3.82616 (12010217)
439854.00 3765370.00 3.82589 (12010217)
439859.00 3765370.00 3.82593 (12010217)
439864.00 3765370.00 3.82599 (12010217)
439869.00 3765370.00 3.82632 (12010217)
439874.00 3765370.00 3.82596 (12010217)
439879.00 3765370.00 3.82622 (12010217)
439884.00 3765370.00 3.82609 (12010217)
439674.00 3765375.00 4.10891 (12011417)
439679.00 3765375.00 4.10083 (12011417)
439684.00 3765375.00 4.09250 (12011417)
439689.00 3765375.00 4.08480 (12011417)
439694.00 3765375.00 4.07495 (12011417)
439699.00 3765375.00 4.06620 (12011417)
439704.00 3765375.00 4.05651 (12011417)
439709.00 3765375.00 4.04820 (12011417)
439714.00 3765375.00 4.03786 (12011417)
439719.00 3765375.00 4.02819 (12011417)
439729.00 3765375.00 4.00736 (12011417)
439734.00 3765375.00 3.99642 (12011417)
439739.00 3765375.00 3.98513 (12011417)
439744.00 3765375.00 3.97311 (12011417)
439749.00 3765375.00 3.96120 (12011417)
439754.00 3765375.00 3.95050 (12011417)
439774.00 3765375.00 3.91518 (13121718)
439779.00 3765375.00 3.91192 (13121718)
439784.00 3765375.00 3.90757 (13121718)
439789.00 3765375.00 3.90456 (13121718)
439794.00 3765375.00 3.90019 (13121718)
439799.00 3765375.00 3.89720 (13121718)
439804.00 3765375.00 3.89185 (13121718)
439809.00 3765375.00 3.88770 (13121718)
439814.00 3765375.00 3.88275 (13121718)

```
439839.00   3765375.00        3.86311  (12010217)
        439844.00   3765375.00        3.86369  (12010217)
439849.00   3765375.00        3.86344  (12010217)
        439854.00   3765375.00        3.86356  (12010217)
439859.00   3765375.00        3.86328  (12010217)
        439864.00   3765375.00        3.86396  (12010217)
439869.00   3765375.00        3.86338  (12010217)
        439874.00   3765375.00        3.86380  (12010217)
439879.00   3765375.00        3.86366  (12010217)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: FREEEXH ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439884.00	3765375.00	3.86372	(12010217)	439774.00	3765380.00	3.96557	(12011417)
439779.00	3765380.00	3.95687	(13121718)	439784.00	3765380.00	3.95439	(13121718)
439789.00	3765380.00	3.94996	(13121718)	439794.00	3765380.00	3.94659	(13121718)
439799.00	3765380.00	3.94231	(13121718)	439804.00	3765380.00	3.93917	(13121718)
439809.00	3765380.00	3.93550	(13121718)	439814.00	3765380.00	3.92999	(13121718)
439769.00	3765385.00	4.04686	(12011417)	439819.00	3765385.00	3.97372	(13121718)
439769.00	3765400.00	4.25268	(12011417)	439844.00	3765400.00	4.10194	(13121718)
439849.00	3765400.00	4.10007	(13121718)	439674.00	3765405.00	4.47068	(12011417)
439714.00	3765405.00	4.41767	(12011417)	439719.00	3765405.00	4.41040	(12011417)
439734.00	3765405.00	4.38591	(12011417)				

```
439749.00   3765405.00        4.36110  (12011417)
        439754.00   3765405.00        4.35120  (12011417)
439774.00   3765405.00        4.31270  (12011417)
        439779.00   3765405.00        4.30086  (12011417)
439784.00   3765405.00        4.29126  (12011417)
        439789.00   3765405.00        4.28090  (12011417)
439794.00   3765405.00        4.26839  (12011417)
        439799.00   3765405.00        4.25583  (12011417)
439804.00   3765405.00        4.24422  (12011417)
        439809.00   3765405.00        4.23257  (12011417)
439814.00   3765405.00        4.21960  (12011417)
        439819.00   3765405.00        4.20536  (12011417)
439824.00   3765405.00        4.19170  (12011417)
        439829.00   3765405.00        4.17756  (12011417)
439834.00   3765405.00        4.16486  (12011417)
        439839.00   3765405.00        4.15774  (13121718)
439844.00   3765405.00        4.15543  (13121718)
        439849.00   3765405.00        4.15024  (13121718)
439854.00   3765405.00        4.14860  (13121718)
        439859.00   3765405.00        4.14010  (13121718)
439674.00   3765410.00        4.53241  (12011417)
        439679.00   3765410.00        4.52694  (12011417)
439684.00   3765410.00        4.52232  (12011417)
        439689.00   3765410.00        4.51578  (12011417)
439694.00   3765410.00        4.50966  (12011417)
        439699.00   3765410.00        4.50255  (12011417)
439704.00   3765410.00        4.49708  (12011417)
        439709.00   3765410.00        4.49043  (12011417)
439714.00   3765410.00        4.48330  (12011417)
        439719.00   3765410.00        4.47540  (12011417)
439729.00   3765410.00        4.46193  (12011417)
        439734.00   3765410.00        4.45454  (12011417)
439739.00   3765410.00        4.44515  (12011417)
        439744.00   3765410.00        4.43670  (12011417)
439749.00   3765410.00        4.42891  (12011417)
        439774.00   3765410.00        4.38354  (12011417)
439779.00   3765410.00        4.37382  (12011417)
        439784.00   3765410.00        4.36198  (12011417)
439789.00   3765410.00        4.35153  (12011417)
        439794.00   3765410.00        4.34143  (12011417)
439799.00   3765410.00        4.33066  (12011417)
        439804.00   3765410.00        4.31846  (12011417)
439809.00   3765410.00        4.30592  (12011417)
        439814.00   3765410.00        4.29353  (12011417)
439819.00   3765410.00        4.28216  (12011417)
        439824.00   3765410.00        4.26842  (12011417)
439829.00   3765410.00        4.25493  (12011417)
        439834.00   3765410.00        4.24030  (12011417)
439839.00   3765410.00        4.22802  (12011417)
        439844.00   3765410.00        4.21243  (12011417)
439849.00   3765410.00        4.20443  (13121718)
        439854.00   3765410.00        4.19921  (13121718)
```

```
439859.00   3765410.00        4.19816  (13121718)
        439674.00   3765415.00        4.59692  (12011417)
439679.00   3765415.00        4.59117  (12011417)
        439684.00   3765415.00        4.58482  (12011417)
439689.00   3765415.00        4.58045  (12011417)
        439694.00   3765415.00        4.57432  (12011417)
439699.00   3765415.00        4.56882  (12011417)
        439704.00   3765415.00        4.56164  (12011417)
439709.00   3765415.00        4.55565  (12011417)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: FREEEXH ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439714.00	3765415.00	4.54940	(12011417)
439719.00	3765415.00	4.54282	(12011417)
439729.00	3765415.00	4.52779	(12011417)
439734.00	3765415.00	4.52099	(12011417)
439739.00	3765415.00	4.51406	(12011417)
439744.00	3765415.00	4.50617	(12011417)
439749.00	3765415.00	4.49795	(12011417)
439774.00	3765415.00	4.45347	(12011417)
439779.00	3765415.00	4.44451	(12011417)
439784.00	3765415.00	4.43545	(12011417)
439789.00	3765415.00	4.42542	(12011417)
439794.00	3765415.00	4.41376	(12011417)
439799.00	3765415.00	4.40288	(12011417)
439804.00	3765415.00	4.39276	(12011417)
439809.00	3765415.00	4.38245	(12011417)
439814.00	3765415.00	4.36961	(12011417)
439819.00	3765415.00	4.35627	(12011417)
439824.00	3765415.00	4.34517	(12011417)
439829.00	3765415.00	4.33234	(12011417)

439834.00 3765415.00 4.31981 (12011417)
439839.00 3765415.00 4.30495 (12011417)
439844.00 3765415.00 4.29202 (12011417)
439849.00 3765415.00 4.27722 (12011417)
439854.00 3765415.00 4.26404 (12011417)
439859.00 3765415.00 4.24939 (13121718)
439674.00 3765420.00 4.65963 (12011417)
439679.00 3765420.00 4.65592 (12011417)
439684.00 3765420.00 4.65092 (12011417)
439689.00 3765420.00 4.64490 (12011417)
439694.00 3765420.00 4.63897 (12011417)
439699.00 3765420.00 4.63383 (12011417)
439704.00 3765420.00 4.62852 (12011417)
439709.00 3765420.00 4.62240 (12011417)
439714.00 3765420.00 4.61594 (12011417)
439719.00 3765420.00 4.60921 (12011417)
439729.00 3765420.00 4.59718 (12011417)
439734.00 3765420.00 4.58965 (12011417)
439739.00 3765420.00 4.58128 (12011417)
439744.00 3765420.00 4.57466 (12011417)
439749.00 3765420.00 4.56800 (12011417)
439774.00 3765420.00 4.52677 (12011417)
439779.00 3765420.00 4.51696 (12011417)
439784.00 3765420.00 4.50658 (12011417)
439789.00 3765420.00 4.49805 (12011417)
439794.00 3765420.00 4.48946 (12011417)
439799.00 3765420.00 4.47849 (12011417)
439804.00 3765420.00 4.46679 (12011417)
439809.00 3765420.00 4.45627 (12011417)
439814.00 3765420.00 4.44583 (12011417)
439819.00 3765420.00 4.43518 (12011417)
439824.00 3765420.00 4.42177 (12011417)
439829.00 3765420.00 4.40954 (12011417)
439834.00 3765420.00 4.39720 (12011417)
439839.00 3765420.00 4.38603 (12011417)
439844.00 3765420.00 4.37130 (12011417)
439849.00 3765420.00 4.35810 (12011417)
439854.00 3765420.00 4.34336 (12011417)
439859.00 3765420.00 4.32975 (12011417)
439674.00 3765425.00 4.72592 (12011417)
439679.00 3765425.00 4.72012 (12011417)
439684.00 3765425.00 4.71587 (12011417)
439689.00 3765425.00 4.71192 (12011417)
439694.00 3765425.00 4.70651 (12011417)
439699.00 3765425.00 4.70060 (12011417)
439704.00 3765425.00 4.69429 (12011417)
439709.00 3765425.00 4.68993 (12011417)
439714.00 3765425.00 4.68400 (12011417)
439719.00 3765425.00 4.67801 (12011417)
439729.00 3765425.00 4.66492 (12011417)
439734.00 3765425.00 4.65877 (12011417)
439739.00 3765425.00 4.65261 (12011417)

```
439744.00   3765425.00        4.64457  (12011417)
        439749.00   3765425.00        4.63724  (12011417)
439774.00   3765425.00        4.59799  (12011417)
        439779.00   3765425.00        4.59047  (12011417)
439784.00   3765425.00        4.58171  (12011417)
        439789.00   3765425.00        4.57192  (12011417)
439794.00   3765425.00        4.56159  (12011417)
        439799.00   3765425.00        4.55326  (12011417)
439804.00   3765425.00        4.54376  (12011417)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: FREEEXH ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439809.00	3765425.00	4.53335	(12011417)	439814.00	3765425.00	4.52137	(12011417)
439819.00	3765425.00	4.51064	(12011417)	439824.00	3765425.00	4.50096	(12011417)
439829.00	3765425.00	4.48895	(12011417)	439834.00	3765425.00	4.47668	(12011417)
439839.00	3765425.00	4.46313	(12011417)	439844.00	3765425.00	4.45232	(12011417)
439849.00	3765425.00	4.43872	(12011417)	439854.00	3765425.00	4.42598	(12011417)
439859.00	3765425.00	4.41078	(12011417)	439674.00	3765430.00	4.79161	(12011417)
439679.00	3765430.00	4.78807	(12011417)	439684.00	3765430.00	4.78254	(12011417)
439689.00	3765430.00	4.77745	(12011417)	439694.00	3765430.00	4.77279	(12011417)
439699.00	3765430.00	4.76859	(12011417)	439704.00	3765430.00	4.76360	(12011417)
439709.00	3765430.00	4.75751	(12011417)				

439714.00 3765430.00 4.75191 (12011417)
439719.00 3765430.00 4.74688 (12011417)
439729.00 3765430.00 4.73497 (12011417)
439734.00 3765430.00 4.72823 (12011417)
439739.00 3765430.00 4.72159 (12011417)
439744.00 3765430.00 4.71585 (12011417)
439749.00 3765430.00 4.70982 (12011417)
439774.00 3765430.00 4.67246 (12011417)
439779.00 3765430.00 4.66304 (12011417)
439784.00 3765430.00 4.65516 (12011417)
439789.00 3765430.00 4.64705 (12011417)
439794.00 3765430.00 4.63917 (12011417)
439799.00 3765430.00 4.62830 (12011417)
439804.00 3765430.00 4.61856 (12011417)
439809.00 3765430.00 4.60991 (12011417)
439814.00 3765430.00 4.60034 (12011417)
439819.00 3765430.00 4.58970 (12011417)
439824.00 3765430.00 4.57758 (12011417)
439829.00 3765430.00 4.56752 (12011417)
439834.00 3765430.00 4.55659 (12011417)
439839.00 3765430.00 4.54600 (12011417)
439844.00 3765430.00 4.53199 (12011417)
439849.00 3765430.00 4.52000 (12011417)
439854.00 3765430.00 4.50747 (12011417)
439859.00 3765430.00 4.49464 (12011417)
439674.00 3765435.00 4.85856 (12011417)
439679.00 3765435.00 4.85383 (12011417)
439684.00 3765435.00 4.85108 (12011417)
439689.00 3765435.00 4.84705 (12011417)
439694.00 3765435.00 4.84204 (12011417)
439699.00 3765435.00 4.83624 (12011417)
439704.00 3765435.00 4.83194 (12011417)
439709.00 3765435.00 4.82759 (12011417)
439714.00 3765435.00 4.82233 (12011417)
439719.00 3765435.00 4.81636 (12011417)
439729.00 3765435.00 4.80567 (12011417)
439734.00 3765435.00 4.80016 (12011417)
439739.00 3765435.00 4.79365 (12011417)
439744.00 3765435.00 4.78645 (12011417)
439749.00 3765435.00 4.78105 (12011417)
439774.00 3765435.00 4.74599 (12011417)
439779.00 3765435.00 4.73924 (12011417)
439784.00 3765435.00 4.73103 (12011417)
439789.00 3765435.00 4.72156 (12011417)
439794.00 3765435.00 4.71361 (12011417)
439799.00 3765435.00 4.70590 (12011417)
439804.00 3765435.00 4.69723 (12011417)
439809.00 3765435.00 4.68666 (12011417)
439814.00 3765435.00 4.67671 (12011417)
439819.00 3765435.00 4.66777 (12011417)
439824.00 3765435.00 4.65914 (12011417)
439829.00 3765435.00 4.64746 (12011417)

```
439834.00   3765435.00        4.63603  (12011417)
        439839.00   3765435.00        4.62504  (12011417)
439844.00   3765435.00        4.61516  (12011417)
        439849.00   3765435.00        4.60267  (12011417)
439854.00   3765435.00        4.59007  (12011417)
        439859.00   3765435.00        4.57671  (12011417)
439674.00   3765440.00        4.92779  (12011417)
        439679.00   3765440.00        4.92453  (12011417)
439684.00   3765440.00        4.91867  (12011417)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: FREEEXH *** INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439689.00	3765440.00	4.91463	(12011417)	439694.00	3765440.00	4.91114	(12011417)
439699.00	3765440.00	4.90752	(12011417)	439704.00	3765440.00	4.90234	(12011417)
439709.00	3765440.00	4.89676	(12011417)	439714.00	3765440.00	4.89269	(12011417)
439719.00	3765440.00	4.88783	(12011417)	439729.00	3765440.00	4.87687	(12011417)
439734.00	3765440.00	4.87148	(12011417)	439739.00	3765440.00	4.86578	(12011417)
439744.00	3765440.00	4.86068	(12011417)	439749.00	3765440.00	4.85455	(12011417)
439774.00	3765440.00	4.82099	(12011417)	439779.00	3765440.00	4.81320	(12011417)
439784.00	3765440.00	4.80639	(12011417)	439789.00	3765440.00	4.79967	(12011417)
439794.00	3765440.00	4.79157	(12011417)	439799.00	3765440.00	4.78202	(12011417)
439804.00	3765440.00	4.77401	(12011417)				

439809.00 3765440.00 4.76639 (12011417)
439814.00 3765440.00 4.75749 (12011417)
439819.00 3765440.00 4.74676 (12011417)
439824.00 3765440.00 4.73680 (12011417)
439829.00 3765440.00 4.72839 (12011417)
439834.00 3765440.00 4.71899 (12011417)
439839.00 3765440.00 4.70791 (12011417)
439844.00 3765440.00 4.69581 (12011417)
439849.00 3765440.00 4.68529 (12011417)
439854.00 3765440.00 4.67442 (12011417)
439859.00 3765440.00 4.66249 (12011417)
439674.00 3765445.00 4.99632 (12011417)
439679.00 3765445.00 4.99375 (12011417)
439684.00 3765445.00 4.99076 (12011417)
439689.00 3765445.00 4.98702 (12011417)
439694.00 3765445.00 4.98108 (12011417)
439699.00 3765445.00 4.97718 (12011417)
439704.00 3765445.00 4.97402 (12011417)
439709.00 3765445.00 4.97018 (12011417)
439714.00 3765445.00 4.96449 (12011417)
439719.00 3765445.00 4.95917 (12011417)
439729.00 3765445.00 4.95019 (12011417)
439734.00 3765445.00 4.94600 (12011417)
439739.00 3765445.00 4.93893 (12011417)
439744.00 3765445.00 4.93382 (12011417)
439749.00 3765445.00 4.92846 (12011417)
439774.00 3765445.00 4.89785 (12011417)
439779.00 3765445.00 4.89145 (12011417)
439784.00 3765445.00 4.88364 (12011417)
439789.00 3765445.00 4.87521 (12011417)
439794.00 3765445.00 4.86923 (12011417)
439799.00 3765445.00 4.86191 (12011417)
439804.00 3765445.00 4.85382 (12011417)
439809.00 3765445.00 4.84401 (12011417)
439814.00 3765445.00 4.83652 (12011417)
439819.00 3765445.00 4.82852 (12011417)
439824.00 3765445.00 4.82011 (12011417)
439829.00 3765445.00 4.80879 (12011417)
439834.00 3765445.00 4.79914 (12011417)
439839.00 3765445.00 4.79070 (12011417)
439844.00 3765445.00 4.78059 (12011417)
439849.00 3765445.00 4.76942 (12011417)
439854.00 3765445.00 4.75747 (12011417)
439859.00 3765445.00 4.74708 (12011417)
439674.00 3765450.00 5.06948 (12011417)
439679.00 3765450.00 5.06490 (12011417)
439684.00 3765450.00 5.06072 (12011417)
439689.00 3765450.00 5.05763 (12011417)
439694.00 3765450.00 5.05497 (12011417)
439699.00 3765450.00 5.05061 (12011417)
439704.00 3765450.00 5.04585 (12011417)
439709.00 3765450.00 5.04124 (12011417)

```
439714.00   3765450.00        5.03858  (12011417)
        439719.00   3765450.00        5.03366  (12011417)
439729.00   3765450.00        5.02369  (12011417)
        439734.00   3765450.00        5.01955  (12011417)
439739.00   3765450.00        5.01512  (12011417)
        439744.00   3765450.00        5.00983  (12011417)
439749.00   3765450.00        5.00389  (12011417)
        439774.00   3765450.00        4.97372  (12011417)
439844.00   3765450.00        4.86383  (12011417)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: FREEEXH ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439849.00	3765450.00	4.85385	(12011417)	439854.00	3765450.00	4.84515	(12011417)
439859.00	3765450.00	4.83289	(12011417)	439674.00	3765455.00	5.14003	(12011417)
439679.00	3765455.00	5.13870	(12011417)	439684.00	3765455.00	5.13521	(12011417)
439689.00	3765455.00	5.13184	(12011417)	439694.00	3765455.00	5.12641	(12011417)
439699.00	3765455.00	5.12436	(12011417)	439704.00	3765455.00	5.12083	(12011417)
439709.00	3765455.00	5.11766	(12011417)	439714.00	3765455.00	5.11215	(12011417)
439719.00	3765455.00	5.10800	(12011417)	439729.00	3765455.00	5.10023	(12011417)
439734.00	3765455.00	5.09595	(12011417)	439739.00	3765455.00	5.08954	(12011417)
439744.00	3765455.00	5.08665	(12011417)	439749.00	3765455.00	5.08107	(12011417)
439844.00	3765455.00	4.95026	(12011417)				

439849.00 3765455.00 4.93959 (12011417)
439854.00 3765455.00 4.92910 (12011417)
439859.00 3765455.00 4.92069 (12011417)
439674.00 3765460.00 5.21695 (12011417)
439679.00 3765460.00 5.21105 (12011417)
439684.00 3765460.00 5.20908 (12011417)
439689.00 3765460.00 5.20579 (12011417)
439694.00 3765460.00 5.20438 (12011417)
439699.00 3765460.00 5.19930 (12011417)
439704.00 3765460.00 5.19523 (12011417)
439709.00 3765460.00 5.19244 (12011417)
439714.00 3765460.00 5.18974 (12011417)
439719.00 3765460.00 5.18603 (12011417)
439729.00 3765460.00 5.17631 (12011417)
439734.00 3765460.00 5.17300 (12011417)
439739.00 3765460.00 5.16897 (12011417)
439744.00 3765460.00 5.16373 (12011417)
439749.00 3765460.00 5.15916 (12011417)
439789.00 3765460.00 5.11672 (12011417)
439794.00 3765460.00 5.10927 (12011417)
439799.00 3765460.00 5.10319 (12011417)
439804.00 3765460.00 5.09721 (12011417)
439809.00 3765460.00 5.09083 (12011417)
439814.00 3765460.00 5.08307 (12011417)
439819.00 3765460.00 5.07474 (12011417)
439824.00 3765460.00 5.06845 (12011417)
439829.00 3765460.00 5.06112 (12011417)
439844.00 3765460.00 5.03578 (12011417)
439849.00 3765460.00 5.02720 (12011417)
439854.00 3765460.00 5.01924 (12011417)
439859.00 3765460.00 5.00692 (12011417)
439674.00 3765465.00 5.29064 (12011417)
439679.00 3765465.00 5.28967 (12011417)
439684.00 3765465.00 5.28612 (12011417)
439689.00 3765465.00 5.28282 (12011417)
439694.00 3765465.00 5.27878 (12011417)
439699.00 3765465.00 5.27773 (12011417)
439704.00 3765465.00 5.27452 (12011417)
439709.00 3765465.00 5.27040 (12011417)
439714.00 3765465.00 5.26587 (12011417)
439719.00 3765465.00 5.26336 (12011417)
439729.00 3765465.00 5.25645 (12011417)
439734.00 3765465.00 5.25124 (12011417)
439739.00 3765465.00 5.24677 (12011417)
439744.00 3765465.00 5.24417 (12011417)
439749.00 3765465.00 5.23915 (12011417)
439789.00 3765465.00 5.19866 (12011417)
439794.00 3765465.00 5.19357 (12011417)
439799.00 3765465.00 5.18715 (12011417)
439804.00 3765465.00 5.17996 (12011417)
439809.00 3765465.00 5.17368 (12011417)
439814.00 3765465.00 5.16786 (12011417)

```
439819.00   3765465.00        5.16180  (12011417)
        439824.00   3765465.00        5.15404  (12011417)
439829.00   3765465.00        5.14542  (12011417)
        439844.00   3765465.00        5.12396  (12011417)
439849.00   3765465.00        5.11366  (12011417)
        439854.00   3765465.00        5.10620  (12011417)
439859.00   3765465.00        5.09791  (12011417)
        439674.00   3765470.00        5.37111  (12011417)
439679.00   3765470.00        5.36597  (12011417)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: FREEEXH ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439684.00	3765470.00	5.36446	(12011417)
439689.00	3765470.00	5.36185	(12011417)
439694.00	3765470.00	5.35989	(12011417)
439699.00	3765470.00	5.35526	(12011417)
439704.00	3765470.00	5.35212	(12011417)
439709.00	3765470.00	5.34999	(12011417)
439714.00	3765470.00	5.34702	(12011417)
439719.00	3765470.00	5.34338	(12011417)
439729.00	3765470.00	5.33586	(12011417)
439734.00	3765470.00	5.33312	(12011417)
439739.00	3765470.00	5.32878	(12011417)
439744.00	3765470.00	5.32500	(12011417)
439749.00	3765470.00	5.31977	(12011417)
439789.00	3765470.00	5.28253	(12011417)
439794.00	3765470.00	5.27720	(12011417)
439799.00	3765470.00	5.27173	(12011417)
439804.00	3765470.00	5.26648	(12011417)
439809.00	3765470.00	5.26108	(12011417)
439814.00	3765470.00	5.25264	(12011417)

```
439819.00   3765470.00        5.24762  (12011417)
        439824.00   3765470.00        5.24093  (12011417)
439829.00   3765470.00        5.23575  (12011417)
        439844.00   3765470.00        5.21201  (12011417)
439849.00   3765470.00        5.20579  (12011417)
        439854.00   3765470.00        5.19673  (12011417)
439859.00   3765470.00        5.18724  (12011417)
        439674.00   3765475.00        5.45064  (12011417)
439679.00   3765475.00        5.44786  (12011417)
        439684.00   3765475.00        5.44655  (12011417)
439689.00   3765475.00        5.44130  (12011417)
        439694.00   3765475.00        5.43989  (12011417)
439699.00   3765475.00        5.43724  (12011417)
        439704.00   3765475.00        5.43519  (12011417)
439709.00   3765475.00        5.43074  (12011417)
        439714.00   3765475.00        5.42722  (12011417)
439719.00   3765475.00        5.42501  (12011417)
        439729.00   3765475.00        5.41919  (12011417)
439734.00   3765475.00        5.41353  (12011417)
        439739.00   3765475.00        5.41234  (12011417)
439744.00   3765475.00        5.40733  (12011417)
        439749.00   3765475.00        5.40562  (12011417)
439754.00   3765475.00        5.39941  (12011417)
        439789.00   3765475.00        5.36996  (12011417)
439794.00   3765475.00        5.36454  (12011417)
        439799.00   3765475.00        5.35925  (12011417)
439804.00   3765475.00        5.35307  (12011417)
        439809.00   3765475.00        5.34778  (12011417)
439814.00   3765475.00        5.34319  (12011417)
        439819.00   3765475.00        5.33635  (12011417)
439824.00   3765475.00        5.33002  (12011417)
        439829.00   3765475.00        5.32215  (12011417)
439269.00   3764900.00        2.15231  (12010217)
        439369.00   3764900.00        2.15300  (12010217)
439469.00   3764900.00        2.15364  (12010217)
        439569.00   3764900.00        2.15398  (12010217)
439669.00   3764900.00        2.15410  (12010217)
        439769.00   3764900.00        2.15347  (12010217)
439869.00   3764900.00        2.15052  (12010217)
        439969.00   3764900.00        2.13639  (12010217)
440069.00   3764900.00        2.12087  (15010717)
        440169.00   3764900.00        2.12224  (15010717)
440269.00   3764900.00        2.12246  (15010717)
        439269.00   3765000.00        2.34808  (12010217)
439369.00   3765000.00        2.34910  (12010217)
        439469.00   3765000.00        2.34998  (12010217)
439569.00   3765000.00        2.35070  (12010217)
        439669.00   3765000.00        2.35090  (12010217)
439769.00   3765000.00        2.35074  (12010217)
        439869.00   3765000.00        2.34998  (12010217)
439969.00   3765000.00        2.34513  (12010217)
        440069.00   3765000.00        2.31890  (12010217)
```

```
440169.00   3765000.00        2.31558  (15010717)
        440269.00   3765000.00        2.31588  (15010717)
439269.00   3765100.00        2.63341  (13121718)
        439369.00   3765100.00        2.59688  (12010217)
439469.00   3765100.00        2.59857  (12010217)
        439569.00   3765100.00        2.59962  (12010217)
439669.00   3765100.00        2.59938  (12010217)
        439769.00   3765100.00        2.59945  (12010217)
439869.00   3765100.00        2.59977  (12010217)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: FREEEXH ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439969.00	3765100.00	2.59907	(12010217)	440069.00	3765100.00	2.59135	(12010217)
440169.00	3765100.00	2.55959	(15010717)	440269.00	3765100.00	2.55989	(15010717)
439269.00	3765200.00	3.12490	(12011417)	439369.00	3765200.00	3.00073	(12011417)
439469.00	3765200.00	2.95491	(13121718)	439569.00	3765200.00	2.92538	(12010217)
439669.00	3765200.00	2.92617	(12010217)	439769.00	3765200.00	2.92787	(12010217)
439869.00	3765200.00	2.92611	(12010217)	439969.00	3765200.00	2.92742	(12010217)
440069.00	3765200.00	2.92601	(12010217)	440169.00	3765200.00	2.91069	(12010217)
440269.00	3765200.00	2.88117	(15010717)	439269.00	3765300.00	3.77719	(12011417)
439369.00	3765300.00	3.72511	(12011417)	439469.00	3765300.00	3.63748	(12011417)
439569.00	3765300.00	3.49597	(12011417)				

```
439669.00   3765300.00        3.40116  (13121718)
        439769.00   3765300.00        3.38076  (12010217)
439869.00   3765300.00        3.38158  (12010217)
        439969.00   3765300.00        3.38142  (12010217)
440069.00   3765300.00        3.38264  (12010217)
        440169.00   3765300.00        3.38272  (12010217)
440269.00   3765300.00        3.34725  (12010217)
        439269.00   3765400.00        4.59771  (12011417)
439369.00   3765400.00        4.58475  (12011417)
        439469.00   3765400.00        4.55645  (12011417)
439569.00   3765400.00        4.50564  (12011417)
        439669.00   3765400.00        4.41529  (12011417)
439769.00   3765400.00        4.25268  (12011417)
        439869.00   3765400.00        4.08148  (13121718)
439969.00   3765400.00        4.06617  (12010217)
        440069.00   3765400.00        4.06804  (12010217)
440169.00   3765400.00        4.07220  (12010217)
        440269.00   3765400.00        4.07227  (12010217)
439269.00   3765500.00        5.91526  (12011417)
        439369.00   3765500.00        5.91931  (12011417)
439469.00   3765500.00        5.91925  (12011417)
        439569.00   3765500.00        5.91062  (12011417)
439669.00   3765500.00        5.88816  (12011417)
        439769.00   3765500.00        5.84489  (12011417)
439869.00   3765500.00        5.75777  (12011417)
        439969.00   3765500.00        5.58220  (12011417)
440069.00   3765500.00        5.26401  (13121718)
        440169.00   3765500.00        5.28732  (15011517)
440269.00   3765500.00        5.32218  (14101107)
        439269.00   3765600.00        8.84043  (12011417)
439369.00   3765600.00        8.86101  (12011417)
        439469.00   3765600.00        8.88224  (12011417)
439569.00   3765600.00        8.89574  (12011417)
        439669.00   3765600.00        8.90653  (12011417)
439769.00   3765600.00        8.90775  (12011417)
        439869.00   3765600.00        8.89479  (12011417)
439969.00   3765600.00        8.86778  (12011417)
        440069.00   3765600.00        8.86536  (14101107)
440169.00   3765600.00        9.05202  (15112218)
        440269.00   3765600.00        9.21264  (15112218)
439269.00   3765700.00       33.98259  (14012908)
        439369.00   3765700.00       34.81738  (14012908)
439469.00   3765700.00       35.90648  (14101107)
        439569.00   3765700.00       37.60073  (14101107)
439669.00   3765700.00       38.56289  (14101107)
        439769.00   3765700.00       39.30767  (14101107)
439869.00   3765700.00       39.63476  (14101107)
        439969.00   3765700.00       40.12018  (14101107)
440069.00   3765700.00       40.48740  (14101107)
        440169.00   3765700.00       40.70908  (14101107)
440269.00   3765700.00       41.07030  (14101107)
        439269.00   3765800.00       13.84038  (12111317)
```

```
439369.00   3765800.00       13.66514  (12111317)
        439469.00   3765800.00       13.46774  (12111317)
439569.00   3765800.00       13.36472  (12011717)
        439669.00   3765800.00       13.43111  (12011717)
439769.00   3765800.00       13.46468  (12011717)
        439869.00   3765800.00       13.47434  (12011717)
439969.00   3765800.00       13.47719  (12011717)
        440069.00   3765800.00       13.47122  (12011717)
440169.00   3765800.00       13.47424  (15120418)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: FREEEXH ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
440269.00	3765800.00	13.44919	(15120418)
439269.00	3765900.00	7.22045	(15120818)
439369.00	3765900.00	7.18030	(15120818)
439469.00	3765900.00	7.12899	(15120818)
439569.00	3765900.00	7.08221	(13111217)
439669.00	3765900.00	7.09373	(13111217)
439769.00	3765900.00	7.09283	(13111217)
439869.00	3765900.00	7.18720	(12011717)
439969.00	3765900.00	7.29639	(12011717)
440069.00	3765900.00	7.36866	(12011717)
440169.00	3765900.00	7.41706	(12011717)
440269.00	3765900.00	7.44916	(12011717)
439649.00	3765310.00	3.48563	(13121718)
439679.00	3765310.00	3.46458	(13121718)
439709.00	3765310.00	3.43971	(13121718)
439739.00	3765310.00	3.43657	(12010217)
439769.00	3765310.00	3.43692	(12010217)
439799.00	3765310.00	3.43708	(12010217)
439829.00	3765310.00	3.43700	(12010217)

439859.00 3765310.00 3.43676 (12010217)
439889.00 3765310.00 3.43678 (12010217)
439649.00 3765340.00 3.75698 (12011417)
439679.00 3765340.00 3.69462 (12011417)
439709.00 3765340.00 3.66523 (13121718)
439739.00 3765340.00 3.64574 (13121718)
439769.00 3765340.00 3.61781 (12010217)
439799.00 3765340.00 3.61835 (12010217)
439829.00 3765340.00 3.61883 (12010217)
439859.00 3765340.00 3.61889 (12010217)
439889.00 3765340.00 3.61855 (12010217)
439649.00 3765370.00 4.08946 (12011417)
439679.00 3765370.00 4.04228 (12011417)
439709.00 3765370.00 3.98616 (12011417)
439739.00 3765370.00 3.92025 (12011417)
439769.00 3765370.00 3.87421 (13121718)
439799.00 3765370.00 3.84980 (13121718)
439829.00 3765370.00 3.82572 (12010217)
439859.00 3765370.00 3.82593 (12010217)
439889.00 3765370.00 3.82612 (12010217)
439649.00 3765400.00 4.43766 (12011417)
439679.00 3765400.00 4.40164 (12011417)
439709.00 3765400.00 4.36092 (12011417)
439739.00 3765400.00 4.31153 (12011417)
439769.00 3765400.00 4.25268 (12011417)
439799.00 3765400.00 4.18431 (12011417)
439829.00 3765400.00 4.11597 (13121718)
439859.00 3765400.00 4.09133 (13121718)
439889.00 3765400.00 4.06641 (12010217)
439649.00 3765430.00 4.81186 (12011417)
439679.00 3765430.00 4.78807 (12011417)
439709.00 3765430.00 4.75751 (12011417)
439739.00 3765430.00 4.72159 (12011417)
439769.00 3765430.00 4.68035 (12011417)
439799.00 3765430.00 4.62830 (12011417)
439829.00 3765430.00 4.56752 (12011417)
439859.00 3765430.00 4.49464 (12011417)
439889.00 3765430.00 4.40587 (12011417)
439649.00 3765460.00 5.22976 (12011417)
439679.00 3765460.00 5.21105 (12011417)
439709.00 3765460.00 5.19244 (12011417)
439739.00 3765460.00 5.16897 (12011417)
439769.00 3765460.00 5.13881 (12011417)
439799.00 3765460.00 5.10319 (12011417)
439829.00 3765460.00 5.06112 (12011417)
439859.00 3765460.00 5.00692 (12011417)
439889.00 3765460.00 4.94433 (12011417)
439649.00 3765490.00 5.71423 (12011417)
439679.00 3765490.00 5.70253 (12011417)
439709.00 3765490.00 5.69011 (12011417)
439739.00 3765490.00 5.67478 (12011417)
439769.00 3765490.00 5.65410 (12011417)

```
439799.00   3765490.00        5.63025  (12011417)
        439829.00   3765490.00        5.60234  (12011417)
439859.00   3765490.00        5.56590  (12011417)
        439889.00   3765490.00        5.52525  (12011417)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONOFFEXH ***
INCLUDING SOURCE(S):
A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , A0000029 , A0000030 , A0000031 , A0000032 , A0000033 , A0000034 , A0000035 ,
A0000036 , A0000037 , A0000038 , A0000039 , A0000040 , A0000041 , A0000042 , A0000043 ,
A0000044 , A0000045 , A0000046 , A0000047 , A0000048 , A0000049 , A0000050 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439674.00	3765310.00	1.46381	(12121717)
439679.00	3765310.00	1.46388	(12121717)
439684.00	3765310.00	1.46385	(12121717)
439689.00	3765310.00	1.46361	(12121717)
439694.00	3765310.00	1.46320	(12121717)
439699.00	3765310.00	1.46264	(12121717)
439704.00	3765310.00	1.46196	(12121717)
439709.00	3765310.00	1.46133	(12121717)
439714.00	3765310.00	1.46030	(12121717)
439719.00	3765310.00	1.45907	(12121717)
439729.00	3765310.00	1.45596	(12121717)
439734.00	3765310.00	1.45400	(12121717)
439739.00	3765310.00	1.45176	(12121717)
439744.00	3765310.00	1.44926	(12121717)
439749.00	3765310.00	1.44630	(12121717)
439764.00	3765310.00	1.43407	(12121717)
439769.00	3765310.00	1.42892	(12121717)

```
439774.00   3765310.00        1.42311  (12121717)
        439779.00   3765310.00        1.42053  (13012419)
439784.00   3765310.00        1.42234  (13012419)
        439789.00   3765310.00        1.42386  (13012419)
439794.00   3765310.00        1.42580  (13012419)
        439799.00   3765310.00        1.42664  (13012419)
439804.00   3765310.00        1.42766  (13012419)
        439809.00   3765310.00        1.42913  (13012419)
439814.00   3765310.00        1.42955  (13012419)
        439819.00   3765310.00        1.43017  (13012419)
439824.00   3765310.00        1.43711  (15010717)
        439829.00   3765310.00        1.45069  (15010717)
439839.00   3765310.00        1.47457  (15010717)
        439844.00   3765310.00        1.48615  (15010717)
439849.00   3765310.00        1.49651  (15010717)
        439854.00   3765310.00        1.50620  (15010717)
439859.00   3765310.00        1.51626  (15010717)
        439864.00   3765310.00        1.52513  (15010717)
439869.00   3765310.00        1.53317  (15010717)
        439874.00   3765310.00        1.54125  (15010717)
439879.00   3765310.00        1.54881  (15010717)
        439884.00   3765310.00        1.55543  (15010717)
439674.00   3765315.00        1.47659  (12121717)
        439679.00   3765315.00        1.47664  (12121717)
439684.00   3765315.00        1.47657  (12121717)
        439689.00   3765315.00        1.47633  (12121717)
439694.00   3765315.00        1.47597  (12121717)
        439699.00   3765315.00        1.47538  (12121717)
439704.00   3765315.00        1.47479  (12121717)
        439709.00   3765315.00        1.47408  (12121717)
439714.00   3765315.00        1.47317  (12121717)
        439719.00   3765315.00        1.47195  (12121717)
439729.00   3765315.00        1.46897  (12121717)
        439734.00   3765315.00        1.46709  (12121717)
439739.00   3765315.00        1.46483  (12121717)
        439744.00   3765315.00        1.46243  (12121717)
439749.00   3765315.00        1.45945  (12121717)
        439764.00   3765315.00        1.44748  (12121717)
439769.00   3765315.00        1.44236  (12121717)
        439774.00   3765315.00        1.43659  (12121717)
439779.00   3765315.00        1.43370  (13012419)
        439784.00   3765315.00        1.43591  (13012419)
439789.00   3765315.00        1.43729  (13012419)
        439794.00   3765315.00        1.43876  (13012419)
439799.00   3765315.00        1.44024  (13012419)
        439804.00   3765315.00        1.44067  (13012419)
439809.00   3765315.00        1.44192  (13012419)
        439814.00   3765315.00        1.44278  (13012419)
439819.00   3765315.00        1.44707  (15010717)
        439824.00   3765315.00        1.46041  (15010717)
439829.00   3765315.00        1.47338  (15010717)
        439839.00   3765315.00        1.49666  (15010717)
```

```
439844.00   3765315.00        1.50755  (15010717)
        439849.00   3765315.00        1.51810  (15010717)
439854.00   3765315.00        1.52754  (15010717)
        439859.00   3765315.00        1.53645  (15010717)
439864.00   3765315.00        1.54586  (15010717)
        439869.00   3765315.00        1.55343  (15010717)
439874.00   3765315.00        1.56046  (15010717)
        439879.00   3765315.00        1.56862  (15010717)
439884.00   3765315.00        1.57489  (15010717)
        439674.00   3765320.00        1.48960  (12121717)
439679.00   3765320.00        1.48965  (12121717)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONOFFEXH ***
INCLUDING SOURCE(S):
A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , A0000029 , A0000030 , A0000031 , A0000032 , A0000033 , A0000034 , A0000035 ,
A0000036 , A0000037 , A0000038 , A0000039 , A0000040 , A0000041 , A0000042 , A0000043 ,
A0000044 , A0000045 , A0000046 , A0000047 , A0000048 , A0000049 , A0000050 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439684.00	3765320.00	1.48955	(12121717)
439689.00	3765320.00	1.48934	(12121717)
439694.00	3765320.00	1.48894	(12121717)
439699.00	3765320.00	1.48841	(12121717)
439704.00	3765320.00	1.48789	(12121717)
439709.00	3765320.00	1.48709	(12121717)
439714.00	3765320.00	1.48625	(12121717)
439719.00	3765320.00	1.48514	(12121717)
439729.00	3765320.00	1.48228	(12121717)
439734.00	3765320.00	1.48033	(12121717)
439739.00	3765320.00	1.47820	(12121717)
439744.00	3765320.00	1.47588	(12121717)
439749.00	3765320.00	1.47289	(12121717)
439764.00	3765320.00	1.46116	(12121717)
439769.00	3765320.00	1.45611	(12121717)
439774.00	3765320.00	1.45042	(12121717)
439779.00	3765320.00	1.44749	(13012419)

439784.00 3765320.00 1.44915 (13012419)
439789.00 3765320.00 1.45103 (13012419)
439794.00 3765320.00 1.45195 (13012419)
439799.00 3765320.00 1.45343 (13012419)
439804.00 3765320.00 1.45434 (13012419)
439809.00 3765320.00 1.45480 (13012419)
439814.00 3765320.00 1.45706 (15010717)
439819.00 3765320.00 1.47091 (15010717)
439824.00 3765320.00 1.48407 (15010717)
439829.00 3765320.00 1.49633 (15010717)
439839.00 3765320.00 1.51918 (15010717)
439844.00 3765320.00 1.52961 (15010717)
439849.00 3765320.00 1.53983 (15010717)
439854.00 3765320.00 1.54932 (15010717)
439859.00 3765320.00 1.55785 (15010717)
439864.00 3765320.00 1.56624 (15010717)
439869.00 3765320.00 1.57435 (15010717)
439874.00 3765320.00 1.58135 (15010717)
439879.00 3765320.00 1.58810 (15010717)
439884.00 3765320.00 1.59493 (15010717)
439674.00 3765325.00 1.50293 (12121717)
439679.00 3765325.00 1.50291 (12121717)
439684.00 3765325.00 1.50279 (12121717)
439689.00 3765325.00 1.50264 (12121717)
439694.00 3765325.00 1.50223 (12121717)
439699.00 3765325.00 1.50172 (12121717)
439704.00 3765325.00 1.50122 (12121717)
439709.00 3765325.00 1.50042 (12121717)
439714.00 3765325.00 1.49957 (12121717)
439719.00 3765325.00 1.49856 (12121717)
439729.00 3765325.00 1.49583 (12121717)
439734.00 3765325.00 1.49388 (12121717)
439739.00 3765325.00 1.49186 (12121717)
439744.00 3765325.00 1.48956 (12121717)
439749.00 3765325.00 1.48673 (12121717)
439754.00 3765325.00 1.48343 (12121717)
439769.00 3765325.00 1.47028 (12121717)
439774.00 3765325.00 1.46453 (12121717)
439779.00 3765325.00 1.46182 (13012419)
439784.00 3765325.00 1.46287 (13012419)
439789.00 3765325.00 1.46453 (13012419)
439794.00 3765325.00 1.46596 (13012419)
439799.00 3765325.00 1.46674 (13012419)
439804.00 3765325.00 1.46803 (13012419)
439809.00 3765325.00 1.46846 (13012419)
439814.00 3765325.00 1.48128 (15010717)
439819.00 3765325.00 1.49476 (15010717)
439824.00 3765325.00 1.50758 (15010717)
439829.00 3765325.00 1.51969 (15010717)
439839.00 3765325.00 1.54162 (15010717)
439844.00 3765325.00 1.55189 (15010717)
439849.00 3765325.00 1.56125 (15010717)

```
439854.00   3765325.00        1.57064  (15010717)
        439859.00   3765325.00        1.57915  (15010717)
439864.00   3765325.00        1.58661  (15010717)
        439869.00   3765325.00        1.59473  (15010717)
439874.00   3765325.00        1.60174  (15010717)
        439879.00   3765325.00        1.60779  (15010717)
439884.00   3765325.00        1.61431  (15010717)
        439674.00   3765330.00        1.51649  (12121717)
439679.00   3765330.00        1.51648  (12121717)
        439684.00   3765330.00        1.51633  (12121717)
439689.00   3765330.00        1.51615  (12121717)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONOFFEXH ***
INCLUDING SOURCE(S):
A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , A0000029 , A0000030 , A0000031 , A0000032 , A0000033 , A0000034 , A0000035 ,
A0000036 , A0000037 , A0000038 , A0000039 , A0000040 , A0000041 , A0000042 , A0000043 ,
A0000044 , A0000045 , A0000046 , A0000047 , A0000048 , A0000049 , A0000050 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439694.00	3765330.00	1.51580	(12121717)	439699.00	3765330.00	1.51537	(12121717)
439704.00	3765330.00	1.51481	(12121717)	439709.00	3765330.00	1.51408	(12121717)
439714.00	3765330.00	1.51319	(12121717)	439719.00	3765330.00	1.51227	(12121717)
439729.00	3765330.00	1.50962	(12121717)	439734.00	3765330.00	1.50786	(12121717)
439739.00	3765330.00	1.50582	(12121717)	439744.00	3765330.00	1.50351	(12121717)
439749.00	3765330.00	1.50081	(12121717)	439754.00	3765330.00	1.49765	(12121717)
439774.00	3765330.00	1.47897	(12121717)	439779.00	3765330.00	1.47570	(13012419)
439784.00	3765330.00	1.47739	(13012419)	439789.00	3765330.00	1.47810	(13012419)
439794.00	3765330.00	1.47991	(13012419)				

439799.00 3765330.00 1.48087 (13012419)
439804.00 3765330.00 1.48155 (13012419)
439809.00 3765330.00 1.49209 (15010717)
439814.00 3765330.00 1.50577 (15010717)
439819.00 3765330.00 1.51886 (15010717)
439824.00 3765330.00 1.53135 (15010717)
439829.00 3765330.00 1.54321 (15010717)
439839.00 3765330.00 1.56434 (15010717)
439844.00 3765330.00 1.57446 (15010717)
439849.00 3765330.00 1.58341 (15010717)
439854.00 3765330.00 1.59208 (15010717)
439859.00 3765330.00 1.60073 (15010717)
439864.00 3765330.00 1.60826 (15010717)
439869.00 3765330.00 1.61504 (15010717)
439874.00 3765330.00 1.62236 (15010717)
439879.00 3765330.00 1.62865 (15010717)
439884.00 3765330.00 1.63374 (15010717)
439674.00 3765335.00 1.53036 (12121717)
439679.00 3765335.00 1.53031 (12121717)
439684.00 3765335.00 1.53021 (12121717)
439689.00 3765335.00 1.52994 (12121717)
439694.00 3765335.00 1.52968 (12121717)
439699.00 3765335.00 1.52930 (12121717)
439704.00 3765335.00 1.52867 (12121717)
439709.00 3765335.00 1.52801 (12121717)
439714.00 3765335.00 1.52714 (12121717)
439719.00 3765335.00 1.52626 (12121717)
439729.00 3765335.00 1.52367 (12121717)
439734.00 3765335.00 1.52208 (12121717)
439739.00 3765335.00 1.52008 (12121717)
439744.00 3765335.00 1.51772 (12121717)
439749.00 3765335.00 1.51518 (12121717)
439774.00 3765335.00 1.49373 (12121717)
439779.00 3765335.00 1.48962 (13012419)
439784.00 3765335.00 1.49170 (13012419)
439789.00 3765335.00 1.49281 (13012419)
439794.00 3765335.00 1.49361 (13012419)
439839.00 3765335.00 1.58692 (15010717)
439844.00 3765335.00 1.59671 (15010717)
439849.00 3765335.00 1.60582 (15010717)
439854.00 3765335.00 1.61368 (15010717)
439859.00 3765335.00 1.62194 (15010717)
439864.00 3765335.00 1.62977 (15010717)
439869.00 3765335.00 1.63597 (15010717)
439874.00 3765335.00 1.64242 (15010717)
439879.00 3765335.00 1.64911 (15010717)
439884.00 3765335.00 1.65424 (15010717)
439674.00 3765340.00 1.54455 (12121717)
439679.00 3765340.00 1.54445 (12121717)
439684.00 3765340.00 1.54435 (12121717)
439689.00 3765340.00 1.54408 (12121717)
439694.00 3765340.00 1.54385 (12121717)

```
439699.00   3765340.00        1.54346  (12121717)
        439704.00   3765340.00        1.54288  (12121717)
439709.00   3765340.00        1.54225  (12121717)
        439714.00   3765340.00        1.54142  (12121717)
439719.00   3765340.00        1.54053  (12121717)
        439729.00   3765340.00        1.53808  (12121717)
439734.00   3765340.00        1.53659  (12121717)
        439739.00   3765340.00        1.53463  (12121717)
439744.00   3765340.00        1.53238  (12121717)
        439749.00   3765340.00        1.52987  (12121717)
439774.00   3765340.00        1.50885  (12121717)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONOFFEXH ***
INCLUDING SOURCE(S):
A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , A0000029 , A0000030 , A0000031 , A0000032 , A0000033 , A0000034 , A0000035 ,
A0000036 , A0000037 , A0000038 , A0000039 , A0000040 , A0000041 , A0000042 , A0000043 ,
A0000044 , A0000045 , A0000046 , A0000047 , A0000048 , A0000049 , A0000050 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439779.00	3765340.00	1.50467	(13012419)	439784.00	3765340.00	1.50571	(13012419)
439789.00	3765340.00	1.50760	(13012419)	439794.00	3765340.00	1.50819	(13012419)
439839.00	3765340.00	1.61007	(15010717)	439844.00	3765340.00	1.61927	(15010717)
439849.00	3765340.00	1.62791	(15010717)	439854.00	3765340.00	1.63609	(15010717)
439859.00	3765340.00	1.64353	(15010717)	439864.00	3765340.00	1.65076	(15010717)
439869.00	3765340.00	1.65772	(15010717)	439874.00	3765340.00	1.66330	(15010717)
439879.00	3765340.00	1.66910	(15010717)	439884.00	3765340.00	1.67536	(15010717)
439674.00	3765345.00	1.55906	(12121717)	439679.00	3765345.00	1.55896	(12121717)
439684.00	3765345.00	1.55878	(12121717)				

439689.00 3765345.00 1.55857 (12121717)
439694.00 3765345.00 1.55832 (12121717)
439699.00 3765345.00 1.55793 (12121717)
439704.00 3765345.00 1.55741 (12121717)
439709.00 3765345.00 1.55676 (12121717)
439714.00 3765345.00 1.55606 (12121717)
439719.00 3765345.00 1.55513 (12121717)
439729.00 3765345.00 1.55288 (12121717)
439734.00 3765345.00 1.55137 (12121717)
439739.00 3765345.00 1.54952 (12121717)
439744.00 3765345.00 1.54738 (12121717)
439749.00 3765345.00 1.54493 (12121717)
439774.00 3765345.00 1.52437 (12121717)
439779.00 3765345.00 1.51967 (13012419)
439784.00 3765345.00 1.52075 (13012419)
439789.00 3765345.00 1.52203 (13012419)
439794.00 3765345.00 1.52541 (15010717)
439839.00 3765345.00 1.63360 (15010717)
439844.00 3765345.00 1.64204 (15010717)
439849.00 3765345.00 1.65026 (15010717)
439854.00 3765345.00 1.65843 (15010717)
439859.00 3765345.00 1.66546 (15010717)
439864.00 3765345.00 1.67214 (15010717)
439869.00 3765345.00 1.67876 (15010717)
439874.00 3765345.00 1.68476 (15010717)
439879.00 3765345.00 1.68998 (15010717)
439884.00 3765345.00 1.69518 (15010717)
439674.00 3765350.00 1.57385 (12121717)
439679.00 3765350.00 1.57377 (12121717)
439684.00 3765350.00 1.57356 (12121717)
439689.00 3765350.00 1.57340 (12121717)
439694.00 3765350.00 1.57313 (12121717)
439699.00 3765350.00 1.57276 (12121717)
439704.00 3765350.00 1.57227 (12121717)
439709.00 3765350.00 1.57165 (12121717)
439714.00 3765350.00 1.57099 (12121717)
439719.00 3765350.00 1.57011 (12121717)
439729.00 3765350.00 1.56805 (12121717)
439734.00 3765350.00 1.56642 (12121717)
439739.00 3765350.00 1.56472 (12121717)
439744.00 3765350.00 1.56267 (12121717)
439749.00 3765350.00 1.56030 (12121717)
439774.00 3765350.00 1.54032 (12121717)
439779.00 3765350.00 1.53449 (13012419)
439784.00 3765350.00 1.53616 (13012419)
439789.00 3765350.00 1.53699 (13012419)
439794.00 3765350.00 1.55230 (15010717)
439839.00 3765350.00 1.65660 (15010717)
439844.00 3765350.00 1.66533 (15010717)
439849.00 3765350.00 1.67302 (15010717)
439854.00 3765350.00 1.68039 (15010717)
439859.00 3765350.00 1.68801 (15010717)

```
439864.00   3765350.00        1.69400  (15010717)
        439869.00   3765350.00        1.69993  (15010717)
439874.00   3765350.00        1.70644  (15010717)
        439879.00   3765350.00        1.71131  (15010717)
439884.00   3765350.00        1.71575  (15010717)
        439674.00   3765355.00        1.58896  (12121717)
439679.00   3765355.00        1.58893  (12121717)
        439684.00   3765355.00        1.58871  (12121717)
439689.00   3765355.00        1.58858  (12121717)
        439694.00   3765355.00        1.58827  (12121717)
439699.00   3765355.00        1.58793  (12121717)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONOFFEXH ***
INCLUDING SOURCE(S):
A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , A0000029 , A0000030 , A0000031 , A0000032 , A0000033 , A0000034 , A0000035 ,
A0000036 , A0000037 , A0000038 , A0000039 , A0000040 , A0000041 , A0000042 , A0000043 ,
A0000044 , A0000045 , A0000046 , A0000047 , A0000048 , A0000049 , A0000050 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439704.00	3765355.00	1.58745	(12121717)	439709.00	3765355.00	1.58692	(12121717)
439714.00	3765355.00	1.58626	(12121717)	439719.00	3765355.00	1.58546	(12121717)
439729.00	3765355.00	1.58344	(12121717)	439734.00	3765355.00	1.58193	(12121717)
439739.00	3765355.00	1.58024	(12121717)	439744.00	3765355.00	1.57836	(12121717)
439749.00	3765355.00	1.57598	(12121717)	439774.00	3765355.00	1.55657	(12121717)
439779.00	3765355.00	1.55044	(12121717)	439784.00	3765355.00	1.55130	(13012419)
439789.00	3765355.00	1.56458	(15010717)	439794.00	3765355.00	1.57914	(15010717)
439839.00	3765355.00	1.67998	(15010717)	439844.00	3765355.00	1.68844	(15010717)
439849.00	3765355.00	1.69598	(15010717)				

439854.00 3765355.00 1.70317 (15010717)
439859.00 3765355.00 1.70976 (15010717)
439864.00 3765355.00 1.71637 (15010717)
439869.00 3765355.00 1.72195 (15010717)
439874.00 3765355.00 1.72705 (15010717)
439879.00 3765355.00 1.73286 (15010717)
439884.00 3765355.00 1.73727 (15010717)
439674.00 3765360.00 1.60448 (12121717)
439679.00 3765360.00 1.60442 (12121717)
439684.00 3765360.00 1.60427 (12121717)
439689.00 3765360.00 1.60406 (12121717)
439694.00 3765360.00 1.60382 (12121717)
439699.00 3765360.00 1.60339 (12121717)
439704.00 3765360.00 1.60303 (12121717)
439709.00 3765360.00 1.60253 (12121717)
439714.00 3765360.00 1.60187 (12121717)
439719.00 3765360.00 1.60113 (12121717)
439729.00 3765360.00 1.59910 (12121717)
439734.00 3765360.00 1.59780 (12121717)
439739.00 3765360.00 1.59615 (12121717)
439744.00 3765360.00 1.59433 (12121717)
439749.00 3765360.00 1.59208 (12121717)
439774.00 3765360.00 1.57319 (12121717)
439779.00 3765360.00 1.56707 (12121717)
439784.00 3765360.00 1.57667 (15010717)
439789.00 3765360.00 1.59246 (15010717)
439794.00 3765360.00 1.60675 (15010717)
439799.00 3765360.00 1.62017 (15010717)
439804.00 3765360.00 1.63322 (15010717)
439809.00 3765360.00 1.64516 (15010717)
439814.00 3765360.00 1.65672 (15010717)
439839.00 3765360.00 1.70396 (15010717)
439844.00 3765360.00 1.71150 (15010717)
439849.00 3765360.00 1.71923 (15010717)
439854.00 3765360.00 1.72622 (15010717)
439859.00 3765360.00 1.73234 (15010717)
439864.00 3765360.00 1.73862 (15010717)
439869.00 3765360.00 1.74445 (15010717)
439874.00 3765360.00 1.74923 (15010717)
439879.00 3765360.00 1.75380 (15010717)
439884.00 3765360.00 1.75907 (15010717)
439674.00 3765365.00 1.62032 (12121717)
439679.00 3765365.00 1.62030 (12121717)
439684.00 3765365.00 1.62017 (12121717)
439689.00 3765365.00 1.61993 (12121717)
439694.00 3765365.00 1.61967 (12121717)
439699.00 3765365.00 1.61931 (12121717)
439704.00 3765365.00 1.61895 (12121717)
439709.00 3765365.00 1.61849 (12121717)
439714.00 3765365.00 1.61787 (12121717)
439719.00 3765365.00 1.61715 (12121717)
439729.00 3765365.00 1.61521 (12121717)

```
439734.00   3765365.00        1.61405  (12121717)
        439739.00   3765365.00        1.61252  (12121717)
439744.00   3765365.00        1.61065  (12121717)
        439749.00   3765365.00        1.60855  (12121717)
439774.00   3765365.00        1.59018  (12121717)
        439779.00   3765365.00        1.58958  (15010717)
439784.00   3765365.00        1.60539  (15010717)
        439789.00   3765365.00        1.62009  (15010717)
439794.00   3765365.00        1.63461  (15010717)
        439799.00   3765365.00        1.64755  (15010717)
439804.00   3765365.00        1.65972  (15010717)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONOFFEXH ***
INCLUDING SOURCE(S):
A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , A0000029 , A0000030 , A0000031 , A0000032 , A0000033 , A0000034 , A0000035 ,
A0000036 , A0000037 , A0000038 , A0000039 , A0000040 , A0000041 , A0000042 , A0000043 ,
A0000044 , A0000045 , A0000046 , A0000047 , A0000048 , A0000049 , A0000050 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439809.00	3765365.00	1.67163	(15010717)	439814.00	3765365.00	1.68240	(15010717)
439839.00	3765365.00	1.72796	(15010717)	439844.00	3765365.00	1.73535	(15010717)
439849.00	3765365.00	1.74226	(15010717)	439854.00	3765365.00	1.74911	(15010717)
439859.00	3765365.00	1.75550	(15010717)	439864.00	3765365.00	1.76087	(15010717)
439869.00	3765365.00	1.76635	(15010717)	439874.00	3765365.00	1.77182	(15010717)
439879.00	3765365.00	1.77566	(15010717)	439884.00	3765365.00	1.77987	(15010717)
439674.00	3765370.00	1.63654	(12121717)	439679.00	3765370.00	1.63653	(12121717)
439684.00	3765370.00	1.63648	(12121717)	439689.00	3765370.00	1.63623	(12121717)
439694.00	3765370.00	1.63592	(12121717)				

439699.00 3765370.00 1.63562 (12121717)
439704.00 3765370.00 1.63525 (12121717)
439709.00 3765370.00 1.63483 (12121717)
439714.00 3765370.00 1.63431 (12121717)
439719.00 3765370.00 1.63359 (12121717)
439729.00 3765370.00 1.63176 (12121717)
439734.00 3765370.00 1.63061 (12121717)
439739.00 3765370.00 1.62926 (12121717)
439744.00 3765370.00 1.62739 (12121717)
439749.00 3765370.00 1.62542 (12121717)
439774.00 3765370.00 1.60761 (12121717)
439779.00 3765370.00 1.61859 (15010717)
439784.00 3765370.00 1.63426 (15010717)
439789.00 3765370.00 1.64858 (15010717)
439794.00 3765370.00 1.66195 (15010717)
439799.00 3765370.00 1.67500 (15010717)
439804.00 3765370.00 1.68681 (15010717)
439809.00 3765370.00 1.69784 (15010717)
439814.00 3765370.00 1.70854 (15010717)
439839.00 3765370.00 1.75208 (15010717)
439844.00 3765370.00 1.75952 (15010717)
439849.00 3765370.00 1.76597 (15010717)
439854.00 3765370.00 1.77239 (15010717)
439859.00 3765370.00 1.77845 (15010717)
439864.00 3765370.00 1.78390 (15010717)
439869.00 3765370.00 1.78890 (15010717)
439874.00 3765370.00 1.79382 (15010717)
439879.00 3765370.00 1.79859 (15010717)
439884.00 3765370.00 1.80195 (15010717)
439674.00 3765375.00 1.65315 (12121717)
439679.00 3765375.00 1.65323 (12121717)
439684.00 3765375.00 1.65318 (12121717)
439689.00 3765375.00 1.65292 (12121717)
439694.00 3765375.00 1.65262 (12121717)
439699.00 3765375.00 1.65234 (12121717)
439704.00 3765375.00 1.65194 (12121717)
439709.00 3765375.00 1.65153 (12121717)
439714.00 3765375.00 1.65107 (12121717)
439719.00 3765375.00 1.65047 (12121717)
439729.00 3765375.00 1.64877 (12121717)
439734.00 3765375.00 1.64763 (12121717)
439739.00 3765375.00 1.64632 (12121717)
439744.00 3765375.00 1.64463 (12121717)
439749.00 3765375.00 1.64270 (12121717)
439754.00 3765375.00 1.64037 (12121717)
439774.00 3765375.00 1.63281 (15010717)
439779.00 3765375.00 1.64851 (15010717)
439784.00 3765375.00 1.66285 (15010717)
439789.00 3765375.00 1.67735 (15010717)
439794.00 3765375.00 1.69000 (15010717)
439799.00 3765375.00 1.70242 (15010717)
439804.00 3765375.00 1.71415 (15010717)

```
439809.00   3765375.00        1.72478  (15010717)
        439814.00   3765375.00        1.73490  (15010717)
439839.00   3765375.00        1.77646  (15010717)
        439844.00   3765375.00        1.78354  (15010717)
439849.00   3765375.00        1.79038  (15010717)
        439854.00   3765375.00        1.79605  (15010717)
439859.00   3765375.00        1.80152  (15010717)
        439864.00   3765375.00        1.80720  (15010717)
439869.00   3765375.00        1.81180  (15010717)
        439874.00   3765375.00        1.81642  (15010717)
439879.00   3765375.00        1.82069  (15010717)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONOFFEXH ***
INCLUDING SOURCE(S):
A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , A0000029 , A0000030 , A0000031 , A0000032 , A0000033 , A0000034 , A0000035 ,
A0000036 , A0000037 , A0000038 , A0000039 , A0000040 , A0000041 , A0000042 , A0000043 ,
A0000044 , A0000045 , A0000046 , A0000047 , A0000048 , A0000049 , A0000050 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439884.00	3765375.00	1.82469	(15010717)	439774.00	3765380.00	1.66270	(15010717)
439779.00	3765380.00	1.67845	(15010717)	439784.00	3765380.00	1.69276	(15010717)
439789.00	3765380.00	1.70562	(15010717)	439794.00	3765380.00	1.71876	(15010717)
439799.00	3765380.00	1.73016	(15010717)	439804.00	3765380.00	1.74129	(15010717)
439809.00	3765380.00	1.75204	(15010717)	439814.00	3765380.00	1.76141	(15010717)
439769.00	3765385.00	1.67782	(15010717)	439819.00	3765385.00	1.79701	(15010717)
439769.00	3765400.00	1.77325	(15010717)	439844.00	3765400.00	1.90922	(15010717)
439849.00	3765400.00	1.91438	(15010717)	439674.00	3765405.00	1.80270	(12010217)
439714.00	3765405.00	1.76137	(12121717)				

439719.00 3765405.00 1.76098 (12121717)
439734.00 3765405.00 1.75934 (12121717)
439749.00 3765405.00 1.75613 (12121717)
439754.00 3765405.00 1.75862 (15010717)
439774.00 3765405.00 1.81911 (15010717)
439779.00 3765405.00 1.83170 (15010717)
439784.00 3765405.00 1.84343 (15010717)
439789.00 3765405.00 1.85453 (15010717)
439794.00 3765405.00 1.86451 (15010717)
439799.00 3765405.00 1.87369 (15010717)
439804.00 3765405.00 1.88254 (15010717)
439809.00 3765405.00 1.89085 (15010717)
439814.00 3765405.00 1.89849 (15010717)
439819.00 3765405.00 1.90606 (15010717)
439824.00 3765405.00 1.91246 (15010717)
439829.00 3765405.00 1.91866 (15010717)
439834.00 3765405.00 1.92469 (15010717)
439839.00 3765405.00 1.93017 (15010717)
439844.00 3765405.00 1.93568 (15010717)
439849.00 3765405.00 1.94039 (15010717)
439854.00 3765405.00 1.94500 (15010717)
439859.00 3765405.00 1.94963 (15010717)
439674.00 3765410.00 1.83099 (12010217)
439679.00 3765410.00 1.81595 (12010217)
439684.00 3765410.00 1.80023 (12010217)
439689.00 3765410.00 1.78383 (12010217)
439694.00 3765410.00 1.78239 (12121717)
439699.00 3765410.00 1.78223 (12121717)
439704.00 3765410.00 1.78201 (12121717)
439709.00 3765410.00 1.78182 (12121717)
439714.00 3765410.00 1.78148 (12121717)
439719.00 3765410.00 1.78117 (12121717)
439729.00 3765410.00 1.78039 (12121717)
439734.00 3765410.00 1.77975 (12121717)
439739.00 3765410.00 1.77896 (12121717)
439744.00 3765410.00 1.77806 (12121717)
439749.00 3765410.00 1.77679 (12121717)
439774.00 3765410.00 1.85092 (15010717)
439779.00 3765410.00 1.86345 (15010717)
439784.00 3765410.00 1.87465 (15010717)
439789.00 3765410.00 1.88507 (15010717)
439794.00 3765410.00 1.89496 (15010717)
439799.00 3765410.00 1.90376 (15010717)
439804.00 3765410.00 1.91208 (15010717)
439809.00 3765410.00 1.91964 (15010717)
439814.00 3765410.00 1.92716 (15010717)
439819.00 3765410.00 1.93385 (15010717)
439824.00 3765410.00 1.94044 (15010717)
439829.00 3765410.00 1.94655 (15010717)
439834.00 3765410.00 1.95172 (15010717)
439839.00 3765410.00 1.95715 (15010717)
439844.00 3765410.00 1.96225 (15010717)

```
439849.00   3765410.00        1.96693  (15010717)
        439854.00   3765410.00        1.97165  (15010717)
439859.00   3765410.00        1.97577  (15010717)
        439674.00   3765415.00        1.86016  (12010217)
439679.00   3765415.00        1.84541  (12010217)
        439684.00   3765415.00        1.82976  (12010217)
439689.00   3765415.00        1.81343  (12010217)
        439694.00   3765415.00        1.80306  (12121717)
439699.00   3765415.00        1.80292  (12121717)
        439704.00   3765415.00        1.80272  (12121717)
439709.00   3765415.00        1.80253  (12121717)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONOFFEXH ***
INCLUDING SOURCE(S):
A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , A0000029 , A0000030 , A0000031 , A0000032 , A0000033 , A0000034 , A0000035 ,
A0000036 , A0000037 , A0000038 , A0000039 , A0000040 , A0000041 , A0000042 , A0000043 ,
A0000044 , A0000045 , A0000046 , A0000047 , A0000048 , A0000049 , A0000050 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439714.00	3765415.00	1.80229	(12121717)
439719.00	3765415.00	1.80205	(12121717)
439729.00	3765415.00	1.80132	(12121717)
439734.00	3765415.00	1.80087	(12121717)
439739.00	3765415.00	1.80018	(12121717)
439744.00	3765415.00	1.79928	(12121717)
439749.00	3765415.00	1.81164	(15010717)
439774.00	3765415.00	1.88399	(15010717)
439779.00	3765415.00	1.89506	(15010717)
439784.00	3765415.00	1.90585	(15010717)
439789.00	3765415.00	1.91576	(15010717)
439794.00	3765415.00	1.92493	(15010717)
439799.00	3765415.00	1.93378	(15010717)
439804.00	3765415.00	1.94173	(15010717)
439809.00	3765415.00	1.94928	(15010717)
439814.00	3765415.00	1.95582	(15010717)
439819.00	3765415.00	1.96226	(15010717)

```
439824.00   3765415.00        1.96838  (15010717)
        439829.00   3765415.00        1.97415  (15010717)
439834.00   3765415.00        1.97986  (15010717)
        439839.00   3765415.00        1.98461  (15010717)
439844.00   3765415.00        1.98941  (15010717)
        439849.00   3765415.00        1.99399  (15010717)
439854.00   3765415.00        1.99875  (15010717)
        439859.00   3765415.00        2.00295  (15010717)
439674.00   3765420.00        1.88978  (12010217)
        439679.00   3765420.00        1.87567  (12010217)
439684.00   3765420.00        1.86027  (12010217)
        439689.00   3765420.00        1.84391  (12010217)
439694.00   3765420.00        1.82654  (12010217)
        439699.00   3765420.00        1.82424  (12121717)
439704.00   3765420.00        1.82405  (12121717)
        439709.00   3765420.00        1.82385  (12121717)
439714.00   3765420.00        1.82368  (12121717)
        439719.00   3765420.00        1.82344  (12121717)
439729.00   3765420.00        1.82284  (12121717)
        439734.00   3765420.00        1.82250  (12121717)
439739.00   3765420.00        1.82191  (12121717)
        439744.00   3765420.00        1.83035  (15010717)
439749.00   3765420.00        1.84745  (15010717)
        439774.00   3765420.00        1.91694  (15010717)
439779.00   3765420.00        1.92797  (15010717)
        439784.00   3765420.00        1.93785  (15010717)
439789.00   3765420.00        1.94701  (15010717)
        439794.00   3765420.00        1.95593  (15010717)
439799.00   3765420.00        1.96385  (15010717)
        439804.00   3765420.00        1.97154  (15010717)
439809.00   3765420.00        1.97882  (15010717)
        439814.00   3765420.00        1.98541  (15010717)
439819.00   3765420.00        1.99148  (15010717)
        439824.00   3765420.00        1.99702  (15010717)
439829.00   3765420.00        2.00259  (15010717)
        439834.00   3765420.00        2.00769  (15010717)
439839.00   3765420.00        2.01279  (15010717)
        439844.00   3765420.00        2.01747  (15010717)
439849.00   3765420.00        2.02188  (15010717)
        439854.00   3765420.00        2.02633  (15010717)
439859.00   3765420.00        2.03040  (15010717)
        439674.00   3765425.00        1.92057  (12010217)
439679.00   3765425.00        1.90603  (12010217)
        439684.00   3765425.00        1.89124  (12010217)
439689.00   3765425.00        1.87503  (12010217)
        439694.00   3765425.00        1.85810  (12010217)
439699.00   3765425.00        1.84612  (12121717)
        439704.00   3765425.00        1.84601  (12121717)
439709.00   3765425.00        1.84585  (12121717)
        439714.00   3765425.00        1.84571  (12121717)
439719.00   3765425.00        1.84549  (12121717)
        439729.00   3765425.00        1.84499  (12121717)
```

```
439734.00   3765425.00        1.84469  (12121717)
        439739.00   3765425.00        1.85048  (15010717)
439744.00   3765425.00        1.86829  (15010717)
        439749.00   3765425.00        1.88426  (15010717)
439774.00   3765425.00        1.95003  (15010717)
        439779.00   3765425.00        1.96091  (15010717)
439784.00   3765425.00        1.97051  (15010717)
        439789.00   3765425.00        1.97950  (15010717)
439794.00   3765425.00        1.98749  (15010717)
        439799.00   3765425.00        1.99515  (15010717)
439804.00   3765425.00        2.00216  (15010717)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONOFFEXH ***
INCLUDING SOURCE(S):
A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , A0000029 , A0000030 , A0000031 , A0000032 , A0000033 , A0000034 , A0000035 ,
A0000036 , A0000037 , A0000038 , A0000039 , A0000040 , A0000041 , A0000042 , A0000043 ,
A0000044 , A0000045 , A0000046 , A0000047 , A0000048 , A0000049 , A0000050 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439809.00	3765425.00	2.00863	(15010717)	439814.00	3765425.00	2.01514	(15010717)
439819.00	3765425.00	2.02110	(15010717)	439824.00	3765425.00	2.02671	(15010717)
439829.00	3765425.00	2.03182	(15010717)	439834.00	3765425.00	2.03661	(15010717)
439839.00	3765425.00	2.04121	(15010717)	439844.00	3765425.00	2.04592	(15010717)
439849.00	3765425.00	2.05040	(15010717)	439854.00	3765425.00	2.05458	(15010717)
439859.00	3765425.00	2.05855	(15010717)	439674.00	3765430.00	1.95171	(12010217)
439679.00	3765430.00	1.93770	(12010217)	439684.00	3765430.00	1.92268	(12010217)
439689.00	3765430.00	1.90686	(12010217)	439694.00	3765430.00	1.89027	(12010217)
439699.00	3765430.00	1.87247	(12010217)				

```
439704.00   3765430.00        1.86864  (12121717)
        439709.00   3765430.00        1.86851  (12121717)
439714.00   3765430.00        1.86839  (12121717)
        439719.00   3765430.00        1.86828  (12121717)
439729.00   3765430.00        1.86788  (12121717)
        439734.00   3765430.00        1.86967  (15010717)
439739.00   3765430.00        1.88829  (15010717)
        439744.00   3765430.00        1.90544  (15010717)
439749.00   3765430.00        1.92154  (15010717)
        439774.00   3765430.00        1.98398  (15010717)
439779.00   3765430.00        1.99357  (15010717)
        439784.00   3765430.00        2.00310  (15010717)
439789.00   3765430.00        2.01144  (15010717)
        439794.00   3765430.00        2.01959  (15010717)
439799.00   3765430.00        2.02687  (15010717)
        439804.00   3765430.00        2.03326  (15010717)
439809.00   3765430.00        2.03963  (15010717)
        439814.00   3765430.00        2.04524  (15010717)
439819.00   3765430.00        2.05088  (15010717)
        439824.00   3765430.00        2.05618  (15010717)
439829.00   3765430.00        2.06116  (15010717)
        439834.00   3765430.00        2.06617  (15010717)
439839.00   3765430.00        2.07060  (15010717)
        439844.00   3765430.00        2.07460  (15010717)
439849.00   3765430.00        2.07894  (15010717)
        439854.00   3765430.00        2.08326  (15010717)
439859.00   3765430.00        2.08725  (15010717)
        439674.00   3765435.00        1.98353  (12010217)
439679.00   3765435.00        1.96996  (12010217)
        439684.00   3765435.00        1.95529  (12010217)
439689.00   3765435.00        1.94008  (12010217)
        439694.00   3765435.00        1.92325  (12010217)
439699.00   3765435.00        1.90579  (12010217)
        439704.00   3765435.00        1.89195  (12121717)
439709.00   3765435.00        1.89186  (12121717)
        439714.00   3765435.00        1.89179  (12121717)
439719.00   3765435.00        1.89169  (12121717)
        439729.00   3765435.00        1.89140  (12121717)
439734.00   3765435.00        1.90960  (15010717)
        439739.00   3765435.00        1.92665  (15010717)
439744.00   3765435.00        1.94286  (15010717)
        439749.00   3765435.00        1.95800  (15010717)
439774.00   3765435.00        2.01828  (15010717)
        439779.00   3765435.00        2.02750  (15010717)
439784.00   3765435.00        2.03596  (15010717)
        439789.00   3765435.00        2.04408  (15010717)
439794.00   3765435.00        2.05102  (15010717)
        439799.00   3765435.00        2.05823  (15010717)
439804.00   3765435.00        2.06503  (15010717)
        439809.00   3765435.00        2.07071  (15010717)
439814.00   3765435.00        2.07653  (15010717)
        439819.00   3765435.00        2.08153  (15010717)
```

```
439824.00   3765435.00        2.08618  (15010717)
        439829.00   3765435.00        2.09115  (15010717)
439834.00   3765435.00        2.09564  (15010717)
        439839.00   3765435.00        2.10031  (15010717)
439844.00   3765435.00        2.10461  (15010717)
        439849.00   3765435.00        2.10860  (15010717)
439854.00   3765435.00        2.11283  (15010717)
        439859.00   3765435.00        2.11667  (15010717)
439674.00   3765440.00        2.01662  (12010217)
        439679.00   3765440.00        2.00298  (12010217)
439684.00   3765440.00        1.98865  (12010217)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONOFFEXH ***
INCLUDING SOURCE(S):
A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , A0000029 , A0000030 , A0000031 , A0000032 , A0000033 , A0000034 , A0000035 ,
A0000036 , A0000037 , A0000038 , A0000039 , A0000040 , A0000041 , A0000042 , A0000043 ,
A0000044 , A0000045 , A0000046 , A0000047 , A0000048 , A0000049 , A0000050 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439689.00	3765440.00	1.97335	(12010217)	439694.00	3765440.00	1.95727	(12010217)
439699.00	3765440.00	1.94012	(12010217)	439704.00	3765440.00	1.92159	(12010217)
439709.00	3765440.00	1.91596	(12121717)	439714.00	3765440.00	1.91593	(12121717)
439719.00	3765440.00	1.91591	(12121717)	439729.00	3765440.00	1.93114	(15010717)
439734.00	3765440.00	1.94959	(15010717)	439739.00	3765440.00	1.96646	(15010717)
439744.00	3765440.00	1.98160	(15010717)	439749.00	3765440.00	1.99588	(15010717)
439774.00	3765440.00	2.05295	(15010717)	439779.00	3765440.00	2.06174	(15010717)
439784.00	3765440.00	2.07011	(15010717)	439789.00	3765440.00	2.07726	(15010717)
439794.00	3765440.00	2.08407	(15010717)				

439799.00 3765440.00 2.09038 (15010717)
439804.00 3765440.00 2.09651 (15010717)
439809.00 3765440.00 2.10225 (15010717)
439814.00 3765440.00 2.10739 (15010717)
439819.00 3765440.00 2.11276 (15010717)
439824.00 3765440.00 2.11772 (15010717)
439829.00 3765440.00 2.12191 (15010717)
439834.00 3765440.00 2.12647 (15010717)
439839.00 3765440.00 2.13078 (15010717)
439844.00 3765440.00 2.13505 (15010717)
439849.00 3765440.00 2.13944 (15010717)
439854.00 3765440.00 2.14355 (15010717)
439859.00 3765440.00 2.14744 (15010717)
439674.00 3765445.00 2.04990 (12010217)
439679.00 3765445.00 2.03696 (12010217)
439684.00 3765445.00 2.02318 (12010217)
439689.00 3765445.00 2.00793 (12010217)
439694.00 3765445.00 1.99206 (12010217)
439699.00 3765445.00 1.97485 (12010217)
439704.00 3765445.00 1.95689 (12010217)
439709.00 3765445.00 1.94089 (12121717)
439714.00 3765445.00 1.94085 (12121717)
439719.00 3765445.00 1.94084 (12121717)
439729.00 3765445.00 1.97234 (15010717)
439734.00 3765445.00 1.98953 (15010717)
439739.00 3765445.00 2.00598 (15010717)
439744.00 3765445.00 2.02124 (15010717)
439749.00 3765445.00 2.03495 (15010717)
439774.00 3765445.00 2.08804 (15010717)
439779.00 3765445.00 2.09630 (15010717)
439784.00 3765445.00 2.10423 (15010717)
439789.00 3765445.00 2.11176 (15010717)
439794.00 3765445.00 2.11810 (15010717)
439799.00 3765445.00 2.12421 (15010717)
439804.00 3765445.00 2.12969 (15010717)
439809.00 3765445.00 2.13476 (15010717)
439814.00 3765445.00 2.13986 (15010717)
439819.00 3765445.00 2.14448 (15010717)
439824.00 3765445.00 2.14919 (15010717)
439829.00 3765445.00 2.15420 (15010717)
439834.00 3765445.00 2.15842 (15010717)
439839.00 3765445.00 2.16264 (15010717)
439844.00 3765445.00 2.16673 (15010717)
439849.00 3765445.00 2.17081 (15010717)
439854.00 3765445.00 2.17511 (15010717)
439859.00 3765445.00 2.17900 (15010717)
439674.00 3765450.00 2.08450 (12010217)
439679.00 3765450.00 2.07181 (12010217)
439684.00 3765450.00 2.05785 (12010217)
439689.00 3765450.00 2.04334 (12010217)
439694.00 3765450.00 2.02772 (12010217)
439699.00 3765450.00 2.01108 (12010217)

```
439704.00   3765450.00        1.99349  (12010217)
        439709.00   3765450.00        1.97430  (12010217)
439714.00   3765450.00        1.96664  (12121717)
        439719.00   3765450.00        1.97695  (15010717)
439729.00   3765450.00        2.01410  (15010717)
        439734.00   3765450.00        2.03105  (15010717)
439739.00   3765450.00        2.04630  (15010717)
        439744.00   3765450.00        2.06024  (15010717)
439749.00   3765450.00        2.07331  (15010717)
        439774.00   3765450.00        2.12438  (15010717)
439844.00   3765450.00        2.19929  (15010717)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONOFFEXH ***
INCLUDING SOURCE(S):
A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , A0000029 , A0000030 , A0000031 , A0000032 , A0000033 , A0000034 , A0000035 ,
A0000036 , A0000037 , A0000038 , A0000039 , A0000040 , A0000041 , A0000042 , A0000043 ,
A0000044 , A0000045 , A0000046 , A0000047 , A0000048 , A0000049 , A0000050 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439849.00	3765450.00	2.20326	(15010717)	439854.00	3765450.00	2.20708	(15010717)
439859.00	3765450.00	2.21084	(15010717)	439674.00	3765455.00	2.12004	(12010217)
439679.00	3765455.00	2.10741	(12010217)	439684.00	3765455.00	2.09402	(12010217)
439689.00	3765455.00	2.07988	(12010217)	439694.00	3765455.00	2.06436	(12010217)
439699.00	3765455.00	2.04809	(12010217)	439704.00	3765455.00	2.03049	(12010217)
439709.00	3765455.00	2.01218	(12010217)	439714.00	3765455.00	2.00078	(15010717)
439719.00	3765455.00	2.02061	(15010717)	439729.00	3765455.00	2.05721	(15010717)
439734.00	3765455.00	2.07256	(15010717)	439739.00	3765455.00	2.08762	(15010717)
439744.00	3765455.00	2.10101	(15010717)				

439749.00 3765455.00 2.11303 (15010717)
439844.00 3765455.00 2.23210 (15010717)
439849.00 3765455.00 2.23629 (15010717)
439854.00 3765455.00 2.24078 (15010717)
439859.00 3765455.00 2.24449 (15010717)
439674.00 3765460.00 2.15644 (12010217)
439679.00 3765460.00 2.14415 (12010217)
439684.00 3765460.00 2.13125 (12010217)
439689.00 3765460.00 2.11698 (12010217)
439694.00 3765460.00 2.10214 (12010217)
439699.00 3765460.00 2.08618 (12010217)
439704.00 3765460.00 2.06900 (12010217)
439709.00 3765460.00 2.05078 (12010217)
439714.00 3765460.00 2.04608 (15010717)
439719.00 3765460.00 2.06548 (15010717)
439729.00 3765460.00 2.09955 (15010717)
439734.00 3765460.00 2.11517 (15010717)
439739.00 3765460.00 2.12868 (15010717)
439744.00 3765460.00 2.14208 (15010717)
439749.00 3765460.00 2.15373 (15010717)
439789.00 3765460.00 2.21735 (15010717)
439794.00 3765460.00 2.22308 (15010717)
439799.00 3765460.00 2.22754 (15010717)
439804.00 3765460.00 2.23228 (15010717)
439809.00 3765460.00 2.23691 (15010717)
439814.00 3765460.00 2.24121 (15010717)
439819.00 3765460.00 2.24560 (15010717)
439824.00 3765460.00 2.24962 (15010717)
439829.00 3765460.00 2.25393 (15010717)
439844.00 3765460.00 2.26654 (15010717)
439849.00 3765460.00 2.27084 (15010717)
439854.00 3765460.00 2.27502 (15010717)
439859.00 3765460.00 2.27919 (15010717)
439674.00 3765465.00 2.19366 (12010217)
439679.00 3765465.00 2.18208 (12010217)
439684.00 3765465.00 2.16924 (12010217)
439689.00 3765465.00 2.15553 (12010217)
439694.00 3765465.00 2.14089 (12010217)
439699.00 3765465.00 2.12508 (12010217)
439704.00 3765465.00 2.10842 (12010217)
439709.00 3765465.00 2.09054 (12010217)
439714.00 3765465.00 2.09263 (15010717)
439719.00 3765465.00 2.11080 (15010717)
439729.00 3765465.00 2.14402 (15010717)
439734.00 3765465.00 2.15775 (15010717)
439739.00 3765465.00 2.17123 (15010717)
439744.00 3765465.00 2.18291 (15010717)
439749.00 3765465.00 2.19363 (15010717)
439789.00 3765465.00 2.25288 (15010717)
439794.00 3765465.00 2.25842 (15010717)
439799.00 3765465.00 2.26327 (15010717)
439804.00 3765465.00 2.26767 (15010717)

```
439809.00   3765465.00        2.27285  (15010717)
        439814.00   3765465.00        2.27739  (15010717)
439819.00   3765465.00        2.28075  (15010717)
        439824.00   3765465.00        2.28501  (15010717)
439829.00   3765465.00        2.28931  (15010717)
        439844.00   3765465.00        2.30182  (15010717)
439849.00   3765465.00        2.30630  (15010717)
        439854.00   3765465.00        2.31091  (15010717)
439859.00   3765465.00        2.31488  (15010717)
        439674.00   3765470.00        2.23241  (12010217)
439679.00   3765470.00        2.22087  (12010217)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONOFFEXH ***
INCLUDING SOURCE(S):
A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , A0000029 , A0000030 , A0000031 , A0000032 , A0000033 , A0000034 , A0000035 ,
A0000036 , A0000037 , A0000038 , A0000039 , A0000040 , A0000041 , A0000042 , A0000043 ,
A0000044 , A0000045 , A0000046 , A0000047 , A0000048 , A0000049 , A0000050 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439684.00	3765470.00	2.20841	(12010217)
439689.00	3765470.00	2.19514	(12010217)
439694.00	3765470.00	2.18048	(12010217)
439699.00	3765470.00	2.16552	(12010217)
439704.00	3765470.00	2.14915	(12010217)
439709.00	3765470.00	2.13157	(12010217)
439714.00	3765470.00	2.13961	(15010717)
439719.00	3765470.00	2.15728	(15010717)
439729.00	3765470.00	2.18840	(15010717)
439734.00	3765470.00	2.20224	(15010717)
439739.00	3765470.00	2.21387	(15010717)
439744.00	3765470.00	2.22548	(15010717)
439749.00	3765470.00	2.23584	(15010717)
439789.00	3765470.00	2.29137	(15010717)
439794.00	3765470.00	2.29602	(15010717)
439799.00	3765470.00	2.30032	(15010717)
439804.00	3765470.00	2.30492	(15010717)

```
439809.00   3765470.00        2.30913  (15010717)
        439814.00   3765470.00        2.31314  (15010717)
439819.00   3765470.00        2.31736  (15010717)
        439824.00   3765470.00        2.32170  (15010717)
439829.00   3765470.00        2.32625  (15010717)
        439844.00   3765470.00        2.33875  (15010717)
439849.00   3765470.00        2.34303  (15010717)
        439854.00   3765470.00        2.34756  (15010717)
439859.00   3765470.00        2.35210  (15010717)
        439674.00   3765475.00        2.27189  (12010217)
439679.00   3765475.00        2.26072  (12010217)
        439684.00   3765475.00        2.24885  (12010217)
439689.00   3765475.00        2.23574  (12010217)
        439694.00   3765475.00        2.22200  (12010217)
439699.00   3765475.00        2.20698  (12010217)
        439704.00   3765475.00        2.19071  (12010217)
439709.00   3765475.00        2.17383  (12010217)
        439714.00   3765475.00        2.18744  (15010717)
439719.00   3765475.00        2.20418  (15010717)
        439729.00   3765475.00        2.23383  (15010717)
439734.00   3765475.00        2.24604  (15010717)
        439739.00   3765475.00        2.25803  (15010717)
439744.00   3765475.00        2.26867  (15010717)
        439749.00   3765475.00        2.27853  (15010717)
439754.00   3765475.00        2.28724  (15010717)
        439789.00   3765475.00        2.32951  (15010717)
439794.00   3765475.00        2.33461  (15010717)
        439799.00   3765475.00        2.33932  (15010717)
439804.00   3765475.00        2.34321  (15010717)
        439809.00   3765475.00        2.34714  (15010717)
439814.00   3765475.00        2.35137  (15010717)
        439819.00   3765475.00        2.35515  (15010717)
439824.00   3765475.00        2.35946  (15010717)
        439829.00   3765475.00        2.36379  (15010717)
439269.00   3764900.00        0.82108  (12120908)
        439369.00   3764900.00        0.92368  (12010217)
439469.00   3764900.00        0.89259  (12010217)
        439569.00   3764900.00        0.85298  (15010918)
439669.00   3764900.00        0.86385  (12121717)
        439769.00   3764900.00        0.83973  (12121717)
439869.00   3764900.00        0.79156  (13012419)
        439969.00   3764900.00        0.82699  (13012419)
440069.00   3764900.00        0.77552  (14011819)
        440169.00   3764900.00        0.87121  (15010717)
440269.00   3764900.00        0.88005  (15010717)
        439269.00   3765000.00        0.95963  (13120808)
439369.00   3765000.00        1.01711  (12010217)
        439469.00   3765000.00        1.01721  (12010217)
439569.00   3765000.00        0.94562  (15010918)
        439669.00   3765000.00        0.96153  (12121717)
439769.00   3765000.00        0.92777  (12121717)
        439869.00   3765000.00        0.91149  (13012419)
```

```
439969.00   3765000.00        0.90597  (13012419)
        440069.00   3765000.00        0.95267  (15010717)
440169.00   3765000.00        0.98883  (15010717)
        440269.00   3765000.00        0.97136  (13121617)
439269.00   3765100.00        1.13847  (13120808)
        439369.00   3765100.00        1.11456  (12010217)
439469.00   3765100.00        1.17037  (12010217)
        439569.00   3765100.00        1.06431  (12010217)
439669.00   3765100.00        1.08143  (12121717)
        439769.00   3765100.00        1.04012  (12121717)
439869.00   3765100.00        1.04310  (13012419)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONOFFEXH ***
INCLUDING SOURCE(S):
A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , A0000029 , A0000030 , A0000031 , A0000032 , A0000033 , A0000034 , A0000035 ,
A0000036 , A0000037 , A0000038 , A0000039 , A0000040 , A0000041 , A0000042 , A0000043 ,
A0000044 , A0000045 , A0000046 , A0000047 , A0000048 , A0000049 , A0000050 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439969.00	3765100.00	1.03653	(15010717)	440069.00	3765100.00	1.12612	(15010717)
440169.00	3765100.00	1.10214	(13121617)	440269.00	3765100.00	1.08389	(13121617)
439269.00	3765200.00	1.32083	(13120808)	439369.00	3765200.00	1.27914	(13120808)
439469.00	3765200.00	1.35637	(12010217)	439569.00	3765200.00	1.27547	(12010217)
439669.00	3765200.00	1.23382	(12121717)	439769.00	3765200.00	1.19031	(12121717)
439869.00	3765200.00	1.19553	(13012419)	439969.00	3765200.00	1.29392	(15010717)
440069.00	3765200.00	1.28370	(15010717)	440169.00	3765200.00	1.25916	(13121617)
440269.00	3765200.00	1.19003	(16010608)	439269.00	3765300.00	1.46905	(14100607)
439369.00	3765300.00	1.58113	(13120808)				

```
439469.00   3765300.00        1.58924  (12010217)
        439569.00   3765300.00        1.55771  (12010217)
439669.00   3765300.00        1.43882  (12121717)
        439769.00   3765300.00        1.40265  (12121717)
439869.00   3765300.00        1.49334  (15010717)
        439969.00   3765300.00        1.56245  (15010717)
440069.00   3765300.00        1.51568  (13121617)
        440169.00   3765300.00        1.41047  (16010608)
440269.00   3765300.00        1.39578  (15113017)
        439269.00   3765400.00        1.79798  (13121718)
439369.00   3765400.00        1.91687  (13120808)
        439469.00   3765400.00        1.91840  (13120808)
439569.00   3765400.00        1.94457  (12010217)
        439669.00   3765400.00        1.78937  (12010217)
439769.00   3765400.00        1.77325  (15010717)
        439869.00   3765400.00        1.93205  (15010717)
439969.00   3765400.00        1.92177  (13121617)
        440069.00   3765400.00        1.75260  (16010608)
440169.00   3765400.00        1.78863  (15113017)
        440269.00   3765400.00        1.75926  (15113017)
439269.00   3765500.00        2.45983  (12011417)
        439369.00   3765500.00        2.46736  (13121718)
439469.00   3765500.00        2.57652  (13120808)
        439569.00   3765500.00        2.56457  (12010217)
439669.00   3765500.00        2.49889  (12010217)
        439769.00   3765500.00        2.52588  (15010717)
439869.00   3765500.00        2.62439  (15010717)
        439969.00   3765500.00        2.54522  (15113017)
440069.00   3765500.00        2.40790  (15113017)
        440169.00   3765500.00        2.44253  (12011608)
440269.00   3765500.00        2.43780  (12011608)
        439269.00   3765600.00        3.13308  (12111318)
439369.00   3765600.00        3.91996  (12011417)
        439469.00   3765600.00        4.02504  (12011417)
439569.00   3765600.00        4.08047  (13120808)
        439669.00   3765600.00        4.12557  (12010217)
439769.00   3765600.00        4.21553  (15010717)
        439869.00   3765600.00        4.92488  (15010717)
439969.00   3765600.00        5.47594  (12011417)
        440069.00   3765600.00        4.72130  (12011608)
440169.00   3765600.00        4.57951  (14101107)
        440269.00   3765600.00        4.27960  (14101107)
439269.00   3765700.00        4.73913  (14012908)
        439369.00   3765700.00        6.90229  (14012908)
439469.00   3765700.00       29.56830  (14101007)
        439569.00   3765700.00       13.65650  (13111217)
439669.00   3765700.00        7.83900  (12011908)
        439769.00   3765700.00        5.68142  (14121418)
439869.00   3765700.00        4.39712  (14121418)
        439969.00   3765700.00        4.88116  (12111317)
440069.00   3765700.00        6.04430  (15120818)
        440169.00   3765700.00        8.87945  (13111217)
```

```
440269.00   3765700.00       15.27275  (13111217)
        439269.00   3765800.00        4.40214  (12111317)
439369.00   3765800.00        5.75688  (12100707)
        439469.00   3765800.00        5.91963  (15120818)
439569.00   3765800.00        5.82962  (15120818)
        439669.00   3765800.00        6.46856  (13111218)
439769.00   3765800.00        8.85238  (13111217)
        439869.00   3765800.00       14.53752  (13111217)
439969.00   3765800.00        6.40108  (14121418)
        440069.00   3765800.00        4.02892  (14121418)
440169.00   3765800.00        3.25499  (13111218)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONOFFEXH ***
INCLUDING SOURCE(S):
A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , A0000029 , A0000030 , A0000031 , A0000032 , A0000033 , A0000034 , A0000035 ,
A0000036 , A0000037 , A0000038 , A0000039 , A0000040 , A0000041 , A0000042 , A0000043 ,
A0000044 , A0000045 , A0000046 , A0000047 , A0000048 , A0000049 , A0000050 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
440269.00	3765800.00	3.46389	(13111217)	439269.00	3765900.00	3.03243	(15120818)
439369.00	3765900.00	3.08651	(15112217)	439469.00	3765900.00	3.04673	(13111218)
439569.00	3765900.00	2.99123	(13111218)	439669.00	3765900.00	2.88461	(13111218)
439769.00	3765900.00	2.98339	(12122117)	439869.00	3765900.00	3.41569	(13111217)
439969.00	3765900.00	3.55475	(13111217)	440069.00	3765900.00	2.91351	(12011717)
440169.00	3765900.00	2.38912	(12011717)	440269.00	3765900.00	1.99784	(15120418)
439649.00	3765310.00	1.46115	(12121717)	439679.00	3765310.00	1.46388	(12121717)
439709.00	3765310.00	1.46133	(12121717)	439739.00	3765310.00	1.45176	(12121717)
439769.00	3765310.00	1.42892	(12121717)				

439799.00 3765310.00 1.42664 (13012419)
439829.00 3765310.00 1.45069 (15010717)
439859.00 3765310.00 1.51626 (15010717)
439889.00 3765310.00 1.56188 (15010717)
439649.00 3765340.00 1.55820 (12010217)
439679.00 3765340.00 1.54445 (12121717)
439709.00 3765340.00 1.54225 (12121717)
439739.00 3765340.00 1.53463 (12121717)
439769.00 3765340.00 1.51436 (12121717)
439799.00 3765340.00 1.51408 (15010717)
439829.00 3765340.00 1.59019 (15010717)
439859.00 3765340.00 1.64353 (15010717)
439889.00 3765340.00 1.67951 (15010717)
439649.00 3765370.00 1.69022 (12010217)
439679.00 3765370.00 1.63653 (12121717)
439709.00 3765370.00 1.63483 (12121717)
439739.00 3765370.00 1.62926 (12121717)
439769.00 3765370.00 1.61264 (12121717)
439799.00 3765370.00 1.67500 (15010717)
439829.00 3765370.00 1.73644 (15010717)
439859.00 3765370.00 1.77845 (15010717)
439889.00 3765370.00 1.80529 (15010717)
439649.00 3765400.00 1.83953 (12010217)
439679.00 3765400.00 1.75959 (12010217)
439709.00 3765400.00 1.74205 (12121717)
439739.00 3765400.00 1.73844 (12121717)
439769.00 3765400.00 1.77325 (15010717)
439799.00 3765400.00 1.84462 (15010717)
439829.00 3765400.00 1.89163 (15010717)
439859.00 3765400.00 1.92416 (15010717)
439889.00 3765400.00 1.94508 (15010717)
439649.00 3765430.00 2.00947 (12010217)
439679.00 3765430.00 1.93770 (12010217)
439709.00 3765430.00 1.86851 (12121717)
439739.00 3765430.00 1.88829 (15010717)
439769.00 3765430.00 1.97352 (15010717)
439799.00 3765430.00 2.02687 (15010717)
439829.00 3765430.00 2.06116 (15010717)
439859.00 3765430.00 2.08725 (15010717)
439889.00 3765430.00 2.10542 (15010717)
439649.00 3765460.00 2.20549 (12010217)
439679.00 3765460.00 2.14415 (12010217)
439709.00 3765460.00 2.05078 (12010217)
439739.00 3765460.00 2.12868 (15010717)
439769.00 3765460.00 2.19003 (15010717)
439799.00 3765460.00 2.22754 (15010717)
439829.00 3765460.00 2.25393 (15010717)
439859.00 3765460.00 2.27919 (15010717)
439889.00 3765460.00 2.29761 (15010717)
439649.00 3765490.00 2.43819 (12010217)
439679.00 3765490.00 2.38844 (12010217)
439709.00 3765490.00 2.32058 (15010717)

```
439739.00   3765490.00        2.39457  (15010717)
        439769.00   3765490.00        2.43487  (15010717)
439799.00   3765490.00        2.46051  (15010717)
        439829.00   3765490.00        2.48616  (15010717)
439859.00   3765490.00        2.51765  (15010717)
        439889.00   3765490.00        2.54095  (15010717)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: FREEEVAP ***
INCLUDING SOURCE(S):
A0000067 , A0000068 , A0000069 , A0000070 , A0000071 ,
A0000072 , A0000073 , A0000074 , A0000075 , A0000076 , A0000077 , A0000078 , A0000079 ,
A0000080 , A0000081 , A0000082 , A0000083 , A0000084 , A0000085 , A0000086 , A0000087 ,
A0000088 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439674.00	3765310.00	2.55455	(12010217)
439679.00	3765310.00	2.55416	(12010217)
439684.00	3765310.00	2.55472	(12010217)
439689.00	3765310.00	2.55433	(12010217)
439694.00	3765310.00	2.55483	(12010217)
439699.00	3765310.00	2.55430	(12010217)
439704.00	3765310.00	2.55489	(12010217)
439709.00	3765310.00	2.55462	(12010217)
439714.00	3765310.00	2.55471	(12010217)
439719.00	3765310.00	2.55462	(12010217)
439729.00	3765310.00	2.55487	(12010217)
439734.00	3765310.00	2.55454	(12010217)
439739.00	3765310.00	2.55498	(12010217)
439744.00	3765310.00	2.55460	(12010217)
439749.00	3765310.00	2.55513	(12010217)
439764.00	3765310.00	2.55469	(12010217)
439769.00	3765310.00	2.55530	(12010217)
439774.00	3765310.00	2.55498	(12010217)
439779.00	3765310.00	2.55543	(12010217)

439784.00 3765310.00 2.55488 (12010217)
439789.00 3765310.00 2.55555 (12010217)
439794.00 3765310.00 2.55523 (12010217)
439799.00 3765310.00 2.55536 (12010217)
439804.00 3765310.00 2.55520 (12010217)
439809.00 3765310.00 2.55559 (12010217)
439814.00 3765310.00 2.55514 (12010217)
439819.00 3765310.00 2.55557 (12010217)
439824.00 3765310.00 2.55527 (12010217)
439829.00 3765310.00 2.55546 (12010217)
439839.00 3765310.00 2.55552 (12010217)
439844.00 3765310.00 2.55543 (12010217)
439849.00 3765310.00 2.55539 (12010217)
439854.00 3765310.00 2.55568 (12010217)
439859.00 3765310.00 2.55547 (12010217)
439864.00 3765310.00 2.55550 (12010217)
439869.00 3765310.00 2.55538 (12010217)
439874.00 3765310.00 2.55576 (12010217)
439879.00 3765310.00 2.55530 (12010217)
439884.00 3765310.00 2.55592 (12010217)
439674.00 3765315.00 2.57599 (12010217)
439679.00 3765315.00 2.57572 (12010217)
439684.00 3765315.00 2.57581 (12010217)
439689.00 3765315.00 2.57592 (12010217)
439694.00 3765315.00 2.57607 (12010217)
439699.00 3765315.00 2.57588 (12010217)
439704.00 3765315.00 2.57622 (12010217)
439709.00 3765315.00 2.57622 (12010217)
439714.00 3765315.00 2.57618 (12010217)
439719.00 3765315.00 2.57617 (12010217)
439729.00 3765315.00 2.57644 (12010217)
439734.00 3765315.00 2.57650 (12010217)
439739.00 3765315.00 2.57648 (12010217)
439744.00 3765315.00 2.57657 (12010217)
439749.00 3765315.00 2.57630 (12010217)
439764.00 3765315.00 2.57651 (12010217)
439769.00 3765315.00 2.57659 (12010217)
439774.00 3765315.00 2.57667 (12010217)
439779.00 3765315.00 2.57674 (12010217)
439784.00 3765315.00 2.57641 (12010217)
439789.00 3765315.00 2.57677 (12010217)
439794.00 3765315.00 2.57670 (12010217)
439799.00 3765315.00 2.57682 (12010217)
439804.00 3765315.00 2.57673 (12010217)
439809.00 3765315.00 2.57705 (12010217)
439814.00 3765315.00 2.57665 (12010217)
439819.00 3765315.00 2.57715 (12010217)
439824.00 3765315.00 2.57688 (12010217)
439829.00 3765315.00 2.57697 (12010217)
439839.00 3765315.00 2.57713 (12010217)
439844.00 3765315.00 2.57701 (12010217)
439849.00 3765315.00 2.57701 (12010217)

```
439854.00   3765315.00        2.57719  (12010217)
        439859.00   3765315.00        2.57713  (12010217)
439864.00   3765315.00        2.57707  (12010217)
        439869.00   3765315.00        2.57715  (12010217)
439874.00   3765315.00        2.57734  (12010217)
        439879.00   3765315.00        2.57691  (12010217)
439884.00   3765315.00        2.57720  (12010217)
        439674.00   3765320.00        2.60987  (12011417)
439679.00   3765320.00        2.60012  (12011417)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: FREEEVAP ***
INCLUDING SOURCE(S):
A0000067 , A0000068 , A0000069 , A0000070 , A0000071 ,
A0000072 , A0000073 , A0000074 , A0000075 , A0000076 , A0000077 , A0000078 , A0000079 ,
A0000080 , A0000081 , A0000082 , A0000083 , A0000084 , A0000085 , A0000086 , A0000087 ,
A0000088 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439684.00	3765320.00	2.59762	(12010217)
439689.00	3765320.00	2.59843	(12010217)
439694.00	3765320.00	2.59800	(12010217)
439699.00	3765320.00	2.59804	(12010217)
439704.00	3765320.00	2.59813	(12010217)
439709.00	3765320.00	2.59817	(12010217)
439714.00	3765320.00	2.59820	(12010217)
439719.00	3765320.00	2.59812	(12010217)
439729.00	3765320.00	2.59807	(12010217)
439734.00	3765320.00	2.59857	(12010217)
439739.00	3765320.00	2.59820	(12010217)
439744.00	3765320.00	2.59869	(12010217)
439749.00	3765320.00	2.59816	(12010217)
439764.00	3765320.00	2.59868	(12010217)
439769.00	3765320.00	2.59846	(12010217)
439774.00	3765320.00	2.59898	(12010217)
439779.00	3765320.00	2.59863	(12010217)
439784.00	3765320.00	2.59901	(12010217)
439789.00	3765320.00	2.59868	(12010217)

439794.00 3765320.00 2.59907 (12010217)
439799.00 3765320.00 2.59869 (12010217)
439804.00 3765320.00 2.59905 (12010217)
439809.00 3765320.00 2.59874 (12010217)
439814.00 3765320.00 2.59890 (12010217)
439819.00 3765320.00 2.59896 (12010217)
439824.00 3765320.00 2.59900 (12010217)
439829.00 3765320.00 2.59875 (12010217)
439839.00 3765320.00 2.59917 (12010217)
439844.00 3765320.00 2.59885 (12010217)
439849.00 3765320.00 2.59917 (12010217)
439854.00 3765320.00 2.59892 (12010217)
439859.00 3765320.00 2.59931 (12010217)
439864.00 3765320.00 2.59891 (12010217)
439869.00 3765320.00 2.59938 (12010217)
439874.00 3765320.00 2.59914 (12010217)
439879.00 3765320.00 2.59923 (12010217)
439884.00 3765320.00 2.59922 (12010217)
439674.00 3765325.00 2.65071 (12011417)
439679.00 3765325.00 2.64245 (12011417)
439684.00 3765325.00 2.63310 (12011417)
439689.00 3765325.00 2.62415 (12011417)
439694.00 3765325.00 2.62047 (12010217)
439699.00 3765325.00 2.62048 (12010217)
439704.00 3765325.00 2.62069 (12010217)
439709.00 3765325.00 2.62073 (12010217)
439714.00 3765325.00 2.62065 (12010217)
439719.00 3765325.00 2.62097 (12010217)
439729.00 3765325.00 2.62084 (12010217)
439734.00 3765325.00 2.62082 (12010217)
439739.00 3765325.00 2.62115 (12010217)
439744.00 3765325.00 2.62083 (12010217)
439749.00 3765325.00 2.62115 (12010217)
439754.00 3765325.00 2.62097 (12010217)
439769.00 3765325.00 2.62109 (12010217)
439774.00 3765325.00 2.62120 (12010217)
439779.00 3765325.00 2.62100 (12010217)
439784.00 3765325.00 2.62139 (12010217)
439789.00 3765325.00 2.62119 (12010217)
439794.00 3765325.00 2.62126 (12010217)
439799.00 3765325.00 2.62141 (12010217)
439804.00 3765325.00 2.62151 (12010217)
439809.00 3765325.00 2.62132 (12010217)
439814.00 3765325.00 2.62146 (12010217)
439819.00 3765325.00 2.62166 (12010217)
439824.00 3765325.00 2.62144 (12010217)
439829.00 3765325.00 2.62142 (12010217)
439839.00 3765325.00 2.62180 (12010217)
439844.00 3765325.00 2.62135 (12010217)
439849.00 3765325.00 2.62189 (12010217)
439854.00 3765325.00 2.62162 (12010217)
439859.00 3765325.00 2.62180 (12010217)

```
439864.00   3765325.00        2.62158  (12010217)
        439869.00   3765325.00        2.62177  (12010217)
439874.00   3765325.00        2.62153  (12010217)
        439879.00   3765325.00        2.62174  (12010217)
439884.00   3765325.00        2.62161  (12010217)
        439674.00   3765330.00        2.69296  (12011417)
439679.00   3765330.00        2.68398  (12011417)
        439684.00   3765330.00        2.67601  (12011417)
439689.00   3765330.00        2.66654  (12011417)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: FREEEVAP ***
INCLUDING SOURCE(S):
A0000067 , A0000068 , A0000069 , A0000070 , A0000071 ,
A0000072 , A0000073 , A0000074 , A0000075 , A0000076 , A0000077 , A0000078 , A0000079 ,
A0000080 , A0000081 , A0000082 , A0000083 , A0000084 , A0000085 , A0000086 , A0000087 ,
A0000088 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439694.00	3765330.00	2.65803	(12011417)	439699.00	3765330.00	2.64814	(12011417)
439704.00	3765330.00	2.64366	(12010217)	439709.00	3765330.00	2.64359	(12010217)
439714.00	3765330.00	2.64350	(12010217)	439719.00	3765330.00	2.64398	(12010217)
439729.00	3765330.00	2.64383	(12010217)	439734.00	3765330.00	2.64376	(12010217)
439739.00	3765330.00	2.64409	(12010217)	439744.00	3765330.00	2.64365	(12010217)
439749.00	3765330.00	2.64415	(12010217)	439754.00	3765330.00	2.64393	(12010217)
439774.00	3765330.00	2.64403	(12010217)	439779.00	3765330.00	2.64414	(12010217)
439784.00	3765330.00	2.64434	(12010217)	439789.00	3765330.00	2.64438	(12010217)
439794.00	3765330.00	2.64397	(12010217)	439799.00	3765330.00	2.64461	(12010217)
439804.00	3765330.00	2.64439	(12010217)				

439809.00 3765330.00 2.64422 (12010217)
439814.00 3765330.00 2.64442 (12010217)
439819.00 3765330.00 2.64457 (12010217)
439824.00 3765330.00 2.64446 (12010217)
439829.00 3765330.00 2.64422 (12010217)
439839.00 3765330.00 2.64433 (12010217)
439844.00 3765330.00 2.64454 (12010217)
439849.00 3765330.00 2.64446 (12010217)
439854.00 3765330.00 2.64481 (12010217)
439859.00 3765330.00 2.64415 (12010217)
439864.00 3765330.00 2.64504 (12010217)
439869.00 3765330.00 2.64449 (12010217)
439874.00 3765330.00 2.64475 (12010217)
439879.00 3765330.00 2.64453 (12010217)
439884.00 3765330.00 2.64487 (12010217)
439674.00 3765335.00 2.73436 (12011417)
439679.00 3765335.00 2.72701 (12011417)
439684.00 3765335.00 2.71792 (12011417)
439689.00 3765335.00 2.70995 (12011417)
439694.00 3765335.00 2.70098 (12011417)
439699.00 3765335.00 2.69242 (12011417)
439704.00 3765335.00 2.68261 (12011417)
439709.00 3765335.00 2.67352 (12011417)
439714.00 3765335.00 2.66729 (12010217)
439719.00 3765335.00 2.66719 (12010217)
439729.00 3765335.00 2.66708 (12010217)
439734.00 3765335.00 2.66750 (12010217)
439739.00 3765335.00 2.66729 (12010217)
439744.00 3765335.00 2.66753 (12010217)
439749.00 3765335.00 2.66752 (12010217)
439774.00 3765335.00 2.66754 (12010217)
439779.00 3765335.00 2.66767 (12010217)
439784.00 3765335.00 2.66791 (12010217)
439789.00 3765335.00 2.66777 (12010217)
439794.00 3765335.00 2.66762 (12010217)
439839.00 3765335.00 2.66793 (12010217)
439844.00 3765335.00 2.66832 (12010217)
439849.00 3765335.00 2.66819 (12010217)
439854.00 3765335.00 2.66830 (12010217)
439859.00 3765335.00 2.66793 (12010217)
439864.00 3765335.00 2.66857 (12010217)
439869.00 3765335.00 2.66817 (12010217)
439874.00 3765335.00 2.66825 (12010217)
439879.00 3765335.00 2.66820 (12010217)
439884.00 3765335.00 2.66853 (12010217)
439674.00 3765340.00 2.77716 (12011417)
439679.00 3765340.00 2.76870 (12011417)
439684.00 3765340.00 2.76128 (12011417)
439689.00 3765340.00 2.75253 (12011417)
439694.00 3765340.00 2.74466 (12011417)
439699.00 3765340.00 2.73537 (12011417)
439704.00 3765340.00 2.72727 (12011417)

```
439709.00   3765340.00        2.71759  (12011417)
        439714.00   3765340.00        2.70860  (12011417)
439719.00   3765340.00        2.69869  (12011417)
        439729.00   3765340.00        2.69132  (12010217)
439734.00   3765340.00        2.69138  (12010217)
        439739.00   3765340.00        2.69121  (12010217)
439744.00   3765340.00        2.69142  (12010217)
        439749.00   3765340.00        2.69161  (12010217)
439774.00   3765340.00        2.69143  (12010217)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: FREEEVAP ***
INCLUDING SOURCE(S):
A0000067 , A0000068 , A0000069 , A0000070 , A0000071 ,
A0000072 , A0000073 , A0000074 , A0000075 , A0000076 , A0000077 , A0000078 , A0000079 ,
A0000080 , A0000081 , A0000082 , A0000083 , A0000084 , A0000085 , A0000086 , A0000087 ,
A0000088 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439779.00	3765340.00	2.69181	(12010217)
439784.00	3765340.00	2.69184	(12010217)
439789.00	3765340.00	2.69174	(12010217)
439794.00	3765340.00	2.69174	(12010217)
439839.00	3765340.00	2.69214	(12010217)
439844.00	3765340.00	2.69195	(12010217)
439849.00	3765340.00	2.69257	(12010217)
439854.00	3765340.00	2.69183	(12010217)
439859.00	3765340.00	2.69245	(12010217)
439864.00	3765340.00	2.69214	(12010217)
439869.00	3765340.00	2.69242	(12010217)
439874.00	3765340.00	2.69191	(12010217)
439879.00	3765340.00	2.69255	(12010217)
439884.00	3765340.00	2.69213	(12010217)
439674.00	3765345.00	2.81877	(12011417)
439679.00	3765345.00	2.81189	(12011417)
439684.00	3765345.00	2.80366	(12011417)
439689.00	3765345.00	2.79621	(12011417)
439694.00	3765345.00	2.78741	(12011417)

439699.00 3765345.00 2.77989 (12011417)
439704.00 3765345.00 2.77074 (12011417)
439709.00 3765345.00 2.76254 (12011417)
439714.00 3765345.00 2.75313 (12011417)
439719.00 3765345.00 2.74440 (12011417)
439729.00 3765345.00 2.72519 (12011417)
439734.00 3765345.00 2.71590 (12010217)
439739.00 3765345.00 2.71569 (12010217)
439744.00 3765345.00 2.71614 (12010217)
439749.00 3765345.00 2.71619 (12010217)
439774.00 3765345.00 2.71613 (12010217)
439779.00 3765345.00 2.71642 (12010217)
439784.00 3765345.00 2.71635 (12010217)
439789.00 3765345.00 2.71617 (12010217)
439794.00 3765345.00 2.71639 (12010217)
439839.00 3765345.00 2.71634 (12010217)
439844.00 3765345.00 2.71696 (12010217)
439849.00 3765345.00 2.71666 (12010217)
439854.00 3765345.00 2.71653 (12010217)
439859.00 3765345.00 2.71679 (12010217)
439864.00 3765345.00 2.71697 (12010217)
439869.00 3765345.00 2.71661 (12010217)
439874.00 3765345.00 2.71692 (12010217)
439879.00 3765345.00 2.71709 (12010217)
439884.00 3765345.00 2.71668 (12010217)
439674.00 3765350.00 2.86130 (12011417)
439679.00 3765350.00 2.85390 (12011417)
439684.00 3765350.00 2.84718 (12011417)
439689.00 3765350.00 2.83903 (12011417)
439694.00 3765350.00 2.83187 (12011417)
439699.00 3765350.00 2.82335 (12011417)
439704.00 3765350.00 2.81569 (12011417)
439709.00 3765350.00 2.80669 (12011417)
439714.00 3765350.00 2.79893 (12011417)
439719.00 3765350.00 2.78907 (12011417)
439729.00 3765350.00 2.77095 (12011417)
439734.00 3765350.00 2.76158 (12011417)
439739.00 3765350.00 2.75179 (12011417)
439744.00 3765350.00 2.74146 (12011417)
439749.00 3765350.00 2.74117 (12010217)
439774.00 3765350.00 2.74150 (12010217)
439779.00 3765350.00 2.74152 (12010217)
439784.00 3765350.00 2.74148 (12010217)
439789.00 3765350.00 2.74144 (12010217)
439794.00 3765350.00 2.74179 (12010217)
439839.00 3765350.00 2.74164 (12010217)
439844.00 3765350.00 2.74232 (12010217)
439849.00 3765350.00 2.74173 (12010217)
439854.00 3765350.00 2.74207 (12010217)
439859.00 3765350.00 2.74200 (12010217)
439864.00 3765350.00 2.74224 (12010217)
439869.00 3765350.00 2.74170 (12010217)

```
439874.00   3765350.00        2.74244  (12010217)
        439879.00   3765350.00        2.74209  (12010217)
439884.00   3765350.00        2.74211  (12010217)
        439674.00   3765355.00        2.90411  (12011417)
439679.00   3765355.00        2.89737  (12011417)
        439684.00   3765355.00        2.88961  (12011417)
439689.00   3765355.00        2.88306  (12011417)
        439694.00   3765355.00        2.87522  (12011417)
439699.00   3765355.00        2.86821  (12011417)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: FREEEVAP ***
INCLUDING SOURCE(S):
A0000067 , A0000068 , A0000069 , A0000070 , A0000071 ,
A0000072 , A0000073 , A0000074 , A0000075 , A0000076 , A0000077 , A0000078 , A0000079 ,
A0000080 , A0000081 , A0000082 , A0000083 , A0000084 , A0000085 , A0000086 , A0000087 ,
A0000088 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439704.00	3765355.00	2.85965	(12011417)	439709.00	3765355.00	2.85219	(12011417)
439714.00	3765355.00	2.84321	(12011417)	439719.00	3765355.00	2.83539	(12011417)
439729.00	3765355.00	2.81736	(12011417)	439734.00	3765355.00	2.80797	(12011417)
439739.00	3765355.00	2.79881	(12011417)	439744.00	3765355.00	2.78946	(12011417)
439749.00	3765355.00	2.77891	(12011417)	439774.00	3765355.00	2.76724	(12010217)
439779.00	3765355.00	2.76731	(12010217)	439784.00	3765355.00	2.76689	(12010217)
439789.00	3765355.00	2.76743	(12010217)	439794.00	3765355.00	2.76751	(12010217)
439839.00	3765355.00	2.76799	(12010217)	439844.00	3765355.00	2.76758	(12010217)
439849.00	3765355.00	2.76767	(12010217)	439854.00	3765355.00	2.76751	(12010217)
439859.00	3765355.00	2.76804	(12010217)				

439864.00 3765355.00 2.76738 (12010217)
439869.00 3765355.00 2.76785 (12010217)
439874.00 3765355.00 2.76777 (12010217)
439879.00 3765355.00 2.76784 (12010217)
439884.00 3765355.00 2.76761 (12010217)
439674.00 3765360.00 2.94687 (12011417)
439679.00 3765360.00 2.93991 (12011417)
439684.00 3765360.00 2.93395 (12011417)
439689.00 3765360.00 2.92633 (12011417)
439694.00 3765360.00 2.91952 (12011417)
439699.00 3765360.00 2.91167 (12011417)
439704.00 3765360.00 2.90505 (12011417)
439709.00 3765360.00 2.89651 (12011417)
439714.00 3765360.00 2.88923 (12011417)
439719.00 3765360.00 2.88063 (12011417)
439729.00 3765360.00 2.86369 (12011417)
439734.00 3765360.00 2.85513 (12011417)
439739.00 3765360.00 2.84566 (12011417)
439744.00 3765360.00 2.83629 (12011417)
439749.00 3765360.00 2.82756 (12011417)
439774.00 3765360.00 2.79365 (12010217)
439779.00 3765360.00 2.79359 (12010217)
439784.00 3765360.00 2.79326 (12010217)
439789.00 3765360.00 2.79389 (12010217)
439794.00 3765360.00 2.79356 (12010217)
439799.00 3765360.00 2.79351 (12010217)
439804.00 3765360.00 2.79365 (12010217)
439809.00 3765360.00 2.79394 (12010217)
439814.00 3765360.00 2.79351 (12010217)
439839.00 3765360.00 2.79404 (12010217)
439844.00 3765360.00 2.79392 (12010217)
439849.00 3765360.00 2.79377 (12010217)
439854.00 3765360.00 2.79428 (12010217)
439859.00 3765360.00 2.79403 (12010217)
439864.00 3765360.00 2.79403 (12010217)
439869.00 3765360.00 2.79418 (12010217)
439874.00 3765360.00 2.79432 (12010217)
439879.00 3765360.00 2.79395 (12010217)
439884.00 3765360.00 2.79426 (12010217)
439674.00 3765365.00 2.98980 (12011417)
439679.00 3765365.00 2.98344 (12011417)
439684.00 3765365.00 2.97685 (12011417)
439689.00 3765365.00 2.97053 (12011417)
439694.00 3765365.00 2.96352 (12011417)
439699.00 3765365.00 2.95713 (12011417)
439704.00 3765365.00 2.94907 (12011417)
439709.00 3765365.00 2.94232 (12011417)
439714.00 3765365.00 2.93426 (12011417)
439719.00 3765365.00 2.92716 (12011417)
439729.00 3765365.00 2.91061 (12011417)
439734.00 3765365.00 2.90165 (12011417)
439739.00 3765365.00 2.89333 (12011417)

```
439744.00   3765365.00        2.88452  (12011417)
        439749.00   3765365.00        2.87483  (12011417)
439774.00   3765365.00        2.82584  (12011417)
        439779.00   3765365.00        2.82019  (12010217)
439784.00   3765365.00        2.82055  (12010217)
        439789.00   3765365.00        2.82054  (12010217)
439794.00   3765365.00        2.82053  (12010217)
        439799.00   3765365.00        2.82045  (12010217)
439804.00   3765365.00        2.82101  (12010217)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: FREEEVAP ***
INCLUDING SOURCE(S):
A0000067 , A0000068 , A0000069 , A0000070 , A0000071 ,
A0000072 , A0000073 , A0000074 , A0000075 , A0000076 , A0000077 , A0000078 , A0000079 ,
A0000080 , A0000081 , A0000082 , A0000083 , A0000084 , A0000085 , A0000086 , A0000087 ,
A0000088 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439809.00	3765365.00	2.82050	(12010217)	439814.00	3765365.00	2.82072	(12010217)
439839.00	3765365.00	2.82113	(12010217)	439844.00	3765365.00	2.82088	(12010217)
439849.00	3765365.00	2.82107	(12010217)	439854.00	3765365.00	2.82127	(12010217)
439859.00	3765365.00	2.82089	(12010217)	439864.00	3765365.00	2.82119	(12010217)
439869.00	3765365.00	2.82136	(12010217)	439874.00	3765365.00	2.82120	(12010217)
439879.00	3765365.00	2.82094	(12010217)	439884.00	3765365.00	2.82160	(12010217)
439674.00	3765370.00	3.03323	(12011417)	439679.00	3765370.00	3.02721	(12011417)
439684.00	3765370.00	3.02097	(12011417)	439689.00	3765370.00	3.01435	(12011417)
439694.00	3765370.00	3.00837	(12011417)	439699.00	3765370.00	3.00105	(12011417)
439704.00	3765370.00	2.99544	(12011417)				

439709.00 3765370.00 2.98752 (12011417)
439714.00 3765370.00 2.98036 (12011417)
439719.00 3765370.00 2.97238 (12011417)
439729.00 3765370.00 2.95720 (12011417)
439734.00 3765370.00 2.94911 (12011417)
439739.00 3765370.00 2.94050 (12011417)
439744.00 3765370.00 2.93215 (12011417)
439749.00 3765370.00 2.92416 (12011417)
439774.00 3765370.00 2.87601 (12011417)
439779.00 3765370.00 2.86587 (12011417)
439784.00 3765370.00 2.85473 (12011417)
439789.00 3765370.00 2.84815 (12010217)
439794.00 3765370.00 2.84836 (12010217)
439799.00 3765370.00 2.84835 (12010217)
439804.00 3765370.00 2.84863 (12010217)
439809.00 3765370.00 2.84824 (12010217)
439814.00 3765370.00 2.84857 (12010217)
439839.00 3765370.00 2.84854 (12010217)
439844.00 3765370.00 2.84850 (12010217)
439849.00 3765370.00 2.84906 (12010217)
439854.00 3765370.00 2.84856 (12010217)
439859.00 3765370.00 2.84876 (12010217)
439864.00 3765370.00 2.84870 (12010217)
439869.00 3765370.00 2.84914 (12010217)
439874.00 3765370.00 2.84857 (12010217)
439879.00 3765370.00 2.84906 (12010217)
439884.00 3765370.00 2.84894 (12010217)
439674.00 3765375.00 3.07668 (12011417)
439679.00 3765375.00 3.07107 (12011417)
439684.00 3765375.00 3.06495 (12011417)
439689.00 3765375.00 3.05966 (12011417)
439694.00 3765375.00 3.05260 (12011417)
439699.00 3765375.00 3.04664 (12011417)
439704.00 3765375.00 3.03958 (12011417)
439709.00 3765375.00 3.03374 (12011417)
439714.00 3765375.00 3.02623 (12011417)
439719.00 3765375.00 3.01960 (12011417)
439729.00 3765375.00 3.00462 (12011417)
439734.00 3765375.00 2.99677 (12011417)
439739.00 3765375.00 2.98859 (12011417)
439744.00 3765375.00 2.98013 (12011417)
439749.00 3765375.00 2.97158 (12011417)
439754.00 3765375.00 2.96405 (12011417)
439774.00 3765375.00 2.92703 (12011417)
439779.00 3765375.00 2.91692 (12011417)
439784.00 3765375.00 2.90703 (12011417)
439789.00 3765375.00 2.89578 (12011417)
439794.00 3765375.00 2.88540 (12011417)
439799.00 3765375.00 2.87693 (12010217)
439804.00 3765375.00 2.87647 (12010217)
439809.00 3765375.00 2.87664 (12010217)
439814.00 3765375.00 2.87689 (12010217)

```
439839.00   3765375.00        2.87665  (12010217)
        439844.00   3765375.00        2.87722  (12010217)
439849.00   3765375.00        2.87703  (12010217)
        439854.00   3765375.00        2.87706  (12010217)
439859.00   3765375.00        2.87684  (12010217)
        439864.00   3765375.00        2.87753  (12010217)
439869.00   3765375.00        2.87692  (12010217)
        439874.00   3765375.00        2.87728  (12010217)
439879.00   3765375.00        2.87727  (12010217)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: FREEEVAP ***
INCLUDING SOURCE(S):
A0000067 , A0000068 , A0000069 , A0000070 , A0000071 ,
A0000072 , A0000073 , A0000074 , A0000075 , A0000076 , A0000077 , A0000078 , A0000079 ,
A0000080 , A0000081 , A0000082 , A0000083 , A0000084 , A0000085 , A0000086 , A0000087 ,
A0000088 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439884.00	3765375.00	2.87731	(12010217)	439774.00	3765380.00	2.97671	(12011417)
439779.00	3765380.00	2.96778	(12011417)	439784.00	3765380.00	2.95814	(12011417)
439789.00	3765380.00	2.94872	(12011417)	439794.00	3765380.00	2.93782	(12011417)
439799.00	3765380.00	2.92710	(12011417)	439804.00	3765380.00	2.91632	(12011417)
439809.00	3765380.00	2.90585	(12010217)	439814.00	3765380.00	2.90578	(12010217)
439769.00	3765385.00	3.03681	(12011417)	439819.00	3765385.00	2.93719	(12011417)
439769.00	3765400.00	3.19028	(12011417)	439844.00	3765400.00	3.04926	(12011417)
439849.00	3765400.00	3.03821	(12011417)	439674.00	3765405.00	3.34671	(12011417)
439714.00	3765405.00	3.30965	(12011417)	439719.00	3765405.00	3.30431	(12011417)
439734.00	3765405.00	3.28734	(12011417)				

439749.00 3765405.00 3.26957 (12011417)
439754.00 3765405.00 3.26286 (12011417)
439774.00 3765405.00 3.23542 (12011417)
439779.00 3765405.00 3.22697 (12011417)
439784.00 3765405.00 3.22004 (12011417)
439789.00 3765405.00 3.21270 (12011417)
439794.00 3765405.00 3.20378 (12011417)
439799.00 3765405.00 3.19497 (12011417)
439804.00 3765405.00 3.18666 (12011417)
439809.00 3765405.00 3.17822 (12011417)
439814.00 3765405.00 3.16878 (12011417)
439819.00 3765405.00 3.15897 (12011417)
439824.00 3765405.00 3.14904 (12011417)
439829.00 3765405.00 3.13922 (12011417)
439834.00 3765405.00 3.12962 (12011417)
439839.00 3765405.00 3.11838 (12011417)
439844.00 3765405.00 3.10756 (12011417)
439849.00 3765405.00 3.09640 (12011417)
439854.00 3765405.00 3.08545 (12011417)
439859.00 3765405.00 3.07316 (12011417)
439674.00 3765410.00 3.39310 (12011417)
439679.00 3765410.00 3.38934 (12011417)
439684.00 3765410.00 3.38576 (12011417)
439689.00 3765410.00 3.38115 (12011417)
439694.00 3765410.00 3.37716 (12011417)
439699.00 3765410.00 3.37228 (12011417)
439704.00 3765410.00 3.36828 (12011417)
439709.00 3765410.00 3.36346 (12011417)
439714.00 3765410.00 3.35856 (12011417)
439719.00 3765410.00 3.35328 (12011417)
439729.00 3765410.00 3.34341 (12011417)
439734.00 3765410.00 3.33823 (12011417)
439739.00 3765410.00 3.33206 (12011417)
439744.00 3765410.00 3.32582 (12011417)
439749.00 3765410.00 3.32042 (12011417)
439774.00 3765410.00 3.28827 (12011417)
439779.00 3765410.00 3.28133 (12011417)
439784.00 3765410.00 3.27304 (12011417)
439789.00 3765410.00 3.26554 (12011417)
439794.00 3765410.00 3.25829 (12011417)
439799.00 3765410.00 3.25069 (12011417)
439804.00 3765410.00 3.24193 (12011417)
439809.00 3765410.00 3.23314 (12011417)
439814.00 3765410.00 3.22445 (12011417)
439819.00 3765410.00 3.21597 (12011417)
439824.00 3765410.00 3.20615 (12011417)
439829.00 3765410.00 3.19662 (12011417)
439834.00 3765410.00 3.18653 (12011417)
439839.00 3765410.00 3.17731 (12011417)
439844.00 3765410.00 3.16634 (12011417)
439849.00 3765410.00 3.15599 (12011417)
439854.00 3765410.00 3.14432 (12011417)

```
439859.00   3765410.00        3.13354  (12011417)
        439674.00   3765415.00        3.44104  (12011417)
439679.00   3765415.00        3.43719  (12011417)
        439684.00   3765415.00        3.43300  (12011417)
439689.00   3765415.00        3.42981  (12011417)
        439694.00   3765415.00        3.42542  (12011417)
439699.00   3765415.00        3.42143  (12011417)
        439704.00   3765415.00        3.41673  (12011417)
439709.00   3765415.00        3.41261  (12011417)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: FREEEVAP ***
INCLUDING SOURCE(S):
A0000067 , A0000068 , A0000069 , A0000070 , A0000071 ,
A0000072 , A0000073 , A0000074 , A0000075 , A0000076 , A0000077 , A0000078 , A0000079 ,
A0000080 , A0000081 , A0000082 , A0000083 , A0000084 , A0000085 , A0000086 , A0000087 ,
A0000088 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439714.00	3765415.00	3.40797	(12011417)
439719.00	3765415.00	3.40328	(12011417)
439729.00	3765415.00	3.39313	(12011417)
439734.00	3765415.00	3.38811	(12011417)
439739.00	3765415.00	3.38304	(12011417)
439744.00	3765415.00	3.37771	(12011417)
439749.00	3765415.00	3.37203	(12011417)
439774.00	3765415.00	3.34048	(12011417)
439779.00	3765415.00	3.33414	(12011417)
439784.00	3765415.00	3.32773	(12011417)
439789.00	3765415.00	3.32071	(12011417)
439794.00	3765415.00	3.31241	(12011417)
439799.00	3765415.00	3.30469	(12011417)
439804.00	3765415.00	3.29738	(12011417)
439809.00	3765415.00	3.29007	(12011417)
439814.00	3765415.00	3.28094	(12011417)
439819.00	3765415.00	3.27173	(12011417)
439824.00	3765415.00	3.26349	(12011417)
439829.00	3765415.00	3.25446	(12011417)

439834.00 3765415.00 3.24511 (12011417)
439839.00 3765415.00 3.23506 (12011417)
439844.00 3765415.00 3.22558 (12011417)
439849.00 3765415.00 3.21521 (12011417)
439854.00 3765415.00 3.20527 (12011417)
439859.00 3765415.00 3.19373 (12011417)
439674.00 3765420.00 3.48846 (12011417)
439679.00 3765420.00 3.48581 (12011417)
439684.00 3765420.00 3.48200 (12011417)
439689.00 3765420.00 3.47808 (12011417)
439694.00 3765420.00 3.47408 (12011417)
439699.00 3765420.00 3.47055 (12011417)
439704.00 3765420.00 3.46639 (12011417)
439709.00 3765420.00 3.46232 (12011417)
439714.00 3765420.00 3.45794 (12011417)
439719.00 3765420.00 3.45341 (12011417)
439729.00 3765420.00 3.44467 (12011417)
439734.00 3765420.00 3.43958 (12011417)
439739.00 3765420.00 3.43396 (12011417)
439744.00 3765420.00 3.42882 (12011417)
439749.00 3765420.00 3.42424 (12011417)
439774.00 3765420.00 3.39530 (12011417)
439779.00 3765420.00 3.38841 (12011417)
439784.00 3765420.00 3.38100 (12011417)
439789.00 3765420.00 3.37493 (12011417)
439794.00 3765420.00 3.36890 (12011417)
439799.00 3765420.00 3.36111 (12011417)
439804.00 3765420.00 3.35281 (12011417)
439809.00 3765420.00 3.34541 (12011417)
439814.00 3765420.00 3.33793 (12011417)
439819.00 3765420.00 3.33025 (12011417)
439824.00 3765420.00 3.32085 (12011417)
439829.00 3765420.00 3.31217 (12011417)
439834.00 3765420.00 3.30345 (12011417)
439839.00 3765420.00 3.29509 (12011417)
439844.00 3765420.00 3.28463 (12011417)
439849.00 3765420.00 3.27533 (12011417)
439854.00 3765420.00 3.26509 (12011417)
439859.00 3765420.00 3.25508 (12011417)
439674.00 3765425.00 3.53769 (12011417)
439679.00 3765425.00 3.53401 (12011417)
439684.00 3765425.00 3.53114 (12011417)
439689.00 3765425.00 3.52821 (12011417)
439694.00 3765425.00 3.52428 (12011417)
439699.00 3765425.00 3.52038 (12011417)
439704.00 3765425.00 3.51625 (12011417)
439709.00 3765425.00 3.51300 (12011417)
439714.00 3765425.00 3.50871 (12011417)
439719.00 3765425.00 3.50461 (12011417)
439729.00 3765425.00 3.49573 (12011417)
439734.00 3765425.00 3.49100 (12011417)
439739.00 3765425.00 3.48686 (12011417)

```
439744.00   3765425.00        3.48148  (12011417)
        439749.00   3765425.00        3.47634  (12011417)
439774.00   3765425.00        3.44847  (12011417)
        439779.00   3765425.00        3.44318  (12011417)
439784.00   3765425.00        3.43705  (12011417)
        439789.00   3765425.00        3.43030  (12011417)
439794.00   3765425.00        3.42288  (12011417)
        439799.00   3765425.00        3.41690  (12011417)
439804.00   3765425.00        3.41027  (12011417)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: FREEEVAP ***
INCLUDING SOURCE(S):
A0000067 , A0000068 , A0000069 , A0000070 , A0000071 ,
A0000072 , A0000073 , A0000074 , A0000075 , A0000076 , A0000077 , A0000078 , A0000079 ,
A0000080 , A0000081 , A0000082 , A0000083 , A0000084 , A0000085 , A0000086 , A0000087 ,
A0000088 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439809.00	3765425.00	3.40287	(12011417)	439814.00	3765425.00	3.39449	(12011417)
439819.00	3765425.00	3.38688	(12011417)	439824.00	3765425.00	3.37978	(12011417)
439829.00	3765425.00	3.37131	(12011417)	439834.00	3765425.00	3.36258	(12011417)
439839.00	3765425.00	3.35313	(12011417)	439844.00	3765425.00	3.34526	(12011417)
439849.00	3765425.00	3.33553	(12011417)	439854.00	3765425.00	3.32624	(12011417)
439859.00	3765425.00	3.31580	(12011417)	439674.00	3765430.00	3.58727	(12011417)
439679.00	3765430.00	3.58484	(12011417)	439684.00	3765430.00	3.58076	(12011417)
439689.00	3765430.00	3.57767	(12011417)	439694.00	3765430.00	3.57444	(12011417)
439699.00	3765430.00	3.57140	(12011417)	439704.00	3765430.00	3.56760	(12011417)
439709.00	3765430.00	3.56380	(12011417)				

439714.00 3765430.00 3.55992 (12011417)
439719.00 3765430.00 3.55638 (12011417)
439729.00 3765430.00 3.54802 (12011417)
439734.00 3765430.00 3.54355 (12011417)
439739.00 3765430.00 3.53878 (12011417)
439744.00 3765430.00 3.53460 (12011417)
439749.00 3765430.00 3.53031 (12011417)
439774.00 3765430.00 3.50434 (12011417)
439779.00 3765430.00 3.49773 (12011417)
439784.00 3765430.00 3.49202 (12011417)
439789.00 3765430.00 3.48639 (12011417)
439794.00 3765430.00 3.48082 (12011417)
439799.00 3765430.00 3.47330 (12011417)
439804.00 3765430.00 3.46626 (12011417)
439809.00 3765430.00 3.46014 (12011417)
439814.00 3765430.00 3.45347 (12011417)
439819.00 3765430.00 3.44588 (12011417)
439824.00 3765430.00 3.43739 (12011417)
439829.00 3765430.00 3.43021 (12011417)
439834.00 3765430.00 3.42246 (12011417)
439839.00 3765430.00 3.41457 (12011417)
439844.00 3765430.00 3.40479 (12011417)
439849.00 3765430.00 3.39645 (12011417)
439854.00 3765430.00 3.38748 (12011417)
439859.00 3765430.00 3.37821 (12011417)
439674.00 3765435.00 3.63745 (12011417)
439679.00 3765435.00 3.63434 (12011417)
439684.00 3765435.00 3.63245 (12011417)
439689.00 3765435.00 3.62955 (12011417)
439694.00 3765435.00 3.62609 (12011417)
439699.00 3765435.00 3.62237 (12011417)
439704.00 3765435.00 3.61938 (12011417)
439709.00 3765435.00 3.61622 (12011417)
439714.00 3765435.00 3.61235 (12011417)
439719.00 3765435.00 3.60855 (12011417)
439729.00 3765435.00 3.60108 (12011417)
439734.00 3765435.00 3.59687 (12011417)
439739.00 3765435.00 3.59280 (12011417)
439744.00 3765435.00 3.58787 (12011417)
439749.00 3765435.00 3.58403 (12011417)
439774.00 3765435.00 3.55935 (12011417)
439779.00 3765435.00 3.55450 (12011417)
439784.00 3765435.00 3.54906 (12011417)
439789.00 3765435.00 3.54221 (12011417)
439794.00 3765435.00 3.53660 (12011417)
439799.00 3765435.00 3.53107 (12011417)
439804.00 3765435.00 3.52520 (12011417)
439809.00 3765435.00 3.51754 (12011417)
439814.00 3765435.00 3.51077 (12011417)
439819.00 3765435.00 3.50422 (12011417)
439824.00 3765435.00 3.49819 (12011417)
439829.00 3765435.00 3.48981 (12011417)

```
439834.00   3765435.00        3.48197  (12011417)
        439839.00   3765435.00        3.47407  (12011417)
439844.00   3765435.00        3.46703  (12011417)
        439849.00   3765435.00        3.45773  (12011417)
439854.00   3765435.00        3.44923  (12011417)
        439859.00   3765435.00        3.43971  (12011417)
439674.00   3765440.00        3.68953  (12011417)
        439679.00   3765440.00        3.68723  (12011417)
439684.00   3765440.00        3.68323  (12011417)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: FREEEVAP ***
INCLUDING SOURCE(S):
A0000067 , A0000068 , A0000069 , A0000070 , A0000071 ,
A0000072 , A0000073 , A0000074 , A0000075 , A0000076 , A0000077 , A0000078 , A0000079 ,
A0000080 , A0000081 , A0000082 , A0000083 , A0000084 , A0000085 , A0000086 , A0000087 ,
A0000088 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439689.00	3765440.00	3.68072	(12011417)	439694.00	3765440.00	3.67834	(12011417)
439699.00	3765440.00	3.67556	(12011417)	439704.00	3765440.00	3.67204	(12011417)
439709.00	3765440.00	3.66839	(12011417)	439714.00	3765440.00	3.66568	(12011417)
439719.00	3765440.00	3.66193	(12011417)	439729.00	3765440.00	3.65454	(12011417)
439734.00	3765440.00	3.65108	(12011417)	439739.00	3765440.00	3.64673	(12011417)
439744.00	3765440.00	3.64316	(12011417)	439749.00	3765440.00	3.63909	(12011417)
439774.00	3765440.00	3.61581	(12011417)	439779.00	3765440.00	3.61039	(12011417)
439784.00	3765440.00	3.60524	(12011417)	439789.00	3765440.00	3.60078	(12011417)
439794.00	3765440.00	3.59496	(12011417)	439799.00	3765440.00	3.58840	(12011417)
439804.00	3765440.00	3.58252	(12011417)				

439809.00 3765440.00 3.57730 (12011417)
439814.00 3765440.00 3.57100 (12011417)
439819.00 3765440.00 3.56359 (12011417)
439824.00 3765440.00 3.55663 (12011417)
439829.00 3765440.00 3.55052 (12011417)
439834.00 3765440.00 3.54385 (12011417)
439839.00 3765440.00 3.53590 (12011417)
439844.00 3765440.00 3.52761 (12011417)
439849.00 3765440.00 3.52017 (12011417)
439854.00 3765440.00 3.51216 (12011417)
439859.00 3765440.00 3.50363 (12011417)
439674.00 3765445.00 3.74128 (12011417)
439679.00 3765445.00 3.73952 (12011417)
439684.00 3765445.00 3.73741 (12011417)
439689.00 3765445.00 3.73475 (12011417)
439694.00 3765445.00 3.73077 (12011417)
439699.00 3765445.00 3.72842 (12011417)
439704.00 3765445.00 3.72597 (12011417)
439709.00 3765445.00 3.72331 (12011417)
439714.00 3765445.00 3.71923 (12011417)
439719.00 3765445.00 3.71605 (12011417)
439729.00 3765445.00 3.70953 (12011417)
439734.00 3765445.00 3.70653 (12011417)
439739.00 3765445.00 3.70208 (12011417)
439744.00 3765445.00 3.69859 (12011417)
439749.00 3765445.00 3.69448 (12011417)
439774.00 3765445.00 3.67321 (12011417)
439779.00 3765445.00 3.66858 (12011417)
439784.00 3765445.00 3.66368 (12011417)
439789.00 3765445.00 3.65732 (12011417)
439794.00 3765445.00 3.65331 (12011417)
439799.00 3765445.00 3.64804 (12011417)
439804.00 3765445.00 3.64274 (12011417)
439809.00 3765445.00 3.63555 (12011417)
439814.00 3765445.00 3.63033 (12011417)
439819.00 3765445.00 3.62456 (12011417)
439824.00 3765445.00 3.61881 (12011417)
439829.00 3765445.00 3.61087 (12011417)
439834.00 3765445.00 3.60413 (12011417)
439839.00 3765445.00 3.59805 (12011417)
439844.00 3765445.00 3.59091 (12011417)
439849.00 3765445.00 3.58292 (12011417)
439854.00 3765445.00 3.57473 (12011417)
439859.00 3765445.00 3.56718 (12011417)
439674.00 3765450.00 3.79622 (12011417)
439679.00 3765450.00 3.79297 (12011417)
439684.00 3765450.00 3.79030 (12011417)
439689.00 3765450.00 3.78810 (12011417)
439694.00 3765450.00 3.78638 (12011417)
439699.00 3765450.00 3.78306 (12011417)
439704.00 3765450.00 3.78020 (12011417)
439709.00 3765450.00 3.77691 (12011417)

```
439714.00   3765450.00        3.77533  (12011417)
        439719.00   3765450.00        3.77150  (12011417)
439729.00   3765450.00        3.76517  (12011417)
        439734.00   3765450.00        3.76220  (12011417)
439739.00   3765450.00        3.75905  (12011417)
        439744.00   3765450.00        3.75531  (12011417)
439749.00   3765450.00        3.75140  (12011417)
        439774.00   3765450.00        3.73066  (12011417)
439844.00   3765450.00        3.65362  (12011417)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: FREEEVAP ***
INCLUDING SOURCE(S):
A0000067 , A0000068 , A0000069 , A0000070 , A0000071 ,
A0000072 , A0000073 , A0000074 , A0000075 , A0000076 , A0000077 , A0000078 , A0000079 ,
A0000080 , A0000081 , A0000082 , A0000083 , A0000084 , A0000085 , A0000086 , A0000087 ,
A0000088 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439849.00	3765450.00	3.64628	(12011417)	439854.00	3765450.00	3.64026	(12011417)
439859.00	3765450.00	3.63131	(12011417)	439674.00	3765455.00	3.84959	(12011417)
439679.00	3765455.00	3.84873	(12011417)	439684.00	3765455.00	3.84618	(12011417)
439689.00	3765455.00	3.84392	(12011417)	439694.00	3765455.00	3.84021	(12011417)
439699.00	3765455.00	3.83889	(12011417)	439704.00	3765455.00	3.83642	(12011417)
439709.00	3765455.00	3.83416	(12011417)	439714.00	3765455.00	3.83058	(12011417)
439719.00	3765455.00	3.82805	(12011417)	439729.00	3765455.00	3.82223	(12011417)
439734.00	3765455.00	3.81967	(12011417)	439739.00	3765455.00	3.81525	(12011417)
439744.00	3765455.00	3.81351	(12011417)	439749.00	3765455.00	3.80910	(12011417)
439844.00	3765455.00	3.71788	(12011417)				

439849.00 3765455.00 3.71076 (12011417)
439854.00 3765455.00 3.70331 (12011417)
439859.00 3765455.00 3.69745 (12011417)
439674.00 3765460.00 3.90743 (12011417)
439679.00 3765460.00 3.90330 (12011417)
439684.00 3765460.00 3.90226 (12011417)
439689.00 3765460.00 3.89977 (12011417)
439694.00 3765460.00 3.89900 (12011417)
439699.00 3765460.00 3.89529 (12011417)
439704.00 3765460.00 3.89276 (12011417)
439709.00 3765460.00 3.89102 (12011417)
439714.00 3765460.00 3.88903 (12011417)
439719.00 3765460.00 3.88634 (12011417)
439729.00 3765460.00 3.88020 (12011417)
439734.00 3765460.00 3.87757 (12011417)
439739.00 3765460.00 3.87481 (12011417)
439744.00 3765460.00 3.87097 (12011417)
439749.00 3765460.00 3.86857 (12011417)
439789.00 3765460.00 3.83886 (12011417)
439794.00 3765460.00 3.83423 (12011417)
439799.00 3765460.00 3.82928 (12011417)
439804.00 3765460.00 3.82554 (12011417)
439809.00 3765460.00 3.82063 (12011417)
439814.00 3765460.00 3.81607 (12011417)
439819.00 3765460.00 3.80955 (12011417)
439824.00 3765460.00 3.80533 (12011417)
439829.00 3765460.00 3.79982 (12011417)
439844.00 3765460.00 3.78251 (12011417)
439849.00 3765460.00 3.77597 (12011417)
439854.00 3765460.00 3.77087 (12011417)
439859.00 3765460.00 3.76181 (12011417)
439674.00 3765465.00 3.96311 (12011417)
439679.00 3765465.00 3.96275 (12011417)
439684.00 3765465.00 3.96013 (12011417)
439689.00 3765465.00 3.95812 (12011417)
439694.00 3765465.00 3.95557 (12011417)
439699.00 3765465.00 3.95459 (12011417)
439704.00 3765465.00 3.95275 (12011417)
439709.00 3765465.00 3.94934 (12011417)
439714.00 3765465.00 3.94700 (12011417)
439719.00 3765465.00 3.94474 (12011417)
439729.00 3765465.00 3.93983 (12011417)
439734.00 3765465.00 3.93698 (12011417)
439739.00 3765465.00 3.93349 (12011417)
439744.00 3765465.00 3.93222 (12011417)
439749.00 3765465.00 3.92791 (12011417)
439789.00 3765465.00 3.90085 (12011417)
439794.00 3765465.00 3.89689 (12011417)
439799.00 3765465.00 3.89289 (12011417)
439804.00 3765465.00 3.88779 (12011417)
439809.00 3765465.00 3.88349 (12011417)
439814.00 3765465.00 3.87897 (12011417)

```
439819.00   3765465.00        3.87536  (12011417)
        439824.00   3765465.00        3.86983  (12011417)
439829.00   3765465.00        3.86380  (12011417)
        439844.00   3765465.00        3.84851  (12011417)
439849.00   3765465.00        3.84172  (12011417)
        439854.00   3765465.00        3.83593  (12011417)
439859.00   3765465.00        3.83057  (12011417)
        439674.00   3765470.00        4.02408  (12011417)
439679.00   3765470.00        4.02056  (12011417)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: FREEEVAP ***
INCLUDING SOURCE(S):
A0000067 , A0000068 , A0000069 , A0000070 , A0000071 ,
A0000072 , A0000073 , A0000074 , A0000075 , A0000076 , A0000077 , A0000078 , A0000079 ,
A0000080 , A0000081 , A0000082 , A0000083 , A0000084 , A0000085 , A0000086 , A0000087 ,
A0000088 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439684.00	3765470.00	4.01960	(12011417)
439689.00	3765470.00	4.01786	(12011417)
439694.00	3765470.00	4.01647	(12011417)
439699.00	3765470.00	4.01362	(12011417)
439704.00	3765470.00	4.01120	(12011417)
439709.00	3765470.00	4.01016	(12011417)
439714.00	3765470.00	4.00755	(12011417)
439719.00	3765470.00	4.00550	(12011417)
439729.00	3765470.00	4.00055	(12011417)
439734.00	3765470.00	3.99827	(12011417)
439739.00	3765470.00	3.99548	(12011417)
439744.00	3765470.00	3.99280	(12011417)
439749.00	3765470.00	3.98970	(12011417)
439789.00	3765470.00	3.96370	(12011417)
439794.00	3765470.00	3.96081	(12011417)
439799.00	3765470.00	3.95618	(12011417)
439804.00	3765470.00	3.95301	(12011417)
439809.00	3765470.00	3.94889	(12011417)
439814.00	3765470.00	3.94380	(12011417)

```
439819.00   3765470.00        3.93943  (12011417)
        439824.00   3765470.00        3.93537  (12011417)
439829.00   3765470.00        3.93150  (12011417)
        439844.00   3765470.00        3.91518  (12011417)
439849.00   3765470.00        3.91051  (12011417)
        439854.00   3765470.00        3.90452  (12011417)
439859.00   3765470.00        3.89766  (12011417)
        439674.00   3765475.00        4.08422  (12011417)
439679.00   3765475.00        4.08232  (12011417)
        439684.00   3765475.00        4.08165  (12011417)
439689.00   3765475.00        4.07794  (12011417)
        439694.00   3765475.00        4.07728  (12011417)
439699.00   3765475.00        4.07515  (12011417)
        439704.00   3765475.00        4.07421  (12011417)
439709.00   3765475.00        4.07051  (12011417)
        439714.00   3765475.00        4.06907  (12011417)
439719.00   3765475.00        4.06672  (12011417)
        439729.00   3765475.00        4.06278  (12011417)
439734.00   3765475.00        4.05964  (12011417)
        439739.00   3765475.00        4.05881  (12011417)
439744.00   3765475.00        4.05545  (12011417)
        439749.00   3765475.00        4.05390  (12011417)
439754.00   3765475.00        4.04996  (12011417)
        439789.00   3765475.00        4.02966  (12011417)
439794.00   3765475.00        4.02583  (12011417)
        439799.00   3765475.00        4.02271  (12011417)
439804.00   3765475.00        4.01868  (12011417)
        439809.00   3765475.00        4.01443  (12011417)
439814.00   3765475.00        4.01147  (12011417)
        439819.00   3765475.00        4.00679  (12011417)
439824.00   3765475.00        4.00250  (12011417)
        439829.00   3765475.00        3.99685  (12011417)
439269.00   3764900.00        1.59313  (12010217)
        439369.00   3764900.00        1.59387  (12010217)
439469.00   3764900.00        1.59448  (12010217)
        439569.00   3764900.00        1.59485  (12010217)
439669.00   3764900.00        1.59504  (12010217)
        439769.00   3764900.00        1.59476  (12010217)
439869.00   3764900.00        1.59287  (12010217)
        439969.00   3764900.00        1.58293  (12010217)
440069.00   3764900.00        1.57060  (15010717)
        440169.00   3764900.00        1.57140  (15010717)
440269.00   3764900.00        1.57120  (15010717)
        439269.00   3765000.00        1.73893  (12010217)
439369.00   3765000.00        1.73990  (12010217)
        439469.00   3765000.00        1.74077  (12010217)
439569.00   3765000.00        1.74143  (12010217)
        439669.00   3765000.00        1.74173  (12010217)
439769.00   3765000.00        1.74174  (12010217)
        439869.00   3765000.00        1.74137  (12010217)
439969.00   3765000.00        1.73810  (12010217)
        440069.00   3765000.00        1.71952  (12010217)
```

```
440169.00   3765000.00        1.71545  (15010717)
        440269.00   3765000.00        1.71533  (15010717)
439269.00   3765100.00        1.92354  (12010217)
        439369.00   3765100.00        1.92497  (12010217)
439469.00   3765100.00        1.92653  (12010217)
        439569.00   3765100.00        1.92735  (12010217)
439669.00   3765100.00        1.92702  (12010217)
        439769.00   3765100.00        1.92728  (12010217)
439869.00   3765100.00        1.92793  (12010217)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: FREEEVAP ***
INCLUDING SOURCE(S):
A0000067 , A0000068 , A0000069 , A0000070 , A0000071 ,
A0000072 , A0000073 , A0000074 , A0000075 , A0000076 , A0000077 , A0000078 , A0000079 ,
A0000080 , A0000081 , A0000082 , A0000083 , A0000084 , A0000085 , A0000086 , A0000087 ,
A0000088 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439969.00	3765100.00	1.92757	(12010217)	440069.00	3765100.00	1.92202	(12010217)
440169.00	3765100.00	1.89733	(15010717)	440269.00	3765100.00	1.89746	(15010717)
439269.00	3765200.00	2.32933	(12011417)	439369.00	3765200.00	2.24074	(12011417)
439469.00	3765200.00	2.16966	(12010217)	439569.00	3765200.00	2.17095	(12010217)
439669.00	3765200.00	2.17185	(12010217)	439769.00	3765200.00	2.17304	(12010217)
439869.00	3765200.00	2.17210	(12010217)	439969.00	3765200.00	2.17298	(12010217)
440069.00	3765200.00	2.17234	(12010217)	440169.00	3765200.00	2.16174	(12010217)
440269.00	3765200.00	2.13750	(15010717)	439269.00	3765300.00	2.81323	(12011417)
439369.00	3765300.00	2.77726	(12011417)	439469.00	3765300.00	2.71621	(12011417)
439569.00	3765300.00	2.61553	(12011417)				

```
439669.00   3765300.00        2.51256  (12010217)
        439769.00   3765300.00        2.51309  (12010217)
439869.00   3765300.00        2.51373  (12010217)
        439969.00   3765300.00        2.51399  (12010217)
440069.00   3765300.00        2.51484  (12010217)
        440169.00   3765300.00        2.51482  (12010217)
440269.00   3765300.00        2.49002  (12010217)
        439269.00   3765400.00        3.42826  (12011417)
439369.00   3765400.00        3.42067  (12011417)
        439469.00   3765400.00        3.40193  (12011417)
439569.00   3765400.00        3.36749  (12011417)
        439669.00   3765400.00        3.30478  (12011417)
439769.00   3765400.00        3.19028  (12011417)
        439869.00   3765400.00        3.03036  (12010217)
439969.00   3765400.00        3.03077  (12010217)
        440069.00   3765400.00        3.03215  (12010217)
440169.00   3765400.00        3.03448  (12010217)
        440269.00   3765400.00        3.03462  (12010217)
439269.00   3765500.00        4.42698  (12011417)
        439369.00   3765500.00        4.43305  (12011417)
439469.00   3765500.00        4.43524  (12011417)
        439569.00   3765500.00        4.43017  (12011417)
439669.00   3765500.00        4.41633  (12011417)
        439769.00   3765500.00        4.38858  (12011417)
439869.00   3765500.00        4.32918  (12011417)
        439969.00   3765500.00        4.20654  (12011417)
440069.00   3765500.00        3.94868  (12011417)
        440169.00   3765500.00        3.96209  (15011517)
440269.00   3765500.00        3.97306  (15011517)
        439269.00   3765600.00        6.69317  (12011417)
439369.00   3765600.00        6.71505  (12011417)
        439469.00   3765600.00        6.73794  (12011417)
439569.00   3765600.00        6.75121  (12011417)
        439669.00   3765600.00        6.76146  (12011417)
439769.00   3765600.00        6.76414  (12011417)
        439869.00   3765600.00        6.75825  (12011417)
439969.00   3765600.00        6.74373  (12011417)
        440069.00   3765600.00        6.70982  (12011417)
440169.00   3765600.00        6.76288  (15112218)
        440269.00   3765600.00        6.87235  (15112218)
439269.00   3765700.00       29.73991  (12011417)
        439369.00   3765700.00       30.85846  (12011417)
439469.00   3765700.00       32.06369  (12011417)
        439569.00   3765700.00       33.12662  (12011417)
439669.00   3765700.00       33.58885  (12011417)
        439769.00   3765700.00       34.05400  (14012117)
439869.00   3765700.00       34.75595  (14012117)
        439969.00   3765700.00       35.10332  (14012117)
440069.00   3765700.00       35.72513  (14012117)
        440169.00   3765700.00       35.88035  (14012117)
440269.00   3765700.00       36.07950  (14012117)
        439269.00   3765800.00        9.75068  (12111317)
```

```
439369.00   3765800.00        9.61181  (12111317)
        439469.00   3765800.00        9.45847  (12111317)
439569.00   3765800.00        9.40731  (12011717)
        439669.00   3765800.00        9.46029  (12011717)
439769.00   3765800.00        9.49141  (12011717)
        439869.00   3765800.00        9.50597  (12011717)
439969.00   3765800.00        9.51648  (12011717)
        440069.00   3765800.00        9.51897  (12011717)
440169.00   3765800.00        9.51567  (12011717)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: FREEEVAP ***
INCLUDING SOURCE(S):
A0000067 , A0000068 , A0000069 , A0000070 , A0000071 ,
A0000072 , A0000073 , A0000074 , A0000075 , A0000076 , A0000077 , A0000078 , A0000079 ,
A0000080 , A0000081 , A0000082 , A0000083 , A0000084 , A0000085 , A0000086 , A0000087 ,
A0000088 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
440269.00	3765800.00	9.48893	(12011717)
439269.00	3765900.00	5.08837	(15120818)
439369.00	3765900.00	5.05555	(15120818)
439469.00	3765900.00	5.08184	(13111217)
439569.00	3765900.00	5.11793	(13111217)
439669.00	3765900.00	5.12750	(13111217)
439769.00	3765900.00	5.12785	(13111217)
439869.00	3765900.00	5.17412	(12011717)
439969.00	3765900.00	5.26036	(12011717)
440069.00	3765900.00	5.31836	(12011717)
440169.00	3765900.00	5.35788	(12011717)
440269.00	3765900.00	5.38569	(12011717)
439649.00	3765310.00	2.57118	(12011417)
439679.00	3765310.00	2.55416	(12010217)
439709.00	3765310.00	2.55462	(12010217)
439739.00	3765310.00	2.55498	(12010217)
439769.00	3765310.00	2.55530	(12010217)
439799.00	3765310.00	2.55536	(12010217)
439829.00	3765310.00	2.55546	(12010217)

439859.00 3765310.00 2.55547 (12010217)
439889.00 3765310.00 2.55553 (12010217)
439649.00 3765340.00 2.81345 (12011417)
439679.00 3765340.00 2.76870 (12011417)
439709.00 3765340.00 2.71759 (12011417)
439739.00 3765340.00 2.69121 (12010217)
439769.00 3765340.00 2.69169 (12010217)
439799.00 3765340.00 2.69212 (12010217)
439829.00 3765340.00 2.69251 (12010217)
439859.00 3765340.00 2.69245 (12010217)
439889.00 3765340.00 2.69234 (12010217)
439649.00 3765370.00 3.06101 (12011417)
439679.00 3765370.00 3.02721 (12011417)
439709.00 3765370.00 2.98752 (12011417)
439739.00 3765370.00 2.94050 (12011417)
439769.00 3765370.00 2.88690 (12011417)
439799.00 3765370.00 2.84835 (12010217)
439829.00 3765370.00 2.84859 (12010217)
439859.00 3765370.00 2.84876 (12010217)
439889.00 3765370.00 2.84885 (12010217)
439649.00 3765400.00 3.32055 (12011417)
439679.00 3765400.00 3.29552 (12011417)
439709.00 3765400.00 3.26663 (12011417)
439739.00 3765400.00 3.23210 (12011417)
439769.00 3765400.00 3.19028 (12011417)
439799.00 3765400.00 3.14150 (12011417)
439829.00 3765400.00 3.08253 (12011417)
439859.00 3765400.00 3.03012 (12010217)
439889.00 3765400.00 3.03055 (12010217)
439649.00 3765430.00 3.60122 (12011417)
439679.00 3765430.00 3.58484 (12011417)
439709.00 3765430.00 3.56380 (12011417)
439739.00 3765430.00 3.53878 (12011417)
439769.00 3765430.00 3.50979 (12011417)
439799.00 3765430.00 3.47330 (12011417)
439829.00 3765430.00 3.43021 (12011417)
439859.00 3765430.00 3.37821 (12011417)
439889.00 3765430.00 3.31501 (12011417)
439649.00 3765460.00 3.91586 (12011417)
439679.00 3765460.00 3.90330 (12011417)
439709.00 3765460.00 3.89102 (12011417)
439739.00 3765460.00 3.87481 (12011417)
439769.00 3765460.00 3.85440 (12011417)
439799.00 3765460.00 3.82928 (12011417)
439829.00 3765460.00 3.79982 (12011417)
439859.00 3765460.00 3.76181 (12011417)
439889.00 3765460.00 3.71779 (12011417)
439649.00 3765490.00 4.28335 (12011417)
439679.00 3765490.00 4.27579 (12011417)
439709.00 3765490.00 4.26721 (12011417)
439739.00 3765490.00 4.25700 (12011417)
439769.00 3765490.00 4.24412 (12011417)

```
439799.00   3765490.00        4.22790  (12011417)
        439829.00   3765490.00        4.20854  (12011417)
439859.00   3765490.00        4.18360  (12011417)
        439889.00   3765490.00        4.15516  (12011417)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONOFFEVA ***
INCLUDING SOURCE(S):
A0000089 , A0000090 , A0000091 , A0000092 , A0000093 ,
A0000094 , A0000095 , A0000096 , A0000097 , A0000098 , A0000099 , A0000100 , A0000101 ,
A0000102 , A0000103 , A0000104 , A0000105 , A0000106 , A0000107 , A0000108 , A0000109 ,
A0000110 , A0000111 , A0000112 , A0000113 , A0000114 , A0000115 ,
A0000116 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439674.00	3765310.00	1.67734	(13121718)
439679.00	3765310.00	1.68121	(13121718)
439684.00	3765310.00	1.68456	(13121718)
439689.00	3765310.00	1.68675	(13121718)
439694.00	3765310.00	1.68829	(13121718)
439699.00	3765310.00	1.68794	(13121718)
439704.00	3765310.00	1.68731	(13121718)
439709.00	3765310.00	1.68979	(12011808)
439714.00	3765310.00	1.69826	(12011808)
439719.00	3765310.00	1.70623	(12011808)
439729.00	3765310.00	1.71762	(12011808)
439734.00	3765310.00	1.72174	(12011808)
439739.00	3765310.00	1.72526	(12011808)
439744.00	3765310.00	1.72719	(12011808)
439749.00	3765310.00	1.72782	(12011808)
439764.00	3765310.00	1.72449	(12011808)
439769.00	3765310.00	1.72095	(12011808)

```
439774.00   3765310.00        1.71669  (12011808)
        439779.00   3765310.00        1.71678  (15111218)
439784.00   3765310.00        1.71679  (14100607)
        439789.00   3765310.00        1.72380  (14100607)
439794.00   3765310.00        1.72930  (14100607)
        439799.00   3765310.00        1.73488  (13120808)
439804.00   3765310.00        1.75492  (13120808)
        439809.00   3765310.00        1.77350  (13120808)
439814.00   3765310.00        1.78985  (13120808)
        439819.00   3765310.00        1.80467  (13120808)
439824.00   3765310.00        1.81772  (13120808)
        439829.00   3765310.00        1.82908  (13120808)
439839.00   3765310.00        1.84728  (13120808)
        439844.00   3765310.00        1.85383  (13120808)
439849.00   3765310.00        1.85924  (13120808)
        439854.00   3765310.00        1.86364  (13120808)
439859.00   3765310.00        1.86571  (13120808)
        439864.00   3765310.00        1.86757  (13120808)
439869.00   3765310.00        1.86855  (13120808)
        439874.00   3765310.00        1.86776  (13120808)
439879.00   3765310.00        1.86671  (13120808)
        439884.00   3765310.00        1.86510  (13120808)
439674.00   3765315.00        1.69468  (13121718)
        439679.00   3765315.00        1.70029  (13121718)
439684.00   3765315.00        1.70423  (13121718)
        439689.00   3765315.00        1.70791  (13121718)
439694.00   3765315.00        1.71011  (13121718)
        439699.00   3765315.00        1.71192  (13121718)
439704.00   3765315.00        1.71191  (13121718)
        439709.00   3765315.00        1.71102  (13121718)
439714.00   3765315.00        1.71243  (12011808)
        439719.00   3765315.00        1.72133  (12011808)
439729.00   3765315.00        1.73555  (12011808)
        439734.00   3765315.00        1.74065  (12011808)
439739.00   3765315.00        1.74521  (12011808)
        439744.00   3765315.00        1.74846  (12011808)
439749.00   3765315.00        1.75055  (12011808)
        439764.00   3765315.00        1.74959  (12011808)
439769.00   3765315.00        1.74734  (12011808)
        439774.00   3765315.00        1.74379  (12011808)
439779.00   3765315.00        1.73921  (12011808)
        439784.00   3765315.00        1.73773  (15111218)
439789.00   3765315.00        1.73848  (14100607)
        439794.00   3765315.00        1.74526  (14100607)
439799.00   3765315.00        1.75071  (14100607)
        439804.00   3765315.00        1.76314  (13120808)
439809.00   3765315.00        1.78274  (13120808)
        439814.00   3765315.00        1.80042  (13120808)
439819.00   3765315.00        1.81660  (13120808)
        439824.00   3765315.00        1.83105  (13120808)
439829.00   3765315.00        1.84300  (13120808)
        439839.00   3765315.00        1.86302  (13120808)
```

```
439844.00   3765315.00        1.87070  (13120808)
        439849.00   3765315.00        1.87733  (13120808)
439854.00   3765315.00        1.88135  (13120808)
        439859.00   3765315.00        1.88473  (13120808)
439864.00   3765315.00        1.88736  (13120808)
        439869.00   3765315.00        1.88806  (13120808)
439874.00   3765315.00        1.88816  (13120808)
        439879.00   3765315.00        1.88782  (13120808)
439884.00   3765315.00        1.88588  (13120808)
        439674.00   3765320.00        1.71092  (13121718)
439679.00   3765320.00        1.71765  (13121718)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONOFFEVA ***
INCLUDING SOURCE(S):
A0000089 , A0000090 , A0000091 , A0000092 , A0000093 ,
A0000094 , A0000095 , A0000096 , A0000097 , A0000098 , A0000099 , A0000100 , A0000101 ,
A0000102 , A0000103 , A0000104 , A0000105 , A0000106 , A0000107 , A0000108 , A0000109 ,
A0000110 , A0000111 , A0000112 , A0000113 , A0000114 , A0000115 ,
A0000116 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439684.00	3765320.00	1.72374	(13121718)
439689.00	3765320.00	1.72813	(13121718)
439694.00	3765320.00	1.73182	(13121718)
439699.00	3765320.00	1.73419	(13121718)
439704.00	3765320.00	1.73593	(13121718)
439709.00	3765320.00	1.73647	(13121718)
439714.00	3765320.00	1.73528	(13121718)
439719.00	3765320.00	1.73571	(12011808)
439729.00	3765320.00	1.75263	(12011808)
439734.00	3765320.00	1.75959	(12011808)
439739.00	3765320.00	1.76441	(12011808)
439744.00	3765320.00	1.76913	(12011808)
439749.00	3765320.00	1.77221	(12011808)
439764.00	3765320.00	1.77428	(12011808)
439769.00	3765320.00	1.77328	(12011808)
439774.00	3765320.00	1.77054	(12011808)
439779.00	3765320.00	1.76712	(12011808)

```
439784.00   3765320.00        1.76246  (12011808)
        439789.00   3765320.00        1.75907  (15111218)
439794.00   3765320.00        1.76087  (14100607)
        439799.00   3765320.00        1.76719  (14100607)
439804.00   3765320.00        1.77208  (14100607)
        439809.00   3765320.00        1.79145  (13120808)
439814.00   3765320.00        1.81099  (13120808)
        439819.00   3765320.00        1.82831  (13120808)
439824.00   3765320.00        1.84346  (13120808)
        439829.00   3765320.00        1.85738  (13120808)
439839.00   3765320.00        1.87917  (13120808)
        439844.00   3765320.00        1.88796  (13120808)
439849.00   3765320.00        1.89457  (13120808)
        439854.00   3765320.00        1.89961  (13120808)
439859.00   3765320.00        1.90446  (13120808)
        439864.00   3765320.00        1.90661  (13120808)
439869.00   3765320.00        1.90820  (13120808)
        439874.00   3765320.00        1.90947  (13120808)
439879.00   3765320.00        1.90826  (13120808)
        439884.00   3765320.00        1.90684  (13120808)
439674.00   3765325.00        1.72619  (13121718)
        439679.00   3765325.00        1.73431  (13121718)
439684.00   3765325.00        1.74139  (13121718)
        439689.00   3765325.00        1.74756  (13121718)
439694.00   3765325.00        1.75268  (13121718)
        439699.00   3765325.00        1.75633  (13121718)
439704.00   3765325.00        1.75899  (13121718)
        439709.00   3765325.00        1.76053  (13121718)
439714.00   3765325.00        1.76139  (13121718)
        439719.00   3765325.00        1.76041  (13121718)
439729.00   3765325.00        1.76920  (12011808)
        439734.00   3765325.00        1.77690  (12011808)
439739.00   3765325.00        1.78393  (12011808)
        439744.00   3765325.00        1.78907  (12011808)
439749.00   3765325.00        1.79370  (12011808)
        439754.00   3765325.00        1.79649  (12011808)
439769.00   3765325.00        1.79870  (12011808)
        439774.00   3765325.00        1.79720  (12011808)
439779.00   3765325.00        1.79430  (12011808)
        439784.00   3765325.00        1.79088  (12011808)
439789.00   3765325.00        1.78612  (12011808)
        439794.00   3765325.00        1.78089  (15111218)
439799.00   3765325.00        1.78348  (14100607)
        439804.00   3765325.00        1.78962  (14100607)
439809.00   3765325.00        1.80029  (13120808)
        439814.00   3765325.00        1.82076  (13120808)
439819.00   3765325.00        1.83929  (13120808)
        439824.00   3765325.00        1.85623  (13120808)
439829.00   3765325.00        1.87111  (13120808)
        439839.00   3765325.00        1.89527  (13120808)
439844.00   3765325.00        1.90444  (13120808)
        439849.00   3765325.00        1.91213  (13120808)
```

```
439854.00   3765325.00        1.91908  (13120808)
        439859.00   3765325.00        1.92315  (13120808)
439864.00   3765325.00        1.92647  (13120808)
        439869.00   3765325.00        1.92918  (13120808)
439874.00   3765325.00        1.92955  (13120808)
        439879.00   3765325.00        1.92968  (13120808)
439884.00   3765325.00        1.92918  (13120808)
        439674.00   3765330.00        1.74064  (13121718)
439679.00   3765330.00        1.75007  (13121718)
        439684.00   3765330.00        1.75845  (13121718)
439689.00   3765330.00        1.76584  (13121718)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONOFFEVA ***
INCLUDING SOURCE(S):
A0000089 , A0000090 , A0000091 , A0000092 , A0000093 ,
A0000094 , A0000095 , A0000096 , A0000097 , A0000098 , A0000099 , A0000100 , A0000101 ,
A0000102 , A0000103 , A0000104 , A0000105 , A0000106 , A0000107 , A0000108 , A0000109 ,
A0000110 , A0000111 , A0000112 , A0000113 , A0000114 , A0000115 ,
A0000116 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439694.00	3765330.00	1.77211	(13121718)
439699.00	3765330.00	1.77754	(13121718)
439704.00	3765330.00	1.78159	(13121718)
439709.00	3765330.00	1.78442	(13121718)
439714.00	3765330.00	1.78584	(13121718)
439719.00	3765330.00	1.78684	(13121718)
439729.00	3765330.00	1.78458	(13121718)
439734.00	3765330.00	1.79397	(12011808)
439739.00	3765330.00	1.80171	(12011808)
439744.00	3765330.00	1.80880	(12011808)
439749.00	3765330.00	1.81444	(12011808)
439754.00	3765330.00	1.81852	(12011808)
439774.00	3765330.00	1.82359	(12011808)
439779.00	3765330.00	1.82194	(12011808)
439784.00	3765330.00	1.81880	(12011808)
439789.00	3765330.00	1.81507	(12011808)
439794.00	3765330.00	1.81007	(12011808)

```
439799.00   3765330.00        1.80377  (12011808)
        439804.00   3765330.00        1.80648  (14100607)
439809.00   3765330.00        1.81228  (14100607)
        439814.00   3765330.00        1.83012  (13120808)
439819.00   3765330.00        1.85043  (13120808)
        439824.00   3765330.00        1.86870  (13120808)
439829.00   3765330.00        1.88463  (13120808)
        439839.00   3765330.00        1.91100  (13120808)
439844.00   3765330.00        1.92146  (13120808)
        439849.00   3765330.00        1.93052  (13120808)
439854.00   3765330.00        1.93714  (13120808)
        439859.00   3765330.00        1.94280  (13120808)
439864.00   3765330.00        1.94668  (13120808)
        439869.00   3765330.00        1.94916  (13120808)
439874.00   3765330.00        1.95124  (13120808)
        439879.00   3765330.00        1.95149  (13120808)
439884.00   3765330.00        1.95099  (13120808)
        439674.00   3765335.00        1.75329  (13121718)
439679.00   3765335.00        1.76438  (13121718)
        439684.00   3765335.00        1.77439  (13121718)
439689.00   3765335.00        1.78338  (13121718)
        439694.00   3765335.00        1.79089  (13121718)
439699.00   3765335.00        1.79741  (13121718)
        439704.00   3765335.00        1.80297  (13121718)
439709.00   3765335.00        1.80726  (13121718)
        439714.00   3765335.00        1.81057  (13121718)
439719.00   3765335.00        1.81205  (13121718)
        439729.00   3765335.00        1.81224  (13121718)
439734.00   3765335.00        1.81104  (13121718)
        439739.00   3765335.00        1.81945  (12011808)
439744.00   3765335.00        1.82740  (12011808)
        439749.00   3765335.00        1.83414  (12011808)
439774.00   3765335.00        1.84966  (12011808)
        439779.00   3765335.00        1.84932  (12011808)
439784.00   3765335.00        1.84689  (12011808)
        439789.00   3765335.00        1.84385  (12011808)
439794.00   3765335.00        1.84005  (12011808)
        439839.00   3765335.00        1.92723  (13120808)
439844.00   3765335.00        1.93812  (13120808)
        439849.00   3765335.00        1.94820  (13120808)
439854.00   3765335.00        1.95598  (13120808)
        439859.00   3765335.00        1.96214  (13120808)
439864.00   3765335.00        1.96747  (13120808)
        439869.00   3765335.00        1.97029  (13120808)
439874.00   3765335.00        1.97249  (13120808)
        439879.00   3765335.00        1.97378  (13120808)
439884.00   3765335.00        1.97318  (13120808)
        439674.00   3765340.00        1.76486  (13121718)
439679.00   3765340.00        1.77730  (13121718)
        439684.00   3765340.00        1.78884  (13121718)
439689.00   3765340.00        1.79927  (13121718)
        439694.00   3765340.00        1.80866  (13121718)
```

```
439699.00   3765340.00        1.81675  (13121718)
        439704.00   3765340.00        1.82339  (13121718)
439709.00   3765340.00        1.82922  (13121718)
        439714.00   3765340.00        1.83354  (13121718)
439719.00   3765340.00        1.83728  (13121718)
        439729.00   3765340.00        1.83995  (13121718)
439734.00   3765340.00        1.83899  (13121718)
        439739.00   3765340.00        1.83783  (13121718)
439744.00   3765340.00        1.84559  (12011808)
        439749.00   3765340.00        1.85390  (12011808)
439774.00   3765340.00        1.87549  (12011808)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONOFFEVA ***
INCLUDING SOURCE(S):
A0000089 , A0000090 , A0000091 , A0000092 , A0000093 ,
A0000094 , A0000095 , A0000096 , A0000097 , A0000098 , A0000099 , A0000100 , A0000101 ,
A0000102 , A0000103 , A0000104 , A0000105 , A0000106 , A0000107 , A0000108 , A0000109 ,
A0000110 , A0000111 , A0000112 , A0000113 , A0000114 , A0000115 ,
A0000116 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439779.00	3765340.00	1.87554	(12011808)	439784.00	3765340.00	1.87522	(12011808)
439789.00	3765340.00	1.87297	(12011808)	439794.00	3765340.00	1.86945	(12011808)
439839.00	3765340.00	1.94234	(13120808)	439844.00	3765340.00	1.95562	(13120808)
439849.00	3765340.00	1.96604	(13120808)	439854.00	3765340.00	1.97504	(13120808)
439859.00	3765340.00	1.98229	(13120808)	439864.00	3765340.00	1.98769	(13120808)
439869.00	3765340.00	1.99178	(13120808)	439874.00	3765340.00	1.99418	(13120808)
439879.00	3765340.00	1.99572	(13120808)	439884.00	3765340.00	1.99597	(13120808)
439674.00	3765345.00	1.77495	(13121718)	439679.00	3765345.00	1.78906	(13121718)
439684.00	3765345.00	1.80219	(13121718)				

```
439689.00   3765345.00        1.81395  (13121718)
        439694.00   3765345.00        1.82480  (13121718)
439699.00   3765345.00        1.83444  (13121718)
        439704.00   3765345.00        1.84330  (13121718)
439709.00   3765345.00        1.85025  (13121718)
        439714.00   3765345.00        1.85624  (13121718)
439719.00   3765345.00        1.86062  (13121718)
        439729.00   3765345.00        1.86649  (13121718)
439734.00   3765345.00        1.86747  (13121718)
        439739.00   3765345.00        1.86676  (13121718)
439744.00   3765345.00        1.86531  (13121718)
        439749.00   3765345.00        1.87239  (12011808)
439774.00   3765345.00        1.90078  (12011808)
        439779.00   3765345.00        1.90230  (12011808)
439784.00   3765345.00        1.90249  (12011808)
        439789.00   3765345.00        1.90158  (12011808)
439794.00   3765345.00        1.89948  (12011808)
        439839.00   3765345.00        1.95808  (13120808)
439844.00   3765345.00        1.97250  (13120808)
        439849.00   3765345.00        1.98401  (13120808)
439854.00   3765345.00        1.99416  (13120808)
        439859.00   3765345.00        2.00239  (13120808)
439864.00   3765345.00        2.00807  (13120808)
        439869.00   3765345.00        2.01301  (13120808)
439874.00   3765345.00        2.01672  (13120808)
        439879.00   3765345.00        2.01830  (13120808)
439884.00   3765345.00        2.01942  (13120808)
        439674.00   3765350.00        1.80037  (12011417)
439679.00   3765350.00        1.79910  (13121718)
        439684.00   3765350.00        1.81384  (13121718)
439689.00   3765350.00        1.82772  (13121718)
        439694.00   3765350.00        1.83977  (13121718)
439699.00   3765350.00        1.85117  (13121718)
        439704.00   3765350.00        1.86107  (13121718)
439709.00   3765350.00        1.87029  (13121718)
        439714.00   3765350.00        1.87775  (13121718)
439719.00   3765350.00        1.88396  (13121718)
        439729.00   3765350.00        1.89236  (13121718)
439734.00   3765350.00        1.89468  (13121718)
        439739.00   3765350.00        1.89586  (13121718)
439744.00   3765350.00        1.89538  (13121718)
        439749.00   3765350.00        1.89373  (13121718)
439774.00   3765350.00        1.92581  (12011808)
        439779.00   3765350.00        1.92852  (12011808)
439784.00   3765350.00        1.92983  (12011808)
        439789.00   3765350.00        1.92999  (12011808)
439794.00   3765350.00        1.92879  (12011808)
        439839.00   3765350.00        1.97384  (13120808)
439844.00   3765350.00        1.98873  (13120808)
        439849.00   3765350.00        2.00203  (13120808)
439854.00   3765350.00        2.01327  (13120808)
        439859.00   3765350.00        2.02202  (13120808)
```

```
439864.00   3765350.00        2.02963  (13120808)
        439869.00   3765350.00        2.03510  (13120808)
439874.00   3765350.00        2.03894  (13120808)
        439879.00   3765350.00        2.04157  (13120808)
439884.00   3765350.00        2.04291  (13120808)
        439674.00   3765355.00        1.84024  (12011417)
439679.00   3765355.00        1.83394  (12011417)
        439684.00   3765355.00        1.82655  (12011417)
439689.00   3765355.00        1.83926  (13121718)
        439694.00   3765355.00        1.85373  (13121718)
439699.00   3765355.00        1.86646  (13121718)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONOFFEVA ***
INCLUDING SOURCE(S):
A0000089 , A0000090 , A0000091 , A0000092 , A0000093 ,
A0000094 , A0000095 , A0000096 , A0000097 , A0000098 , A0000099 , A0000100 , A0000101 ,
A0000102 , A0000103 , A0000104 , A0000105 , A0000106 , A0000107 , A0000108 , A0000109 ,
A0000110 , A0000111 , A0000112 , A0000113 , A0000114 , A0000115 ,
A0000116 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439704.00	3765355.00	1.87832	(13121718)	439709.00	3765355.00	1.88846	(13121718)
439714.00	3765355.00	1.89803	(13121718)	439719.00	3765355.00	1.90591	(13121718)
439729.00	3765355.00	1.91741	(13121718)	439734.00	3765355.00	1.92119	(13121718)
439739.00	3765355.00	1.92359	(13121718)	439744.00	3765355.00	1.92481	(13121718)
439749.00	3765355.00	1.92458	(13121718)	439774.00	3765355.00	1.94996	(12011808)
439779.00	3765355.00	1.95415	(12011808)	439784.00	3765355.00	1.95700	(12011808)
439789.00	3765355.00	1.95822	(12011808)	439794.00	3765355.00	1.95816	(12011808)
439839.00	3765355.00	1.98853	(13120808)	439844.00	3765355.00	2.00519	(13120808)
439849.00	3765355.00	2.02010	(13120808)				

439854.00 3765355.00 2.03240 (13120808)
439859.00 3765355.00 2.04256 (13120808)
439864.00 3765355.00 2.05107 (13120808)
439869.00 3765355.00 2.05731 (13120808)
439874.00 3765355.00 2.06128 (13120808)
439879.00 3765355.00 2.06497 (13120808)
439884.00 3765355.00 2.06657 (13120808)
439674.00 3765360.00 1.87889 (12011417)
439679.00 3765360.00 1.87440 (12011417)
439684.00 3765360.00 1.86859 (12011417)
439689.00 3765360.00 1.86128 (12011417)
439694.00 3765360.00 1.86537 (13121718)
439699.00 3765360.00 1.88044 (13121718)
439704.00 3765360.00 1.89365 (13121718)
439709.00 3765360.00 1.90638 (13121718)
439714.00 3765360.00 1.91680 (13121718)
439719.00 3765360.00 1.92660 (13121718)
439729.00 3765360.00 1.94161 (13121718)
439734.00 3765360.00 1.94715 (13121718)
439739.00 3765360.00 1.95068 (13121718)
439744.00 3765360.00 1.95349 (13121718)
439749.00 3765360.00 1.95462 (13121718)
439774.00 3765360.00 1.97393 (12011808)
439779.00 3765360.00 1.97945 (12011808)
439784.00 3765360.00 1.98325 (12011808)
439789.00 3765360.00 1.98619 (12011808)
439794.00 3765360.00 1.98729 (12011808)
439799.00 3765360.00 1.98713 (12011808)
439804.00 3765360.00 1.98526 (12011808)
439809.00 3765360.00 1.98249 (12011808)
439814.00 3765360.00 1.97825 (12011808)
439839.00 3765360.00 2.00371 (13120808)
439844.00 3765360.00 2.02206 (13120808)
439849.00 3765360.00 2.03797 (13120808)
439854.00 3765360.00 2.05139 (13120808)
439859.00 3765360.00 2.06296 (13120808)
439864.00 3765360.00 2.07184 (13120808)
439869.00 3765360.00 2.07939 (13120808)
439874.00 3765360.00 2.08497 (13120808)
439879.00 3765360.00 2.08875 (13120808)
439884.00 3765360.00 2.09131 (13120808)
439674.00 3765365.00 1.91689 (12011417)
439679.00 3765365.00 1.91341 (12011417)
439684.00 3765365.00 1.90918 (12011417)
439689.00 3765365.00 1.90381 (12011417)
439694.00 3765365.00 1.89722 (12011417)
439699.00 3765365.00 1.89231 (13121718)
439704.00 3765365.00 1.90802 (13121718)
439709.00 3765365.00 1.92168 (13121718)
439714.00 3765365.00 1.93483 (13121718)
439719.00 3765365.00 1.94609 (13121718)
439729.00 3765365.00 1.96433 (13121718)

```
439734.00   3765365.00        1.97143  (13121718)
        439739.00   3765365.00        1.97761  (13121718)
439744.00   3765365.00        1.98134  (13121718)
        439749.00   3765365.00        1.98414  (13121718)
439774.00   3765365.00        1.99688  (12011808)
        439779.00   3765365.00        2.00402  (12011808)
439784.00   3765365.00        2.00995  (12011808)
        439789.00   3765365.00        2.01326  (12011808)
439794.00   3765365.00        2.01594  (12011808)
        439799.00   3765365.00        2.01721  (12011808)
439804.00   3765365.00        2.01694  (12011808)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONOFFEVA ***
INCLUDING SOURCE(S):
A0000089 , A0000090 , A0000091 , A0000092 , A0000093 ,
A0000094 , A0000095 , A0000096 , A0000097 , A0000098 , A0000099 , A0000100 , A0000101 ,
A0000102 , A0000103 , A0000104 , A0000105 , A0000106 , A0000107 , A0000108 , A0000109 ,
A0000110 , A0000111 , A0000112 , A0000113 , A0000114 , A0000115 ,
A0000116 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439809.00	3765365.00	2.01457	(12011808)	439814.00	3765365.00	2.01137	(12011808)
439839.00	3765365.00	2.01810	(13120808)	439844.00	3765365.00	2.03832	(13120808)
439849.00	3765365.00	2.05573	(13120808)	439854.00	3765365.00	2.07031	(13120808)
439859.00	3765365.00	2.08324	(13120808)	439864.00	3765365.00	2.09391	(13120808)
439869.00	3765365.00	2.10205	(13120808)	439874.00	3765365.00	2.10887	(13120808)
439879.00	3765365.00	2.11297	(13120808)	439884.00	3765365.00	2.11591	(13120808)
439674.00	3765370.00	1.95368	(12011417)	439679.00	3765370.00	1.95232	(12011417)
439684.00	3765370.00	1.94914	(12011417)	439689.00	3765370.00	1.94492	(12011417)
439694.00	3765370.00	1.93975	(12011417)				

439699.00 3765370.00 1.93355 (12011417)
439704.00 3765370.00 1.92631 (12011417)
439709.00 3765370.00 1.93646 (13121718)
439714.00 3765370.00 1.95048 (13121718)
439719.00 3765370.00 1.96416 (13121718)
439729.00 3765370.00 1.98636 (13121718)
439734.00 3765370.00 1.99501 (13121718)
439739.00 3765370.00 2.00225 (13121718)
439744.00 3765370.00 2.00865 (13121718)
439749.00 3765370.00 2.01287 (13121718)
439774.00 3765370.00 2.01945 (12011808)
439779.00 3765370.00 2.02822 (12011808)
439784.00 3765370.00 2.03511 (12011808)
439789.00 3765370.00 2.04062 (12011808)
439794.00 3765370.00 2.04464 (12011808)
439799.00 3765370.00 2.04668 (12011808)
439804.00 3765370.00 2.04739 (12011808)
439809.00 3765370.00 2.04726 (12011808)
439814.00 3765370.00 2.04505 (12011808)
439839.00 3765370.00 2.03218 (13120808)
439844.00 3765370.00 2.05418 (13120808)
439849.00 3765370.00 2.07340 (13120808)
439854.00 3765370.00 2.08983 (13120808)
439859.00 3765370.00 2.10408 (13120808)
439864.00 3765370.00 2.11562 (13120808)
439869.00 3765370.00 2.12449 (13120808)
439874.00 3765370.00 2.13227 (13120808)
439879.00 3765370.00 2.13769 (13120808)
439884.00 3765370.00 2.14119 (13120808)
439674.00 3765375.00 1.98921 (12011417)
439679.00 3765375.00 1.98906 (12011417)
439684.00 3765375.00 1.98856 (12011417)
439689.00 3765375.00 1.98589 (12011417)
439694.00 3765375.00 1.98222 (12011417)
439699.00 3765375.00 1.97681 (12011417)
439704.00 3765375.00 1.97085 (12011417)
439709.00 3765375.00 1.96380 (12011417)
439714.00 3765375.00 1.96579 (13121718)
439719.00 3765375.00 1.98036 (13121718)
439729.00 3765375.00 2.00659 (13121718)
439734.00 3765375.00 2.01759 (13121718)
439739.00 3765375.00 2.02689 (13121718)
439744.00 3765375.00 2.03394 (13121718)
439749.00 3765375.00 2.04061 (13121718)
439754.00 3765375.00 2.04523 (13121718)
439774.00 3765375.00 2.04784 (13121718)
439779.00 3765375.00 2.05154 (12011808)
439784.00 3765375.00 2.06034 (12011808)
439789.00 3765375.00 2.06725 (12011808)
439794.00 3765375.00 2.07221 (12011808)
439799.00 3765375.00 2.07646 (12011808)
439804.00 3765375.00 2.07842 (12011808)

```
439809.00   3765375.00        2.07900  (12011808)
        439814.00   3765375.00        2.07803  (12011808)
439839.00   3765375.00        2.05283  (12011808)
        439844.00   3765375.00        2.06990  (13120808)
439849.00   3765375.00        2.09098  (13120808)
        439854.00   3765375.00        2.10935  (13120808)
439859.00   3765375.00        2.12404  (13120808)
        439864.00   3765375.00        2.13717  (13120808)
439869.00   3765375.00        2.14822  (13120808)
        439874.00   3765375.00        2.15626  (13120808)
439879.00   3765375.00        2.16277  (13120808)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONOFFEVA ***
INCLUDING SOURCE(S):
A0000089 , A0000090 , A0000091 , A0000092 , A0000093 ,
A0000094 , A0000095 , A0000096 , A0000097 , A0000098 , A0000099 , A0000100 , A0000101 ,
A0000102 , A0000103 , A0000104 , A0000105 , A0000106 , A0000107 , A0000108 , A0000109 ,
A0000110 , A0000111 , A0000112 , A0000113 , A0000114 , A0000115 ,
A0000116 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439884.00	3765375.00	2.16740	(13120808)	439774.00	3765380.00	2.08258	(13121718)
439779.00	3765380.00	2.08108	(13121718)	439784.00	3765380.00	2.08441	(12011808)
439789.00	3765380.00	2.09330	(12011808)	439794.00	3765380.00	2.10029	(12011808)
439799.00	3765380.00	2.10520	(12011808)	439804.00	3765380.00	2.10898	(12011808)
439809.00	3765380.00	2.11111	(12011808)	439814.00	3765380.00	2.11122	(12011808)
439769.00	3765385.00	2.11556	(13121718)	439819.00	3765385.00	2.14455	(12011808)
439769.00	3765400.00	2.20886	(13121718)	439844.00	3765400.00	2.24224	(12011808)
439849.00	3765400.00	2.23633	(12011808)	439674.00	3765405.00	2.16517	(12011417)
439714.00	3765405.00	2.22615	(12011417)				

439719.00 3765405.00 2.22705 (12011417)
439734.00 3765405.00 2.21927 (12011417)
439749.00 3765405.00 2.19799 (12011417)
439754.00 3765405.00 2.19751 (13121718)
439774.00 3765405.00 2.24730 (13121718)
439779.00 3765405.00 2.25485 (13121718)
439784.00 3765405.00 2.26040 (13121718)
439789.00 3765405.00 2.26444 (13121718)
439794.00 3765405.00 2.26586 (13121718)
439799.00 3765405.00 2.26537 (13121718)
439804.00 3765405.00 2.26350 (13121718)
439809.00 3765405.00 2.26547 (12011808)
439814.00 3765405.00 2.27397 (12011808)
439819.00 3765405.00 2.28036 (12011808)
439824.00 3765405.00 2.28480 (12011808)
439829.00 3765405.00 2.28725 (12011808)
439834.00 3765405.00 2.28735 (12011808)
439839.00 3765405.00 2.28575 (12011808)
439844.00 3765405.00 2.28290 (12011808)
439849.00 3765405.00 2.27843 (12011808)
439854.00 3765405.00 2.27206 (12011808)
439859.00 3765405.00 2.26446 (12011808)
439674.00 3765410.00 2.18665 (12011417)
439679.00 3765410.00 2.20164 (12011417)
439684.00 3765410.00 2.21586 (12011417)
439689.00 3765410.00 2.22782 (12011417)
439694.00 3765410.00 2.23901 (12011417)
439699.00 3765410.00 2.24812 (12011417)
439704.00 3765410.00 2.25658 (12011417)
439709.00 3765410.00 2.26259 (12011417)
439714.00 3765410.00 2.26732 (12011417)
439719.00 3765410.00 2.26989 (12011417)
439729.00 3765410.00 2.27113 (12011417)
439734.00 3765410.00 2.26898 (12011417)
439739.00 3765410.00 2.26532 (12011417)
439744.00 3765410.00 2.25975 (12011417)
439749.00 3765410.00 2.25270 (12011417)
439774.00 3765410.00 2.27725 (13121718)
439779.00 3765410.00 2.28715 (13121718)
439784.00 3765410.00 2.29481 (13121718)
439789.00 3765410.00 2.30038 (13121718)
439794.00 3765410.00 2.30414 (13121718)
439799.00 3765410.00 2.30629 (13121718)
439804.00 3765410.00 2.30563 (13121718)
439809.00 3765410.00 2.30332 (13121718)
439814.00 3765410.00 2.30569 (12011808)
439819.00 3765410.00 2.31361 (12011808)
439824.00 3765410.00 2.31959 (12011808)
439829.00 3765410.00 2.32388 (12011808)
439834.00 3765410.00 2.32605 (12011808)
439839.00 3765410.00 2.32591 (12011808)
439844.00 3765410.00 2.32391 (12011808)

```
439849.00   3765410.00        2.32025  (12011808)
        439854.00   3765410.00        2.31517  (12011808)
439859.00   3765410.00        2.30889  (12011808)
        439674.00   3765415.00        2.20430  (12011417)
439679.00   3765415.00        2.22240  (12011417)
        439684.00   3765415.00        2.23887  (12011417)
439689.00   3765415.00        2.25422  (12011417)
        439694.00   3765415.00        2.26776  (12011417)
439699.00   3765415.00        2.27973  (12011417)
        439704.00   3765415.00        2.28981  (12011417)
439709.00   3765415.00        2.29882  (12011417)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONOFFEVA ***
INCLUDING SOURCE(S):
A0000089 , A0000090 , A0000091 , A0000092 , A0000093 ,
A0000094 , A0000095 , A0000096 , A0000097 , A0000098 , A0000099 , A0000100 , A0000101 ,
A0000102 , A0000103 , A0000104 , A0000105 , A0000106 , A0000107 , A0000108 , A0000109 ,
A0000110 , A0000111 , A0000112 , A0000113 , A0000114 , A0000115 ,
A0000116 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439714.00	3765415.00	2.30592	(12011417)
439719.00	3765415.00	2.31177	(12011417)
439729.00	3765415.00	2.31725	(12011417)
439734.00	3765415.00	2.31713	(12011417)
439739.00	3765415.00	2.31556	(12011417)
439744.00	3765415.00	2.31268	(12011417)
439749.00	3765415.00	2.30783	(12011417)
439774.00	3765415.00	2.30576	(13121718)
439779.00	3765415.00	2.31786	(13121718)
439784.00	3765415.00	2.32826	(13121718)
439789.00	3765415.00	2.33635	(13121718)
439794.00	3765415.00	2.34173	(13121718)
439799.00	3765415.00	2.34548	(13121718)
439804.00	3765415.00	2.34745	(13121718)
439809.00	3765415.00	2.34690	(13121718)
439814.00	3765415.00	2.34468	(13121718)
439819.00	3765415.00	2.34661	(12011808)

439824.00 3765415.00 2.35482 (12011808)
439829.00 3765415.00 2.36064 (12011808)
439834.00 3765415.00 2.36394 (12011808)
439839.00 3765415.00 2.36569 (12011808)
439844.00 3765415.00 2.36552 (12011808)
439849.00 3765415.00 2.36298 (12011808)
439854.00 3765415.00 2.35872 (12011808)
439859.00 3765415.00 2.35333 (12011808)
439674.00 3765420.00 2.21979 (12011417)
439679.00 3765420.00 2.24024 (12011417)
439684.00 3765420.00 2.25901 (12011417)
439689.00 3765420.00 2.27706 (12011417)
439694.00 3765420.00 2.29322 (12011417)
439699.00 3765420.00 2.30853 (12011417)
439704.00 3765420.00 2.32155 (12011417)
439709.00 3765420.00 2.33293 (12011417)
439714.00 3765420.00 2.34283 (12011417)
439719.00 3765420.00 2.35053 (12011417)
439729.00 3765420.00 2.36164 (12011417)
439734.00 3765420.00 2.36457 (12011417)
439739.00 3765420.00 2.36503 (12011417)
439744.00 3765420.00 2.36351 (12011417)
439749.00 3765420.00 2.36131 (12011417)
439774.00 3765420.00 2.33279 (13121718)
439779.00 3765420.00 2.34792 (13121718)
439784.00 3765420.00 2.36005 (13121718)
439789.00 3765420.00 2.37067 (13121718)
439794.00 3765420.00 2.37886 (13121718)
439799.00 3765420.00 2.38486 (13121718)
439804.00 3765420.00 2.38826 (13121718)
439809.00 3765420.00 2.38988 (13121718)
439814.00 3765420.00 2.38955 (13121718)
439819.00 3765420.00 2.38734 (13121718)
439824.00 3765420.00 2.38913 (12011808)
439829.00 3765420.00 2.39688 (12011808)
439834.00 3765420.00 2.40287 (12011808)
439839.00 3765420.00 2.40580 (12011808)
439844.00 3765420.00 2.40682 (12011808)
439849.00 3765420.00 2.40578 (12011808)
439854.00 3765420.00 2.40315 (12011808)
439859.00 3765420.00 2.39877 (12011808)
439674.00 3765425.00 2.23154 (12011417)
439679.00 3765425.00 2.25431 (12011417)
439684.00 3765425.00 2.27685 (12011417)
439689.00 3765425.00 2.29696 (12011417)
439694.00 3765425.00 2.31622 (12011417)
439699.00 3765425.00 2.33346 (12011417)
439704.00 3765425.00 2.34980 (12011417)
439709.00 3765425.00 2.36404 (12011417)
439714.00 3765425.00 2.37719 (12011417)
439719.00 3765425.00 2.38805 (12011417)
439729.00 3765425.00 2.40399 (12011417)

```
439734.00   3765425.00        2.40929  (12011417)
        439739.00   3765425.00        2.41324  (12011417)
439744.00   3765425.00        2.41439  (12011417)
        439749.00   3765425.00        2.41384  (12011417)
439774.00   3765425.00        2.38405  (12011417)
        439779.00   3765425.00        2.37554  (13121718)
439784.00   3765425.00        2.39145  (13121718)
        439789.00   3765425.00        2.40414  (13121718)
439794.00   3765425.00        2.41443  (13121718)
        439799.00   3765425.00        2.42309  (13121718)
439804.00   3765425.00        2.42908  (13121718)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONOFFEVA ***
INCLUDING SOURCE(S):
A0000089 , A0000090 , A0000091 , A0000092 , A0000093 ,
A0000094 , A0000095 , A0000096 , A0000097 , A0000098 , A0000099 , A0000100 , A0000101 ,
A0000102 , A0000103 , A0000104 , A0000105 , A0000106 , A0000107 , A0000108 , A0000109 ,
A0000110 , A0000111 , A0000112 , A0000113 , A0000114 , A0000115 ,
A0000116 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439809.00	3765425.00	2.43295	(13121718)
439814.00	3765425.00	2.43411	(13121718)
439819.00	3765425.00	2.43349	(13121718)
439824.00	3765425.00	2.43067	(13121718)
439829.00	3765425.00	2.43296	(12011808)
439834.00	3765425.00	2.44062	(12011808)
439839.00	3765425.00	2.44596	(12011808)
439844.00	3765425.00	2.44866	(12011808)
439849.00	3765425.00	2.44923	(12011808)
439854.00	3765425.00	2.44770	(12011808)
439859.00	3765425.00	2.44461	(12011808)
439674.00	3765430.00	2.25440	(12112508)
439679.00	3765430.00	2.26547	(12011417)
439684.00	3765430.00	2.28980	(12011417)
439689.00	3765430.00	2.31370	(12011417)
439694.00	3765430.00	2.33567	(12011417)
439699.00	3765430.00	2.35660	(12011417)

439704.00 3765430.00 2.37510 (12011417)
439709.00 3765430.00 2.39272 (12011417)
439714.00 3765430.00 2.40797 (12011417)
439719.00 3765430.00 2.42222 (12011417)
439729.00 3765430.00 2.44482 (12011417)
439734.00 3765430.00 2.45276 (12011417)
439739.00 3765430.00 2.45850 (12011417)
439744.00 3765430.00 2.46308 (12011417)
439749.00 3765430.00 2.46532 (12011417)
439774.00 3765430.00 2.44674 (12011417)
439779.00 3765430.00 2.43767 (12011417)
439784.00 3765430.00 2.42599 (12011417)
439789.00 3765430.00 2.43615 (13121718)
439794.00 3765430.00 2.44984 (13121718)
439799.00 3765430.00 2.46037 (13121718)
439804.00 3765430.00 2.46874 (13121718)
439809.00 3765430.00 2.47482 (13121718)
439814.00 3765430.00 2.47889 (13121718)
439819.00 3765430.00 2.48012 (13121718)
439824.00 3765430.00 2.47904 (13121718)
439829.00 3765430.00 2.47591 (13121718)
439834.00 3765430.00 2.47859 (12011808)
439839.00 3765430.00 2.48606 (12011808)
439844.00 3765430.00 2.49058 (12011808)
439849.00 3765430.00 2.49306 (12011808)
439854.00 3765430.00 2.49295 (12011808)
439859.00 3765430.00 2.49071 (12011808)
439674.00 3765435.00 2.29100 (12112508)
439679.00 3765435.00 2.30038 (12112508)
439684.00 3765435.00 2.30904 (12112508)
439689.00 3765435.00 2.32645 (12011417)
439694.00 3765435.00 2.35153 (12011417)
439699.00 3765435.00 2.37515 (12011417)
439704.00 3765435.00 2.39731 (12011417)
439709.00 3765435.00 2.41794 (12011417)
439714.00 3765435.00 2.43693 (12011417)
439719.00 3765435.00 2.45355 (12011417)
439729.00 3765435.00 2.48203 (12011417)
439734.00 3765435.00 2.49395 (12011417)
439739.00 3765435.00 2.50304 (12011417)
439744.00 3765435.00 2.51000 (12011417)
439749.00 3765435.00 2.51492 (12011417)
439774.00 3765435.00 2.50881 (12011417)
439779.00 3765435.00 2.50151 (12011417)
439784.00 3765435.00 2.49257 (12011417)
439789.00 3765435.00 2.48158 (12011417)
439794.00 3765435.00 2.48259 (13121718)
439799.00 3765435.00 2.49694 (13121718)
439804.00 3765435.00 2.50814 (13121718)
439809.00 3765435.00 2.51625 (13121718)
439814.00 3765435.00 2.52250 (13121718)
439819.00 3765435.00 2.52625 (13121718)

```
439824.00   3765435.00        2.52737  (13121718)
        439829.00   3765435.00        2.52646  (13121718)
439834.00   3765435.00        2.52307  (13121718)
        439839.00   3765435.00        2.52570  (12011808)
439844.00   3765435.00        2.53268  (12011808)
        439849.00   3765435.00        2.53687  (12011808)
439854.00   3765435.00        2.53865  (12011808)
        439859.00   3765435.00        2.53820  (12011808)
439674.00   3765440.00        2.32369  (12112508)
        439679.00   3765440.00        2.33716  (12112508)
439684.00   3765440.00        2.34803  (12112508)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONOFFEVA ***
INCLUDING SOURCE(S):
A0000089 , A0000090 , A0000091 , A0000092 , A0000093 ,
A0000094 , A0000095 , A0000096 , A0000097 , A0000098 , A0000099 , A0000100 , A0000101 ,
A0000102 , A0000103 , A0000104 , A0000105 , A0000106 , A0000107 , A0000108 , A0000109 ,
A0000110 , A0000111 , A0000112 , A0000113 , A0000114 , A0000115 ,
A0000116 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439689.00	3765440.00	2.35786	(12112508)	439694.00	3765440.00	2.36550	(12112508)
439699.00	3765440.00	2.39035	(12011417)	439704.00	3765440.00	2.41592	(12011417)
439709.00	3765440.00	2.43932	(12011417)	439714.00	3765440.00	2.46173	(12011417)
439719.00	3765440.00	2.48204	(12011417)	439729.00	3765440.00	2.51726	(12011417)
439734.00	3765440.00	2.53147	(12011417)	439739.00	3765440.00	2.54420	(12011417)
439744.00	3765440.00	2.55461	(12011417)	439749.00	3765440.00	2.56294	(12011417)
439774.00	3765440.00	2.57084	(12011417)	439779.00	3765440.00	2.56574	(12011417)
439784.00	3765440.00	2.55857	(12011417)	439789.00	3765440.00	2.54941	(12011417)
439794.00	3765440.00	2.53846	(12011417)				

439799.00 3765440.00 2.53120 (13121718)
439804.00 3765440.00 2.54569 (13121718)
439809.00 3765440.00 2.55740 (13121718)
439814.00 3765440.00 2.56596 (13121718)
439819.00 3765440.00 2.57202 (13121718)
439824.00 3765440.00 2.57510 (13121718)
439829.00 3765440.00 2.57633 (13121718)
439834.00 3765440.00 2.57525 (13121718)
439839.00 3765440.00 2.57113 (13121718)
439844.00 3765440.00 2.57463 (12011808)
439849.00 3765440.00 2.58086 (12011808)
439854.00 3765440.00 2.58447 (12011808)
439859.00 3765440.00 2.58558 (12011808)
439674.00 3765445.00 2.35292 (12112508)
439679.00 3765445.00 2.36889 (12112508)
439684.00 3765445.00 2.38337 (12112508)
439689.00 3765445.00 2.39661 (12112508)
439694.00 3765445.00 2.40801 (12112508)
439699.00 3765445.00 2.41729 (12112508)
439704.00 3765445.00 2.43027 (12011417)
439709.00 3765445.00 2.45758 (12011417)
439714.00 3765445.00 2.48271 (12011417)
439719.00 3765445.00 2.50664 (12011417)
439729.00 3765445.00 2.54878 (12011417)
439734.00 3765445.00 2.56699 (12011417)
439739.00 3765445.00 2.58272 (12011417)
439744.00 3765445.00 2.59661 (12011417)
439749.00 3765445.00 2.60777 (12011417)
439774.00 3765445.00 2.63110 (12011417)
439779.00 3765445.00 2.62866 (12011417)
439784.00 3765445.00 2.62451 (12011417)
439789.00 3765445.00 2.61772 (12011417)
439794.00 3765445.00 2.60881 (12011417)
439799.00 3765445.00 2.59747 (12011417)
439804.00 3765445.00 2.58472 (12011417)
439809.00 3765445.00 2.59654 (13121718)
439814.00 3765445.00 2.60828 (13121718)
439819.00 3765445.00 2.61735 (13121718)
439824.00 3765445.00 2.62328 (13121718)
439829.00 3765445.00 2.62658 (13121718)
439834.00 3765445.00 2.62701 (13121718)
439839.00 3765445.00 2.62560 (13121718)
439844.00 3765445.00 2.62164 (13121718)
439849.00 3765445.00 2.62534 (12011808)
439854.00 3765445.00 2.63100 (12011808)
439859.00 3765445.00 2.63442 (12011808)
439674.00 3765450.00 2.37860 (12112508)
439679.00 3765450.00 2.39731 (12112508)
439684.00 3765450.00 2.41517 (12112508)
439689.00 3765450.00 2.43083 (12112508)
439694.00 3765450.00 2.44585 (12112508)
439699.00 3765450.00 2.45869 (12112508)

```
439704.00   3765450.00        2.47030  (12112508)
        439709.00   3765450.00        2.47940  (12112508)
439714.00   3765450.00        2.50018  (12011417)
        439719.00   3765450.00        2.52736  (12011417)
439729.00   3765450.00        2.57631  (12011417)
        439734.00   3765450.00        2.59846  (12011417)
439739.00   3765450.00        2.61789  (12011417)
        439744.00   3765450.00        2.63579  (12011417)
439749.00   3765450.00        2.65098  (12011417)
        439774.00   3765450.00        2.69093  (12011417)
439844.00   3765450.00        2.67765  (13121718)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONOFFEVA ***
INCLUDING SOURCE(S):
A0000089 , A0000090 , A0000091 , A0000092 , A0000093 ,
A0000094 , A0000095 , A0000096 , A0000097 , A0000098 , A0000099 , A0000100 , A0000101 ,
A0000102 , A0000103 , A0000104 , A0000105 , A0000106 , A0000107 , A0000108 , A0000109 ,
A0000110 , A0000111 , A0000112 , A0000113 , A0000114 , A0000115 ,
A0000116 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439849.00	3765450.00	2.67351	(13121718)	439854.00	3765450.00	2.67709	(12011808)
439859.00	3765450.00	2.68231	(12011808)	439674.00	3765455.00	2.39824	(12112508)
439679.00	3765455.00	2.42096	(12112508)	439684.00	3765455.00	2.44227	(12112508)
439689.00	3765455.00	2.46225	(12112508)	439694.00	3765455.00	2.48023	(12112508)
439699.00	3765455.00	2.49639	(12112508)	439704.00	3765455.00	2.51092	(12112508)
439709.00	3765455.00	2.52399	(12112508)	439714.00	3765455.00	2.53501	(12112508)
439719.00	3765455.00	2.54439	(12112508)	439729.00	3765455.00	2.60066	(12011417)
439734.00	3765455.00	2.62607	(12011417)	439739.00	3765455.00	2.64978	(12011417)
439744.00	3765455.00	2.67077	(12011417)				

```
439749.00   3765455.00        2.69001  (12011417)
        439844.00   3765455.00        2.73500  (13121718)
439849.00   3765455.00        2.73207  (13121718)
        439854.00   3765455.00        2.72737  (13121718)
439859.00   3765455.00        2.73189  (12011808)
        439674.00   3765460.00        2.41408  (12112508)
439679.00   3765460.00        2.44027  (12112508)
        439684.00   3765460.00        2.46420  (12112508)
439689.00   3765460.00        2.48771  (12112508)
        439694.00   3765460.00        2.50932  (12112508)
439699.00   3765460.00        2.53013  (12112508)
        439704.00   3765460.00        2.54836  (12112508)
439709.00   3765460.00        2.56499  (12112508)
        439714.00   3765460.00        2.57913  (12112508)
439719.00   3765460.00        2.59204  (12112508)
        439729.00   3765460.00        2.62001  (12011417)
439734.00   3765460.00        2.64944  (12011417)
        439739.00   3765460.00        2.67740  (12011417)
439744.00   3765460.00        2.70302  (12011417)
        439749.00   3765460.00        2.72576  (12011417)
439789.00   3765460.00        2.81790  (12011417)
        439794.00   3765460.00        2.81786  (12011417)
439799.00   3765460.00        2.81420  (12011417)
        439804.00   3765460.00        2.80816  (12011417)
439809.00   3765460.00        2.79965  (12011417)
        439814.00   3765460.00        2.78891  (12011417)
439819.00   3765460.00        2.77626  (12011417)
        439824.00   3765460.00        2.76273  (13121718)
439829.00   3765460.00        2.77481  (13121718)
        439844.00   3765460.00        2.79202  (13121718)
439849.00   3765460.00        2.79178  (13121718)
        439854.00   3765460.00        2.78818  (13121718)
439859.00   3765460.00        2.78324  (13121718)
        439674.00   3765465.00        2.42425  (12112508)
439679.00   3765465.00        2.45354  (12112508)
        439684.00   3765465.00        2.48220  (12112508)
439689.00   3765465.00        2.50900  (12112508)
        439694.00   3765465.00        2.53418  (12112508)
439699.00   3765465.00        2.55792  (12112508)
        439704.00   3765465.00        2.58019  (12112508)
439709.00   3765465.00        2.60098  (12112508)
        439714.00   3765465.00        2.62005  (12112508)
439719.00   3765465.00        2.63651  (12112508)
        439729.00   3765465.00        2.66308  (12112508)
439734.00   3765465.00        2.67385  (12112508)
        439739.00   3765465.00        2.69983  (12011417)
439744.00   3765465.00        2.73013  (12011417)
        439749.00   3765465.00        2.75741  (12011417)
439789.00   3765465.00        2.88245  (12011417)
        439794.00   3765465.00        2.88522  (12011417)
439799.00   3765465.00        2.88533  (12011417)
        439804.00   3765465.00        2.88254  (12011417)
```

```
439809.00   3765465.00        2.87698  (12011417)
        439814.00   3765465.00        2.86885  (12011417)
439819.00   3765465.00        2.85753  (12011417)
        439824.00   3765465.00        2.84485  (12011417)
439829.00   3765465.00        2.82970  (12011417)
        439844.00   3765465.00        2.84915  (13121718)
439849.00   3765465.00        2.85144  (13121718)
        439854.00   3765465.00        2.85084  (13121718)
439859.00   3765465.00        2.84700  (13121718)
        439674.00   3765470.00        2.42937  (12112508)
439679.00   3765470.00        2.46161  (12112508)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONOFFEVA ***
INCLUDING SOURCE(S):
A0000089 , A0000090 , A0000091 , A0000092 , A0000093 ,
A0000094 , A0000095 , A0000096 , A0000097 , A0000098 , A0000099 , A0000100 , A0000101 ,
A0000102 , A0000103 , A0000104 , A0000105 , A0000106 , A0000107 , A0000108 , A0000109 ,
A0000110 , A0000111 , A0000112 , A0000113 , A0000114 , A0000115 ,
A0000116 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439684.00	3765470.00	2.49342	(12112508)	439689.00	3765470.00	2.52366	(12112508)
439694.00	3765470.00	2.55358	(12112508)	439699.00	3765470.00	2.58132	(12112508)
439704.00	3765470.00	2.60790	(12112508)	439709.00	3765470.00	2.63187	(12112508)
439714.00	3765470.00	2.65497	(12112508)	439719.00	3765470.00	2.67560	(12112508)
439729.00	3765470.00	2.71173	(12112508)	439734.00	3765470.00	2.72602	(12112508)
439739.00	3765470.00	2.73826	(12112508)	439744.00	3765470.00	2.75236	(12011417)
439749.00	3765470.00	2.78442	(12011417)	439789.00	3765470.00	2.94527	(12011417)
439794.00	3765470.00	2.95221	(12011417)	439799.00	3765470.00	2.95548	(12011417)
439804.00	3765470.00	2.95609	(12011417)				

```
439809.00   3765470.00        2.95331  (12011417)
        439814.00   3765470.00        2.94856  (12011417)
439819.00   3765470.00        2.94056  (12011417)
        439824.00   3765470.00        2.92960  (12011417)
439829.00   3765470.00        2.91637  (12011417)
        439844.00   3765470.00        2.90682  (13121718)
439849.00   3765470.00        2.91174  (13121718)
        439854.00   3765470.00        2.91407  (13121718)
439859.00   3765470.00        2.91174  (13121718)
        439674.00   3765475.00        2.42774  (12112508)
439679.00   3765475.00        2.46445  (12112508)
        439684.00   3765475.00        2.49973  (12112508)
439689.00   3765475.00        2.53377  (12112508)
        439694.00   3765475.00        2.56661  (12112508)
439699.00   3765475.00        2.59821  (12112508)
        439704.00   3765475.00        2.62866  (12112508)
439709.00   3765475.00        2.65784  (12112508)
        439714.00   3765475.00        2.68536  (12112508)
439719.00   3765475.00        2.71036  (12112508)
        439729.00   3765475.00        2.75456  (12112508)
439734.00   3765475.00        2.77327  (12112508)
        439739.00   3765475.00        2.79063  (12112508)
439744.00   3765475.00        2.80488  (12112508)
        439749.00   3765475.00        2.81643  (12112508)
439754.00   3765475.00        2.84085  (12011417)
        439789.00   3765475.00        3.00512  (12011417)
439794.00   3765475.00        3.01611  (12011417)
        439799.00   3765475.00        3.02438  (12011417)
439804.00   3765475.00        3.02883  (12011417)
        439809.00   3765475.00        3.03008  (12011417)
439814.00   3765475.00        3.02787  (12011417)
        439819.00   3765475.00        3.02278  (12011417)
439824.00   3765475.00        3.01498  (12011417)
        439829.00   3765475.00        3.00436  (12011417)
439269.00   3764900.00        0.79417  (13020408)
        439369.00   3764900.00        0.82197  (15111218)
439469.00   3764900.00        0.87465  (14100607)
        439569.00   3764900.00        0.95929  (13120808)
439669.00   3764900.00        0.96176  (13120808)
        439769.00   3764900.00        0.89762  (12010217)
439869.00   3764900.00        0.96847  (12010217)
        439969.00   3764900.00        0.90814  (12010217)
440069.00   3764900.00        0.89198  (13123108)
        440169.00   3764900.00        0.87850  (12121717)
440269.00   3764900.00        0.84493  (12111319)
        439269.00   3765000.00        0.87515  (13121718)
439369.00   3765000.00        0.90742  (13020408)
        439469.00   3765000.00        0.94567  (15111218)
439569.00   3765000.00        1.00530  (14100607)
        439669.00   3765000.00        1.11113  (13120808)
439769.00   3765000.00        1.05361  (13120808)
        439869.00   3765000.00        1.07555  (12010217)
```

```
439969.00   3765000.00        1.06247  (12010217)
        440069.00   3765000.00        0.99046  (13123108)
440169.00   3765000.00        0.97236  (12121717)
        440269.00   3765000.00        0.94132  (13012419)
439269.00   3765100.00        0.95594  (12011417)
        439369.00   3765100.00        1.01369  (13121718)
439469.00   3765100.00        1.05630  (13020408)
        439569.00   3765100.00        1.11184  (15111218)
439669.00   3765100.00        1.19549  (13120808)
        439769.00   3765100.00        1.28400  (13120808)
439869.00   3765100.00        1.18869  (12010217)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONOFFEVA ***
INCLUDING SOURCE(S):
A0000089 , A0000090 , A0000091 , A0000092 , A0000093 ,
A0000094 , A0000095 , A0000096 , A0000097 , A0000098 , A0000099 , A0000100 , A0000101 ,
A0000102 , A0000103 , A0000104 , A0000105 , A0000106 , A0000107 , A0000108 , A0000109 ,
A0000110 , A0000111 , A0000112 , A0000113 , A0000114 , A0000115 ,
A0000116 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439969.00	3765100.00	1.23508	(12010217)	440069.00	3765100.00	1.11448	(13123108)
440169.00	3765100.00	1.09006	(12121717)	440269.00	3765100.00	1.07380	(13012419)
439269.00	3765200.00	1.10272	(12011417)	439369.00	3765200.00	1.18217	(12011417)
439469.00	3765200.00	1.19330	(14010708)	439569.00	3765200.00	1.28295	(13121718)
439669.00	3765200.00	1.34339	(15111218)	439769.00	3765200.00	1.48215	(13120808)
439869.00	3765200.00	1.47316	(13120808)	439969.00	3765200.00	1.44030	(12010217)
440069.00	3765200.00	1.36268	(12010217)	440169.00	3765200.00	1.25521	(13123108)
440269.00	3765200.00	1.29102	(15010717)	439269.00	3765300.00	1.18560	(13121618)
439369.00	3765300.00	1.31066	(12112508)				

```
439469.00   3765300.00        1.44479  (12011417)
        439569.00   3765300.00        1.55490  (12011417)
439669.00   3765300.00        1.63665  (13121718)
        439769.00   3765300.00        1.67592  (15111218)
439869.00   3765300.00        1.82906  (13120808)
        439969.00   3765300.00        1.71501  (12010217)
440069.00   3765300.00        1.66851  (12010217)
        440169.00   3765300.00        1.48568  (12010217)
440269.00   3765300.00        1.58569  (15010717)
        439269.00   3765400.00        1.43292  (15111218)
439369.00   3765400.00        1.49162  (13120808)
        439469.00   3765400.00        1.53169  (12111318)
439569.00   3765400.00        1.86199  (12112508)
        439669.00   3765400.00        2.12939  (12011417)
439769.00   3765400.00        2.20886  (13121718)
        439869.00   3765400.00        2.26703  (13120808)
439969.00   3765400.00        2.26317  (13120808)
        440069.00   3765400.00        2.10592  (12010217)
440169.00   3765400.00        1.98168  (15010717)
        440269.00   3765400.00        1.96814  (13121617)
439269.00   3765500.00        1.95361  (12011417)
        439369.00   3765500.00        1.90023  (15111218)
439469.00   3765500.00        1.92041  (13120808)
        439569.00   3765500.00        1.99726  (12010708)
439669.00   3765500.00        2.50914  (12111318)
        439769.00   3765500.00        3.17174  (12112508)
439869.00   3765500.00        3.37930  (12011417)
        439969.00   3765500.00        3.23930  (13120808)
440069.00   3765500.00        3.03135  (13120808)
        440169.00   3765500.00        2.77679  (16010608)
440269.00   3765500.00        2.78974  (15113017)
        439269.00   3765600.00        2.66387  (12111318)
439369.00   3765600.00        3.11454  (12011417)
        439469.00   3765600.00        2.91895  (13121718)
439569.00   3765600.00        2.78500  (12010217)
        439669.00   3765600.00        3.00827  (16121918)
439769.00   3765600.00        4.16378  (13121208)
        439869.00   3765600.00        6.41011  (12111318)
439969.00   3765600.00        7.36062  (12011417)
        440069.00   3765600.00        5.93789  (13120808)
440169.00   3765600.00        5.47126  (12011608)
        440269.00   3765600.00        4.88882  (14101107)
439269.00   3765700.00        4.44473  (14012908)
        439369.00   3765700.00        6.09058  (16121918)
439469.00   3765700.00        9.30488  (12101307)
        439569.00   3765700.00        6.16985  (12011417)
439669.00   3765700.00        4.70317  (12010217)
        439769.00   3765700.00        3.99213  (12010217)
439869.00   3765700.00        5.29710  (12111317)
        439969.00   3765700.00        6.62654  (15120818)
440069.00   3765700.00        8.23024  (15120818)
        440169.00   3765700.00       11.96012  (13111217)
```

```
440269.00   3765700.00       20.62437  (13111217)
        439269.00   3765800.00        4.18772  (12111317)
439369.00   3765800.00        5.82499  (12111317)
        439469.00   3765800.00        6.05319  (12111317)
439569.00   3765800.00        6.68819  (12111317)
        439669.00   3765800.00        8.09639  (15120818)
439769.00   3765800.00       10.72225  (15120818)
        439869.00   3765800.00       17.66955  (13111217)
439969.00   3765800.00        7.53330  (14121418)
        440069.00   3765800.00        4.37011  (13111218)
440169.00   3765800.00        4.30415  (13111218)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONOFFEVA ***
INCLUDING SOURCE(S):
A0000089 , A0000090 , A0000091 , A0000092 , A0000093 ,
A0000094 , A0000095 , A0000096 , A0000097 , A0000098 , A0000099 , A0000100 , A0000101 ,
A0000102 , A0000103 , A0000104 , A0000105 , A0000106 , A0000107 , A0000108 , A0000109 ,
A0000110 , A0000111 , A0000112 , A0000113 , A0000114 , A0000115 ,
A0000116 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
440269.00	3765800.00	4.42246	(13111217)	439269.00	3765900.00	2.93442	(12100707)
439369.00	3765900.00	3.08534	(15120818)	439469.00	3765900.00	3.25678	(15120818)
439569.00	3765900.00	3.36571	(15120818)	439669.00	3765900.00	3.48176	(15112217)
439769.00	3765900.00	3.31195	(13111218)	439869.00	3765900.00	3.37187	(13111217)
439969.00	3765900.00	3.47892	(13111217)	440069.00	3765900.00	2.97520	(12011717)
440169.00	3765900.00	2.29522	(12120419)	440269.00	3765900.00	2.45150	(12122117)
439649.00	3765310.00	1.64144	(13121718)	439679.00	3765310.00	1.68121	(13121718)
439709.00	3765310.00	1.68979	(12011808)	439739.00	3765310.00	1.72526	(12011808)
439769.00	3765310.00	1.72095	(12011808)				

```
439799.00   3765310.00        1.73488  (13120808)
        439829.00   3765310.00        1.82908  (13120808)
439859.00   3765310.00        1.86571  (13120808)
        439889.00   3765310.00        1.86191  (13120808)
439649.00   3765340.00        1.75309  (12011417)
        439679.00   3765340.00        1.77730  (13121718)
439709.00   3765340.00        1.82922  (13121718)
        439739.00   3765340.00        1.83783  (13121718)
439769.00   3765340.00        1.87378  (12011808)
        439799.00   3765340.00        1.86509  (12011808)
439829.00   3765340.00        1.91134  (13120808)
        439859.00   3765340.00        1.98229  (13120808)
439889.00   3765340.00        1.99557  (13120808)
        439649.00   3765370.00        1.94415  (12011417)
439679.00   3765370.00        1.95232  (12011417)
        439709.00   3765370.00        1.93646  (13121718)
439739.00   3765370.00        2.00225  (13121718)
        439769.00   3765370.00        2.01560  (13121718)
439799.00   3765370.00        2.04668  (12011808)
        439829.00   3765370.00        2.03042  (12011808)
439859.00   3765370.00        2.10408  (13120808)
        439889.00   3765370.00        2.14372  (13120808)
439649.00   3765400.00        2.07059  (12011417)
        439679.00   3765400.00        2.15163  (12011417)
439709.00   3765400.00        2.18409  (12011417)
        439739.00   3765400.00        2.16169  (12011417)
439769.00   3765400.00        2.20886  (13121718)
        439799.00   3765400.00        2.22476  (13121718)
439829.00   3765400.00        2.25007  (12011808)
        439859.00   3765400.00        2.22712  (13120808)
439889.00   3765400.00        2.31090  (13120808)
        439649.00   3765430.00        2.19840  (12112508)
439679.00   3765430.00        2.26547  (12011417)
        439709.00   3765430.00        2.39272  (12011417)
439739.00   3765430.00        2.45850  (12011417)
        439769.00   3765430.00        2.45393  (12011417)
439799.00   3765430.00        2.46037  (13121718)
        439829.00   3765430.00        2.47591  (13121718)
439859.00   3765430.00        2.49071  (12011808)
        439889.00   3765430.00        2.50140  (13120808)
439649.00   3765460.00        2.26860  (12112508)
        439679.00   3765460.00        2.44027  (12112508)
439709.00   3765460.00        2.56499  (12112508)
        439739.00   3765460.00        2.67740  (12011417)
439769.00   3765460.00        2.79359  (12011417)
        439799.00   3765460.00        2.81420  (12011417)
439829.00   3765460.00        2.77481  (13121718)
        439859.00   3765460.00        2.78324  (13121718)
439889.00   3765460.00        2.77983  (12011808)
        439649.00   3765490.00        2.36470  (12111318)
439679.00   3765490.00        2.47452  (12111318)
        439709.00   3765490.00        2.69628  (12112508)
```

```
439739.00   3765490.00        2.91465  (12112508)
        439769.00   3765490.00        3.05171  (12112508)
439799.00   3765490.00        3.21528  (12011417)
        439829.00   3765490.00        3.27223  (12011417)
439859.00   3765490.00        3.19872  (12011417)
        439889.00   3765490.00        3.17488  (12011808)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439674.00	3765310.00	8.94148	(13121718)	439679.00	3765310.00	8.94050	(13121718)
439684.00	3765310.00	8.93483	(13121718)	439689.00	3765310.00	8.93321	(13121718)
439694.00	3765310.00	8.92577	(13121718)	439699.00	3765310.00	8.91506	(13121718)
439704.00	3765310.00	8.90421	(13121718)	439709.00	3765310.00	8.89138	(13121718)
439714.00	3765310.00	8.88001	(13121718)	439719.00	3765310.00	8.86060	(13121718)
439729.00	3765310.00	8.82261	(13121718)	439734.00	3765310.00	8.80309	(13121718)
439739.00	3765310.00	8.77948	(13121718)	439744.00	3765310.00	8.75379	(13121718)
439749.00	3765310.00	8.72696	(13121718)	439764.00	3765310.00	8.68617	(15111218)
439769.00	3765310.00	8.68414	(15111218)				

```
439774.00   3765310.00        8.68817  (15111218)
        439779.00   3765310.00        8.68386  (15111218)
439784.00   3765310.00        8.68202  (15111218)
        439789.00   3765310.00        8.67523  (15111218)
439794.00   3765310.00        8.69225  (13120808)
        439799.00   3765310.00        8.72730  (13120808)
439804.00   3765310.00        8.75566  (13120808)
        439809.00   3765310.00        8.78535  (13120808)
439814.00   3765310.00        8.81014  (13120808)
        439819.00   3765310.00        8.83316  (13120808)
439824.00   3765310.00        8.85418  (13120808)
        439829.00   3765310.00        8.87117  (13120808)
439839.00   3765310.00        8.89955  (13120808)
        439844.00   3765310.00        8.91113  (13120808)
439849.00   3765310.00        8.91809  (13120808)
        439854.00   3765310.00        8.92588  (13120808)
439859.00   3765310.00        8.92811  (13120808)
        439864.00   3765310.00        8.93035  (13120808)
439869.00   3765310.00        8.93298  (13120808)
        439874.00   3765310.00        8.93005  (13120808)
439879.00   3765310.00        8.92897  (13120808)
        439884.00   3765310.00        8.92496  (13120808)
439674.00   3765315.00        9.03918  (13121718)
        439679.00   3765315.00        9.03763  (13121718)
439684.00   3765315.00        9.03629  (13121718)
        439689.00   3765315.00        9.03005  (13121718)
439694.00   3765315.00        9.02871  (13121718)
        439699.00   3765315.00        9.02239  (13121718)
439704.00   3765315.00        9.01347  (13121718)
        439709.00   3765315.00        9.00067  (13121718)
439714.00   3765315.00        8.98900  (13121718)
        439719.00   3765315.00        8.97613  (13121718)
439729.00   3765315.00        8.94189  (13121718)
        439734.00   3765315.00        8.92086  (13121718)
439739.00   3765315.00        8.90087  (13121718)
        439744.00   3765315.00        8.87702  (13121718)
439749.00   3765315.00        8.85274  (13121718)
        439764.00   3765315.00        8.76627  (13121718)
439769.00   3765315.00        8.77182  (15111218)
        439774.00   3765315.00        8.77024  (15111218)
439779.00   3765315.00        8.77321  (15111218)
        439784.00   3765315.00        8.76870  (15111218)
439789.00   3765315.00        8.76695  (15111218)
        439794.00   3765315.00        8.75913  (15111218)
439799.00   3765315.00        8.78610  (13120808)
        439804.00   3765315.00        8.82141  (13120808)
439809.00   3765315.00        8.84930  (13120808)
        439814.00   3765315.00        8.87809  (13120808)
439819.00   3765315.00        8.90272  (13120808)
        439824.00   3765315.00        8.92427  (13120808)
439829.00   3765315.00        8.94451  (13120808)
        439839.00   3765315.00        8.97649  (13120808)
```

```
439844.00   3765315.00        8.98545  (13120808)
        439849.00   3765315.00        8.99980  (13120808)
439854.00   3765315.00        9.00300  (13120808)
        439859.00   3765315.00        9.01028  (13120808)
439864.00   3765315.00        9.01213  (13120808)
        439869.00   3765315.00        9.01432  (13120808)
439874.00   3765315.00        9.01372  (13120808)
        439879.00   3765315.00        9.01239  (13120808)
439884.00   3765315.00        9.00964  (13120808)
        439674.00   3765320.00        9.12814  (13121718)
439679.00   3765320.00        9.13375  (13121718)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439684.00	3765320.00	9.13441	(13121718)
439689.00	3765320.00	9.13530	(13121718)
439694.00	3765320.00	9.12838	(13121718)
439699.00	3765320.00	9.12662	(13121718)
439704.00	3765320.00	9.12038	(13121718)
439709.00	3765320.00	9.11411	(13121718)
439714.00	3765320.00	9.10012	(13121718)
439719.00	3765320.00	9.08896	(13121718)
439729.00	3765320.00	9.06023	(13121718)
439734.00	3765320.00	9.04349	(13121718)
439739.00	3765320.00	9.02050	(13121718)
439744.00	3765320.00	9.00233	(13121718)
439749.00	3765320.00	8.97523	(13121718)
439764.00	3765320.00	8.89798	(13121718)
439769.00	3765320.00	8.86462	(13121718)
439774.00	3765320.00	8.85803	(15111218)
439779.00	3765320.00	8.85846	(15111218)

439784.00 3765320.00 8.85890 (15111218)
439789.00 3765320.00 8.85536 (15111218)
439794.00 3765320.00 8.85261 (15111218)
439799.00 3765320.00 8.84882 (13120808)
439804.00 3765320.00 8.88285 (13120808)
439809.00 3765320.00 8.91604 (13120808)
439814.00 3765320.00 8.94572 (13120808)
439819.00 3765320.00 8.97322 (13120808)
439824.00 3765320.00 8.99619 (13120808)
439829.00 3765320.00 9.01769 (13120808)
439839.00 3765320.00 9.05156 (13120808)
439844.00 3765320.00 9.06728 (13120808)
439849.00 3765320.00 9.07511 (13120808)
439854.00 3765320.00 9.08633 (13120808)
439859.00 3765320.00 9.09094 (13120808)
439864.00 3765320.00 9.09705 (13120808)
439869.00 3765320.00 9.09624 (13120808)
439874.00 3765320.00 9.10102 (13120808)
439879.00 3765320.00 9.09664 (13120808)
439884.00 3765320.00 9.09433 (13120808)
439674.00 3765325.00 9.22503 (13121718)
439679.00 3765325.00 9.22667 (13121718)
439684.00 3765325.00 9.23134 (13121718)
439689.00 3765325.00 9.23183 (13121718)
439694.00 3765325.00 9.23563 (13121718)
439699.00 3765325.00 9.22961 (13121718)
439704.00 3765325.00 9.22628 (13121718)
439709.00 3765325.00 9.21988 (13121718)
439714.00 3765325.00 9.21506 (13121718)
439719.00 3765325.00 9.20257 (13121718)
439729.00 3765325.00 9.17693 (13121718)
439734.00 3765325.00 9.16115 (13121718)
439739.00 3765325.00 9.14638 (13121718)
439744.00 3765325.00 9.12249 (13121718)
439749.00 3765325.00 9.10536 (13121718)
439754.00 3765325.00 9.07640 (13121718)
439769.00 3765325.00 9.00063 (13121718)
439774.00 3765325.00 8.96717 (13121718)
439779.00 3765325.00 8.94547 (15111218)
439784.00 3765325.00 8.94763 (15111218)
439789.00 3765325.00 8.94701 (15111218)
439794.00 3765325.00 8.94362 (15111218)
439799.00 3765325.00 8.93987 (15111218)
439804.00 3765325.00 8.94678 (13120808)
439809.00 3765325.00 8.98170 (13120808)
439814.00 3765325.00 9.01410 (13120808)
439819.00 3765325.00 9.04218 (13120808)
439824.00 3765325.00 9.07029 (13120808)
439829.00 3765325.00 9.09175 (13120808)
439839.00 3765325.00 9.13084 (13120808)
439844.00 3765325.00 9.14522 (13120808)
439849.00 3765325.00 9.15687 (13120808)

```
439854.00   3765325.00        9.16734  (13120808)
        439859.00   3765325.00        9.17544  (13120808)
439864.00   3765325.00        9.17833  (13120808)
        439869.00   3765325.00        9.18468  (13120808)
439874.00   3765325.00        9.18299  (13120808)
        439879.00   3765325.00        9.18563  (13120808)
439884.00   3765325.00        9.18167  (13120808)
        439674.00   3765330.00        9.31499  (13121718)
439679.00   3765330.00        9.32449  (13121718)
        439684.00   3765330.00        9.32822  (13121718)
439689.00   3765330.00        9.33091  (13121718)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439694.00	3765330.00	9.33231	(13121718)
439699.00	3765330.00	9.33632	(13121718)
439704.00	3765330.00	9.33353	(13121718)
439709.00	3765330.00	9.32912	(13121718)
439714.00	3765330.00	9.32208	(13121718)
439719.00	3765330.00	9.31717	(13121718)
439729.00	3765330.00	9.29529	(13121718)
439734.00	3765330.00	9.28039	(13121718)
439739.00	3765330.00	9.26525	(13121718)
439744.00	3765330.00	9.24978	(13121718)
439749.00	3765330.00	9.22825	(13121718)
439754.00	3765330.00	9.20907	(13121718)
439774.00	3765330.00	9.10432	(13121718)
439779.00	3765330.00	9.07245	(13121718)
439784.00	3765330.00	9.03967	(13121718)
439789.00	3765330.00	9.03886	(15111218)
439794.00	3765330.00	9.03770	(15111218)

```
439799.00   3765330.00        9.03418  (15111218)
        439804.00   3765330.00        9.02999  (15111218)
439809.00   3765330.00        9.04740  (13120808)
        439814.00   3765330.00        9.08173  (13120808)
439819.00   3765330.00        9.11449  (13120808)
        439824.00   3765330.00        9.14141  (13120808)
439829.00   3765330.00        9.16849  (13120808)
        439839.00   3765330.00        9.21077  (13120808)
439844.00   3765330.00        9.22419  (13120808)
        439849.00   3765330.00        9.24141  (13120808)
439854.00   3765330.00        9.24939  (13120808)
        439859.00   3765330.00        9.25990  (13120808)
439864.00   3765330.00        9.26573  (13120808)
        439869.00   3765330.00        9.26808  (13120808)
439874.00   3765330.00        9.27277  (13120808)
        439879.00   3765330.00        9.27143  (13120808)
439884.00   3765330.00        9.27345  (13120808)
        439674.00   3765335.00        9.40376  (13121718)
439679.00   3765335.00        9.41535  (13121718)
        439684.00   3765335.00        9.42371  (13121718)
439689.00   3765335.00        9.43325  (13121718)
        439694.00   3765335.00        9.43314  (13121718)
439699.00   3765335.00        9.43594  (13121718)
        439704.00   3765335.00        9.43787  (13121718)
439709.00   3765335.00        9.43862  (13121718)
        439714.00   3765335.00        9.43484  (13121718)
439719.00   3765335.00        9.42677  (13121718)
        439729.00   3765335.00        9.41189  (13121718)
439734.00   3765335.00        9.40325  (13121718)
        439739.00   3765335.00        9.38614  (13121718)
439744.00   3765335.00        9.37245  (13121718)
        439749.00   3765335.00        9.35455  (13121718)
439774.00   3765335.00        9.23815  (13121718)
        439779.00   3765335.00        9.21063  (13121718)
439784.00   3765335.00        9.17927  (13121718)
        439789.00   3765335.00        9.14569  (13121718)
439794.00   3765335.00        9.13157  (15111218)
        439839.00   3765335.00        9.28750  (13120808)
439844.00   3765335.00        9.30943  (13120808)
        439849.00   3765335.00        9.32147  (13120808)
439854.00   3765335.00        9.33722  (13120808)
        439859.00   3765335.00        9.34372  (13120808)
439864.00   3765335.00        9.35493  (13120808)
        439869.00   3765335.00        9.35750  (13120808)
439874.00   3765335.00        9.36097  (13120808)
        439879.00   3765335.00        9.36323  (13120808)
439884.00   3765335.00        9.36096  (13120808)
        439674.00   3765340.00        9.50005  (13121718)
439679.00   3765340.00        9.50542  (13121718)
        439684.00   3765340.00        9.51906  (13121718)
439689.00   3765340.00        9.52495  (13121718)
        439694.00   3765340.00        9.53822  (13121718)
```

```
439699.00   3765340.00        9.53942  (13121718)
        439704.00   3765340.00        9.54226  (13121718)
439709.00   3765340.00        9.54363  (13121718)
        439714.00   3765340.00        9.54437  (13121718)
439719.00   3765340.00        9.54418  (13121718)
        439729.00   3765340.00        9.53022  (13121718)
439734.00   3765340.00        9.51864  (13121718)
        439739.00   3765340.00        9.51219  (13121718)
439744.00   3765340.00        9.49527  (13121718)
        439749.00   3765340.00        9.48192  (13121718)
439774.00   3765340.00        9.37430  (13121718)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439779.00	3765340.00	9.34613	(13121718)
439784.00	3765340.00	9.31887	(13121718)
439789.00	3765340.00	9.28847	(13121718)
439794.00	3765340.00	9.25488	(13121718)
439839.00	3765340.00	9.37021	(13120808)
439844.00	3765340.00	9.38947	(13120808)
439849.00	3765340.00	9.40906	(13120808)
439854.00	3765340.00	9.41998	(13120808)
439859.00	3765340.00	9.43525	(13120808)
439864.00	3765340.00	9.44020	(13120808)
439869.00	3765340.00	9.45032	(13120808)
439874.00	3765340.00	9.45071	(13120808)
439879.00	3765340.00	9.45519	(13120808)
439884.00	3765340.00	9.45354	(13120808)
439674.00	3765345.00	9.66384	(12011417)
439679.00	3765345.00	9.63153	(12011417)
439684.00	3765345.00	9.61150	(13121718)

439689.00 3765345.00 9.62417 (13121718)
439694.00 3765345.00 9.63097 (13121718)
439699.00 3765345.00 9.64244 (13121718)
439704.00 3765345.00 9.64925 (13121718)
439709.00 3765345.00 9.65068 (13121718)
439714.00 3765345.00 9.65241 (13121718)
439719.00 3765345.00 9.65149 (13121718)
439729.00 3765345.00 9.64553 (13121718)
439734.00 3765345.00 9.64037 (13121718)
439739.00 3765345.00 9.62896 (13121718)
439744.00 3765345.00 9.62252 (13121718)
439749.00 3765345.00 9.60700 (13121718)
439774.00 3765345.00 9.51112 (13121718)
439779.00 3765345.00 9.48562 (13121718)
439784.00 3765345.00 9.45781 (13121718)
439789.00 3765345.00 9.42848 (13121718)
439794.00 3765345.00 9.40024 (13121718)
439839.00 3765345.00 9.45220 (13120808)
439844.00 3765345.00 9.47446 (13120808)
439849.00 3765345.00 9.49284 (13120808)
439854.00 3765345.00 9.51067 (13120808)
439859.00 3765345.00 9.52059 (13120808)
439864.00 3765345.00 9.53340 (13120808)
439869.00 3765345.00 9.53770 (13120808)
439874.00 3765345.00 9.54793 (13120808)
439879.00 3765345.00 9.54551 (13120808)
439884.00 3765345.00 9.55114 (13120808)
439674.00 3765350.00 9.83553 (12011417)
439679.00 3765350.00 9.80280 (12011417)
439684.00 3765350.00 9.77127 (12011417)
439689.00 3765350.00 9.73434 (12011417)
439694.00 3765350.00 9.73173 (13121718)
439699.00 3765350.00 9.74020 (13121718)
439704.00 3765350.00 9.74901 (13121718)
439709.00 3765350.00 9.75914 (13121718)
439714.00 3765350.00 9.76254 (13121718)
439719.00 3765350.00 9.76421 (13121718)
439729.00 3765350.00 9.76455 (13121718)
439734.00 3765350.00 9.75865 (13121718)
439739.00 3765350.00 9.75411 (13121718)
439744.00 3765350.00 9.74184 (13121718)
439749.00 3765350.00 9.73615 (13121718)
439774.00 3765350.00 9.64661 (13121718)
439779.00 3765350.00 9.62550 (13121718)
439784.00 3765350.00 9.59936 (13121718)
439789.00 3765350.00 9.57233 (13121718)
439794.00 3765350.00 9.54163 (13121718)
439839.00 3765350.00 9.53385 (13120808)
439844.00 3765350.00 9.55981 (13120808)
439849.00 3765350.00 9.57990 (13120808)
439854.00 3765350.00 9.59857 (13120808)
439859.00 3765350.00 9.61282 (13120808)

```
439864.00   3765350.00        9.62323  (13120808)
        439869.00   3765350.00        9.63467  (13120808)
439874.00   3765350.00        9.63762  (13120808)
        439879.00   3765350.00        9.64592  (13120808)
439884.00   3765350.00        9.64349  (13120808)
        439674.00   3765355.00       10.00764  (12011417)
439679.00   3765355.00        9.97835  (12011417)
        439684.00   3765355.00        9.94514  (12011417)
439689.00   3765355.00        9.91356  (12011417)
        439694.00   3765355.00        9.87769  (12011417)
439699.00   3765355.00        9.84372  (13121718)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439704.00	3765355.00	9.85223	(13121718)
439709.00	3765355.00	9.85977	(13121718)
439714.00	3765355.00	9.86990	(13121718)
439719.00	3765355.00	9.87662	(13121718)
439729.00	3765355.00	9.87707	(13121718)
439734.00	3765355.00	9.87816	(13121718)
439739.00	3765355.00	9.87317	(13121718)
439744.00	3765355.00	9.87112	(13121718)
439749.00	3765355.00	9.85683	(13121718)
439774.00	3765355.00	9.78689	(13121718)
439779.00	3765355.00	9.76337	(13121718)
439784.00	3765355.00	9.74077	(13121718)
439789.00	3765355.00	9.71653	(13121718)
439794.00	3765355.00	9.68821	(13121718)
439839.00	3765355.00	9.62016	(13120808)
439844.00	3765355.00	9.64352	(13120808)
439849.00	3765355.00	9.67010	(13120808)

439854.00 3765355.00 9.68768 (13120808)
439859.00 3765355.00 9.70604 (13120808)
439864.00 3765355.00 9.71827 (13120808)
439869.00 3765355.00 9.72810 (13120808)
439874.00 3765355.00 9.73576 (13120808)
439879.00 3765355.00 9.73993 (13120808)
439884.00 3765355.00 9.74462 (13120808)
439674.00 3765360.00 10.17741 (12011417)
439679.00 3765360.00 10.15089 (12011417)
439684.00 3765360.00 10.12424 (12011417)
439689.00 3765360.00 10.09134 (12011417)
439694.00 3765360.00 10.05977 (12011417)
439699.00 3765360.00 10.02296 (12011417)
439704.00 3765360.00 9.98898 (12011417)
439709.00 3765360.00 9.96773 (13121718)
439714.00 3765360.00 9.97495 (13121718)
439719.00 3765360.00 9.98379 (13121718)
439729.00 3765360.00 9.99670 (13121718)
439734.00 3765360.00 9.99524 (13121718)
439739.00 3765360.00 9.99485 (13121718)
439744.00 3765360.00 9.99002 (13121718)
439749.00 3765360.00 9.98880 (13121718)
439774.00 3765360.00 9.92475 (13121718)
439779.00 3765360.00 9.90480 (13121718)
439784.00 3765360.00 9.88403 (13121718)
439789.00 3765360.00 9.85797 (13121718)
439794.00 3765360.00 9.83540 (13121718)
439799.00 3765360.00 9.80707 (13121718)
439804.00 3765360.00 9.77763 (13121718)
439809.00 3765360.00 9.74467 (13121718)
439814.00 3765360.00 9.71312 (13121718)
439839.00 3765360.00 9.70255 (13120808)
439844.00 3765360.00 9.73420 (13120808)
439849.00 3765360.00 9.75627 (13120808)
439854.00 3765360.00 9.78198 (13120808)
439859.00 3765360.00 9.79718 (13120808)
439864.00 3765360.00 9.81465 (13120808)
439869.00 3765360.00 9.82399 (13120808)
439874.00 3765360.00 9.83508 (13120808)
439879.00 3765360.00 9.83967 (13120808)
439884.00 3765360.00 9.84467 (13120808)
439674.00 3765365.00 10.34743 (12011417)
439679.00 3765365.00 10.32308 (12011417)
439684.00 3765365.00 10.29762 (12011417)
439689.00 3765365.00 10.27090 (12011417)
439694.00 3765365.00 10.24097 (12011417)
439699.00 3765365.00 10.20991 (12011417)
439704.00 3765365.00 10.17326 (12011417)
439709.00 3765365.00 10.13803 (12011417)
439714.00 3765365.00 10.09932 (12011417)
439719.00 3765365.00 10.09419 (13121718)
439729.00 3765365.00 10.10902 (13121718)

```
439734.00   3765365.00       10.11523  (13121718)
        439739.00   3765365.00       10.11771  (13121718)
439744.00   3765365.00       10.11468  (13121718)
        439749.00   3765365.00       10.11157  (13121718)
439774.00   3765365.00       10.06334  (13121718)
        439779.00   3765365.00       10.04699  (13121718)
439784.00   3765365.00       10.02666  (13121718)
        439789.00   3765365.00       10.00601  (13121718)
439794.00   3765365.00        9.98015  (13121718)
        439799.00   3765365.00        9.95621  (13121718)
439804.00   3765365.00        9.92842  (13121718)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439809.00	3765365.00	9.89927	(13121718)	439814.00	3765365.00	9.86673	(13121718)
439839.00	3765365.00	9.78870	(13120808)	439844.00	3765365.00	9.82029	(13120808)
439849.00	3765365.00	9.85078	(13120808)	439854.00	3765365.00	9.86985	(13120808)
439859.00	3765365.00	9.89598	(13120808)	439864.00	3765365.00	9.90910	(13120808)
439869.00	3765365.00	9.92654	(13120808)	439874.00	3765365.00	9.93269	(13120808)
439879.00	3765365.00	9.94394	(13120808)	439884.00	3765365.00	9.94562	(13120808)
439674.00	3765370.00	10.51604	(12011417)	439679.00	3765370.00	10.49661	(12011417)
439684.00	3765370.00	10.47321	(12011417)	439689.00	3765370.00	10.44746	(12011417)
439694.00	3765370.00	10.42170	(12011417)				

439699.00   3765370.00   10.39188 (12011417)
        439704.00   3765370.00   10.36392 (12011417)
439709.00   3765370.00   10.32728 (12011417)
        439714.00   3765370.00   10.29128 (12011417)
439719.00   3765370.00   10.25223 (12011417)
        439729.00   3765370.00   10.22173 (13121718)
439734.00   3765370.00   10.23106 (13121718)
        439739.00   3765370.00   10.23506 (13121718)
439744.00   3765370.00   10.24200 (13121718)
        439749.00   3765370.00   10.23837 (13121718)
439774.00   3765370.00   10.20165 (13121718)
        439779.00   3765370.00   10.18818 (13121718)
439784.00   3765370.00   10.17097 (13121718)
        439789.00   3765370.00   10.15102 (13121718)
439794.00   3765370.00   10.13070 (13121718)
        439799.00   3765370.00   10.10542 (13121718)
439804.00   3765370.00   10.07956 (13121718)
        439809.00   3765370.00   10.05217 (13121718)
439814.00   3765370.00   10.02353 (13121718)
        439839.00   3765370.00   9.87527 (13120808)
439844.00   3765370.00   9.91124 (13120808)
        439849.00   3765370.00   9.94014 (13120808)
439854.00   3765370.00   9.96941 (13120808)
        439859.00   3765370.00   9.98867 (13120808)
439864.00   3765370.00   10.01250 (13120808)
        439869.00   3765370.00   10.02154 (13120808)
439874.00   3765370.00   10.03980 (13120808)
        439879.00   3765370.00   10.04291 (13120808)
439884.00   3765370.00   10.05321 (13120808)
        439674.00   3765375.00   10.68346 (12011417)
439679.00   3765375.00   10.66625 (12011417)
        439684.00   3765375.00   10.64798 (12011417)
439689.00   3765375.00   10.62767 (12011417)
        439694.00   3765375.00   10.60197 (12011417)
439699.00   3765375.00   10.57563 (12011417)
        439704.00   3765375.00   10.54655 (12011417)
439709.00   3765375.00   10.51844 (12011417)
        439714.00   3765375.00   10.48419 (12011417)
439719.00   3765375.00   10.44960 (12011417)
        439729.00   3765375.00   10.37178 (12011417)
439734.00   3765375.00   10.34693 (13121718)
        439739.00   3765375.00   10.35714 (13121718)
439744.00   3765375.00   10.35872 (13121718)
        439749.00   3765375.00   10.36808 (13121718)
439754.00   3765375.00   10.36551 (13121718)
        439774.00   3765375.00   10.34259 (13121718)
439779.00   3765375.00   10.33022 (13121718)
        439784.00   3765375.00   10.31541 (13121718)
439789.00   3765375.00   10.29875 (13121718)
        439794.00   3765375.00   10.27827 (13121718)
439799.00   3765375.00   10.25799 (13121718)
        439804.00   3765375.00   10.23356 (13121718)

```
439809.00   3765375.00       10.20762  (13121718)
        439814.00   3765375.00       10.17881  (13121718)
439839.00   3765375.00       10.01055  (13121718)
        439844.00   3765375.00       10.00021  (13120808)
439849.00   3765375.00       10.03583  (13120808)
        439854.00   3765375.00       10.06391  (13120808)
439859.00   3765375.00       10.08934  (13120808)
        439864.00   3765375.00       10.10770  (13120808)
439869.00   3765375.00       10.13095  (13120808)
        439874.00   3765375.00       10.13859  (13120808)
439879.00   3765375.00       10.15390  (13120808)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439884.00	3765375.00	10.15667	(13120808)
439774.00	3765380.00	10.48209	(13121718)
439779.00	3765380.00	10.47275	(13121718)
439784.00	3765380.00	10.46168	(13121718)
439789.00	3765380.00	10.44625	(13121718)
439794.00	3765380.00	10.42911	(13121718)
439799.00	3765380.00	10.40881	(13121718)
439804.00	3765380.00	10.38769	(13121718)
439809.00	3765380.00	10.36521	(13121718)
439814.00	3765380.00	10.33736	(13121718)
439769.00	3765385.00	10.62889	(13121718)
439819.00	3765385.00	10.47046	(13121718)
439769.00	3765400.00	11.08992	(12011417)
439844.00	3765400.00	10.82953	(13121718)
439849.00	3765400.00	10.80113	(13121718)
439674.00	3765405.00	11.65648	(12011417)
439714.00	3765405.00	11.63336	(12011417)

439719.00   3765405.00   11.61922 (12011417)
        439734.00   3765405.00   11.55684 (12011417)
439749.00   3765405.00   11.47242 (12011417)
        439754.00   3765405.00   11.43747 (12011417)
439774.00   3765405.00   11.27399 (12011417)
        439779.00   3765405.00   11.22461 (12011417)
439784.00   3765405.00   11.19996 (13121718)
        439789.00   3765405.00   11.19652 (13121718)
439794.00   3765405.00   11.19695 (13121718)
        439799.00   3765405.00   11.18754 (13121718)
439804.00   3765405.00   11.18218 (13121718)
        439809.00   3765405.00   11.16666 (13121718)
439814.00   3765405.00   11.15439 (13121718)
        439819.00   3765405.00   11.13350 (13121718)
439824.00   3765405.00   11.11569 (13121718)
        439829.00   3765405.00   11.09116 (13121718)
439834.00   3765405.00   11.06821 (13121718)
        439839.00   3765405.00   11.03729 (13121718)
439844.00   3765405.00   11.00937 (13121718)
        439849.00   3765405.00   10.97614 (13121718)
439854.00   3765405.00   10.94794 (13121718)
        439859.00   3765405.00   10.90662 (13121718)
439674.00   3765410.00   11.81067 (12011417)
        439679.00   3765410.00   11.82048 (12011417)
439684.00   3765410.00   11.83035 (12011417)
        439689.00   3765410.00   11.83391 (12011417)
439694.00   3765410.00   11.83754 (12011417)
        439699.00   3765410.00   11.83612 (12011417)
439704.00   3765410.00   11.83657 (12011417)
        439709.00   3765410.00   11.83114 (12011417)
439714.00   3765410.00   11.82337 (12011417)
        439719.00   3765410.00   11.81115 (12011417)
439729.00   3765410.00   11.78394 (12011417)
        439734.00   3765410.00   11.76517 (12011417)
439739.00   3765410.00   11.74108 (12011417)
        439744.00   3765410.00   11.71480 (12011417)
439749.00   3765410.00   11.68771 (12011417)
        439774.00   3765410.00   11.50628 (12011417)
439779.00   3765410.00   11.46185 (12011417)
        439784.00   3765410.00   11.41352 (12011417)
439789.00   3765410.00   11.36379 (12011417)
        439794.00   3765410.00   11.34994 (13121718)
439799.00   3765410.00   11.35075 (13121718)
        439804.00   3765410.00   11.34078 (13121718)
439809.00   3765410.00   11.33446 (13121718)
        439814.00   3765410.00   11.31985 (13121718)
439819.00   3765410.00   11.30705 (13121718)
        439824.00   3765410.00   11.28648 (13121718)
439829.00   3765410.00   11.26699 (13121718)
        439834.00   3765410.00   11.24343 (13121718)
439839.00   3765410.00   11.21957 (13121718)
        439844.00   3765410.00   11.18921 (13121718)

```
439849.00   3765410.00       11.16043  (13121718)
        439854.00   3765410.00       11.12626  (13121718)
439859.00   3765410.00       11.09775  (13121718)
        439674.00   3765415.00       11.96369  (12011417)
439679.00   3765415.00       11.97772  (12011417)
        439684.00   3765415.00       11.98848  (12011417)
439689.00   3765415.00       12.00076  (12011417)
        439694.00   3765415.00       12.00747  (12011417)
439699.00   3765415.00       12.01286  (12011417)
        439704.00   3765415.00       12.01303  (12011417)
439709.00   3765415.00       12.01363  (12011417)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439714.00	3765415.00	12.01053	(12011417)	439719.00	3765415.00	12.00534	(12011417)
439729.00	3765415.00	11.98286	(12011417)	439734.00	3765415.00	11.96791	(12011417)
439739.00	3765415.00	11.95066	(12011417)	439744.00	3765415.00	11.93025	(12011417)
439749.00	3765415.00	11.90603	(12011417)	439774.00	3765415.00	11.73861	(12011417)
439779.00	3765415.00	11.69719	(12011417)	439784.00	3765415.00	11.65448	(12011417)
439789.00	3765415.00	11.60738	(12011417)	439794.00	3765415.00	11.55669	(12011417)
439799.00	3765415.00	11.50820	(13121718)	439804.00	3765415.00	11.50779	(13121718)
439809.00	3765415.00	11.49801	(13121718)	439814.00	3765415.00	11.49110	(13121718)
439819.00	3765415.00	11.47787	(13121718)				

439824.00 3765415.00 11.46277 (13121718)
439829.00 3765415.00 11.44474 (13121718)
439834.00 3765415.00 11.42384 (13121718)
439839.00 3765415.00 11.39922 (13121718)
439844.00 3765415.00 11.37468 (13121718)
439849.00 3765415.00 11.34544 (13121718)
439854.00 3765415.00 11.31623 (13121718)
439859.00 3765415.00 11.28064 (13121718)
439674.00 3765420.00 12.11184 (12011417)
439679.00 3765420.00 12.13235 (12011417)
439684.00 3765420.00 12.14805 (12011417)
439689.00 3765420.00 12.16186 (12011417)
439694.00 3765420.00 12.17289 (12011417)
439699.00 3765420.00 12.18431 (12011417)
439704.00 3765420.00 12.19132 (12011417)
439709.00 3765420.00 12.19526 (12011417)
439714.00 3765420.00 12.19653 (12011417)
439719.00 3765420.00 12.19397 (12011417)
439729.00 3765420.00 12.18458 (12011417)
439734.00 3765420.00 12.17372 (12011417)
439739.00 3765420.00 12.15756 (12011417)
439744.00 3765420.00 12.14056 (12011417)
439749.00 3765420.00 12.12333 (12011417)
439774.00 3765420.00 11.97608 (12011417)
439779.00 3765420.00 11.93706 (12011417)
439784.00 3765420.00 11.89371 (12011417)
439789.00 3765420.00 11.85120 (12011417)
439794.00 3765420.00 11.80609 (12011417)
439799.00 3765420.00 11.75567 (12011417)
439804.00 3765420.00 11.70255 (12011417)
439809.00 3765420.00 11.66944 (13121718)
439814.00 3765420.00 11.66061 (13121718)
439819.00 3765420.00 11.65323 (13121718)
439824.00 3765420.00 11.63968 (13121718)
439829.00 3765420.00 11.62461 (13121718)
439834.00 3765420.00 11.60663 (13121718)
439839.00 3765420.00 11.58414 (13121718)
439844.00 3765420.00 11.56073 (13121718)
439849.00 3765420.00 11.53337 (13121718)
439854.00 3765420.00 11.50528 (13121718)
439859.00 3765420.00 11.47637 (13121718)
439674.00 3765425.00 12.26003 (12011417)
439679.00 3765425.00 12.28078 (12011417)
439684.00 3765425.00 12.30383 (12011417)
439689.00 3765425.00 12.32349 (12011417)
439694.00 3765425.00 12.33966 (12011417)
439699.00 3765425.00 12.35240 (12011417)
439704.00 3765425.00 12.36354 (12011417)
439709.00 3765425.00 12.37434 (12011417)
439714.00 3765425.00 12.38109 (12011417)
439719.00 3765425.00 12.38461 (12011417)
439729.00 3765425.00 12.38117 (12011417)

439734.00   3765425.00   12.37575 (12011417)
        439739.00   3765425.00   12.36891 (12011417)
439744.00   3765425.00   12.35445 (12011417)
        439749.00   3765425.00   12.33834 (12011417)
439774.00   3765425.00   12.21119 (12011417)
        439779.00   3765425.00   12.17760 (12011417)
439784.00   3765425.00   12.13929 (12011417)
        439789.00   3765425.00   12.09838 (12011417)
439794.00   3765425.00   12.05256 (12011417)
        439799.00   3765425.00   12.00804 (12011417)
439804.00   3765425.00   11.95903 (12011417)

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439809.00	3765425.00	11.90740	(12011417)
439814.00	3765425.00	11.85141	(12011417)
439819.00	3765425.00	11.82839	(13121718)
439824.00	3765425.00	11.81885	(13121718)
439829.00	3765425.00	11.80692	(13121718)
439834.00	3765425.00	11.79048	(13121718)
439839.00	3765425.00	11.77297	(13121718)
439844.00	3765425.00	11.75046	(13121718)
439849.00	3765425.00	11.72633	(13121718)
439854.00	3765425.00	11.69743	(13121718)
439859.00	3765425.00	11.66868	(13121718)
439674.00	3765430.00	12.40314	(12011417)
439679.00	3765430.00	12.43178	(12011417)
439684.00	3765430.00	12.45464	(12011417)
439689.00	3765430.00	12.47864	(12011417)
439694.00	3765430.00	12.50020	(12011417)
439699.00	3765430.00	12.52107	(12011417)

439704.00 3765430.00 12.53671 (12011417)
439709.00 3765430.00 12.55030 (12011417)
439714.00 3765430.00 12.56073 (12011417)
439719.00 3765430.00 12.57085 (12011417)
439729.00 3765430.00 12.57942 (12011417)
439734.00 3765430.00 12.57754 (12011417)
439739.00 3765430.00 12.57222 (12011417)
439744.00 3765430.00 12.56681 (12011417)
439749.00 3765430.00 12.55730 (12011417)
439774.00 3765430.00 12.45181 (12011417)
439779.00 3765430.00 12.41889 (12011417)
439784.00 3765430.00 12.38405 (12011417)
439789.00 3765430.00 12.34723 (12011417)
439794.00 3765430.00 12.30809 (12011417)
439799.00 3765430.00 12.26260 (12011417)
439804.00 3765430.00 12.21533 (12011417)
439809.00 3765430.00 12.16782 (12011417)
439814.00 3765430.00 12.11618 (12011417)
439819.00 3765430.00 12.06216 (12011417)
439824.00 3765430.00 12.00365 (12011417)
439829.00 3765430.00 11.99104 (13121718)
439834.00 3765430.00 11.97932 (13121718)
439839.00 3765430.00 11.96093 (13121718)
439844.00 3765430.00 11.94347 (13121718)
439849.00 3765430.00 11.92017 (13121718)
439854.00 3765430.00 11.89651 (13121718)
439859.00 3765430.00 11.86745 (13121718)
439674.00 3765435.00 12.54422 (12011417)
439679.00 3765435.00 12.57462 (12011417)
439684.00 3765435.00 12.60664 (12011417)
439689.00 3765435.00 12.63483 (12011417)
439694.00 3765435.00 12.66020 (12011417)
439699.00 3765435.00 12.68259 (12011417)
439704.00 3765435.00 12.70518 (12011417)
439709.00 3765435.00 12.72554 (12011417)
439714.00 3765435.00 12.74203 (12011417)
439719.00 3765435.00 12.75426 (12011417)
439729.00 3765435.00 12.77357 (12011417)
439734.00 3765435.00 12.77944 (12011417)
439739.00 3765435.00 12.78005 (12011417)
439744.00 3765435.00 12.77605 (12011417)
439749.00 3765435.00 12.77178 (12011417)
439774.00 3765435.00 12.68979 (12011417)
439779.00 3765435.00 12.66413 (12011417)
439784.00 3765435.00 12.63383 (12011417)
439789.00 3765435.00 12.59749 (12011417)
439794.00 3765435.00 12.56032 (12011417)
439799.00 3765435.00 12.52152 (12011417)
439804.00 3765435.00 12.47824 (12011417)
439809.00 3765435.00 12.42994 (12011417)
439814.00 3765435.00 12.38062 (12011417)
439819.00 3765435.00 12.33018 (12011417)

```
439824.00   3765435.00       12.27774  (12011417)
        439829.00   3765435.00       12.21980  (12011417)
439834.00   3765435.00       12.16899  (13121718)
        439839.00   3765435.00       12.15631  (13121718)
439844.00   3765435.00       12.13781  (13121718)
        439849.00   3765435.00       12.11921  (13121718)
439854.00   3765435.00       12.09444  (13121718)
        439859.00   3765435.00       12.07044  (13121718)
439674.00   3765440.00       12.68348  (12011417)
        439679.00   3765440.00       12.71943  (12011417)
439684.00   3765440.00       12.75099  (12011417)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439689.00	3765440.00	12.78369	(12011417)	439694.00	3765440.00	12.81642	(12011417)
439699.00	3765440.00	12.84554	(12011417)	439704.00	3765440.00	12.87172	(12011417)
439709.00	3765440.00	12.89413	(12011417)	439714.00	3765440.00	12.91795	(12011417)
439719.00	3765440.00	12.93695	(12011417)	439729.00	3765440.00	12.96619	(12011417)
439734.00	3765440.00	12.97614	(12011417)	439739.00	3765440.00	12.98288	(12011417)
439744.00	3765440.00	12.98752	(12011417)	439749.00	3765440.00	12.98770	(12011417)
439774.00	3765440.00	12.93082	(12011417)	439779.00	3765440.00	12.90715	(12011417)
439784.00	3765440.00	12.88140	(12011417)	439789.00	3765440.00	12.85318	(12011417)
439794.00	3765440.00	12.81932	(12011417)				

439799.00 3765440.00 12.78031 (12011417)
439804.00 3765440.00 12.74102 (12011417)
439809.00 3765440.00 12.69923 (12011417)
439814.00 3765440.00 12.65259 (12011417)
439819.00 3765440.00 12.60185 (12011417)
439824.00 3765440.00 12.54951 (12011417)
439829.00 3765440.00 12.49780 (12011417)
439834.00 3765440.00 12.44216 (12011417)
439839.00 3765440.00 12.38234 (12011417)
439844.00 3765440.00 12.33922 (13121718)
439849.00 3765440.00 12.32009 (13121718)
439854.00 3765440.00 12.30155 (13121718)
439859.00 3765440.00 12.27462 (13121718)
439674.00 3765445.00 12.81680 (12011417)
439679.00 3765445.00 12.85868 (12011417)
439684.00 3765445.00 12.89708 (12011417)
439689.00 3765445.00 12.93464 (12011417)
439694.00 3765445.00 12.96636 (12011417)
439699.00 3765445.00 13.00173 (12011417)
439704.00 3765445.00 13.03487 (12011417)
439709.00 3765445.00 13.06584 (12011417)
439714.00 3765445.00 13.09029 (12011417)
439719.00 3765445.00 13.11470 (12011417)
439729.00 3765445.00 13.15699 (12011417)
439734.00 3765445.00 13.17467 (12011417)
439739.00 3765445.00 13.18441 (12011417)
439744.00 3765445.00 13.19451 (12011417)
439749.00 3765445.00 13.19956 (12011417)
439774.00 3765445.00 13.17191 (12011417)
439779.00 3765445.00 13.15469 (12011417)
439784.00 3765445.00 13.13319 (12011417)
439789.00 3765445.00 13.10529 (12011417)
439794.00 3765445.00 13.07873 (12011417)
439799.00 3765445.00 13.04550 (12011417)
439804.00 3765445.00 13.00929 (12011417)
439809.00 3765445.00 12.96690 (12011417)
439814.00 3765445.00 12.92585 (12011417)
439819.00 3765445.00 12.87989 (12011417)
439824.00 3765445.00 12.83202 (12011417)
439829.00 3765445.00 12.77656 (12011417)
439834.00 3765445.00 12.72305 (12011417)
439839.00 3765445.00 12.66905 (12011417)
439844.00 3765445.00 12.61005 (12011417)
439849.00 3765445.00 12.54837 (12011417)
439854.00 3765445.00 12.50543 (13121718)
439859.00 3765445.00 12.48826 (13121718)
439674.00 3765450.00 12.95201 (12011417)
439679.00 3765450.00 12.99350 (12011417)
439684.00 3765450.00 13.03569 (12011417)
439689.00 3765450.00 13.07825 (12011417)
439694.00 3765450.00 13.11947 (12011417)
439699.00 3765450.00 13.15670 (12011417)

```
439704.00   3765450.00       13.19283  (12011417)
        439709.00   3765450.00       13.22685  (12011417)
439714.00   3765450.00       13.26305  (12011417)
        439719.00   3765450.00       13.29162  (12011417)
439729.00   3765450.00       13.34294  (12011417)
        439734.00   3765450.00       13.36661  (12011417)
439739.00   3765450.00       13.38574  (12011417)
        439744.00   3765450.00       13.40151  (12011417)
439749.00   3765450.00       13.41241  (12011417)
        439774.00   3765450.00       13.41167  (12011417)
439844.00   3765450.00       12.90162  (12011417)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439849.00	3765450.00	12.84264	(12011417)
439854.00	3765450.00	12.78386	(12011417)
439859.00	3765450.00	12.71746	(12011417)
439674.00	3765455.00	13.07859	(12011417)
439679.00	3765455.00	13.12857	(12011417)
439684.00	3765455.00	13.17463	(12011417)
439689.00	3765455.00	13.22047	(12011417)
439694.00	3765455.00	13.26257	(12011417)
439699.00	3765455.00	13.30822	(12011417)
439704.00	3765455.00	13.35069	(12011417)
439709.00	3765455.00	13.39095	(12011417)
439714.00	3765455.00	13.42753	(12011417)
439719.00	3765455.00	13.46341	(12011417)
439729.00	3765455.00	13.52922	(12011417)
439734.00	3765455.00	13.55774	(12011417)
439739.00	3765455.00	13.58010	(12011417)
439744.00	3765455.00	13.60463	(12011417)

439749.00   3765455.00   13.62156 (12011417)
        439844.00   3765455.00   13.20004 (12011417)
439849.00   3765455.00   13.14144 (12011417)
        439854.00   3765455.00   13.08185 (12011417)
439859.00   3765455.00   13.02378 (12011417)
        439674.00   3765460.00   13.20907 (12011417)
439679.00   3765460.00   13.25630 (12011417)
        439684.00   3765460.00   13.30850 (12011417)
439689.00   3765460.00   13.35790 (12011417)
        439694.00   3765460.00   13.40962 (12011417)
439699.00   3765460.00   13.45491 (12011417)
        439704.00   3765460.00   13.50071 (12011417)
439709.00   3765460.00   13.54820 (12011417)
        439714.00   3765460.00   13.59299 (12011417)
439719.00   3765460.00   13.63499 (12011417)
        439729.00   3765460.00   13.70893 (12011417)
439734.00   3765460.00   13.74422 (12011417)
        439739.00   3765460.00   13.77679 (12011417)
439744.00   3765460.00   13.80382 (12011417)
        439749.00   3765460.00   13.82873 (12011417)
439789.00   3765460.00   13.88150 (12011417)
        439794.00   3765460.00   13.86747 (12011417)
439799.00   3765460.00   13.84853 (12011417)
        439804.00   3765460.00   13.82710 (12011417)
439809.00   3765460.00   13.80000 (12011417)
        439814.00   3765460.00   13.76827 (12011417)
439819.00   3765460.00   13.73086 (12011417)
        439824.00   3765460.00   13.69449 (12011417)
439829.00   3765460.00   13.65109 (12011417)
        439844.00   3765460.00   13.50317 (12011417)
439849.00   3765460.00   13.44786 (12011417)
        439854.00   3765460.00   13.39352 (12011417)
439859.00   3765460.00   13.32807 (12011417)
        439674.00   3765465.00   13.33050 (12011417)
439679.00   3765465.00   13.38774 (12011417)
        439684.00   3765465.00   13.44034 (12011417)
439689.00   3765465.00   13.49441 (12011417)
        439694.00   3765465.00   13.54625 (12011417)
439699.00   3765465.00   13.60213 (12011417)
        439704.00   3765465.00   13.65338 (12011417)
439709.00   3765465.00   13.70190 (12011417)
        439714.00   3765465.00   13.74965 (12011417)
439719.00   3765465.00   13.79868 (12011417)
        439729.00   3765465.00   13.88805 (12011417)
439734.00   3765465.00   13.92754 (12011417)
        439739.00   3765465.00   13.96356 (12011417)
439744.00   3765465.00   14.00279 (12011417)
        439749.00   3765465.00   14.03205 (12011417)
439789.00   3765465.00   14.14005 (12011417)
        439794.00   3765465.00   14.13349 (12011417)
439799.00   3765465.00   14.12143 (12011417)
        439804.00   3765465.00   14.10280 (12011417)

```
439809.00   3765465.00       14.08134  (12011417)
        439814.00   3765465.00       14.05589  (12011417)
439819.00   3765465.00       14.02590  (12011417)
        439824.00   3765465.00       13.99000  (12011417)
439829.00   3765465.00       13.94851  (12011417)
        439844.00   3765465.00       13.81242  (12011417)
439849.00   3765465.00       13.75670  (12011417)
        439854.00   3765465.00       13.70362  (12011417)
439859.00   3765465.00       13.64823  (12011417)
        439674.00   3765470.00       13.45891  (12011417)
439679.00   3765470.00       13.51161  (12011417)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439684.00	3765470.00	13.57065	(12011417)	439689.00	3765470.00	13.62773	(12011417)
439694.00	3765470.00	13.68671	(12011417)	439699.00	3765470.00	13.74061	(12011417)
439704.00	3765470.00	13.79714	(12011417)	439709.00	3765470.00	13.85375	(12011417)
439714.00	3765470.00	13.90804	(12011417)	439719.00	3765470.00	13.95979	(12011417)
439729.00	3765470.00	14.05988	(12011417)	439734.00	3765470.00	14.10904	(12011417)
439739.00	3765470.00	14.15265	(12011417)	439744.00	3765470.00	14.19454	(12011417)
439749.00	3765470.00	14.23191	(12011417)	439789.00	3765470.00	14.39889	(12011417)
439794.00	3765470.00	14.39989	(12011417)	439799.00	3765470.00	14.39319	(12011417)
439804.00	3765470.00	14.38398	(12011417)				

439809.00   3765470.00   14.36819 (12011417)
        439814.00   3765470.00   14.34525 (12011417)
439819.00   3765470.00   14.32104 (12011417)
        439824.00   3765470.00   14.29061 (12011417)
439829.00   3765470.00   14.25802 (12011417)
        439844.00   3765470.00   14.12716 (12011417)
439849.00   3765470.00   14.07935 (12011417)
        439854.00   3765470.00   14.02467 (12011417)
439859.00   3765470.00   13.96632 (12011417)
        439674.00   3765475.00   13.57954 (12011417)
439679.00   3765475.00   13.63871 (12011417)
        439684.00   3765475.00   13.70117 (12011417)
439689.00   3765475.00   13.75717 (12011417)
        439694.00   3765475.00   13.82043 (12011417)
439699.00   3765475.00   13.88045 (12011417)
        439704.00   3765475.00   13.94273 (12011417)
439709.00   3765475.00   13.99899 (12011417)
        439714.00   3765475.00   14.05860 (12011417)
439719.00   3765475.00   14.11780 (12011417)
        439729.00   3765475.00   14.23062 (12011417)
439734.00   3765475.00   14.28044 (12011417)
        439739.00   3765475.00   14.33639 (12011417)
439744.00   3765475.00   14.38245 (12011417)
        439749.00   3765475.00   14.43233 (12011417)
439754.00   3765475.00   14.47161 (12011417)
        439789.00   3765475.00   14.65984 (12011417)
439794.00   3765475.00   14.66625 (12011417)
        439799.00   3765475.00   14.66933 (12011417)
439804.00   3765475.00   14.66463 (12011417)
        439809.00   3765475.00   14.65546 (12011417)
439814.00   3765475.00   14.64267 (12011417)
        439819.00   3765475.00   14.62115 (12011417)
439824.00   3765475.00   14.59620 (12011417)
        439829.00   3765475.00   14.56358 (12011417)
439269.00   3764900.00   5.23970 (12010217)
        439369.00   3764900.00   5.40494 (12010217)
439469.00   3764900.00   5.34940 (12010217)
        439569.00   3764900.00   5.24901 (13120808)
439669.00   3764900.00   5.24749 (12010217)
        439769.00   3764900.00   5.37724 (12010217)
439869.00   3764900.00   5.44881 (12010217)
        439969.00   3764900.00   5.30822 (12010217)
440069.00   3764900.00   5.04877 (15010717)
        440169.00   3764900.00   5.24369 (15010717)
440269.00   3764900.00   5.33691 (15010717)
        439269.00   3765000.00   5.62687 (12010217)
439369.00   3765000.00   5.91815 (12010217)
        439469.00   3765000.00   5.89876 (12010217)
439569.00   3765000.00   5.73761 (12010217)
        439669.00   3765000.00   5.81925 (13120808)
439769.00   3765000.00   5.82199 (12010217)
        439869.00   3765000.00   5.98918 (12010217)

```
439969.00   3765000.00        5.94235  (12010217)
        440069.00   3765000.00        5.69558  (15010717)
440169.00   3765000.00        5.81519  (15010717)
        440269.00   3765000.00        5.87200  (15010717)
439269.00   3765100.00        6.33489  (13121718)
        439369.00   3765100.00        6.53585  (12010217)
439469.00   3765100.00        6.60071  (12010217)
        439569.00   3765100.00        6.40722  (12010217)
439669.00   3765100.00        6.41884  (13120808)
        439769.00   3765100.00        6.52057  (13120808)
439869.00   3765100.00        6.63166  (12010217)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439969.00	3765100.00	6.68793	(12010217)	440069.00	3765100.00	6.46162	(12010217)
440169.00	3765100.00	6.48147	(15010717)	440269.00	3765100.00	6.53289	(15010717)
439269.00	3765200.00	7.56141	(12011417)	439369.00	3765200.00	7.39246	(12011417)
439469.00	3765200.00	7.50361	(12010217)	439569.00	3765200.00	7.32720	(12010217)
439669.00	3765200.00	7.17737	(15111218)	439769.00	3765200.00	7.42789	(13120808)
439869.00	3765200.00	7.43094	(12010217)	439969.00	3765200.00	7.62070	(12010217)
440069.00	3765200.00	7.48094	(12010217)	440169.00	3765200.00	7.33625	(15010717)
440269.00	3765200.00	7.40953	(15010717)	439269.00	3765300.00	8.93236	(12011417)
439369.00	3765300.00	8.94140	(12011417)				

```
439469.00   3765300.00        9.01623  (12011417)
        439569.00   3765300.00        8.86352  (12011417)
439669.00   3765300.00        8.75374  (13121718)
        439769.00   3765300.00        8.52193  (15111218)
439869.00   3765300.00        8.77214  (13120808)
        439969.00   3765300.00        8.89562  (12010217)
440069.00   3765300.00        8.81503  (12010217)
        440169.00   3765300.00        8.57046  (15010717)
440269.00   3765300.00        8.62552  (15010717)
        439269.00   3765400.00       10.99166  (12011417)
439369.00   3765400.00       10.70909  (12011417)
        439469.00   3765400.00       10.71917  (12011417)
439569.00   3765400.00       11.11706  (12011417)
        439669.00   3765400.00       11.49530  (12011417)
439769.00   3765400.00       11.08992  (12011417)
        439869.00   3765400.00       10.67406  (13120808)
439969.00   3765400.00       10.85775  (12010217)
        440069.00   3765400.00       10.78214  (12010217)
440169.00   3765400.00       10.55563  (12010217)
        440269.00   3765400.00       10.53546  (15113017)
439269.00   3765500.00       14.75567  (12011417)
        439369.00   3765500.00       14.40637  (12011417)
439469.00   3765500.00       13.76469  (12011417)
        439569.00   3765500.00       13.62256  (12010217)
439669.00   3765500.00       14.13475  (12011417)
        439769.00   3765500.00       15.65985  (12011417)
439869.00   3765500.00       15.98461  (12011417)
        439969.00   3765500.00       14.61442  (12011417)
440069.00   3765500.00       14.30474  (12010217)
        440169.00   3765500.00       14.03692  (15113017)
440269.00   3765500.00       14.09782  (15011517)
        439269.00   3765600.00       20.99381  (12111318)
439369.00   3765600.00       22.61056  (12011417)
        439469.00   3765600.00       22.44693  (12011417)
439569.00   3765600.00       21.29361  (12011417)
        439669.00   3765600.00       20.80445  (12010217)
439769.00   3765600.00       21.61761  (12111318)
        439869.00   3765600.00       25.71414  (12111318)
439969.00   3765600.00       28.44807  (12011417)
        440069.00   3765600.00       25.87661  (12011417)
440169.00   3765600.00       25.00441  (15112218)
        440269.00   3765600.00       25.18364  (15112218)
439269.00   3765700.00       70.62459  (14120118)
        439369.00   3765700.00       76.31866  (16121918)
439469.00   3765700.00      102.62547  (14120118)
        439569.00   3765700.00       82.54507  (14120118)
439669.00   3765700.00       79.13982  (15112218)
        439769.00   3765700.00       79.26666  (15112218)
439869.00   3765700.00       79.69381  (14012117)
        439969.00   3765700.00       79.77437  (14012117)
440069.00   3765700.00       80.40730  (14012117)
        440169.00   3765700.00       81.28138  (14120118)
```

```
440269.00   3765700.00       87.66309  (14120118)
        439269.00   3765800.00       32.18092  (12111317)
439369.00   3765800.00       34.60051  (12111317)
        439469.00   3765800.00       34.20689  (12111317)
439569.00   3765800.00       34.49399  (12111317)
        439669.00   3765800.00       36.37473  (15120818)
439769.00   3765800.00       40.82967  (13111217)
        439869.00   3765800.00       54.28118  (13111217)
439969.00   3765800.00       35.13925  (14121418)
        440069.00   3765800.00       29.93616  (14121418)
440169.00   3765800.00       28.16121  (13111217)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
440269.00	3765800.00	29.68409	(13111217)	439269.00	3765900.00	18.20071	(15120818)
439369.00	3765900.00	18.29832	(15120818)	439469.00	3765900.00	18.20591	(15120818)
439569.00	3765900.00	18.00893	(15120818)	439669.00	3765900.00	17.84868	(15112217)
439769.00	3765900.00	17.64899	(13111217)	439869.00	3765900.00	19.00960	(13111217)
439969.00	3765900.00	19.24868	(13111217)	440069.00	3765900.00	18.57573	(12011717)
440169.00	3765900.00	17.33242	(12011717)	440269.00	3765900.00	16.43487	(12011717)
439649.00	3765310.00	8.93023	(13121718)	439679.00	3765310.00	8.94050	(13121718)
439709.00	3765310.00	8.89138	(13121718)	439739.00	3765310.00	8.77948	(13121718)
439769.00	3765310.00	8.68414	(15111218)				

```
439799.00   3765310.00        8.72730  (13120808)
        439829.00   3765310.00        8.87117  (13120808)
439859.00   3765310.00        8.92811  (13120808)
        439889.00   3765310.00        8.92130  (13120808)
439649.00   3765340.00        9.64874  (12011417)
        439679.00   3765340.00        9.50542  (13121718)
439709.00   3765340.00        9.54363  (13121718)
        439739.00   3765340.00        9.51219  (13121718)
439769.00   3765340.00        9.39935  (13121718)
        439799.00   3765340.00        9.22573  (15111218)
439829.00   3765340.00        9.32089  (13120808)
        439859.00   3765340.00        9.43525  (13120808)
439889.00   3765340.00        9.45381  (13120808)
        439649.00   3765370.00       10.58508  (12011417)
439679.00   3765370.00       10.49661  (12011417)
        439709.00   3765370.00       10.32728  (12011417)
439739.00   3765370.00       10.23506  (13121718)
        439769.00   3765370.00       10.21557  (13121718)
439799.00   3765370.00       10.10542  (13121718)
        439829.00   3765370.00        9.92290  (13121718)
439859.00   3765370.00        9.98867  (13120808)
        439889.00   3765370.00       10.05406  (13120808)
439649.00   3765400.00       11.45976  (12011417)
        439679.00   3765400.00       11.49920  (12011417)
439709.00   3765400.00       11.46006  (12011417)
        439739.00   3765400.00       11.32346  (12011417)
439769.00   3765400.00       11.08992  (12011417)
        439799.00   3765400.00       11.03246  (13121718)
439829.00   3765400.00       10.92070  (13121718)
        439859.00   3765400.00       10.73033  (13121718)
439889.00   3765400.00       10.74523  (13120808)
        439649.00   3765430.00       12.24732  (12011417)
439679.00   3765430.00       12.43178  (12011417)
        439709.00   3765430.00       12.55030  (12011417)
439739.00   3765430.00       12.57222  (12011417)
        439769.00   3765430.00       12.47901  (12011417)
439799.00   3765430.00       12.26260  (12011417)
        439829.00   3765430.00       11.99104  (13121718)
439859.00   3765430.00       11.86745  (13121718)
        439889.00   3765430.00       11.66666  (13121718)
439649.00   3765460.00       12.95483  (12011417)
        439679.00   3765460.00       13.25630  (12011417)
439709.00   3765460.00       13.54820  (12011417)
        439739.00   3765460.00       13.77679  (12011417)
439769.00   3765460.00       13.88940  (12011417)
        439799.00   3765460.00       13.84853  (12011417)
439829.00   3765460.00       13.65109  (12011417)
        439859.00   3765460.00       13.32807  (12011417)
439889.00   3765460.00       12.99695  (13121718)
        439649.00   3765490.00       13.65508  (12011417)
439679.00   3765490.00       14.01093  (12011417)
        439709.00   3765490.00       14.42691  (12011417)
```

```
439739.00   3765490.00       14.85917  (12011417)
        439769.00   3765490.00       15.24096  (12011417)
439799.00   3765490.00       15.48813  (12011417)
        439829.00   3765490.00       15.52416  (12011417)
439859.00   3765490.00       15.33214  (12011417)
        439889.00   3765490.00       15.00431  (12011417)
```

*** THE SUMMARY OF MAXIMUM PERIOD (43848 HRS) RESULTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

NETWORK GROUP ID	AVERAGE CONC	RECEPTOR (XR, YR, ZELEV, ZHILL, ZFLAG)	OF TYPE	GRID-ID
EXH	1ST HIGHEST VALUE IS	8.02168 AT (440269.00, 3765700.00, 289.00, 289.00, 0.00)	DC	
	2ND HIGHEST VALUE IS	7.56523 AT (439569.00, 3765700.00, 289.00, 289.00, 0.00)	DC	
	3RD HIGHEST VALUE IS	7.08246 AT (439469.00, 3765700.00, 289.00, 289.00, 0.00)	DC	
	4TH HIGHEST VALUE IS	6.77010 AT (440169.00, 3765700.00, 289.00, 289.00, 0.00)	DC	
	5TH HIGHEST VALUE IS	6.67604 AT (439669.00, 3765700.00, 289.00, 289.00, 0.00)	DC	
	6TH HIGHEST VALUE IS	6.28150 AT (439769.00, 3765700.00, 289.00, 289.00, 0.00)	DC	
	7TH HIGHEST VALUE IS	6.15807 AT (440069.00, 3765700.00, 289.00, 289.00, 0.00)	DC	
	8TH HIGHEST VALUE IS	5.91312 AT (439869.00, 3765700.00, 289.00, 289.00, 0.00)	DC	
	9TH HIGHEST VALUE IS	5.76266 AT (439969.00, 3765700.00, 289.00, 289.00, 0.00)	DC	
	10TH HIGHEST VALUE IS	4.51295 AT (439369.00, 3765700.00, 289.00, 289.00, 0.00)	DC	
EVAP	1ST HIGHEST VALUE IS	7.49644 AT (440269.00, 3765700.00, 289.00, 289.00, 0.00)	DC	
	2ND HIGHEST VALUE IS	5.84784 AT (440169.00, 3765700.00, 289.00, 289.00, 0.00)	DC	
	3RD HIGHEST VALUE IS	4.99170 AT (440069.00, 3765700.00, 289.00, 289.00, 0.00)	DC	
	4TH HIGHEST VALUE IS	4.33857 AT (439569.00, 3765700.00, 289.00, 289.00, 0.00)	DC	

```
          5TH HIGHEST VALUE IS       4.29164 AT (  439969.00,
3765700.00,   289.00,   289.00,    0.00)  DC
          6TH HIGHEST VALUE IS       4.26516 AT (  439669.00,
3765700.00,   289.00,   289.00,    0.00)  DC
          7TH HIGHEST VALUE IS       4.22817 AT (  439769.00,
3765700.00,   289.00,   289.00,    0.00)  DC
          8TH HIGHEST VALUE IS       4.15175 AT (  439869.00,
3765700.00,   289.00,   289.00,    0.00)  DC
          9TH HIGHEST VALUE IS       4.07275 AT (  439469.00,
3765700.00,   289.00,   289.00,    0.00)  DC
         10TH HIGHEST VALUE IS       3.86597 AT (  439869.00,
3765800.00,   289.00,   289.00,    0.00)  DC

FREEEXH   1ST HIGHEST VALUE IS       5.23339 AT (  440269.00,
3765700.00,   289.00,   289.00,    0.00)  DC
          2ND HIGHEST VALUE IS       5.20211 AT (  440169.00,
3765700.00,   289.00,   289.00,    0.00)  DC
          3RD HIGHEST VALUE IS       5.16995 AT (  440069.00,
3765700.00,   289.00,   289.00,    0.00)  DC
          4TH HIGHEST VALUE IS       5.11092 AT (  439969.00,
3765700.00,   289.00,   289.00,    0.00)  DC
          5TH HIGHEST VALUE IS       5.05422 AT (  439869.00,
3765700.00,   289.00,   289.00,    0.00)  DC
          6TH HIGHEST VALUE IS       4.98531 AT (  439769.00,
3765700.00,   289.00,   289.00,    0.00)  DC
          7TH HIGHEST VALUE IS       4.86807 AT (  439669.00,
3765700.00,   289.00,   289.00,    0.00)  DC
          8TH HIGHEST VALUE IS       4.72540 AT (  439569.00,
3765700.00,   289.00,   289.00,    0.00)  DC
          9TH HIGHEST VALUE IS       4.52490 AT (  439469.00,
3765700.00,   289.00,   289.00,    0.00)  DC
         10TH HIGHEST VALUE IS       4.32925 AT (  439369.00,
3765700.00,   289.00,   289.00,    0.00)  DC

ONOFFEXH  1ST HIGHEST VALUE IS       2.83983 AT (  439569.00,
3765700.00,   289.00,   289.00,    0.00)  DC
          2ND HIGHEST VALUE IS       2.78830 AT (  440269.00,
3765700.00,   289.00,   289.00,    0.00)  DC
          3RD HIGHEST VALUE IS       2.55756 AT (  439469.00,
3765700.00,   289.00,   289.00,    0.00)  DC
          4TH HIGHEST VALUE IS       2.19339 AT (  439869.00,
3765800.00,   289.00,   289.00,    0.00)  DC
          5TH HIGHEST VALUE IS       1.80797 AT (  439669.00,
3765700.00,   289.00,   289.00,    0.00)  DC
          6TH HIGHEST VALUE IS       1.56800 AT (  440169.00,
3765700.00,   289.00,   289.00,    0.00)  DC
          7TH HIGHEST VALUE IS       1.29619 AT (  439769.00,
3765700.00,   289.00,   289.00,    0.00)  DC
          8TH HIGHEST VALUE IS       1.25365 AT (  439769.00,
3765800.00,   289.00,   289.00,    0.00)  DC
          9TH HIGHEST VALUE IS       0.98812 AT (  440069.00,
3765700.00,   289.00,   289.00,    0.00)  DC
```

```
         10TH HIGHEST VALUE IS       0.85891 AT (  439869.00,
3765700.00,   289.00,   289.00,    0.00)  DC
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE SUMMARY OF MAXIMUM PERIOD (43848 HRS) RESULTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

NETWORK GROUP ID	AVERAGE CONC	RECEPTOR (XR, YR, ZELEV, ZHILL, ZFLAG)	OF TYPE	GRID-ID
FREEEVAP	1ST HIGHEST VALUE IS	3.91286 AT	(440269.00, 3765700.00, 289.00, 289.00, 0.00)	DC
	2ND HIGHEST VALUE IS	3.89913 AT	(440169.00, 3765700.00, 289.00, 289.00, 0.00)	DC
	3RD HIGHEST VALUE IS	3.87835 AT	(440069.00, 3765700.00, 289.00, 289.00, 0.00)	DC
	4TH HIGHEST VALUE IS	3.82780 AT	(439969.00, 3765700.00, 289.00, 289.00, 0.00)	DC
	5TH HIGHEST VALUE IS	3.77977 AT	(439869.00, 3765700.00, 289.00, 289.00, 0.00)	DC
	6TH HIGHEST VALUE IS	3.72200 AT	(439769.00, 3765700.00, 289.00, 289.00, 0.00)	DC
	7TH HIGHEST VALUE IS	3.61893 AT	(439669.00, 3765700.00, 289.00, 289.00, 0.00)	DC
	8TH HIGHEST VALUE IS	3.49248 AT	(439569.00, 3765700.00, 289.00, 289.00, 0.00)	DC
	9TH HIGHEST VALUE IS	3.31373 AT	(439469.00, 3765700.00, 289.00, 289.00, 0.00)	DC
	10TH HIGHEST VALUE IS	3.14515 AT	(439369.00, 3765700.00, 289.00, 289.00, 0.00)	DC
ONOFFEVA	1ST HIGHEST VALUE IS	3.58358 AT	(440269.00, 3765700.00, 289.00, 289.00, 0.00)	DC
	2ND HIGHEST VALUE IS	2.65078 AT	(439869.00, 3765800.00, 289.00, 289.00, 0.00)	DC
	3RD HIGHEST VALUE IS	1.94871 AT	(440169.00, 3765700.00, 289.00, 289.00, 0.00)	DC
	4TH HIGHEST VALUE IS	1.41727 AT	(439769.00, 3765800.00, 289.00, 289.00, 0.00)	DC

```
          5TH HIGHEST VALUE IS       1.11334 AT (  440069.00,
3765700.00,   289.00,   289.00,    0.00)  DC
          6TH HIGHEST VALUE IS       0.88694 AT (  439669.00,
3765800.00,   289.00,   289.00,    0.00)  DC
          7TH HIGHEST VALUE IS       0.88228 AT (  439969.00,
3765800.00,   289.00,   289.00,    0.00)  DC
          8TH HIGHEST VALUE IS       0.84610 AT (  439569.00,
3765700.00,   289.00,   289.00,    0.00)  DC
          9TH HIGHEST VALUE IS       0.75902 AT (  439469.00,
3765700.00,   289.00,   289.00,    0.00)  DC
         10TH HIGHEST VALUE IS       0.64623 AT (  439669.00,
3765700.00,   289.00,   289.00,    0.00)  DC

ALL       1ST HIGHEST VALUE IS      15.51813 AT (  440269.00,
3765700.00,   289.00,   289.00,    0.00)  DC
          2ND HIGHEST VALUE IS      12.61795 AT (  440169.00,
3765700.00,   289.00,   289.00,    0.00)  DC
          3RD HIGHEST VALUE IS      11.90380 AT (  439569.00,
3765700.00,   289.00,   289.00,    0.00)  DC
          4TH HIGHEST VALUE IS      11.15521 AT (  439469.00,
3765700.00,   289.00,   289.00,    0.00)  DC
          5TH HIGHEST VALUE IS      11.14977 AT (  440069.00,
3765700.00,   289.00,   289.00,    0.00)  DC
          6TH HIGHEST VALUE IS      10.94120 AT (  439669.00,
3765700.00,   289.00,   289.00,    0.00)  DC
          7TH HIGHEST VALUE IS      10.50967 AT (  439769.00,
3765700.00,   289.00,   289.00,    0.00)  DC
          8TH HIGHEST VALUE IS      10.06488 AT (  439869.00,
3765700.00,   289.00,   289.00,    0.00)  DC
          9TH HIGHEST VALUE IS      10.05430 AT (  439969.00,
3765700.00,   289.00,   289.00,    0.00)  DC
         10TH HIGHEST VALUE IS       8.05806 AT (  439869.00,
3765800.00,   289.00,   289.00,    0.00)  DC


 *** RECEPTOR TYPES:  GC = GRIDCART
                      GP = GRIDPOLR
                      DC = DISCCART
                      DP = DISCPOLR
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE SUMMARY OF HIGHEST 1-HR RESULTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

NETWORK GROUP ID	AVERAGE CONC	DATE (YYMMDDHH)	RECEPTOR (XR, YR, ZELEV, ZHILL, ZFLAG)	OF TYPE	GRID-ID
EXH HIGH 1ST HIGH VALUE IS	64.80176	ON 14012908:	AT (439469.00, 3765700.00, 289.00, 289.00, 0.00)	DC	
EVAP HIGH 1ST HIGH VALUE IS	44.95572	ON 14120118:	AT (440269.00, 3765700.00, 289.00, 289.00, 0.00)	DC	
FREEEXH HIGH 1ST HIGH VALUE IS	41.07030	ON 14101107:	AT (440269.00, 3765700.00, 289.00, 289.00, 0.00)	DC	
ONOFFEXH HIGH 1ST HIGH VALUE IS	29.56830	ON 14101007:	AT (439469.00, 3765700.00, 289.00, 289.00, 0.00)	DC	
FREEEVAP HIGH 1ST HIGH VALUE IS	36.07950	ON 14012117:	AT (440269.00, 3765700.00, 289.00, 289.00, 0.00)	DC	
ONOFFEVA HIGH 1ST HIGH VALUE IS	20.62437	ON 13111217:	AT (440269.00, 3765700.00, 289.00, 289.00, 0.00)	DC	
ALL HIGH 1ST HIGH VALUE IS	102.62547	ON 14120118:	AT (439469.00, 3765700.00, 289.00, 289.00, 0.00)	DC	

*** RECEPTOR TYPES: GC = GRIDCART
GP = GRIDPOLR
DC = DISCCART
DP = DISCPOLR

```
 *** AERMOD - VERSION 21112  ***   *** C:\Lakes\Ontario_PUD-
Legacy_Ops-HRA_20221004\Ontario_PUD-Legacy_Ops- ***
10/05/22
 *** AERMET - VERSION  16216 ***   ***
***        08:30:01

PAGE 251
 *** MODELOPTs:    NonDFAULT  CONC  FLAT  URBAN  ADJ_U*

 *** Message Summary : AERMOD Model Execution ***

  --------- Summary of Total Messages --------

 A Total of            0 Fatal Error Message(s)
 A Total of            2 Warning Message(s)
 A Total of         1628 Informational Message(s)

 A Total of        43848 Hours Were Processed

 A Total of         1278 Calm Hours Identified

 A Total of          350 Missing Hours Identified (  0.80
Percent)


    ******** FATAL ERROR MESSAGES ********
               ***  NONE  ***


    ********   WARNING MESSAGES   ********
 ME W186    2290       MEOPEN: THRESH_1MIN 1-min ASOS wind speed
threshold used           0.50
 ME W187    2290       MEOPEN: ADJ_U* Option for Stable Low Winds
used in AERMET

    ***********************************
    *** AERMOD Finishes Successfully ***
    ***********************************
```

```
** Lakes Environmental AERMOD MPI
**
**************************************
**
** AERMOD Input Produced by:
** AERMOD View Ver. 10.2.1
** Lakes Environmental Software Inc.
** Date: 10/5/2022
** File: C:\Lakes\Ontario_PUD-Legacy_Ops-HRA-DPM_20221005
\Ontario_PUD-Legacy_Ops-HRA-DPM_20221005.ADI
**
**************************************
**
**
**************************************
** AERMOD Control Pathway
**************************************
**
**
CO STARTING
   TITLEONE C:\Lakes\Ontario_PUD-Legacy_Ops-HRA_20221004
\Ontario_PUD-Legacy_Ops-
   MODELOPT CONC FLAT
   AVERTIME 1 PERIOD
   URBANOPT 2035210 San_Bernardio_County
   POLLUTID PM_10
   RUNORNOT RUN
   ERRORFIL Ontario_PUD-Legacy_Ops-HRA-DPM_20221005.err
CO FINISHED
**
**************************************
** AERMOD Source Pathway
**************************************
**
**
SO STARTING
** Source Location **
** Source ID - Type - X Coord. - Y Coord. **
** ---------------------------------------------------------------
-------
** Line Source Represented by Area Sources
** LINE AREA Source ID = ARLN01
** DESCRSRC SR 60 WB Freeway DPM Ex
** PREFIX
** Length of Side = 18.29
** Ratio = 10
** Vertical Dimension = 3.20
** Emission Rate = 0.0000307319
** Nodes = 5
** 440650.044, 3765727.326, 260.07, 3.40
** 440119.780, 3765731.800, 261.41, 3.40
** 439661.922, 3765732.944, 260.96, 3.40
```

```
** 439171.250, 3765734.039, 252.11, 3.40
** 438870.985, 3765732.123, 258.88, 3.40
** ------------------------------------------------------------
-------
   LOCATION A0000012     AREA     440650.121 3765736.471 0.0
   LOCATION A0000013     AREA     440473.366 3765737.962 0.0
   LOCATION A0000014     AREA     440296.612 3765739.454 0.0
   LOCATION A0000015     AREA     440119.803 3765740.945 0.0
   LOCATION A0000016     AREA     439967.184 3765741.327 0.0
   LOCATION A0000017     AREA     439814.564 3765741.708 0.0
   LOCATION A0000018     AREA     439661.942 3765742.089 0.0
   LOCATION A0000019     AREA     439498.385 3765742.454 0.0
   LOCATION A0000020     AREA     439334.828 3765742.819 0.0
   LOCATION A0000021     AREA     439171.191 3765743.184 0.0
   LOCATION A0000022     AREA     439021.059 3765742.226 0.0
** End of LINE AREA Source ID = ARLN01
** ------------------------------------------------------------
-------
** Line Source Represented by Area Sources
** LINE AREA Source ID = ARLN02
** DESCRSRC SR 60 EB Freeway DPM Ex
** PREFIX
** Length of Side = 18.29
** Ratio = 10
** Vertical Dimension = 3.20
** Emission Rate = 0.0000307481
** Nodes = 6
** 438872.217, 3765713.798, 258.90, 3.40
** 439571.019, 3765709.354, 260.53, 3.40
** 439744.944, 3765708.790, 261.20, 3.40
** 440090.503, 3765708.356, 261.51, 3.40
** 440405.345, 3765708.356, 260.60, 3.40
** 440650.831, 3765711.094, 260.06, 3.40
** ------------------------------------------------------------
-------
   LOCATION A0000001     AREA     438872.159 3765704.654 0.0
   LOCATION A0000002     AREA     439046.860 3765703.543 0.0
   LOCATION A0000003     AREA     439221.560 3765702.432 0.0
   LOCATION A0000004     AREA     439396.261 3765701.321 0.0
   LOCATION A0000005     AREA     439570.990 3765700.210 0.0
   LOCATION A0000006     AREA     439744.932 3765699.646 0.0
   LOCATION A0000007     AREA     439917.712 3765699.429 0.0
   LOCATION A0000008     AREA     440090.503 3765699.212 0.0
   LOCATION A0000009     AREA     440247.924 3765699.212 0.0
   LOCATION A0000010     AREA     440405.447 3765699.212 0.0
   LOCATION A0000011     AREA     440528.190 3765700.581 0.0
** End of LINE AREA Source ID = ARLN02
** ------------------------------------------------------------
-------
** Line Source Represented by Area Sources
** LINE AREA Source ID = ARLN03
** DESCRSRC SR 60 WB On-Ramp DPM Ex
```

```
** PREFIX
** Length of Side = 3.96
** Ratio = 10
** Vertical Dimension = 3.20
** Emission Rate = 0.0005311802
** Nodes = 6
** 439895.137, 3765792.036, 254.44, 3.40
** 439830.262, 3765782.314, 255.62, 3.40
** 439602.637, 3765750.155, 260.12, 3.40
** 439556.367, 3765746.633, 260.49, 3.40
** 439478.285, 3765744.597, 260.25, 3.40
** 439423.199, 3765742.703, 260.08, 3.40
** ------------------------------------------------------------
-------
   LOCATION A0000023     AREA     439894.844 3765793.995 0.0
   LOCATION A0000024     AREA     439862.406 3765789.134 0.0
   LOCATION A0000025     AREA     439829.985 3765784.276 0.0
   LOCATION A0000026     AREA     439792.048 3765778.916 0.0
   LOCATION A0000027     AREA     439754.110 3765773.556 0.0
   LOCATION A0000028     AREA     439716.172 3765768.196 0.0
   LOCATION A0000029     AREA     439678.235 3765762.836 0.0
   LOCATION A0000030     AREA     439640.297 3765757.477 0.0
   LOCATION A0000031     AREA     439602.486 3765752.131 0.0
   LOCATION A0000032     AREA     439579.352 3765750.369 0.0
   LOCATION A0000033     AREA     439556.316 3765748.613 0.0
   LOCATION A0000034     AREA     439517.274 3765747.595 0.0
   LOCATION A0000035     AREA     439478.217 3765746.577 0.0
   LOCATION A0000036     AREA     439450.674 3765745.630 0.0
** End of LINE AREA Source ID = ARLN03
** ------------------------------------------------------------
-------
** Line Source Represented by Area Sources
** LINE AREA Source ID = ARLN04
** DESCRSRC SR 60 EB Offramp DPM Ex
** PREFIX
** Length of Side = 7.62
** Ratio = 10
** Vertical Dimension = 3.20
** Emission Rate = 0.0003007914
** Nodes = 5
** 439895.389, 3765645.743, 252.80, 3.40
** 439818.641, 3765660.066, 254.56, 3.40
** 439755.474, 3765672.004, 257.06, 3.40
** 439662.806, 3765681.323, 259.67, 3.40
** 439463.024, 3765701.522, 260.17, 3.40
** ------------------------------------------------------------
-------
   LOCATION A0000037     AREA     439896.088 3765649.489 0.0
   LOCATION A0000038     AREA     439857.714 3765656.650 0.0
   LOCATION A0000039     AREA     439819.349 3765663.810 0.0
   LOCATION A0000040     AREA     439755.856 3765675.795 0.0
   LOCATION A0000041     AREA     439709.522 3765680.454 0.0
```

```
   LOCATION A0000042     AREA     439663.190 3765685.113 0.0
   LOCATION A0000043     AREA     439596.595 3765691.846 0.0
   LOCATION A0000044     AREA     439530.001 3765698.580 0.0
** End of LINE AREA Source ID = ARLN04
** ------------------------------------------------------------
-------
** Line Source Represented by Area Sources
** LINE AREA Source ID = ARLN05
** DESCRSRC SR 60 EB On-Ramp DPM Ex
** PREFIX
** Length of Side = 3.96
** Ratio = 10
** Vertical Dimension = 3.20
** Emission Rate = 0.000496591
** Nodes = 7
** 439941.297, 3765645.292, 253.26, 3.40
** 439993.010, 3765652.773, 253.93, 3.40
** 440155.834, 3765673.927, 258.66, 3.40
** 440268.609, 3765688.074, 259.90, 3.40
** 440322.372, 3765691.635, 260.22, 3.40
** 440354.630, 3765692.689, 260.13, 3.40
** 440446.541, 3765695.419, 259.97, 3.40
** ------------------------------------------------------------
-------
   LOCATION A0000045     AREA     439941.581 3765643.331 0.0
   LOCATION A0000046     AREA     439967.437 3765647.072 0.0
   LOCATION A0000047     AREA     439993.265 3765650.809 0.0
   LOCATION A0000048     AREA     440025.830 3765655.039 0.0
   LOCATION A0000049     AREA     440058.395 3765659.270 0.0
   LOCATION A0000050     AREA     440090.960 3765663.501 0.0
   LOCATION A0000051     AREA     440123.524 3765667.732 0.0
   LOCATION A0000052     AREA     440156.081 3765671.961 0.0
   LOCATION A0000053     AREA     440193.672 3765676.677 0.0
   LOCATION A0000054     AREA     440231.264 3765681.392 0.0
   LOCATION A0000055     AREA     440268.740 3765686.097 0.0
   LOCATION A0000056     AREA     440295.621 3765687.877 0.0
   LOCATION A0000057     AREA     440322.437 3765689.655 0.0
   LOCATION A0000058     AREA     440354.688 3765690.708 0.0
   LOCATION A0000059     AREA     440385.325 3765691.619 0.0
   LOCATION A0000060     AREA     440415.962 3765692.529 0.0
** End of LINE AREA Source ID = ARLN05
** ------------------------------------------------------------
-------
** Line Source Represented by Area Sources
** LINE AREA Source ID = ARLN06
** DESCRSRC SR 60 WB Off-ramp DPM Ex
** PREFIX
** Length of Side = 11.58
** Ratio = 10
** Vertical Dimension = 3.20
** Emission Rate = 0.0001897523
** Nodes = 6
```

```
** 440392.606, 3765738.840, 260.54, 3.40
** 440310.837, 3765747.261, 260.35, 3.40
** 440224.880, 3765756.031, 259.69, 3.40
** 440137.544, 3765763.271, 258.13, 3.40
** 440102.580, 3765767.415, 257.28, 3.40
** 439940.966, 3765792.538, 254.87, 3.40
** ------------------------------------------------------------
-------
   LOCATION A0000061     AREA     440393.199 3765744.601 0.0
   LOCATION A0000062     AREA     440311.425 3765753.022 0.0
   LOCATION A0000063     AREA     440225.359 3765761.802 0.0
   LOCATION A0000064     AREA     440138.226 3765769.022 0.0
   LOCATION A0000065     AREA     440103.469 3765773.137 0.0
   LOCATION A0000066     AREA     440022.663 3765785.699 0.0
** End of LINE AREA Source ID = ARLN06
** Source Parameters **
** LINE AREA Source ID = ARLN01
   SRCPARAM A0000012     0.0000307319     3.400   176.761
18.290  -179.517     3.200
   SRCPARAM A0000013     0.0000307319     3.400   176.761
18.290  -179.517     3.200
   SRCPARAM A0000014     0.0000307319     3.400   176.761
18.290  -179.517     3.200
   SRCPARAM A0000015     0.0000307319     3.400   152.620
18.290  -179.857     3.200
   SRCPARAM A0000016     0.0000307319     3.400   152.620
18.290  -179.857     3.200
   SRCPARAM A0000017     0.0000307319     3.400   152.620
18.290  -179.857     3.200
   SRCPARAM A0000018     0.0000307319     3.400   163.558
18.290  -179.872     3.200
   SRCPARAM A0000019     0.0000307319     3.400   163.558
18.290  -179.872     3.200
   SRCPARAM A0000020     0.0000307319     3.400   163.558
18.290  -179.872     3.200
   SRCPARAM A0000021     0.0000307319     3.400   150.135
18.290   179.634     3.200
   SRCPARAM A0000022     0.0000307319     3.400   150.135
18.290   179.634     3.200
** ------------------------------------------------------------
-------
** LINE AREA Source ID = ARLN02
   SRCPARAM A0000001     0.0000307481     3.400   174.704
18.288     0.364     3.200
   SRCPARAM A0000002     0.0000307481     3.400   174.704
18.288     0.364     3.200
   SRCPARAM A0000003     0.0000307481     3.400   174.704
18.288     0.364     3.200
   SRCPARAM A0000004     0.0000307481     3.400   174.704
18.288     0.364     3.200
   SRCPARAM A0000005     0.0000307481     3.400   173.925
18.288     0.186     3.200
```

```
   SRCPARAM A0000006     0.0000307481     3.400   172.780
18.288     0.072     3.200
   SRCPARAM A0000007     0.0000307481     3.400   172.780
18.288     0.072     3.200
   SRCPARAM A0000008     0.0000307481     3.400   157.421
18.288     0.000     3.200
   SRCPARAM A0000009     0.0000307481     3.400   157.421
18.288     0.000     3.200
   SRCPARAM A0000010     0.0000307481     3.400   122.750
18.288    -0.639     3.200
   SRCPARAM A0000011     0.0000307481     3.400   122.750
18.288    -0.639     3.200
** ------------------------------------------------------------
-------
** LINE AREA Source ID = ARLN03
   SRCPARAM A0000023     0.0005311802     3.400    32.800
3.962   171.477     3.200
   SRCPARAM A0000024     0.0005311802     3.400    32.800
3.962   171.477     3.200
   SRCPARAM A0000025     0.0005311802     3.400    38.314
3.962   171.958     3.200
   SRCPARAM A0000026     0.0005311802     3.400    38.314
3.962   171.958     3.200
   SRCPARAM A0000027     0.0005311802     3.400    38.314
3.962   171.958     3.200
   SRCPARAM A0000028     0.0005311802     3.400    38.314
3.962   171.958     3.200
   SRCPARAM A0000029     0.0005311802     3.400    38.314
3.962   171.958     3.200
   SRCPARAM A0000030     0.0005311802     3.400    38.314
3.962   171.958     3.200
   SRCPARAM A0000031     0.0005311802     3.400    23.202
3.962   175.647     3.200
   SRCPARAM A0000032     0.0005311802     3.400    23.202
3.962   175.647     3.200
   SRCPARAM A0000033     0.0005311802     3.400    39.055
3.962   178.506     3.200
   SRCPARAM A0000034     0.0005311802     3.400    39.055
3.962   178.506     3.200
   SRCPARAM A0000035     0.0005311802     3.400    27.559
3.962   178.031     3.200
   SRCPARAM A0000036     0.0005311802     3.400    27.559
3.962   178.031     3.200
** ------------------------------------------------------------
-------
** LINE AREA Source ID = ARLN04
   SRCPARAM A0000037     0.0003007914     3.400    39.036
7.620  -169.429     3.200
   SRCPARAM A0000038     0.0003007914     3.400    39.036
7.620  -169.429     3.200
   SRCPARAM A0000039     0.0003007914     3.400    64.285
7.620  -169.298     3.200
```

```
   SRCPARAM A0000040     0.0003007914     3.400    46.568
7.620  -174.258     3.200
   SRCPARAM A0000041     0.0003007914     3.400    46.568
7.620  -174.258     3.200
   SRCPARAM A0000042     0.0003007914     3.400    66.934
7.620  -174.227     3.200
   SRCPARAM A0000043     0.0003007914     3.400    66.934
7.620  -174.227     3.200
   SRCPARAM A0000044     0.0003007914     3.400    66.934
7.620  -174.227     3.200
** ------------------------------------------------------------
-------
** LINE AREA Source ID = ARLN05
   SRCPARAM A0000045     0.000496591     3.400    26.125
3.962    -8.232     3.200
   SRCPARAM A0000046     0.000496591     3.400    26.125
3.962    -8.232     3.200
   SRCPARAM A0000047     0.000496591     3.400    32.839
3.962    -7.402     3.200
   SRCPARAM A0000048     0.000496591     3.400    32.839
3.962    -7.402     3.200
   SRCPARAM A0000049     0.000496591     3.400    32.839
3.962    -7.402     3.200
   SRCPARAM A0000050     0.000496591     3.400    32.839
3.962    -7.402     3.200
   SRCPARAM A0000051     0.000496591     3.400    32.839
3.962    -7.402     3.200
   SRCPARAM A0000052     0.000496591     3.400    37.886
3.962    -7.150     3.200
   SRCPARAM A0000053     0.000496591     3.400    37.886
3.962    -7.150     3.200
   SRCPARAM A0000054     0.000496591     3.400    37.886
3.962    -7.150     3.200
   SRCPARAM A0000055     0.000496591     3.400    26.940
3.962    -3.790     3.200
   SRCPARAM A0000056     0.000496591     3.400    26.940
3.962    -3.790     3.200
   SRCPARAM A0000057     0.000496591     3.400    32.275
3.962    -1.871     3.200
   SRCPARAM A0000058     0.000496591     3.400    30.651
3.962    -1.702     3.200
   SRCPARAM A0000059     0.000496591     3.400    30.651
3.962    -1.702     3.200
   SRCPARAM A0000060     0.000496591     3.400    30.651
3.962    -1.702     3.200
** ------------------------------------------------------------
-------
** LINE AREA Source ID = ARLN06
   SRCPARAM A0000061     0.0001897523     3.400    82.201
11.582  -174.121     3.200
   SRCPARAM A0000062     0.0001897523     3.400    86.403
11.582  -174.174     3.200
```

```
   SRCPARAM A0000063     0.0001897523     3.400    87.635
11.582  -175.261     3.200
   SRCPARAM A0000064     0.0001897523     3.400    35.209
11.582  -173.241     3.200
   SRCPARAM A0000065     0.0001897523     3.400    81.777
11.582  -171.164     3.200
   SRCPARAM A0000066     0.0001897523     3.400    81.777
11.582  -171.164     3.200
** ------------------------------------------------------------
-------
   URBANSRC ALL

** Variable Emissions Type: "By Hour-of-Day (HROFDY)"
** Variable Emission Scenario: "ARLN01"
   EMISFACT A0000012     HROFDY 0.00274 0.00271 0.00264 0.00272
0.00339 0.0043
   EMISFACT A0000012     HROFDY 0.00541 0.00502 0.00591 0.00706
0.00747 0.00731
   EMISFACT A0000012     HROFDY 0.0069 0.0063 0.00496 0.00383
0.00289 0.00262
   EMISFACT A0000012     HROFDY 0.00329 0.00402 0.00426 0.00398
0.0038 0.00314
   EMISFACT A0000013     HROFDY 0.00274 0.00271 0.00264 0.00272
0.00339 0.0043
   EMISFACT A0000013     HROFDY 0.00541 0.00502 0.00591 0.00706
0.00747 0.00731
   EMISFACT A0000013     HROFDY 0.0069 0.0063 0.00496 0.00383
0.00289 0.00262
   EMISFACT A0000013     HROFDY 0.00329 0.00402 0.00426 0.00398
0.0038 0.00314
   EMISFACT A0000014     HROFDY 0.00274 0.00271 0.00264 0.00272
0.00339 0.0043
   EMISFACT A0000014     HROFDY 0.00541 0.00502 0.00591 0.00706
0.00747 0.00731
   EMISFACT A0000014     HROFDY 0.0069 0.0063 0.00496 0.00383
0.00289 0.00262
   EMISFACT A0000014     HROFDY 0.00329 0.00402 0.00426 0.00398
0.0038 0.00314
   EMISFACT A0000015     HROFDY 0.00274 0.00271 0.00264 0.00272
0.00339 0.0043
   EMISFACT A0000015     HROFDY 0.00541 0.00502 0.00591 0.00706
0.00747 0.00731
   EMISFACT A0000015     HROFDY 0.0069 0.0063 0.00496 0.00383
0.00289 0.00262
   EMISFACT A0000015     HROFDY 0.00329 0.00402 0.00426 0.00398
0.0038 0.00314
   EMISFACT A0000016     HROFDY 0.00274 0.00271 0.00264 0.00272
0.00339 0.0043
   EMISFACT A0000016     HROFDY 0.00541 0.00502 0.00591 0.00706
0.00747 0.00731
   EMISFACT A0000016     HROFDY 0.0069 0.0063 0.00496 0.00383
0.00289 0.00262
```

```
   EMISFACT A0000016     HROFDY 0.00329 0.00402 0.00426 0.00398
0.0038 0.00314
   EMISFACT A0000017     HROFDY 0.00274 0.00271 0.00264 0.00272
0.00339 0.0043
   EMISFACT A0000017     HROFDY 0.00541 0.00502 0.00591 0.00706
0.00747 0.00731
   EMISFACT A0000017     HROFDY 0.0069 0.0063 0.00496 0.00383
0.00289 0.00262
   EMISFACT A0000017     HROFDY 0.00329 0.00402 0.00426 0.00398
0.0038 0.00314
   EMISFACT A0000018     HROFDY 0.00274 0.00271 0.00264 0.00272
0.00339 0.0043
   EMISFACT A0000018     HROFDY 0.00541 0.00502 0.00591 0.00706
0.00747 0.00731
   EMISFACT A0000018     HROFDY 0.0069 0.0063 0.00496 0.00383
0.00289 0.00262
   EMISFACT A0000018     HROFDY 0.00329 0.00402 0.00426 0.00398
0.0038 0.00314
   EMISFACT A0000019     HROFDY 0.00274 0.00271 0.00264 0.00272
0.00339 0.0043
   EMISFACT A0000019     HROFDY 0.00541 0.00502 0.00591 0.00706
0.00747 0.00731
   EMISFACT A0000019     HROFDY 0.0069 0.0063 0.00496 0.00383
0.00289 0.00262
   EMISFACT A0000019     HROFDY 0.00329 0.00402 0.00426 0.00398
0.0038 0.00314
   EMISFACT A0000020     HROFDY 0.00274 0.00271 0.00264 0.00272
0.00339 0.0043
   EMISFACT A0000020     HROFDY 0.00541 0.00502 0.00591 0.00706
0.00747 0.00731
   EMISFACT A0000020     HROFDY 0.0069 0.0063 0.00496 0.00383
0.00289 0.00262
   EMISFACT A0000020     HROFDY 0.00329 0.00402 0.00426 0.00398
0.0038 0.00314
   EMISFACT A0000021     HROFDY 0.00274 0.00271 0.00264 0.00272
0.00339 0.0043
   EMISFACT A0000021     HROFDY 0.00541 0.00502 0.00591 0.00706
0.00747 0.00731
   EMISFACT A0000021     HROFDY 0.0069 0.0063 0.00496 0.00383
0.00289 0.00262
   EMISFACT A0000021     HROFDY 0.00329 0.00402 0.00426 0.00398
0.0038 0.00314
   EMISFACT A0000022     HROFDY 0.00274 0.00271 0.00264 0.00272
0.00339 0.0043
   EMISFACT A0000022     HROFDY 0.00541 0.00502 0.00591 0.00706
0.00747 0.00731
   EMISFACT A0000022     HROFDY 0.0069 0.0063 0.00496 0.00383
0.00289 0.00262
   EMISFACT A0000022     HROFDY 0.00329 0.00402 0.00426 0.00398
0.0038 0.00314

** Variable Emissions Type: "By Hour-of-Day (HROFDY)"
```

```
** Variable Emission Scenario: "ARLN02"
   EMISFACT A0000001     HROFDY 0.0172 0.0124 0.0108 0.0126
0.0203 0.034
   EMISFACT A0000001     HROFDY 0.0431 0.0457 0.0439 0.0414 0.042
0.0439
   EMISFACT A0000001     HROFDY 0.0463 0.0483 0.0501 0.0491
0.0508 0.0506
   EMISFACT A0000001     HROFDY 0.0472 0.0459 0.0417 0.0408
0.0334 0.0248
   EMISFACT A0000002     HROFDY 0.0172 0.0124 0.0108 0.0126
0.0203 0.034
   EMISFACT A0000002     HROFDY 0.0431 0.0457 0.0439 0.0414 0.042
0.0439
   EMISFACT A0000002     HROFDY 0.0463 0.0483 0.0501 0.0491
0.0508 0.0506
   EMISFACT A0000002     HROFDY 0.0472 0.0459 0.0417 0.0408
0.0334 0.0248
   EMISFACT A0000003     HROFDY 0.0172 0.0124 0.0108 0.0126
0.0203 0.034
   EMISFACT A0000003     HROFDY 0.0431 0.0457 0.0439 0.0414 0.042
0.0439
   EMISFACT A0000003     HROFDY 0.0463 0.0483 0.0501 0.0491
0.0508 0.0506
   EMISFACT A0000003     HROFDY 0.0472 0.0459 0.0417 0.0408
0.0334 0.0248
   EMISFACT A0000004     HROFDY 0.0172 0.0124 0.0108 0.0126
0.0203 0.034
   EMISFACT A0000004     HROFDY 0.0431 0.0457 0.0439 0.0414 0.042
0.0439
   EMISFACT A0000004     HROFDY 0.0463 0.0483 0.0501 0.0491
0.0508 0.0506
   EMISFACT A0000004     HROFDY 0.0472 0.0459 0.0417 0.0408
0.0334 0.0248
   EMISFACT A0000005     HROFDY 0.0172 0.0124 0.0108 0.0126
0.0203 0.034
   EMISFACT A0000005     HROFDY 0.0431 0.0457 0.0439 0.0414 0.042
0.0439
   EMISFACT A0000005     HROFDY 0.0463 0.0483 0.0501 0.0491
0.0508 0.0506
   EMISFACT A0000005     HROFDY 0.0472 0.0459 0.0417 0.0408
0.0334 0.0248
   EMISFACT A0000006     HROFDY 0.0172 0.0124 0.0108 0.0126
0.0203 0.034
   EMISFACT A0000006     HROFDY 0.0431 0.0457 0.0439 0.0414 0.042
0.0439
   EMISFACT A0000006     HROFDY 0.0463 0.0483 0.0501 0.0491
0.0508 0.0506
   EMISFACT A0000006     HROFDY 0.0472 0.0459 0.0417 0.0408
0.0334 0.0248
   EMISFACT A0000007     HROFDY 0.0172 0.0124 0.0108 0.0126
0.0203 0.034
   EMISFACT A0000007     HROFDY 0.0431 0.0457 0.0439 0.0414 0.042
```

```
0.0439
   EMISFACT A0000007     HROFDY 0.0463 0.0483 0.0501 0.0491
0.0508 0.0506
   EMISFACT A0000007     HROFDY 0.0472 0.0459 0.0417 0.0408
0.0334 0.0248
   EMISFACT A0000008     HROFDY 0.0172 0.0124 0.0108 0.0126
0.0203 0.034
   EMISFACT A0000008     HROFDY 0.0431 0.0457 0.0439 0.0414 0.042
0.0439
   EMISFACT A0000008     HROFDY 0.0463 0.0483 0.0501 0.0491
0.0508 0.0506
   EMISFACT A0000008     HROFDY 0.0472 0.0459 0.0417 0.0408
0.0334 0.0248
   EMISFACT A0000009     HROFDY 0.0172 0.0124 0.0108 0.0126
0.0203 0.034
   EMISFACT A0000009     HROFDY 0.0431 0.0457 0.0439 0.0414 0.042
0.0439
   EMISFACT A0000009     HROFDY 0.0463 0.0483 0.0501 0.0491
0.0508 0.0506
   EMISFACT A0000009     HROFDY 0.0472 0.0459 0.0417 0.0408
0.0334 0.0248
   EMISFACT A0000010     HROFDY 0.0172 0.0124 0.0108 0.0126
0.0203 0.034
   EMISFACT A0000010     HROFDY 0.0431 0.0457 0.0439 0.0414 0.042
0.0439
   EMISFACT A0000010     HROFDY 0.0463 0.0483 0.0501 0.0491
0.0508 0.0506
   EMISFACT A0000010     HROFDY 0.0472 0.0459 0.0417 0.0408
0.0334 0.0248
   EMISFACT A0000011     HROFDY 0.0172 0.0124 0.0108 0.0126
0.0203 0.034
   EMISFACT A0000011     HROFDY 0.0431 0.0457 0.0439 0.0414 0.042
0.0439
   EMISFACT A0000011     HROFDY 0.0463 0.0483 0.0501 0.0491
0.0508 0.0506
   EMISFACT A0000011     HROFDY 0.0472 0.0459 0.0417 0.0408
0.0334 0.0248

** Variable Emissions Type: "By Hour-of-Day (HROFDY)"
** Variable Emission Scenario: "ARLN03"
   EMISFACT A0000023     HROFDY 0.0000817 0.0000563 0.0000494
0.000088 0.000251 0.000399
   EMISFACT A0000023     HROFDY 0.00045 0.000513 0.000554
0.000568 0.000587 0.000618
   EMISFACT A0000023     HROFDY 0.000603 0.000582 0.000565
0.000548 0.000528 0.000516
   EMISFACT A0000023     HROFDY 0.000421 0.000329 0.000297
0.000258 0.000191 0.000122
   EMISFACT A0000024     HROFDY 0.0000817 0.0000563 0.0000494
0.000088 0.000251 0.000399
   EMISFACT A0000024     HROFDY 0.00045 0.000513 0.000554
0.000568 0.000587 0.000618
```

```
   EMISFACT A0000024     HROFDY 0.000603 0.000582 0.000565
0.000548 0.000528 0.000516
   EMISFACT A0000024     HROFDY 0.000421 0.000329 0.000297
0.000258 0.000191 0.000122
   EMISFACT A0000025     HROFDY 0.0000817 0.0000563 0.0000494
0.000088 0.000251 0.000399
   EMISFACT A0000025     HROFDY 0.00045 0.000513 0.000554
0.000568 0.000587 0.000618
   EMISFACT A0000025     HROFDY 0.000603 0.000582 0.000565
0.000548 0.000528 0.000516
   EMISFACT A0000025     HROFDY 0.000421 0.000329 0.000297
0.000258 0.000191 0.000122
   EMISFACT A0000026     HROFDY 0.0000817 0.0000563 0.0000494
0.000088 0.000251 0.000399
   EMISFACT A0000026     HROFDY 0.00045 0.000513 0.000554
0.000568 0.000587 0.000618
   EMISFACT A0000026     HROFDY 0.000603 0.000582 0.000565
0.000548 0.000528 0.000516
   EMISFACT A0000026     HROFDY 0.000421 0.000329 0.000297
0.000258 0.000191 0.000122
   EMISFACT A0000027     HROFDY 0.0000817 0.0000563 0.0000494
0.000088 0.000251 0.000399
   EMISFACT A0000027     HROFDY 0.00045 0.000513 0.000554
0.000568 0.000587 0.000618
   EMISFACT A0000027     HROFDY 0.000603 0.000582 0.000565
0.000548 0.000528 0.000516
   EMISFACT A0000027     HROFDY 0.000421 0.000329 0.000297
0.000258 0.000191 0.000122
   EMISFACT A0000028     HROFDY 0.0000817 0.0000563 0.0000494
0.000088 0.000251 0.000399
   EMISFACT A0000028     HROFDY 0.00045 0.000513 0.000554
0.000568 0.000587 0.000618
   EMISFACT A0000028     HROFDY 0.000603 0.000582 0.000565
0.000548 0.000528 0.000516
   EMISFACT A0000028     HROFDY 0.000421 0.000329 0.000297
0.000258 0.000191 0.000122
   EMISFACT A0000029     HROFDY 0.0000817 0.0000563 0.0000494
0.000088 0.000251 0.000399
   EMISFACT A0000029     HROFDY 0.00045 0.000513 0.000554
0.000568 0.000587 0.000618
   EMISFACT A0000029     HROFDY 0.000603 0.000582 0.000565
0.000548 0.000528 0.000516
   EMISFACT A0000029     HROFDY 0.000421 0.000329 0.000297
0.000258 0.000191 0.000122
   EMISFACT A0000030     HROFDY 0.0000817 0.0000563 0.0000494
0.000088 0.000251 0.000399
   EMISFACT A0000030     HROFDY 0.00045 0.000513 0.000554
0.000568 0.000587 0.000618
   EMISFACT A0000030     HROFDY 0.000603 0.000582 0.000565
0.000548 0.000528 0.000516
   EMISFACT A0000030     HROFDY 0.000421 0.000329 0.000297
0.000258 0.000191 0.000122
```

```
   EMISFACT A0000031     HROFDY 0.0000817 0.0000563 0.0000494
0.000088 0.000251 0.000399
   EMISFACT A0000031     HROFDY 0.00045 0.000513 0.000554
0.000568 0.000587 0.000618
   EMISFACT A0000031     HROFDY 0.000603 0.000582 0.000565
0.000548 0.000528 0.000516
   EMISFACT A0000031     HROFDY 0.000421 0.000329 0.000297
0.000258 0.000191 0.000122
   EMISFACT A0000032     HROFDY 0.0000817 0.0000563 0.0000494
0.000088 0.000251 0.000399
   EMISFACT A0000032     HROFDY 0.00045 0.000513 0.000554
0.000568 0.000587 0.000618
   EMISFACT A0000032     HROFDY 0.000603 0.000582 0.000565
0.000548 0.000528 0.000516
   EMISFACT A0000032     HROFDY 0.000421 0.000329 0.000297
0.000258 0.000191 0.000122
   EMISFACT A0000033     HROFDY 0.0000817 0.0000563 0.0000494
0.000088 0.000251 0.000399
   EMISFACT A0000033     HROFDY 0.00045 0.000513 0.000554
0.000568 0.000587 0.000618
   EMISFACT A0000033     HROFDY 0.000603 0.000582 0.000565
0.000548 0.000528 0.000516
   EMISFACT A0000033     HROFDY 0.000421 0.000329 0.000297
0.000258 0.000191 0.000122
   EMISFACT A0000034     HROFDY 0.0000817 0.0000563 0.0000494
0.000088 0.000251 0.000399
   EMISFACT A0000034     HROFDY 0.00045 0.000513 0.000554
0.000568 0.000587 0.000618
   EMISFACT A0000034     HROFDY 0.000603 0.000582 0.000565
0.000548 0.000528 0.000516
   EMISFACT A0000034     HROFDY 0.000421 0.000329 0.000297
0.000258 0.000191 0.000122
   EMISFACT A0000035     HROFDY 0.0000817 0.0000563 0.0000494
0.000088 0.000251 0.000399
   EMISFACT A0000035     HROFDY 0.00045 0.000513 0.000554
0.000568 0.000587 0.000618
   EMISFACT A0000035     HROFDY 0.000603 0.000582 0.000565
0.000548 0.000528 0.000516
   EMISFACT A0000035     HROFDY 0.000421 0.000329 0.000297
0.000258 0.000191 0.000122
   EMISFACT A0000036     HROFDY 0.0000817 0.0000563 0.0000494
0.000088 0.000251 0.000399
   EMISFACT A0000036     HROFDY 0.00045 0.000513 0.000554
0.000568 0.000587 0.000618
   EMISFACT A0000036     HROFDY 0.000603 0.000582 0.000565
0.000548 0.000528 0.000516
   EMISFACT A0000036     HROFDY 0.000421 0.000329 0.000297
0.000258 0.000191 0.000122

** Variable Emissions Type: "By Hour-of-Day (HROFDY)"
** Variable Emission Scenario: "ARLN04"
   EMISFACT A0000037     HROFDY 0.0000451 0.0000446 0.0000433
```

```
0.0000447 0.0000558 0.0000708
   EMISFACT A0000037     HROFDY 0.000089 0.0000825 0.0000971
0.000116 0.000123 0.00012
   EMISFACT A0000037     HROFDY 0.000113 0.000104 0.0000815
0.000063 0.0000548 0.0000497
   EMISFACT A0000037     HROFDY 0.0000541 0.0000662 0.0000701
0.0000655 0.0000625 0.0000516
   EMISFACT A0000038     HROFDY 0.0000451 0.0000446 0.0000433
0.0000447 0.0000558 0.0000708
   EMISFACT A0000038     HROFDY 0.000089 0.0000825 0.0000971
0.000116 0.000123 0.00012
   EMISFACT A0000038     HROFDY 0.000113 0.000104 0.0000815
0.000063 0.0000548 0.0000497
   EMISFACT A0000038     HROFDY 0.0000541 0.0000662 0.0000701
0.0000655 0.0000625 0.0000516
   EMISFACT A0000039     HROFDY 0.0000451 0.0000446 0.0000433
0.0000447 0.0000558 0.0000708
   EMISFACT A0000039     HROFDY 0.000089 0.0000825 0.0000971
0.000116 0.000123 0.00012
   EMISFACT A0000039     HROFDY 0.000113 0.000104 0.0000815
0.000063 0.0000548 0.0000497
   EMISFACT A0000039     HROFDY 0.0000541 0.0000662 0.0000701
0.0000655 0.0000625 0.0000516
   EMISFACT A0000040     HROFDY 0.0000451 0.0000446 0.0000433
0.0000447 0.0000558 0.0000708
   EMISFACT A0000040     HROFDY 0.000089 0.0000825 0.0000971
0.000116 0.000123 0.00012
   EMISFACT A0000040     HROFDY 0.000113 0.000104 0.0000815
0.000063 0.0000548 0.0000497
   EMISFACT A0000040     HROFDY 0.0000541 0.0000662 0.0000701
0.0000655 0.0000625 0.0000516
   EMISFACT A0000041     HROFDY 0.0000451 0.0000446 0.0000433
0.0000447 0.0000558 0.0000708
   EMISFACT A0000041     HROFDY 0.000089 0.0000825 0.0000971
0.000116 0.000123 0.00012
   EMISFACT A0000041     HROFDY 0.000113 0.000104 0.0000815
0.000063 0.0000548 0.0000497
   EMISFACT A0000041     HROFDY 0.0000541 0.0000662 0.0000701
0.0000655 0.0000625 0.0000516
   EMISFACT A0000042     HROFDY 0.0000451 0.0000446 0.0000433
0.0000447 0.0000558 0.0000708
   EMISFACT A0000042     HROFDY 0.000089 0.0000825 0.0000971
0.000116 0.000123 0.00012
   EMISFACT A0000042     HROFDY 0.000113 0.000104 0.0000815
0.000063 0.0000548 0.0000497
   EMISFACT A0000042     HROFDY 0.0000541 0.0000662 0.0000701
0.0000655 0.0000625 0.0000516
   EMISFACT A0000043     HROFDY 0.0000451 0.0000446 0.0000433
0.0000447 0.0000558 0.0000708
   EMISFACT A0000043     HROFDY 0.000089 0.0000825 0.0000971
0.000116 0.000123 0.00012
   EMISFACT A0000043     HROFDY 0.000113 0.000104 0.0000815
```

```
0.000063 0.0000548 0.0000497
   EMISFACT A0000043     HROFDY 0.0000541 0.0000662 0.0000701
0.0000655 0.0000625 0.0000516
   EMISFACT A0000044     HROFDY 0.0000451 0.0000446 0.0000433
0.0000447 0.0000558 0.0000708
   EMISFACT A0000044     HROFDY 0.000089 0.0000825 0.0000971
0.000116 0.000123 0.00012
   EMISFACT A0000044     HROFDY 0.000113 0.000104 0.0000815
0.000063 0.0000548 0.0000497
   EMISFACT A0000044     HROFDY 0.0000541 0.0000662 0.0000701
0.0000655 0.0000625 0.0000516

** Variable Emissions Type: "By Hour-of-Day (HROFDY)"
** Variable Emission Scenario: "ARLN05"
   EMISFACT A0000045     HROFDY 0.000314 0.00031 0.000301
0.000311 0.000388 0.000492
   EMISFACT A0000045     HROFDY 0.000619 0.000574 0.000676
0.000808 0.000855 0.000836
   EMISFACT A0000045     HROFDY 0.000789 0.00072 0.000567
0.000438 0.000381 0.000345
   EMISFACT A0000045     HROFDY 0.000376 0.00046 0.000488
0.000456 0.000435 0.000359
   EMISFACT A0000046     HROFDY 0.000314 0.00031 0.000301
0.000311 0.000388 0.000492
   EMISFACT A0000046     HROFDY 0.000619 0.000574 0.000676
0.000808 0.000855 0.000836
   EMISFACT A0000046     HROFDY 0.000789 0.00072 0.000567
0.000438 0.000381 0.000345
   EMISFACT A0000046     HROFDY 0.000376 0.00046 0.000488
0.000456 0.000435 0.000359
   EMISFACT A0000047     HROFDY 0.000314 0.00031 0.000301
0.000311 0.000388 0.000492
   EMISFACT A0000047     HROFDY 0.000619 0.000574 0.000676
0.000808 0.000855 0.000836
   EMISFACT A0000047     HROFDY 0.000789 0.00072 0.000567
0.000438 0.000381 0.000345
   EMISFACT A0000047     HROFDY 0.000376 0.00046 0.000488
0.000456 0.000435 0.000359
   EMISFACT A0000048     HROFDY 0.000314 0.00031 0.000301
0.000311 0.000388 0.000492
   EMISFACT A0000048     HROFDY 0.000619 0.000574 0.000676
0.000808 0.000855 0.000836
   EMISFACT A0000048     HROFDY 0.000789 0.00072 0.000567
0.000438 0.000381 0.000345
   EMISFACT A0000048     HROFDY 0.000376 0.00046 0.000488
0.000456 0.000435 0.000359
   EMISFACT A0000049     HROFDY 0.000314 0.00031 0.000301
0.000311 0.000388 0.000492
   EMISFACT A0000049     HROFDY 0.000619 0.000574 0.000676
0.000808 0.000855 0.000836
   EMISFACT A0000049     HROFDY 0.000789 0.00072 0.000567
0.000438 0.000381 0.000345
```

```
   EMISFACT A0000049     HROFDY 0.000376 0.00046 0.000488
0.000456 0.000435 0.000359
   EMISFACT A0000050     HROFDY 0.000314 0.00031 0.000301
0.000311 0.000388 0.000492
   EMISFACT A0000050     HROFDY 0.000619 0.000574 0.000676
0.000808 0.000855 0.000836
   EMISFACT A0000050     HROFDY 0.000789 0.00072 0.000567
0.000438 0.000381 0.000345
   EMISFACT A0000050     HROFDY 0.000376 0.00046 0.000488
0.000456 0.000435 0.000359
   EMISFACT A0000051     HROFDY 0.000314 0.00031 0.000301
0.000311 0.000388 0.000492
   EMISFACT A0000051     HROFDY 0.000619 0.000574 0.000676
0.000808 0.000855 0.000836
   EMISFACT A0000051     HROFDY 0.000789 0.00072 0.000567
0.000438 0.000381 0.000345
   EMISFACT A0000051     HROFDY 0.000376 0.00046 0.000488
0.000456 0.000435 0.000359
   EMISFACT A0000052     HROFDY 0.000314 0.00031 0.000301
0.000311 0.000388 0.000492
   EMISFACT A0000052     HROFDY 0.000619 0.000574 0.000676
0.000808 0.000855 0.000836
   EMISFACT A0000052     HROFDY 0.000789 0.00072 0.000567
0.000438 0.000381 0.000345
   EMISFACT A0000052     HROFDY 0.000376 0.00046 0.000488
0.000456 0.000435 0.000359
   EMISFACT A0000053     HROFDY 0.000314 0.00031 0.000301
0.000311 0.000388 0.000492
   EMISFACT A0000053     HROFDY 0.000619 0.000574 0.000676
0.000808 0.000855 0.000836
   EMISFACT A0000053     HROFDY 0.000789 0.00072 0.000567
0.000438 0.000381 0.000345
   EMISFACT A0000053     HROFDY 0.000376 0.00046 0.000488
0.000456 0.000435 0.000359
   EMISFACT A0000054     HROFDY 0.000314 0.00031 0.000301
0.000311 0.000388 0.000492
   EMISFACT A0000054     HROFDY 0.000619 0.000574 0.000676
0.000808 0.000855 0.000836
   EMISFACT A0000054     HROFDY 0.000789 0.00072 0.000567
0.000438 0.000381 0.000345
   EMISFACT A0000054     HROFDY 0.000376 0.00046 0.000488
0.000456 0.000435 0.000359
   EMISFACT A0000055     HROFDY 0.000314 0.00031 0.000301
0.000311 0.000388 0.000492
   EMISFACT A0000055     HROFDY 0.000619 0.000574 0.000676
0.000808 0.000855 0.000836
   EMISFACT A0000055     HROFDY 0.000789 0.00072 0.000567
0.000438 0.000381 0.000345
   EMISFACT A0000055     HROFDY 0.000376 0.00046 0.000488
0.000456 0.000435 0.000359
   EMISFACT A0000056     HROFDY 0.000314 0.00031 0.000301
0.000311 0.000388 0.000492
```

```
   EMISFACT A0000056     HROFDY 0.000619 0.000574 0.000676
0.000808 0.000855 0.000836
   EMISFACT A0000056     HROFDY 0.000789 0.00072 0.000567
0.000438 0.000381 0.000345
   EMISFACT A0000056     HROFDY 0.000376 0.00046 0.000488
0.000456 0.000435 0.000359
   EMISFACT A0000057     HROFDY 0.000314 0.00031 0.000301
0.000311 0.000388 0.000492
   EMISFACT A0000057     HROFDY 0.000619 0.000574 0.000676
0.000808 0.000855 0.000836
   EMISFACT A0000057     HROFDY 0.000789 0.00072 0.000567
0.000438 0.000381 0.000345
   EMISFACT A0000057     HROFDY 0.000376 0.00046 0.000488
0.000456 0.000435 0.000359
   EMISFACT A0000058     HROFDY 0.000314 0.00031 0.000301
0.000311 0.000388 0.000492
   EMISFACT A0000058     HROFDY 0.000619 0.000574 0.000676
0.000808 0.000855 0.000836
   EMISFACT A0000058     HROFDY 0.000789 0.00072 0.000567
0.000438 0.000381 0.000345
   EMISFACT A0000058     HROFDY 0.000376 0.00046 0.000488
0.000456 0.000435 0.000359
   EMISFACT A0000059     HROFDY 0.000314 0.00031 0.000301
0.000311 0.000388 0.000492
   EMISFACT A0000059     HROFDY 0.000619 0.000574 0.000676
0.000808 0.000855 0.000836
   EMISFACT A0000059     HROFDY 0.000789 0.00072 0.000567
0.000438 0.000381 0.000345
   EMISFACT A0000059     HROFDY 0.000376 0.00046 0.000488
0.000456 0.000435 0.000359
   EMISFACT A0000060     HROFDY 0.000314 0.00031 0.000301
0.000311 0.000388 0.000492
   EMISFACT A0000060     HROFDY 0.000619 0.000574 0.000676
0.000808 0.000855 0.000836
   EMISFACT A0000060     HROFDY 0.000789 0.00072 0.000567
0.000438 0.000381 0.000345
   EMISFACT A0000060     HROFDY 0.000376 0.00046 0.000488
0.000456 0.000435 0.000359

** Variable Emissions Type: "By Hour-of-Day (HROFDY)"
** Variable Emission Scenario: "ARLN06"
   EMISFACT A0000061     HROFDY 0.0000229 0.0000158 0.0000139
0.0000247 0.0000704 0.000112
   EMISFACT A0000061     HROFDY 0.000126 0.000144 0.000155
0.000159 0.000165 0.000173
   EMISFACT A0000061     HROFDY 0.000169 0.000163 0.000158
0.000154 0.000148 0.000145
   EMISFACT A0000061     HROFDY 0.000118 0.0000923 0.0000834
0.0000723 0.0000535 0.0000342
   EMISFACT A0000062     HROFDY 0.0000229 0.0000158 0.0000139
0.0000247 0.0000704 0.000112
   EMISFACT A0000062     HROFDY 0.000126 0.000144 0.000155
```

```
0.000159 0.000165 0.000173
   EMISFACT A0000062     HROFDY 0.000169 0.000163 0.000158
0.000154 0.000148 0.000145
   EMISFACT A0000062     HROFDY 0.000118 0.0000923 0.0000834
0.0000723 0.0000535 0.0000342
   EMISFACT A0000063     HROFDY 0.0000229 0.0000158 0.0000139
0.0000247 0.0000704 0.000112
   EMISFACT A0000063     HROFDY 0.000126 0.000144 0.000155
0.000159 0.000165 0.000173
   EMISFACT A0000063     HROFDY 0.000169 0.000163 0.000158
0.000154 0.000148 0.000145
   EMISFACT A0000063     HROFDY 0.000118 0.0000923 0.0000834
0.0000723 0.0000535 0.0000342
   EMISFACT A0000064     HROFDY 0.0000229 0.0000158 0.0000139
0.0000247 0.0000704 0.000112
   EMISFACT A0000064     HROFDY 0.000126 0.000144 0.000155
0.000159 0.000165 0.000173
   EMISFACT A0000064     HROFDY 0.000169 0.000163 0.000158
0.000154 0.000148 0.000145
   EMISFACT A0000064     HROFDY 0.000118 0.0000923 0.0000834
0.0000723 0.0000535 0.0000342
   EMISFACT A0000065     HROFDY 0.0000229 0.0000158 0.0000139
0.0000247 0.0000704 0.000112
   EMISFACT A0000065     HROFDY 0.000126 0.000144 0.000155
0.000159 0.000165 0.000173
   EMISFACT A0000065     HROFDY 0.000169 0.000163 0.000158
0.000154 0.000148 0.000145
   EMISFACT A0000065     HROFDY 0.000118 0.0000923 0.0000834
0.0000723 0.0000535 0.0000342
   EMISFACT A0000066     HROFDY 0.0000229 0.0000158 0.0000139
0.0000247 0.0000704 0.000112
   EMISFACT A0000066     HROFDY 0.000126 0.000144 0.000155
0.000159 0.000165 0.000173
   EMISFACT A0000066     HROFDY 0.000169 0.000163 0.000158
0.000154 0.000148 0.000145
   EMISFACT A0000066     HROFDY 0.000118 0.0000923 0.0000834
0.0000723 0.0000535 0.0000342
   SRCGROUP Exh      A0000012 A0000013 A0000014 A0000015 A0000016
A0000017
   SRCGROUP Exh      A0000018 A0000019 A0000020 A0000021 A0000022
A0000001
   SRCGROUP Exh      A0000002 A0000003 A0000004 A0000005 A0000006
A0000007
   SRCGROUP Exh      A0000008 A0000009 A0000010 A0000011 A0000023
A0000024
   SRCGROUP Exh      A0000025 A0000026 A0000027 A0000028 A0000029
A0000030
   SRCGROUP Exh      A0000031 A0000032 A0000033 A0000034 A0000035
A0000036
   SRCGROUP Exh      A0000037 A0000038 A0000039 A0000040 A0000041
A0000042
   SRCGROUP Exh      A0000043 A0000044 A0000045 A0000046 A0000047
```

```
A0000048
   SRCGROUP Exh      A0000049 A0000050 A0000051 A0000052 A0000053
A0000054
   SRCGROUP Exh      A0000055 A0000056 A0000057 A0000058 A0000059
A0000060
   SRCGROUP Exh      A0000061 A0000062 A0000063 A0000064 A0000065
A0000066
   SRCGROUP FreeExh  A0000012 A0000013 A0000014 A0000015 A0000016
A0000017
   SRCGROUP FreeExh  A0000018 A0000019 A0000020 A0000021 A0000022
A0000001
   SRCGROUP FreeExh  A0000002 A0000003 A0000004 A0000005 A0000006
A0000007
   SRCGROUP FreeExh  A0000008 A0000009 A0000010 A0000011
   SRCGROUP OnOffExh A0000023 A0000024 A0000025 A0000026 A0000027
A0000028
   SRCGROUP OnOffExh A0000029 A0000030 A0000031 A0000032 A0000033
A0000034
   SRCGROUP OnOffExh A0000035 A0000036 A0000037 A0000038 A0000039
A0000040
   SRCGROUP OnOffExh A0000041 A0000042 A0000043 A0000044 A0000045
A0000046
   SRCGROUP OnOffExh A0000047 A0000048 A0000049 A0000050 A0000051
A0000052
   SRCGROUP OnOffExh A0000053 A0000054 A0000055 A0000056 A0000057
A0000058
   SRCGROUP OnOffExh A0000059 A0000060 A0000061 A0000062 A0000063
A0000064
   SRCGROUP OnOffExh A0000065 A0000066
   SRCGROUP ALL
SO FINISHED
**
**************************************
** AERMOD Receptor Pathway
**************************************
**
**
RE STARTING
** DESCRREC "UCART01" "Receptors generated from Uniform Cartesian
Grid"
   DISCCART    439674.00   3765310.00
   DISCCART    439679.00   3765310.00
   DISCCART    439684.00   3765310.00
   DISCCART    439689.00   3765310.00
   DISCCART    439694.00   3765310.00
   DISCCART    439699.00   3765310.00
   DISCCART    439704.00   3765310.00
   DISCCART    439709.00   3765310.00
   DISCCART    439714.00   3765310.00
   DISCCART    439719.00   3765310.00
   DISCCART    439729.00   3765310.00
   DISCCART    439734.00   3765310.00
```

DISCCART	439739.00	3765310.00
DISCCART	439744.00	3765310.00
DISCCART	439749.00	3765310.00
DISCCART	439764.00	3765310.00
DISCCART	439769.00	3765310.00
DISCCART	439774.00	3765310.00
DISCCART	439779.00	3765310.00
DISCCART	439784.00	3765310.00
DISCCART	439789.00	3765310.00
DISCCART	439794.00	3765310.00
DISCCART	439799.00	3765310.00
DISCCART	439804.00	3765310.00
DISCCART	439809.00	3765310.00
DISCCART	439814.00	3765310.00
DISCCART	439819.00	3765310.00
DISCCART	439824.00	3765310.00
DISCCART	439829.00	3765310.00
DISCCART	439839.00	3765310.00
DISCCART	439844.00	3765310.00
DISCCART	439849.00	3765310.00
DISCCART	439854.00	3765310.00
DISCCART	439859.00	3765310.00
DISCCART	439864.00	3765310.00
DISCCART	439869.00	3765310.00
DISCCART	439874.00	3765310.00
DISCCART	439879.00	3765310.00
DISCCART	439884.00	3765310.00
DISCCART	439674.00	3765315.00
DISCCART	439679.00	3765315.00
DISCCART	439684.00	3765315.00
DISCCART	439689.00	3765315.00
DISCCART	439694.00	3765315.00
DISCCART	439699.00	3765315.00
DISCCART	439704.00	3765315.00
DISCCART	439709.00	3765315.00
DISCCART	439714.00	3765315.00
DISCCART	439719.00	3765315.00
DISCCART	439729.00	3765315.00
DISCCART	439734.00	3765315.00
DISCCART	439739.00	3765315.00
DISCCART	439744.00	3765315.00
DISCCART	439749.00	3765315.00
DISCCART	439764.00	3765315.00
DISCCART	439769.00	3765315.00
DISCCART	439774.00	3765315.00
DISCCART	439779.00	3765315.00
DISCCART	439784.00	3765315.00
DISCCART	439789.00	3765315.00
DISCCART	439794.00	3765315.00
DISCCART	439799.00	3765315.00
DISCCART	439804.00	3765315.00
DISCCART	439809.00	3765315.00

DISCCART	439814.00	3765315.00
DISCCART	439819.00	3765315.00
DISCCART	439824.00	3765315.00
DISCCART	439829.00	3765315.00
DISCCART	439839.00	3765315.00
DISCCART	439844.00	3765315.00
DISCCART	439849.00	3765315.00
DISCCART	439854.00	3765315.00
DISCCART	439859.00	3765315.00
DISCCART	439864.00	3765315.00
DISCCART	439869.00	3765315.00
DISCCART	439874.00	3765315.00
DISCCART	439879.00	3765315.00
DISCCART	439884.00	3765315.00
DISCCART	439674.00	3765320.00
DISCCART	439679.00	3765320.00
DISCCART	439684.00	3765320.00
DISCCART	439689.00	3765320.00
DISCCART	439694.00	3765320.00
DISCCART	439699.00	3765320.00
DISCCART	439704.00	3765320.00
DISCCART	439709.00	3765320.00
DISCCART	439714.00	3765320.00
DISCCART	439719.00	3765320.00
DISCCART	439729.00	3765320.00
DISCCART	439734.00	3765320.00
DISCCART	439739.00	3765320.00
DISCCART	439744.00	3765320.00
DISCCART	439749.00	3765320.00
DISCCART	439764.00	3765320.00
DISCCART	439769.00	3765320.00
DISCCART	439774.00	3765320.00
DISCCART	439779.00	3765320.00
DISCCART	439784.00	3765320.00
DISCCART	439789.00	3765320.00
DISCCART	439794.00	3765320.00
DISCCART	439799.00	3765320.00
DISCCART	439804.00	3765320.00
DISCCART	439809.00	3765320.00
DISCCART	439814.00	3765320.00
DISCCART	439819.00	3765320.00
DISCCART	439824.00	3765320.00
DISCCART	439829.00	3765320.00
DISCCART	439839.00	3765320.00
DISCCART	439844.00	3765320.00
DISCCART	439849.00	3765320.00
DISCCART	439854.00	3765320.00
DISCCART	439859.00	3765320.00
DISCCART	439864.00	3765320.00
DISCCART	439869.00	3765320.00
DISCCART	439874.00	3765320.00
DISCCART	439879.00	3765320.00

```
DISCCART    439884.00   3765320.00
DISCCART    439674.00   3765325.00
DISCCART    439679.00   3765325.00
DISCCART    439684.00   3765325.00
DISCCART    439689.00   3765325.00
DISCCART    439694.00   3765325.00
DISCCART    439699.00   3765325.00
DISCCART    439704.00   3765325.00
DISCCART    439709.00   3765325.00
DISCCART    439714.00   3765325.00
DISCCART    439719.00   3765325.00
DISCCART    439729.00   3765325.00
DISCCART    439734.00   3765325.00
DISCCART    439739.00   3765325.00
DISCCART    439744.00   3765325.00
DISCCART    439749.00   3765325.00
DISCCART    439754.00   3765325.00
DISCCART    439769.00   3765325.00
DISCCART    439774.00   3765325.00
DISCCART    439779.00   3765325.00
DISCCART    439784.00   3765325.00
DISCCART    439789.00   3765325.00
DISCCART    439794.00   3765325.00
DISCCART    439799.00   3765325.00
DISCCART    439804.00   3765325.00
DISCCART    439809.00   3765325.00
DISCCART    439814.00   3765325.00
DISCCART    439819.00   3765325.00
DISCCART    439824.00   3765325.00
DISCCART    439829.00   3765325.00
DISCCART    439839.00   3765325.00
DISCCART    439844.00   3765325.00
DISCCART    439849.00   3765325.00
DISCCART    439854.00   3765325.00
DISCCART    439859.00   3765325.00
DISCCART    439864.00   3765325.00
DISCCART    439869.00   3765325.00
DISCCART    439874.00   3765325.00
DISCCART    439879.00   3765325.00
DISCCART    439884.00   3765325.00
DISCCART    439674.00   3765330.00
DISCCART    439679.00   3765330.00
DISCCART    439684.00   3765330.00
DISCCART    439689.00   3765330.00
DISCCART    439694.00   3765330.00
DISCCART    439699.00   3765330.00
DISCCART    439704.00   3765330.00
DISCCART    439709.00   3765330.00
DISCCART    439714.00   3765330.00
DISCCART    439719.00   3765330.00
DISCCART    439729.00   3765330.00
DISCCART    439734.00   3765330.00
```

DISCCART	439739.00	3765330.00
DISCCART	439744.00	3765330.00
DISCCART	439749.00	3765330.00
DISCCART	439754.00	3765330.00
DISCCART	439774.00	3765330.00
DISCCART	439779.00	3765330.00
DISCCART	439784.00	3765330.00
DISCCART	439789.00	3765330.00
DISCCART	439794.00	3765330.00
DISCCART	439799.00	3765330.00
DISCCART	439804.00	3765330.00
DISCCART	439809.00	3765330.00
DISCCART	439814.00	3765330.00
DISCCART	439819.00	3765330.00
DISCCART	439824.00	3765330.00
DISCCART	439829.00	3765330.00
DISCCART	439839.00	3765330.00
DISCCART	439844.00	3765330.00
DISCCART	439849.00	3765330.00
DISCCART	439854.00	3765330.00
DISCCART	439859.00	3765330.00
DISCCART	439864.00	3765330.00
DISCCART	439869.00	3765330.00
DISCCART	439874.00	3765330.00
DISCCART	439879.00	3765330.00
DISCCART	439884.00	3765330.00
DISCCART	439674.00	3765335.00
DISCCART	439679.00	3765335.00
DISCCART	439684.00	3765335.00
DISCCART	439689.00	3765335.00
DISCCART	439694.00	3765335.00
DISCCART	439699.00	3765335.00
DISCCART	439704.00	3765335.00
DISCCART	439709.00	3765335.00
DISCCART	439714.00	3765335.00
DISCCART	439719.00	3765335.00
DISCCART	439729.00	3765335.00
DISCCART	439734.00	3765335.00
DISCCART	439739.00	3765335.00
DISCCART	439744.00	3765335.00
DISCCART	439749.00	3765335.00
DISCCART	439774.00	3765335.00
DISCCART	439779.00	3765335.00
DISCCART	439784.00	3765335.00
DISCCART	439789.00	3765335.00
DISCCART	439794.00	3765335.00
DISCCART	439839.00	3765335.00
DISCCART	439844.00	3765335.00
DISCCART	439849.00	3765335.00
DISCCART	439854.00	3765335.00
DISCCART	439859.00	3765335.00
DISCCART	439864.00	3765335.00

DISCCART 439869.00 3765335.00
DISCCART 439874.00 3765335.00
DISCCART 439879.00 3765335.00
DISCCART 439884.00 3765335.00
DISCCART 439674.00 3765340.00
DISCCART 439679.00 3765340.00
DISCCART 439684.00 3765340.00
DISCCART 439689.00 3765340.00
DISCCART 439694.00 3765340.00
DISCCART 439699.00 3765340.00
DISCCART 439704.00 3765340.00
DISCCART 439709.00 3765340.00
DISCCART 439714.00 3765340.00
DISCCART 439719.00 3765340.00
DISCCART 439729.00 3765340.00
DISCCART 439734.00 3765340.00
DISCCART 439739.00 3765340.00
DISCCART 439744.00 3765340.00
DISCCART 439749.00 3765340.00
DISCCART 439774.00 3765340.00
DISCCART 439779.00 3765340.00
DISCCART 439784.00 3765340.00
DISCCART 439789.00 3765340.00
DISCCART 439794.00 3765340.00
DISCCART 439839.00 3765340.00
DISCCART 439844.00 3765340.00
DISCCART 439849.00 3765340.00
DISCCART 439854.00 3765340.00
DISCCART 439859.00 3765340.00
DISCCART 439864.00 3765340.00
DISCCART 439869.00 3765340.00
DISCCART 439874.00 3765340.00
DISCCART 439879.00 3765340.00
DISCCART 439884.00 3765340.00
DISCCART 439674.00 3765345.00
DISCCART 439679.00 3765345.00
DISCCART 439684.00 3765345.00
DISCCART 439689.00 3765345.00
DISCCART 439694.00 3765345.00
DISCCART 439699.00 3765345.00
DISCCART 439704.00 3765345.00
DISCCART 439709.00 3765345.00
DISCCART 439714.00 3765345.00
DISCCART 439719.00 3765345.00
DISCCART 439729.00 3765345.00
DISCCART 439734.00 3765345.00
DISCCART 439739.00 3765345.00
DISCCART 439744.00 3765345.00
DISCCART 439749.00 3765345.00
DISCCART 439774.00 3765345.00
DISCCART 439779.00 3765345.00
DISCCART 439784.00 3765345.00

DISCCART	439789.00	3765345.00
DISCCART	439794.00	3765345.00
DISCCART	439839.00	3765345.00
DISCCART	439844.00	3765345.00
DISCCART	439849.00	3765345.00
DISCCART	439854.00	3765345.00
DISCCART	439859.00	3765345.00
DISCCART	439864.00	3765345.00
DISCCART	439869.00	3765345.00
DISCCART	439874.00	3765345.00
DISCCART	439879.00	3765345.00
DISCCART	439884.00	3765345.00
DISCCART	439674.00	3765350.00
DISCCART	439679.00	3765350.00
DISCCART	439684.00	3765350.00
DISCCART	439689.00	3765350.00
DISCCART	439694.00	3765350.00
DISCCART	439699.00	3765350.00
DISCCART	439704.00	3765350.00
DISCCART	439709.00	3765350.00
DISCCART	439714.00	3765350.00
DISCCART	439719.00	3765350.00
DISCCART	439729.00	3765350.00
DISCCART	439734.00	3765350.00
DISCCART	439739.00	3765350.00
DISCCART	439744.00	3765350.00
DISCCART	439749.00	3765350.00
DISCCART	439774.00	3765350.00
DISCCART	439779.00	3765350.00
DISCCART	439784.00	3765350.00
DISCCART	439789.00	3765350.00
DISCCART	439794.00	3765350.00
DISCCART	439839.00	3765350.00
DISCCART	439844.00	3765350.00
DISCCART	439849.00	3765350.00
DISCCART	439854.00	3765350.00
DISCCART	439859.00	3765350.00
DISCCART	439864.00	3765350.00
DISCCART	439869.00	3765350.00
DISCCART	439874.00	3765350.00
DISCCART	439879.00	3765350.00
DISCCART	439884.00	3765350.00
DISCCART	439674.00	3765355.00
DISCCART	439679.00	3765355.00
DISCCART	439684.00	3765355.00
DISCCART	439689.00	3765355.00
DISCCART	439694.00	3765355.00
DISCCART	439699.00	3765355.00
DISCCART	439704.00	3765355.00
DISCCART	439709.00	3765355.00
DISCCART	439714.00	3765355.00
DISCCART	439719.00	3765355.00

DISCCART	439729.00	3765355.00
DISCCART	439734.00	3765355.00
DISCCART	439739.00	3765355.00
DISCCART	439744.00	3765355.00
DISCCART	439749.00	3765355.00
DISCCART	439774.00	3765355.00
DISCCART	439779.00	3765355.00
DISCCART	439784.00	3765355.00
DISCCART	439789.00	3765355.00
DISCCART	439794.00	3765355.00
DISCCART	439839.00	3765355.00
DISCCART	439844.00	3765355.00
DISCCART	439849.00	3765355.00
DISCCART	439854.00	3765355.00
DISCCART	439859.00	3765355.00
DISCCART	439864.00	3765355.00
DISCCART	439869.00	3765355.00
DISCCART	439874.00	3765355.00
DISCCART	439879.00	3765355.00
DISCCART	439884.00	3765355.00
DISCCART	439674.00	3765360.00
DISCCART	439679.00	3765360.00
DISCCART	439684.00	3765360.00
DISCCART	439689.00	3765360.00
DISCCART	439694.00	3765360.00
DISCCART	439699.00	3765360.00
DISCCART	439704.00	3765360.00
DISCCART	439709.00	3765360.00
DISCCART	439714.00	3765360.00
DISCCART	439719.00	3765360.00
DISCCART	439729.00	3765360.00
DISCCART	439734.00	3765360.00
DISCCART	439739.00	3765360.00
DISCCART	439744.00	3765360.00
DISCCART	439749.00	3765360.00
DISCCART	439774.00	3765360.00
DISCCART	439779.00	3765360.00
DISCCART	439784.00	3765360.00
DISCCART	439789.00	3765360.00
DISCCART	439794.00	3765360.00
DISCCART	439799.00	3765360.00
DISCCART	439804.00	3765360.00
DISCCART	439809.00	3765360.00
DISCCART	439814.00	3765360.00
DISCCART	439839.00	3765360.00
DISCCART	439844.00	3765360.00
DISCCART	439849.00	3765360.00
DISCCART	439854.00	3765360.00
DISCCART	439859.00	3765360.00
DISCCART	439864.00	3765360.00
DISCCART	439869.00	3765360.00
DISCCART	439874.00	3765360.00

DISCCART	439879.00	3765360.00
DISCCART	439884.00	3765360.00
DISCCART	439674.00	3765365.00
DISCCART	439679.00	3765365.00
DISCCART	439684.00	3765365.00
DISCCART	439689.00	3765365.00
DISCCART	439694.00	3765365.00
DISCCART	439699.00	3765365.00
DISCCART	439704.00	3765365.00
DISCCART	439709.00	3765365.00
DISCCART	439714.00	3765365.00
DISCCART	439719.00	3765365.00
DISCCART	439729.00	3765365.00
DISCCART	439734.00	3765365.00
DISCCART	439739.00	3765365.00
DISCCART	439744.00	3765365.00
DISCCART	439749.00	3765365.00
DISCCART	439774.00	3765365.00
DISCCART	439779.00	3765365.00
DISCCART	439784.00	3765365.00
DISCCART	439789.00	3765365.00
DISCCART	439794.00	3765365.00
DISCCART	439799.00	3765365.00
DISCCART	439804.00	3765365.00
DISCCART	439809.00	3765365.00
DISCCART	439814.00	3765365.00
DISCCART	439839.00	3765365.00
DISCCART	439844.00	3765365.00
DISCCART	439849.00	3765365.00
DISCCART	439854.00	3765365.00
DISCCART	439859.00	3765365.00
DISCCART	439864.00	3765365.00
DISCCART	439869.00	3765365.00
DISCCART	439874.00	3765365.00
DISCCART	439879.00	3765365.00
DISCCART	439884.00	3765365.00
DISCCART	439674.00	3765370.00
DISCCART	439679.00	3765370.00
DISCCART	439684.00	3765370.00
DISCCART	439689.00	3765370.00
DISCCART	439694.00	3765370.00
DISCCART	439699.00	3765370.00
DISCCART	439704.00	3765370.00
DISCCART	439709.00	3765370.00
DISCCART	439714.00	3765370.00
DISCCART	439719.00	3765370.00
DISCCART	439729.00	3765370.00
DISCCART	439734.00	3765370.00
DISCCART	439739.00	3765370.00
DISCCART	439744.00	3765370.00
DISCCART	439749.00	3765370.00
DISCCART	439774.00	3765370.00

DISCCART 439779.00 3765370.00
DISCCART 439784.00 3765370.00
DISCCART 439789.00 3765370.00
DISCCART 439794.00 3765370.00
DISCCART 439799.00 3765370.00
DISCCART 439804.00 3765370.00
DISCCART 439809.00 3765370.00
DISCCART 439814.00 3765370.00
DISCCART 439839.00 3765370.00
DISCCART 439844.00 3765370.00
DISCCART 439849.00 3765370.00
DISCCART 439854.00 3765370.00
DISCCART 439859.00 3765370.00
DISCCART 439864.00 3765370.00
DISCCART 439869.00 3765370.00
DISCCART 439874.00 3765370.00
DISCCART 439879.00 3765370.00
DISCCART 439884.00 3765370.00
DISCCART 439674.00 3765375.00
DISCCART 439679.00 3765375.00
DISCCART 439684.00 3765375.00
DISCCART 439689.00 3765375.00
DISCCART 439694.00 3765375.00
DISCCART 439699.00 3765375.00
DISCCART 439704.00 3765375.00
DISCCART 439709.00 3765375.00
DISCCART 439714.00 3765375.00
DISCCART 439719.00 3765375.00
DISCCART 439729.00 3765375.00
DISCCART 439734.00 3765375.00
DISCCART 439739.00 3765375.00
DISCCART 439744.00 3765375.00
DISCCART 439749.00 3765375.00
DISCCART 439754.00 3765375.00
DISCCART 439774.00 3765375.00
DISCCART 439779.00 3765375.00
DISCCART 439784.00 3765375.00
DISCCART 439789.00 3765375.00
DISCCART 439794.00 3765375.00
DISCCART 439799.00 3765375.00
DISCCART 439804.00 3765375.00
DISCCART 439809.00 3765375.00
DISCCART 439814.00 3765375.00
DISCCART 439839.00 3765375.00
DISCCART 439844.00 3765375.00
DISCCART 439849.00 3765375.00
DISCCART 439854.00 3765375.00
DISCCART 439859.00 3765375.00
DISCCART 439864.00 3765375.00
DISCCART 439869.00 3765375.00
DISCCART 439874.00 3765375.00
DISCCART 439879.00 3765375.00

DISCCART	439884.00	3765375.00
DISCCART	439774.00	3765380.00
DISCCART	439779.00	3765380.00
DISCCART	439784.00	3765380.00
DISCCART	439789.00	3765380.00
DISCCART	439794.00	3765380.00
DISCCART	439799.00	3765380.00
DISCCART	439804.00	3765380.00
DISCCART	439809.00	3765380.00
DISCCART	439814.00	3765380.00
DISCCART	439769.00	3765385.00
DISCCART	439819.00	3765385.00
DISCCART	439769.00	3765400.00
DISCCART	439844.00	3765400.00
DISCCART	439849.00	3765400.00
DISCCART	439674.00	3765405.00
DISCCART	439714.00	3765405.00
DISCCART	439719.00	3765405.00
DISCCART	439734.00	3765405.00
DISCCART	439749.00	3765405.00
DISCCART	439754.00	3765405.00
DISCCART	439774.00	3765405.00
DISCCART	439779.00	3765405.00
DISCCART	439784.00	3765405.00
DISCCART	439789.00	3765405.00
DISCCART	439794.00	3765405.00
DISCCART	439799.00	3765405.00
DISCCART	439804.00	3765405.00
DISCCART	439809.00	3765405.00
DISCCART	439814.00	3765405.00
DISCCART	439819.00	3765405.00
DISCCART	439824.00	3765405.00
DISCCART	439829.00	3765405.00
DISCCART	439834.00	3765405.00
DISCCART	439839.00	3765405.00
DISCCART	439844.00	3765405.00
DISCCART	439849.00	3765405.00
DISCCART	439854.00	3765405.00
DISCCART	439859.00	3765405.00
DISCCART	439674.00	3765410.00
DISCCART	439679.00	3765410.00
DISCCART	439684.00	3765410.00
DISCCART	439689.00	3765410.00
DISCCART	439694.00	3765410.00
DISCCART	439699.00	3765410.00
DISCCART	439704.00	3765410.00
DISCCART	439709.00	3765410.00
DISCCART	439714.00	3765410.00
DISCCART	439719.00	3765410.00
DISCCART	439729.00	3765410.00
DISCCART	439734.00	3765410.00
DISCCART	439739.00	3765410.00

DISCCART	439744.00	3765410.00
DISCCART	439749.00	3765410.00
DISCCART	439774.00	3765410.00
DISCCART	439779.00	3765410.00
DISCCART	439784.00	3765410.00
DISCCART	439789.00	3765410.00
DISCCART	439794.00	3765410.00
DISCCART	439799.00	3765410.00
DISCCART	439804.00	3765410.00
DISCCART	439809.00	3765410.00
DISCCART	439814.00	3765410.00
DISCCART	439819.00	3765410.00
DISCCART	439824.00	3765410.00
DISCCART	439829.00	3765410.00
DISCCART	439834.00	3765410.00
DISCCART	439839.00	3765410.00
DISCCART	439844.00	3765410.00
DISCCART	439849.00	3765410.00
DISCCART	439854.00	3765410.00
DISCCART	439859.00	3765410.00
DISCCART	439674.00	3765415.00
DISCCART	439679.00	3765415.00
DISCCART	439684.00	3765415.00
DISCCART	439689.00	3765415.00
DISCCART	439694.00	3765415.00
DISCCART	439699.00	3765415.00
DISCCART	439704.00	3765415.00
DISCCART	439709.00	3765415.00
DISCCART	439714.00	3765415.00
DISCCART	439719.00	3765415.00
DISCCART	439729.00	3765415.00
DISCCART	439734.00	3765415.00
DISCCART	439739.00	3765415.00
DISCCART	439744.00	3765415.00
DISCCART	439749.00	3765415.00
DISCCART	439774.00	3765415.00
DISCCART	439779.00	3765415.00
DISCCART	439784.00	3765415.00
DISCCART	439789.00	3765415.00
DISCCART	439794.00	3765415.00
DISCCART	439799.00	3765415.00
DISCCART	439804.00	3765415.00
DISCCART	439809.00	3765415.00
DISCCART	439814.00	3765415.00
DISCCART	439819.00	3765415.00
DISCCART	439824.00	3765415.00
DISCCART	439829.00	3765415.00
DISCCART	439834.00	3765415.00
DISCCART	439839.00	3765415.00
DISCCART	439844.00	3765415.00
DISCCART	439849.00	3765415.00
DISCCART	439854.00	3765415.00

DISCCART	439859.00	3765415.00
DISCCART	439674.00	3765420.00
DISCCART	439679.00	3765420.00
DISCCART	439684.00	3765420.00
DISCCART	439689.00	3765420.00
DISCCART	439694.00	3765420.00
DISCCART	439699.00	3765420.00
DISCCART	439704.00	3765420.00
DISCCART	439709.00	3765420.00
DISCCART	439714.00	3765420.00
DISCCART	439719.00	3765420.00
DISCCART	439729.00	3765420.00
DISCCART	439734.00	3765420.00
DISCCART	439739.00	3765420.00
DISCCART	439744.00	3765420.00
DISCCART	439749.00	3765420.00
DISCCART	439774.00	3765420.00
DISCCART	439779.00	3765420.00
DISCCART	439784.00	3765420.00
DISCCART	439789.00	3765420.00
DISCCART	439794.00	3765420.00
DISCCART	439799.00	3765420.00
DISCCART	439804.00	3765420.00
DISCCART	439809.00	3765420.00
DISCCART	439814.00	3765420.00
DISCCART	439819.00	3765420.00
DISCCART	439824.00	3765420.00
DISCCART	439829.00	3765420.00
DISCCART	439834.00	3765420.00
DISCCART	439839.00	3765420.00
DISCCART	439844.00	3765420.00
DISCCART	439849.00	3765420.00
DISCCART	439854.00	3765420.00
DISCCART	439859.00	3765420.00
DISCCART	439674.00	3765425.00
DISCCART	439679.00	3765425.00
DISCCART	439684.00	3765425.00
DISCCART	439689.00	3765425.00
DISCCART	439694.00	3765425.00
DISCCART	439699.00	3765425.00
DISCCART	439704.00	3765425.00
DISCCART	439709.00	3765425.00
DISCCART	439714.00	3765425.00
DISCCART	439719.00	3765425.00
DISCCART	439729.00	3765425.00
DISCCART	439734.00	3765425.00
DISCCART	439739.00	3765425.00
DISCCART	439744.00	3765425.00
DISCCART	439749.00	3765425.00
DISCCART	439774.00	3765425.00
DISCCART	439779.00	3765425.00
DISCCART	439784.00	3765425.00

DISCCART	439789.00	3765425.00
DISCCART	439794.00	3765425.00
DISCCART	439799.00	3765425.00
DISCCART	439804.00	3765425.00
DISCCART	439809.00	3765425.00
DISCCART	439814.00	3765425.00
DISCCART	439819.00	3765425.00
DISCCART	439824.00	3765425.00
DISCCART	439829.00	3765425.00
DISCCART	439834.00	3765425.00
DISCCART	439839.00	3765425.00
DISCCART	439844.00	3765425.00
DISCCART	439849.00	3765425.00
DISCCART	439854.00	3765425.00
DISCCART	439859.00	3765425.00
DISCCART	439674.00	3765430.00
DISCCART	439679.00	3765430.00
DISCCART	439684.00	3765430.00
DISCCART	439689.00	3765430.00
DISCCART	439694.00	3765430.00
DISCCART	439699.00	3765430.00
DISCCART	439704.00	3765430.00
DISCCART	439709.00	3765430.00
DISCCART	439714.00	3765430.00
DISCCART	439719.00	3765430.00
DISCCART	439729.00	3765430.00
DISCCART	439734.00	3765430.00
DISCCART	439739.00	3765430.00
DISCCART	439744.00	3765430.00
DISCCART	439749.00	3765430.00
DISCCART	439774.00	3765430.00
DISCCART	439779.00	3765430.00
DISCCART	439784.00	3765430.00
DISCCART	439789.00	3765430.00
DISCCART	439794.00	3765430.00
DISCCART	439799.00	3765430.00
DISCCART	439804.00	3765430.00
DISCCART	439809.00	3765430.00
DISCCART	439814.00	3765430.00
DISCCART	439819.00	3765430.00
DISCCART	439824.00	3765430.00
DISCCART	439829.00	3765430.00
DISCCART	439834.00	3765430.00
DISCCART	439839.00	3765430.00
DISCCART	439844.00	3765430.00
DISCCART	439849.00	3765430.00
DISCCART	439854.00	3765430.00
DISCCART	439859.00	3765430.00
DISCCART	439674.00	3765435.00
DISCCART	439679.00	3765435.00
DISCCART	439684.00	3765435.00
DISCCART	439689.00	3765435.00

```
DISCCART    439694.00   3765435.00
DISCCART    439699.00   3765435.00
DISCCART    439704.00   3765435.00
DISCCART    439709.00   3765435.00
DISCCART    439714.00   3765435.00
DISCCART    439719.00   3765435.00
DISCCART    439729.00   3765435.00
DISCCART    439734.00   3765435.00
DISCCART    439739.00   3765435.00
DISCCART    439744.00   3765435.00
DISCCART    439749.00   3765435.00
DISCCART    439774.00   3765435.00
DISCCART    439779.00   3765435.00
DISCCART    439784.00   3765435.00
DISCCART    439789.00   3765435.00
DISCCART    439794.00   3765435.00
DISCCART    439799.00   3765435.00
DISCCART    439804.00   3765435.00
DISCCART    439809.00   3765435.00
DISCCART    439814.00   3765435.00
DISCCART    439819.00   3765435.00
DISCCART    439824.00   3765435.00
DISCCART    439829.00   3765435.00
DISCCART    439834.00   3765435.00
DISCCART    439839.00   3765435.00
DISCCART    439844.00   3765435.00
DISCCART    439849.00   3765435.00
DISCCART    439854.00   3765435.00
DISCCART    439859.00   3765435.00
DISCCART    439674.00   3765440.00
DISCCART    439679.00   3765440.00
DISCCART    439684.00   3765440.00
DISCCART    439689.00   3765440.00
DISCCART    439694.00   3765440.00
DISCCART    439699.00   3765440.00
DISCCART    439704.00   3765440.00
DISCCART    439709.00   3765440.00
DISCCART    439714.00   3765440.00
DISCCART    439719.00   3765440.00
DISCCART    439729.00   3765440.00
DISCCART    439734.00   3765440.00
DISCCART    439739.00   3765440.00
DISCCART    439744.00   3765440.00
DISCCART    439749.00   3765440.00
DISCCART    439774.00   3765440.00
DISCCART    439779.00   3765440.00
DISCCART    439784.00   3765440.00
DISCCART    439789.00   3765440.00
DISCCART    439794.00   3765440.00
DISCCART    439799.00   3765440.00
DISCCART    439804.00   3765440.00
DISCCART    439809.00   3765440.00
```

DISCCART	439814.00	3765440.00
DISCCART	439819.00	3765440.00
DISCCART	439824.00	3765440.00
DISCCART	439829.00	3765440.00
DISCCART	439834.00	3765440.00
DISCCART	439839.00	3765440.00
DISCCART	439844.00	3765440.00
DISCCART	439849.00	3765440.00
DISCCART	439854.00	3765440.00
DISCCART	439859.00	3765440.00
DISCCART	439674.00	3765445.00
DISCCART	439679.00	3765445.00
DISCCART	439684.00	3765445.00
DISCCART	439689.00	3765445.00
DISCCART	439694.00	3765445.00
DISCCART	439699.00	3765445.00
DISCCART	439704.00	3765445.00
DISCCART	439709.00	3765445.00
DISCCART	439714.00	3765445.00
DISCCART	439719.00	3765445.00
DISCCART	439729.00	3765445.00
DISCCART	439734.00	3765445.00
DISCCART	439739.00	3765445.00
DISCCART	439744.00	3765445.00
DISCCART	439749.00	3765445.00
DISCCART	439774.00	3765445.00
DISCCART	439779.00	3765445.00
DISCCART	439784.00	3765445.00
DISCCART	439789.00	3765445.00
DISCCART	439794.00	3765445.00
DISCCART	439799.00	3765445.00
DISCCART	439804.00	3765445.00
DISCCART	439809.00	3765445.00
DISCCART	439814.00	3765445.00
DISCCART	439819.00	3765445.00
DISCCART	439824.00	3765445.00
DISCCART	439829.00	3765445.00
DISCCART	439834.00	3765445.00
DISCCART	439839.00	3765445.00
DISCCART	439844.00	3765445.00
DISCCART	439849.00	3765445.00
DISCCART	439854.00	3765445.00
DISCCART	439859.00	3765445.00
DISCCART	439674.00	3765450.00
DISCCART	439679.00	3765450.00
DISCCART	439684.00	3765450.00
DISCCART	439689.00	3765450.00
DISCCART	439694.00	3765450.00
DISCCART	439699.00	3765450.00
DISCCART	439704.00	3765450.00
DISCCART	439709.00	3765450.00
DISCCART	439714.00	3765450.00

```
DISCCART    439719.00   3765450.00
DISCCART    439729.00   3765450.00
DISCCART    439734.00   3765450.00
DISCCART    439739.00   3765450.00
DISCCART    439744.00   3765450.00
DISCCART    439749.00   3765450.00
DISCCART    439774.00   3765450.00
DISCCART    439844.00   3765450.00
DISCCART    439849.00   3765450.00
DISCCART    439854.00   3765450.00
DISCCART    439859.00   3765450.00
DISCCART    439674.00   3765455.00
DISCCART    439679.00   3765455.00
DISCCART    439684.00   3765455.00
DISCCART    439689.00   3765455.00
DISCCART    439694.00   3765455.00
DISCCART    439699.00   3765455.00
DISCCART    439704.00   3765455.00
DISCCART    439709.00   3765455.00
DISCCART    439714.00   3765455.00
DISCCART    439719.00   3765455.00
DISCCART    439729.00   3765455.00
DISCCART    439734.00   3765455.00
DISCCART    439739.00   3765455.00
DISCCART    439744.00   3765455.00
DISCCART    439749.00   3765455.00
DISCCART    439844.00   3765455.00
DISCCART    439849.00   3765455.00
DISCCART    439854.00   3765455.00
DISCCART    439859.00   3765455.00
DISCCART    439674.00   3765460.00
DISCCART    439679.00   3765460.00
DISCCART    439684.00   3765460.00
DISCCART    439689.00   3765460.00
DISCCART    439694.00   3765460.00
DISCCART    439699.00   3765460.00
DISCCART    439704.00   3765460.00
DISCCART    439709.00   3765460.00
DISCCART    439714.00   3765460.00
DISCCART    439719.00   3765460.00
DISCCART    439729.00   3765460.00
DISCCART    439734.00   3765460.00
DISCCART    439739.00   3765460.00
DISCCART    439744.00   3765460.00
DISCCART    439749.00   3765460.00
DISCCART    439789.00   3765460.00
DISCCART    439794.00   3765460.00
DISCCART    439799.00   3765460.00
DISCCART    439804.00   3765460.00
DISCCART    439809.00   3765460.00
DISCCART    439814.00   3765460.00
DISCCART    439819.00   3765460.00
```

```
DISCCART    439824.00   3765460.00
DISCCART    439829.00   3765460.00
DISCCART    439844.00   3765460.00
DISCCART    439849.00   3765460.00
DISCCART    439854.00   3765460.00
DISCCART    439859.00   3765460.00
DISCCART    439674.00   3765465.00
DISCCART    439679.00   3765465.00
DISCCART    439684.00   3765465.00
DISCCART    439689.00   3765465.00
DISCCART    439694.00   3765465.00
DISCCART    439699.00   3765465.00
DISCCART    439704.00   3765465.00
DISCCART    439709.00   3765465.00
DISCCART    439714.00   3765465.00
DISCCART    439719.00   3765465.00
DISCCART    439729.00   3765465.00
DISCCART    439734.00   3765465.00
DISCCART    439739.00   3765465.00
DISCCART    439744.00   3765465.00
DISCCART    439749.00   3765465.00
DISCCART    439789.00   3765465.00
DISCCART    439794.00   3765465.00
DISCCART    439799.00   3765465.00
DISCCART    439804.00   3765465.00
DISCCART    439809.00   3765465.00
DISCCART    439814.00   3765465.00
DISCCART    439819.00   3765465.00
DISCCART    439824.00   3765465.00
DISCCART    439829.00   3765465.00
DISCCART    439844.00   3765465.00
DISCCART    439849.00   3765465.00
DISCCART    439854.00   3765465.00
DISCCART    439859.00   3765465.00
DISCCART    439674.00   3765470.00
DISCCART    439679.00   3765470.00
DISCCART    439684.00   3765470.00
DISCCART    439689.00   3765470.00
DISCCART    439694.00   3765470.00
DISCCART    439699.00   3765470.00
DISCCART    439704.00   3765470.00
DISCCART    439709.00   3765470.00
DISCCART    439714.00   3765470.00
DISCCART    439719.00   3765470.00
DISCCART    439729.00   3765470.00
DISCCART    439734.00   3765470.00
DISCCART    439739.00   3765470.00
DISCCART    439744.00   3765470.00
DISCCART    439749.00   3765470.00
DISCCART    439789.00   3765470.00
DISCCART    439794.00   3765470.00
DISCCART    439799.00   3765470.00
```

```
   DISCCART    439804.00   3765470.00
   DISCCART    439809.00   3765470.00
   DISCCART    439814.00   3765470.00
   DISCCART    439819.00   3765470.00
   DISCCART    439824.00   3765470.00
   DISCCART    439829.00   3765470.00
   DISCCART    439844.00   3765470.00
   DISCCART    439849.00   3765470.00
   DISCCART    439854.00   3765470.00
   DISCCART    439859.00   3765470.00
   DISCCART    439674.00   3765475.00
   DISCCART    439679.00   3765475.00
   DISCCART    439684.00   3765475.00
   DISCCART    439689.00   3765475.00
   DISCCART    439694.00   3765475.00
   DISCCART    439699.00   3765475.00
   DISCCART    439704.00   3765475.00
   DISCCART    439709.00   3765475.00
   DISCCART    439714.00   3765475.00
   DISCCART    439719.00   3765475.00
   DISCCART    439729.00   3765475.00
   DISCCART    439734.00   3765475.00
   DISCCART    439739.00   3765475.00
   DISCCART    439744.00   3765475.00
   DISCCART    439749.00   3765475.00
   DISCCART    439754.00   3765475.00
   DISCCART    439789.00   3765475.00
   DISCCART    439794.00   3765475.00
   DISCCART    439799.00   3765475.00
   DISCCART    439804.00   3765475.00
   DISCCART    439809.00   3765475.00
   DISCCART    439814.00   3765475.00
   DISCCART    439819.00   3765475.00
   DISCCART    439824.00   3765475.00
   DISCCART    439829.00   3765475.00
** DESCRREC "UCART03" "Receptors generated from Uniform Cartesian
Grid"
   DISCCART    439269.00   3764900.00
   DISCCART    439369.00   3764900.00
   DISCCART    439469.00   3764900.00
   DISCCART    439569.00   3764900.00
   DISCCART    439669.00   3764900.00
   DISCCART    439769.00   3764900.00
   DISCCART    439869.00   3764900.00
   DISCCART    439969.00   3764900.00
   DISCCART    440069.00   3764900.00
   DISCCART    440169.00   3764900.00
   DISCCART    440269.00   3764900.00
   DISCCART    439269.00   3765000.00
   DISCCART    439369.00   3765000.00
   DISCCART    439469.00   3765000.00
   DISCCART    439569.00   3765000.00
```

DISCCART	439669.00	3765000.00
DISCCART	439769.00	3765000.00
DISCCART	439869.00	3765000.00
DISCCART	439969.00	3765000.00
DISCCART	440069.00	3765000.00
DISCCART	440169.00	3765000.00
DISCCART	440269.00	3765000.00
DISCCART	439269.00	3765100.00
DISCCART	439369.00	3765100.00
DISCCART	439469.00	3765100.00
DISCCART	439569.00	3765100.00
DISCCART	439669.00	3765100.00
DISCCART	439769.00	3765100.00
DISCCART	439869.00	3765100.00
DISCCART	439969.00	3765100.00
DISCCART	440069.00	3765100.00
DISCCART	440169.00	3765100.00
DISCCART	440269.00	3765100.00
DISCCART	439269.00	3765200.00
DISCCART	439369.00	3765200.00
DISCCART	439469.00	3765200.00
DISCCART	439569.00	3765200.00
DISCCART	439669.00	3765200.00
DISCCART	439769.00	3765200.00
DISCCART	439869.00	3765200.00
DISCCART	439969.00	3765200.00
DISCCART	440069.00	3765200.00
DISCCART	440169.00	3765200.00
DISCCART	440269.00	3765200.00
DISCCART	439269.00	3765300.00
DISCCART	439369.00	3765300.00
DISCCART	439469.00	3765300.00
DISCCART	439569.00	3765300.00
DISCCART	439669.00	3765300.00
DISCCART	439769.00	3765300.00
DISCCART	439869.00	3765300.00
DISCCART	439969.00	3765300.00
DISCCART	440069.00	3765300.00
DISCCART	440169.00	3765300.00
DISCCART	440269.00	3765300.00
DISCCART	439269.00	3765400.00
DISCCART	439369.00	3765400.00
DISCCART	439469.00	3765400.00
DISCCART	439569.00	3765400.00
DISCCART	439669.00	3765400.00
DISCCART	439769.00	3765400.00
DISCCART	439869.00	3765400.00
DISCCART	439969.00	3765400.00
DISCCART	440069.00	3765400.00
DISCCART	440169.00	3765400.00
DISCCART	440269.00	3765400.00
DISCCART	439269.00	3765500.00

```
DISCCART    439369.00   3765500.00
DISCCART    439469.00   3765500.00
DISCCART    439569.00   3765500.00
DISCCART    439669.00   3765500.00
DISCCART    439769.00   3765500.00
DISCCART    439869.00   3765500.00
DISCCART    439969.00   3765500.00
DISCCART    440069.00   3765500.00
DISCCART    440169.00   3765500.00
DISCCART    440269.00   3765500.00
DISCCART    439269.00   3765600.00
DISCCART    439369.00   3765600.00
DISCCART    439469.00   3765600.00
DISCCART    439569.00   3765600.00
DISCCART    439669.00   3765600.00
DISCCART    439769.00   3765600.00
DISCCART    439869.00   3765600.00
DISCCART    439969.00   3765600.00
DISCCART    440069.00   3765600.00
DISCCART    440169.00   3765600.00
DISCCART    440269.00   3765600.00
DISCCART    439269.00   3765700.00
DISCCART    439369.00   3765700.00
DISCCART    439469.00   3765700.00
DISCCART    439569.00   3765700.00
DISCCART    439669.00   3765700.00
DISCCART    439769.00   3765700.00
DISCCART    439869.00   3765700.00
DISCCART    439969.00   3765700.00
DISCCART    440069.00   3765700.00
DISCCART    440169.00   3765700.00
DISCCART    440269.00   3765700.00
DISCCART    439269.00   3765800.00
DISCCART    439369.00   3765800.00
DISCCART    439469.00   3765800.00
DISCCART    439569.00   3765800.00
DISCCART    439669.00   3765800.00
DISCCART    439769.00   3765800.00
DISCCART    439869.00   3765800.00
DISCCART    439969.00   3765800.00
DISCCART    440069.00   3765800.00
DISCCART    440169.00   3765800.00
DISCCART    440269.00   3765800.00
DISCCART    439269.00   3765900.00
DISCCART    439369.00   3765900.00
DISCCART    439469.00   3765900.00
DISCCART    439569.00   3765900.00
DISCCART    439669.00   3765900.00
DISCCART    439769.00   3765900.00
DISCCART    439869.00   3765900.00
DISCCART    439969.00   3765900.00
DISCCART    440069.00   3765900.00
```

```
   DISCCART    440169.00   3765900.00
   DISCCART    440269.00   3765900.00
** DESCRREC "UCART02" "Receptors generated from Uniform Cartesian
Grid"
   DISCCART    439649.00   3765310.00
   DISCCART    439679.00   3765310.00
   DISCCART    439709.00   3765310.00
   DISCCART    439739.00   3765310.00
   DISCCART    439769.00   3765310.00
   DISCCART    439799.00   3765310.00
   DISCCART    439829.00   3765310.00
   DISCCART    439859.00   3765310.00
   DISCCART    439889.00   3765310.00
   DISCCART    439649.00   3765340.00
   DISCCART    439679.00   3765340.00
   DISCCART    439709.00   3765340.00
   DISCCART    439739.00   3765340.00
   DISCCART    439769.00   3765340.00
   DISCCART    439799.00   3765340.00
   DISCCART    439829.00   3765340.00
   DISCCART    439859.00   3765340.00
   DISCCART    439889.00   3765340.00
   DISCCART    439649.00   3765370.00
   DISCCART    439679.00   3765370.00
   DISCCART    439709.00   3765370.00
   DISCCART    439739.00   3765370.00
   DISCCART    439769.00   3765370.00
   DISCCART    439799.00   3765370.00
   DISCCART    439829.00   3765370.00
   DISCCART    439859.00   3765370.00
   DISCCART    439889.00   3765370.00
   DISCCART    439649.00   3765400.00
   DISCCART    439679.00   3765400.00
   DISCCART    439709.00   3765400.00
   DISCCART    439739.00   3765400.00
   DISCCART    439769.00   3765400.00
   DISCCART    439799.00   3765400.00
   DISCCART    439829.00   3765400.00
   DISCCART    439859.00   3765400.00
   DISCCART    439889.00   3765400.00
   DISCCART    439649.00   3765430.00
   DISCCART    439679.00   3765430.00
   DISCCART    439709.00   3765430.00
   DISCCART    439739.00   3765430.00
   DISCCART    439769.00   3765430.00
   DISCCART    439799.00   3765430.00
   DISCCART    439829.00   3765430.00
   DISCCART    439859.00   3765430.00
   DISCCART    439889.00   3765430.00
   DISCCART    439649.00   3765460.00
   DISCCART    439679.00   3765460.00
   DISCCART    439709.00   3765460.00
```

```
   DISCCART    439739.00   3765460.00
   DISCCART    439769.00   3765460.00
   DISCCART    439799.00   3765460.00
   DISCCART    439829.00   3765460.00
   DISCCART    439859.00   3765460.00
   DISCCART    439889.00   3765460.00
   DISCCART    439649.00   3765490.00
   DISCCART    439679.00   3765490.00
   DISCCART    439709.00   3765490.00
   DISCCART    439739.00   3765490.00
   DISCCART    439769.00   3765490.00
   DISCCART    439799.00   3765490.00
   DISCCART    439829.00   3765490.00
   DISCCART    439859.00   3765490.00
   DISCCART    439889.00   3765490.00
RE FINISHED
**
****************************************
** AERMOD Meteorology Pathway
****************************************
**
**
ME STARTING
   SURFFILE "C:\Users\sjremote\Desktop\Ontario_PUD-Legacy
\OntarioIntlAirportADJU (1)\KONT_V9_ADJU\KONT_v9.SFC"
   PROFFILE "C:\Users\sjremote\Desktop\Ontario_PUD-Legacy
\OntarioIntlAirportADJU (1)\KONT_V9_ADJU\KONT_v9.PFL"
   SURFDATA 3102 2012 Ontario_Apt
   UAIRDATA 3190 2012
   PROFBASE 289.0 METERS
ME FINISHED
**
****************************************
** AERMOD Output Pathway
****************************************
**
**
OU STARTING
   RECTABLE ALLAVE 1ST
   RECTABLE 1 1ST
** Auto-Generated Plotfiles
   PLOTFILE 1 ALL 1ST ONTARIO_PUD-LEGACY_OPS-HRA-DPM_20221005.AD
\01H1GALL.PLT 31
   PLOTFILE 1 Exh 1ST ONTARIO_PUD-LEGACY_OPS-HRA-DPM_20221005.AD
\01H1G001.PLT 32
   PLOTFILE 1 FreeExh 1ST ONTARIO_PUD-LEGACY_OPS-HRA-DPM_
20221005.AD\01H1G002.PLT 33
   PLOTFILE 1 OnOffExh 1ST ONTARIO_PUD-LEGACY_OPS-HRA-DPM_
20221005.AD\01H1G003.PLT 34
   PLOTFILE PERIOD ALL ONTARIO_PUD-LEGACY_OPS-HRA-DPM_20221005.AD
\PE00GALL.PLT 35
   PLOTFILE PERIOD Exh ONTARIO_PUD-LEGACY_OPS-HRA-DPM_20221005.AD
```

```
\PE00G001.PLT 36
   PLOTFILE PERIOD FreeExh ONTARIO_PUD-LEGACY_OPS-HRA-DPM_
20221005.AD\PE00G002.PLT 37
   PLOTFILE PERIOD OnOffExh ONTARIO_PUD-LEGACY_OPS-HRA-DPM_
20221005.AD\PE00G003.PLT 38
   SUMMFILE Ontario_PUD-Legacy_Ops-HRA-DPM_20221005.sum
OU FINISHED


  *** Message Summary For AERMOD Model Setup ***

  --------- Summary of Total Messages --------

 A Total of            0 Fatal Error Message(s)
 A Total of            2 Warning Message(s)
 A Total of            0 Informational Message(s)


    ******** FATAL ERROR MESSAGES ********
               ***  NONE  ***


    ********   WARNING MESSAGES   ********
 ME W186    1734       MEOPEN: THRESH_1MIN 1-min ASOS wind speed
threshold used           0.50
 ME W187    1734       MEOPEN: ADJ_U* Option for Stable Low Winds
used in AERMET

 ***********************************
 *** SETUP Finishes Successfully ***
 ***********************************
```

```
 *** AERMOD - VERSION 21112  ***   *** C:\Lakes\Ontario_PUD-
Legacy_Ops-HRA_20221004\Ontario_PUD-Legacy_Ops- ***
10/05/22
 *** AERMET - VERSION  16216 ***   ***
***        12:31:02

PAGE   1
 *** MODELOPTs:    NonDFAULT  CONC  FLAT  URBAN  ADJ_U*

                                              ***     MODEL SETUP
OPTIONS SUMMARY       ***
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

 **Model Is Setup For Calculation of Average CONCentration
Values.

   --  DEPOSITION LOGIC  --
 **NO GAS DEPOSITION Data Provided.
 **NO PARTICLE DEPOSITION Data Provided.
 **Model Uses NO DRY DEPLETION.  DRYDPLT  =  F
 **Model Uses NO WET DEPLETION.  WETDPLT  =  F

 **Model Uses URBAN Dispersion Algorithm for the SBL for    66
Source(s),
   for Total of    1 Urban Area(s):
   Urban Population =   2035210.0 ;  Urban Roughness Length =
1.000 m

 **Model Allows User-Specified Options:
         1. Stack-tip Downwash.
         2. Model Assumes Receptors on FLAT Terrain.
         3. Use Calms Processing Routine.
         4. Use Missing Data Processing Routine.
         5. No Exponential Decay.
         6. Urban Roughness Length of 1.0 Meter Used.

 **Other Options Specified:
         ADJ_U*   - Use ADJ_U* option for SBL in AERMET
         CCVR_Sub - Meteorological data includes CCVR
substitutions
         TEMP_Sub - Meteorological data includes TEMP
substitutions

 **Model Assumes No FLAGPOLE Receptor Heights.

 **The User Specified a Pollutant Type of:  PM_10

 **Model Calculates  1 Short Term Average(s) of:   1-HR
     and Calculates PERIOD Averages

 **This Run Includes:     66 Source(s);       4 Source Group(s);
```

```
and    1115 Receptor(s)

                with:      0 POINT(s), including
                           0 POINTCAP(s) and      0 POINTHOR(s)
                 and:      0 VOLUME source(s)
                 and:     66 AREA type source(s)
                 and:      0 LINE source(s)
                 and:      0 RLINE/RLINEXT source(s)
                 and:      0 OPENPIT source(s)
                 and:      0 BUOYANT LINE source(s) with a total
of     0 line(s)


 **Model Set To Continue RUNning After the Setup Testing.

 **The AERMET Input Meteorological Data Version Date:  16216

 **Output Options Selected:
          Model Outputs Tables of PERIOD Averages by Receptor
          Model Outputs Tables of Highest Short Term Values by
Receptor (RECTABLE Keyword)
          Model Outputs External File(s) of High Values for
Plotting (PLOTFILE Keyword)
          Model Outputs Separate Summary File of High Ranked
Values (SUMMFILE Keyword)

 **NOTE:  The Following Flags May Appear Following CONC Values:
c for Calm Hours

m for Missing Hours

b for Both Calm and Missing Hours

 **Misc. Inputs:  Base Elev. for Pot. Temp. Profile (m MSL) =
289.00 ;  Decay Coef. =    0.000     ;  Rot. Angle =     0.0
                  Emission Units =
GRAMS/SEC                                ;  Emission Rate Unit
Factor =   0.10000E+07
                  Output Units   = MICROGRAMS/M**3

 **Approximate Storage Requirements of Model =      3.8 MB of
RAM.

 **Input Runstream File:          aermod.inp
 **Output Print File:             aermod.out

 **Detailed Error/Message File:   Ontario_PUD-Legacy_Ops-HRA-DPM_
20221005.err
 **File for Summary of Results:   Ontario_PUD-Legacy_Ops-HRA-DPM_
20221005.sum
```

*** AREA SOURCE DATA ***

RELEASE	X-DIM	Y-DIM	ORIENT.	INIT.	URBAN	EMISSION RATE
SOURCE ID	PART. CATS.	(GRAMS/SEC /METER**2)	X (METERS)	Y (METERS)	ELEV. (METERS)	HEIGHT (METERS)	SCALAR VARY BY
A0000012	0	0.30732E-04	440650.1	3765736.5	289.0	3.40	176.76	18.29	-179.52	3.20	YES	HROFDY
A0000013	0	0.30732E-04	440473.4	3765738.0	289.0	3.40	176.76	18.29	-179.52	3.20	YES	HROFDY
A0000014	0	0.30732E-04	440296.6	3765739.5	289.0	3.40	176.76	18.29	-179.52	3.20	YES	HROFDY
A0000015	0	0.30732E-04	440119.8	3765740.9	289.0	3.40	152.62	18.29	-179.86	3.20	YES	HROFDY
A0000016	0	0.30732E-04	439967.2	3765741.3	289.0	3.40	152.62	18.29	-179.86	3.20	YES	HROFDY
A0000017	0	0.30732E-04	439814.6	3765741.7	289.0	3.40	152.62	18.29	-179.86	3.20	YES	HROFDY
A0000018	0	0.30732E-04	439661.9	3765742.1	289.0	3.40	163.56	18.29	-179.87	3.20	YES	HROFDY
A0000019	0	0.30732E-04	439498.4	3765742.5	289.0	3.40	163.56	18.29	-179.87	3.20	YES	HROFDY
A0000020	0	0.30732E-04	439334.8	3765742.8	289.0	3.40	163.56	18.29	-179.87	3.20	YES	HROFDY
A0000021	0	0.30732E-04	439171.2	3765743.2	289.0	3.40	150.13	18.29	179.63	3.20	YES	HROFDY
A0000022	0	0.30732E-04	439021.1	3765742.2	289.0	3.40	150.13	18.29	179.63	3.20	YES	HROFDY
A0000001	0	0.30748E-04	438872.2	3765704.7	289.0	3.40	174.70	18.29	0.36	3.20	YES	HROFDY
A0000002	0	0.30748E-04	439046.9	3765703.5	289.0	3.40	174.70	18.29	0.36	3.20	YES	HROFDY
A0000003	0	0.30748E-04	439221.6	3765702.4	289.0							

```
3.40    174.70     18.29      0.36     3.20     YES   HROFDY
 A0000004         0   0.30748E-04  439396.3 3765701.3   289.0
3.40    174.70     18.29      0.36     3.20     YES   HROFDY
 A0000005         0   0.30748E-04  439571.0 3765700.2   289.0
3.40    173.93     18.29      0.19     3.20     YES   HROFDY
 A0000006         0   0.30748E-04  439744.9 3765699.6   289.0
3.40    172.78     18.29      0.07     3.20     YES   HROFDY
 A0000007         0   0.30748E-04  439917.7 3765699.4   289.0
3.40    172.78     18.29      0.07     3.20     YES   HROFDY
 A0000008         0   0.30748E-04  440090.5 3765699.2   289.0
3.40    157.42     18.29      0.00     3.20     YES   HROFDY
 A0000009         0   0.30748E-04  440247.9 3765699.2   289.0
3.40    157.42     18.29      0.00     3.20     YES   HROFDY
 A0000010         0   0.30748E-04  440405.4 3765699.2   289.0
3.40    122.75     18.29     -0.64     3.20     YES   HROFDY
 A0000011         0   0.30748E-04  440528.2 3765700.6   289.0
3.40    122.75     18.29     -0.64     3.20     YES   HROFDY
 A0000023         0   0.53118E-03  439894.8 3765794.0   289.0
3.40     32.80      3.96    171.48     3.20     YES   HROFDY
 A0000024         0   0.53118E-03  439862.4 3765789.1   289.0
3.40     32.80      3.96    171.48     3.20     YES   HROFDY
 A0000025         0   0.53118E-03  439830.0 3765784.3   289.0
3.40     38.31      3.96    171.96     3.20     YES   HROFDY
 A0000026         0   0.53118E-03  439792.0 3765778.9   289.0
3.40     38.31      3.96    171.96     3.20     YES   HROFDY
 A0000027         0   0.53118E-03  439754.1 3765773.6   289.0
3.40     38.31      3.96    171.96     3.20     YES   HROFDY
 A0000028         0   0.53118E-03  439716.2 3765768.2   289.0
3.40     38.31      3.96    171.96     3.20     YES   HROFDY
 A0000029         0   0.53118E-03  439678.2 3765762.8   289.0
3.40     38.31      3.96    171.96     3.20     YES   HROFDY
 A0000030         0   0.53118E-03  439640.3 3765757.5   289.0
3.40     38.31      3.96    171.96     3.20     YES   HROFDY
 A0000031         0   0.53118E-03  439602.5 3765752.1   289.0
3.40     23.20      3.96    175.65     3.20     YES   HROFDY
 A0000032         0   0.53118E-03  439579.4 3765750.4   289.0
3.40     23.20      3.96    175.65     3.20     YES   HROFDY
 A0000033         0   0.53118E-03  439556.3 3765748.6   289.0
3.40     39.05      3.96    178.51     3.20     YES   HROFDY
 A0000034         0   0.53118E-03  439517.3 3765747.6   289.0
3.40     39.05      3.96    178.51     3.20     YES   HROFDY
 A0000035         0   0.53118E-03  439478.2 3765746.6   289.0
3.40     27.56      3.96    178.03     3.20     YES   HROFDY
 A0000036         0   0.53118E-03  439450.7 3765745.6   289.0
3.40     27.56      3.96    178.03     3.20     YES   HROFDY
 A0000037         0   0.30079E-03  439896.1 3765649.5   289.0
3.40     39.04      7.62   -169.43     3.20     YES   HROFDY
 A0000038         0   0.30079E-03  439857.7 3765656.6   289.0
3.40     39.04      7.62   -169.43     3.20     YES   HROFDY
 A0000039         0   0.30079E-03  439819.3 3765663.8   289.0
3.40     64.28      7.62   -169.30     3.20     YES   HROFDY
 A0000040         0   0.30079E-03  439755.9 3765675.8   289.0
```

3.40	46.57	7.62	-174.26	3.20	YES	HROFDY

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** AREA SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC /METER**2)	COORD (SW CORNER) X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	X-DIM OF AREA (METERS)	Y-DIM OF AREA (METERS)	ORIENT. OF AREA (DEG.)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
A0000041	0	0.30079E-03	439709.5	3765680.5	289.0	3.40	46.57	7.62	-174.26	3.20	YES	HROFDY
A0000042	0	0.30079E-03	439663.2	3765685.1	289.0	3.40	66.93	7.62	-174.23	3.20	YES	HROFDY
A0000043	0	0.30079E-03	439596.6	3765691.8	289.0	3.40	66.93	7.62	-174.23	3.20	YES	HROFDY
A0000044	0	0.30079E-03	439530.0	3765698.6	289.0	3.40	66.93	7.62	-174.23	3.20	YES	HROFDY
A0000045	0	0.49659E-03	439941.6	3765643.3	289.0	3.40	26.12	3.96	-8.23	3.20	YES	HROFDY
A0000046	0	0.49659E-03	439967.4	3765647.1	289.0	3.40	26.12	3.96	-8.23	3.20	YES	HROFDY
A0000047	0	0.49659E-03	439993.3	3765650.8	289.0	3.40	32.84	3.96	-7.40	3.20	YES	HROFDY
A0000048	0	0.49659E-03	440025.8	3765655.0	289.0	3.40	32.84	3.96	-7.40	3.20	YES	HROFDY
A0000049	0	0.49659E-03	440058.4	3765659.3	289.0	3.40	32.84	3.96	-7.40	3.20	YES	HROFDY
A0000050	0	0.49659E-03	440091.0	3765663.5	289.0	3.40	32.84	3.96	-7.40	3.20	YES	HROFDY
A0000051	0	0.49659E-03	440123.5	3765667.7	289.0	3.40	32.84	3.96	-7.40	3.20	YES	HROFDY
A0000052	0	0.49659E-03	440156.1	3765672.0	289.0	3.40	37.89	3.96	-7.15	3.20	YES	HROFDY
A0000053	0	0.49659E-03	440193.7	3765676.7	289.0	3.40	37.89	3.96	-7.15	3.20	YES	HROFDY
A0000054	0	0.49659E-03	440231.3	3765681.4	289.0							

```
3.40     37.89      3.96     -7.15     3.20     YES   HROFDY
 A0000055         0   0.49659E-03  440268.7 3765686.1   289.0
3.40     26.94      3.96     -3.79     3.20     YES   HROFDY
 A0000056         0   0.49659E-03  440295.6 3765687.9   289.0
3.40     26.94      3.96     -3.79     3.20     YES   HROFDY
 A0000057         0   0.49659E-03  440322.4 3765689.7   289.0
3.40     32.28      3.96     -1.87     3.20     YES   HROFDY
 A0000058         0   0.49659E-03  440354.7 3765690.7   289.0
3.40     30.65      3.96     -1.70     3.20     YES   HROFDY
 A0000059         0   0.49659E-03  440385.3 3765691.6   289.0
3.40     30.65      3.96     -1.70     3.20     YES   HROFDY
 A0000060         0   0.49659E-03  440416.0 3765692.5   289.0
3.40     30.65      3.96     -1.70     3.20     YES   HROFDY
 A0000061         0   0.18975E-03  440393.2 3765744.6   289.0
3.40     82.20     11.58   -174.12     3.20     YES   HROFDY
 A0000062         0   0.18975E-03  440311.4 3765753.0   289.0
3.40     86.40     11.58   -174.17     3.20     YES   HROFDY
 A0000063         0   0.18975E-03  440225.4 3765761.8   289.0
3.40     87.63     11.58   -175.26     3.20     YES   HROFDY
 A0000064         0   0.18975E-03  440138.2 3765769.0   289.0
3.40     35.21     11.58   -173.24     3.20     YES   HROFDY
 A0000065         0   0.18975E-03  440103.5 3765773.1   289.0
3.40     81.78     11.58   -171.16     3.20     YES   HROFDY
 A0000066         0   0.18975E-03  440022.7 3765785.7   289.0
3.40     81.78     11.58   -171.16     3.20     YES   HROFDY
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** SOURCE IDs DEFINING SOURCE GROUPS ***

SRCGROUP ID	SOURCE IDs
EXH	A0000012 , A0000013 , A0000014 , A0000015 , A0000016 , A0000017 , A0000018 , A0000019 ,
	A0000020 , A0000021 , A0000022 , A0000001 , A0000002 , A0000003 , A0000004 , A0000005 ,
	A0000006 , A0000007 , A0000008 , A0000009 , A0000010 , A0000011 , A0000023 , A0000024 ,
	A0000025 , A0000026 , A0000027 , A0000028 , A0000029 , A0000030 , A0000031 , A0000032 ,
	A0000033 , A0000034 , A0000035 , A0000036 , A0000037 , A0000038 , A0000039 , A0000040 ,
	A0000041 , A0000042 , A0000043 , A0000044 , A0000045 , A0000046 , A0000047 , A0000048 ,
	A0000049 , A0000050 , A0000051 , A0000052 , A0000053 , A0000054 , A0000055 , A0000056 ,
	A0000057 , A0000058 , A0000059 , A0000060 , A0000061 , A0000062 , A0000063 , A0000064 ,
	A0000065 , A0000066 ,

```
  FREEEXH    A0000012    , A0000013    , A0000014    ,
A0000015    , A0000016    , A0000017    , A0000018    ,
A0000019    ,

             A0000020    , A0000021    , A0000022    ,
A0000001    , A0000002    , A0000003    , A0000004    ,
A0000005    ,

             A0000006    , A0000007    , A0000008    ,
A0000009    , A0000010    , A0000011    ,

  ONOFFEXH   A0000023    , A0000024    , A0000025    ,
A0000026    , A0000027    , A0000028    , A0000029    ,
A0000030    ,

             A0000031    , A0000032    , A0000033    ,
A0000034    , A0000035    , A0000036    , A0000037    ,
A0000038    ,

             A0000039    , A0000040    , A0000041    ,
A0000042    , A0000043    , A0000044    , A0000045    ,
A0000046    ,

             A0000047    , A0000048    , A0000049    ,
A0000050    , A0000051    , A0000052    , A0000053    ,
A0000054    ,

             A0000055    , A0000056    , A0000057    ,
A0000058    , A0000059    , A0000060    , A0000061    ,
A0000062    ,

             A0000063    , A0000064    , A0000065    ,
A0000066    ,

  ALL        A0000012    , A0000013    , A0000014    ,
A0000015    , A0000016    , A0000017    , A0000018    ,
A0000019    ,

             A0000020    , A0000021    , A0000022    ,
A0000001    , A0000002    , A0000003    , A0000004    ,
A0000005    ,
```

```
 *** AERMOD - VERSION 21112  ***   *** C:\Lakes\Ontario_PUD-
Legacy_Ops-HRA_20221004\Ontario_PUD-Legacy_Ops- ***
10/05/22
 *** AERMET - VERSION  16216 ***   ***
***        12:31:02

PAGE   5
 *** MODELOPTs:    NonDFAULT  CONC  FLAT  URBAN  ADJ_U*


                                            *** SOURCE IDs
DEFINING SOURCE GROUPS ***

 SRCGROUP ID                                                SOURCE
IDs
 -----------                                                -------
---


             A0000006    , A0000007    , A0000008    ,
A0000009    , A0000010    , A0000011    , A0000023    ,
A0000024    ,

             A0000025    , A0000026    , A0000027    ,
A0000028    , A0000029    , A0000030    , A0000031    ,
A0000032    ,

             A0000033    , A0000034    , A0000035    ,
A0000036    , A0000037    , A0000038    , A0000039    ,
A0000040    ,

             A0000041    , A0000042    , A0000043    ,
A0000044    , A0000045    , A0000046    , A0000047    ,
A0000048    ,

             A0000049    , A0000050    , A0000051    ,
A0000052    , A0000053    , A0000054    , A0000055    ,
A0000056    ,

             A0000057    , A0000058    , A0000059    ,
A0000060    , A0000061    , A0000062    , A0000063    ,
A0000064    ,

             A0000065    , A0000066    ,
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** SOURCE IDs DEFINED AS URBAN SOURCES ***

URBAN ID	URBAN POP	SOURCE IDs
	2035210.	A0000012 , A0000013 , A0000014 , A0000015 , A0000016 , A0000017 , A0000018 , A0000019 ,
		A0000020 , A0000021 , A0000022 , A0000001 , A0000002 , A0000003 , A0000004 , A0000005 ,
		A0000006 , A0000007 , A0000008 , A0000009 , A0000010 , A0000011 , A0000023 , A0000024 ,
		A0000025 , A0000026 , A0000027 , A0000028 , A0000029 , A0000030 , A0000031 , A0000032 ,
		A0000033 , A0000034 , A0000035 , A0000036 , A0000037 , A0000038 , A0000039 , A0000040 ,
		A0000041 , A0000042 , A0000043 , A0000044 , A0000045 , A0000046 , A0000047 , A0000048 ,
		A0000049 , A0000050 , A0000051 , A0000052 , A0000053 , A0000054 , A0000055 , A0000056 ,
		A0000057 , A0000058 , A0000059 , A0000060 , A0000061 , A0000062 , A0000063 , A0000064 ,

A0000065 , A0000066 ,

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.27400E-02	2	.27100E-02	3	.26400E-02
4	.27200E-02	5	.33900E-02	6	.43000E-02
7	.54100E-02	8	.50200E-02	9	.59100E-02
10	.70600E-02	11	.74700E-02	12	.73100E-02
13	.69000E-02	14	.63000E-02	15	.49600E-02
16	.38300E-02	17	.28900E-02	18	.26200E-02
19	.32900E-02	20	.40200E-02	21	.42600E-02
22	.39800E-02	23	.38000E-02	24	.31400E-02

SOURCE ID = A0000012 ; SOURCE TYPE = AREA :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.27400E-02	2	.27100E-02	3	.26400E-02
4	.27200E-02	5	.33900E-02	6	.43000E-02
7	.54100E-02	8	.50200E-02	9	.59100E-02
10	.70600E-02	11	.74700E-02	12	.73100E-02
13	.69000E-02	14	.63000E-02	15	.49600E-02
16	.38300E-02	17	.28900E-02	18	.26200E-02
19	.32900E-02	20	.40200E-02	21	.42600E-02
22	.39800E-02	23	.38000E-02	24	.31400E-02

SOURCE ID = A0000013 ; SOURCE TYPE = AREA :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.27400E-02	2	.27100E-02	3	.26400E-02
4	.27200E-02	5	.33900E-02	6	.43000E-02
7	.54100E-02	8	.50200E-02	9	.59100E-02
10	.70600E-02	11	.74700E-02	12	.73100E-02
13	.69000E-02	14	.63000E-02	15	.49600E-02
16	.38300E-02	17	.28900E-02	18	.26200E-02
19	.32900E-02	20	.40200E-02	21	.42600E-02
22	.39800E-02	23	.38000E-02	24	.31400E-02

SOURCE ID = A0000014 ; SOURCE TYPE = AREA :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.27400E-02	2	.27100E-02	3	.26400E-02
4	.27200E-02	5	.33900E-02	6	.43000E-02
7	.54100E-02	8	.50200E-02	9	.59100E-02
10	.70600E-02	11	.74700E-02	12	.73100E-02
13	.69000E-02	14	.63000E-02	15	.49600E-02
16	.38300E-02	17	.28900E-02	18	.26200E-02
19	.32900E-02	20	.40200E-02	21	.42600E-02
22	.39800E-02	23	.38000E-02	24	.31400E-02

SOURCE ID = A0000015 ; SOURCE TYPE = AREA :

```
       1   .27400E-02      2   .27100E-02      3   .26400E-02
4   .27200E-02      5   .33900E-02      6   .43000E-02
       7   .54100E-02      8   .50200E-02      9   .59100E-02
10   .70600E-02     11   .74700E-02     12   .73100E-02
      13   .69000E-02     14   .63000E-02     15   .49600E-02
16   .38300E-02     17   .28900E-02     18   .26200E-02
      19   .32900E-02     20   .40200E-02     21   .42600E-02
22   .39800E-02     23   .38000E-02     24   .31400E-02


 SOURCE ID = A0000016     ; SOURCE TYPE = AREA     :
       1   .27400E-02      2   .27100E-02      3   .26400E-02
4   .27200E-02      5   .33900E-02      6   .43000E-02
       7   .54100E-02      8   .50200E-02      9   .59100E-02
10   .70600E-02     11   .74700E-02     12   .73100E-02
      13   .69000E-02     14   .63000E-02     15   .49600E-02
16   .38300E-02     17   .28900E-02     18   .26200E-02
      19   .32900E-02     20   .40200E-02     21   .42600E-02
22   .39800E-02     23   .38000E-02     24   .31400E-02
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.27400E-02	2	.27100E-02	3	.26400E-02
4	.27200E-02	5	.33900E-02	6	.43000E-02
7	.54100E-02	8	.50200E-02	9	.59100E-02
10	.70600E-02	11	.74700E-02	12	.73100E-02
13	.69000E-02	14	.63000E-02	15	.49600E-02
16	.38300E-02	17	.28900E-02	18	.26200E-02
19	.32900E-02	20	.40200E-02	21	.42600E-02
22	.39800E-02	23	.38000E-02	24	.31400E-02

SOURCE ID = A0000017 ; SOURCE TYPE = AREA :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.27400E-02	2	.27100E-02	3	.26400E-02
4	.27200E-02	5	.33900E-02	6	.43000E-02
7	.54100E-02	8	.50200E-02	9	.59100E-02
10	.70600E-02	11	.74700E-02	12	.73100E-02
13	.69000E-02	14	.63000E-02	15	.49600E-02
16	.38300E-02	17	.28900E-02	18	.26200E-02
19	.32900E-02	20	.40200E-02	21	.42600E-02
22	.39800E-02	23	.38000E-02	24	.31400E-02

SOURCE ID = A0000018 ; SOURCE TYPE = AREA :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.27400E-02	2	.27100E-02	3	.26400E-02
4	.27200E-02	5	.33900E-02	6	.43000E-02
7	.54100E-02	8	.50200E-02	9	.59100E-02
10	.70600E-02	11	.74700E-02	12	.73100E-02
13	.69000E-02	14	.63000E-02	15	.49600E-02
16	.38300E-02	17	.28900E-02	18	.26200E-02
19	.32900E-02	20	.40200E-02	21	.42600E-02
22	.39800E-02	23	.38000E-02	24	.31400E-02

SOURCE ID = A0000019 ; SOURCE TYPE = AREA :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.27400E-02	2	.27100E-02	3	.26400E-02
4	.27200E-02	5	.33900E-02	6	.43000E-02
7	.54100E-02	8	.50200E-02	9	.59100E-02
10	.70600E-02	11	.74700E-02	12	.73100E-02
13	.69000E-02	14	.63000E-02	15	.49600E-02
16	.38300E-02	17	.28900E-02	18	.26200E-02
19	.32900E-02	20	.40200E-02	21	.42600E-02
22	.39800E-02	23	.38000E-02	24	.31400E-02

SOURCE ID = A0000020 ; SOURCE TYPE = AREA :

```
       1   .27400E-02      2   .27100E-02      3   .26400E-02
4   .27200E-02      5   .33900E-02      6   .43000E-02
       7   .54100E-02      8   .50200E-02      9   .59100E-02
10   .70600E-02     11   .74700E-02     12   .73100E-02
      13   .69000E-02     14   .63000E-02     15   .49600E-02
16   .38300E-02     17   .28900E-02     18   .26200E-02
      19   .32900E-02     20   .40200E-02     21   .42600E-02
22   .39800E-02     23   .38000E-02     24   .31400E-02


 SOURCE ID = A0000021     ; SOURCE TYPE = AREA     :
       1   .27400E-02      2   .27100E-02      3   .26400E-02
4   .27200E-02      5   .33900E-02      6   .43000E-02
       7   .54100E-02      8   .50200E-02      9   .59100E-02
10   .70600E-02     11   .74700E-02     12   .73100E-02
      13   .69000E-02     14   .63000E-02     15   .49600E-02
16   .38300E-02     17   .28900E-02     18   .26200E-02
      19   .32900E-02     20   .40200E-02     21   .42600E-02
22   .39800E-02     23   .38000E-02     24   .31400E-02
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.27400E-02	2	.27100E-02	3	.26400E-02
4	.27200E-02	5	.33900E-02	6	.43000E-02
7	.54100E-02	8	.50200E-02	9	.59100E-02
10	.70600E-02	11	.74700E-02	12	.73100E-02
13	.69000E-02	14	.63000E-02	15	.49600E-02
16	.38300E-02	17	.28900E-02	18	.26200E-02
19	.32900E-02	20	.40200E-02	21	.42600E-02
22	.39800E-02	23	.38000E-02	24	.31400E-02

SOURCE ID = A0000022 ; SOURCE TYPE = AREA :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.17200E-01	2	.12400E-01	3	.10800E-01
4	.12600E-01	5	.20300E-01	6	.34000E-01
7	.43100E-01	8	.45700E-01	9	.43900E-01
10	.41400E-01	11	.42000E-01	12	.43900E-01
13	.46300E-01	14	.48300E-01	15	.50100E-01
16	.49100E-01	17	.50800E-01	18	.50600E-01
19	.47200E-01	20	.45900E-01	21	.41700E-01
22	.40800E-01	23	.33400E-01	24	.24800E-01

SOURCE ID = A0000001 ; SOURCE TYPE = AREA :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.17200E-01	2	.12400E-01	3	.10800E-01
4	.12600E-01	5	.20300E-01	6	.34000E-01
7	.43100E-01	8	.45700E-01	9	.43900E-01
10	.41400E-01	11	.42000E-01	12	.43900E-01
13	.46300E-01	14	.48300E-01	15	.50100E-01
16	.49100E-01	17	.50800E-01	18	.50600E-01
19	.47200E-01	20	.45900E-01	21	.41700E-01
22	.40800E-01	23	.33400E-01	24	.24800E-01

SOURCE ID = A0000002 ; SOURCE TYPE = AREA :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.17200E-01	2	.12400E-01	3	.10800E-01
4	.12600E-01	5	.20300E-01	6	.34000E-01
7	.43100E-01	8	.45700E-01	9	.43900E-01
10	.41400E-01	11	.42000E-01	12	.43900E-01
13	.46300E-01	14	.48300E-01	15	.50100E-01
16	.49100E-01	17	.50800E-01	18	.50600E-01
19	.47200E-01	20	.45900E-01	21	.41700E-01
22	.40800E-01	23	.33400E-01	24	.24800E-01

SOURCE ID = A0000003 ; SOURCE TYPE = AREA :

```
       1   .17200E-01      2   .12400E-01      3   .10800E-01
4   .12600E-01      5   .20300E-01      6   .34000E-01
       7   .43100E-01      8   .45700E-01      9   .43900E-01
10   .41400E-01     11   .42000E-01     12   .43900E-01
      13   .46300E-01     14   .48300E-01     15   .50100E-01
16   .49100E-01     17   .50800E-01     18   .50600E-01
      19   .47200E-01     20   .45900E-01     21   .41700E-01
22   .40800E-01     23   .33400E-01     24   .24800E-01


 SOURCE ID = A0000004     ; SOURCE TYPE = AREA     :
       1   .17200E-01      2   .12400E-01      3   .10800E-01
4   .12600E-01      5   .20300E-01      6   .34000E-01
       7   .43100E-01      8   .45700E-01      9   .43900E-01
10   .41400E-01     11   .42000E-01     12   .43900E-01
      13   .46300E-01     14   .48300E-01     15   .50100E-01
16   .49100E-01     17   .50800E-01     18   .50600E-01
      19   .47200E-01     20   .45900E-01     21   .41700E-01
22   .40800E-01     23   .33400E-01     24   .24800E-01
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.17200E-01	2	.12400E-01	3	.10800E-01
4	.12600E-01	5	.20300E-01	6	.34000E-01
7	.43100E-01	8	.45700E-01	9	.43900E-01
10	.41400E-01	11	.42000E-01	12	.43900E-01
13	.46300E-01	14	.48300E-01	15	.50100E-01
16	.49100E-01	17	.50800E-01	18	.50600E-01
19	.47200E-01	20	.45900E-01	21	.41700E-01
22	.40800E-01	23	.33400E-01	24	.24800E-01

SOURCE ID = A0000005 ; SOURCE TYPE = AREA :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.17200E-01	2	.12400E-01	3	.10800E-01
4	.12600E-01	5	.20300E-01	6	.34000E-01
7	.43100E-01	8	.45700E-01	9	.43900E-01
10	.41400E-01	11	.42000E-01	12	.43900E-01
13	.46300E-01	14	.48300E-01	15	.50100E-01
16	.49100E-01	17	.50800E-01	18	.50600E-01
19	.47200E-01	20	.45900E-01	21	.41700E-01
22	.40800E-01	23	.33400E-01	24	.24800E-01

SOURCE ID = A0000006 ; SOURCE TYPE = AREA :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.17200E-01	2	.12400E-01	3	.10800E-01
4	.12600E-01	5	.20300E-01	6	.34000E-01
7	.43100E-01	8	.45700E-01	9	.43900E-01
10	.41400E-01	11	.42000E-01	12	.43900E-01
13	.46300E-01	14	.48300E-01	15	.50100E-01
16	.49100E-01	17	.50800E-01	18	.50600E-01
19	.47200E-01	20	.45900E-01	21	.41700E-01
22	.40800E-01	23	.33400E-01	24	.24800E-01

SOURCE ID = A0000007 ; SOURCE TYPE = AREA :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.17200E-01	2	.12400E-01	3	.10800E-01
4	.12600E-01	5	.20300E-01	6	.34000E-01
7	.43100E-01	8	.45700E-01	9	.43900E-01
10	.41400E-01	11	.42000E-01	12	.43900E-01
13	.46300E-01	14	.48300E-01	15	.50100E-01
16	.49100E-01	17	.50800E-01	18	.50600E-01
19	.47200E-01	20	.45900E-01	21	.41700E-01
22	.40800E-01	23	.33400E-01	24	.24800E-01

SOURCE ID = A0000008 ; SOURCE TYPE = AREA :

```
       1   .17200E-01      2   .12400E-01      3   .10800E-01
4   .12600E-01      5   .20300E-01      6   .34000E-01
       7   .43100E-01      8   .45700E-01      9   .43900E-01
10   .41400E-01     11   .42000E-01     12   .43900E-01
      13   .46300E-01     14   .48300E-01     15   .50100E-01
16   .49100E-01     17   .50800E-01     18   .50600E-01
      19   .47200E-01     20   .45900E-01     21   .41700E-01
22   .40800E-01     23   .33400E-01     24   .24800E-01


 SOURCE ID = A0000009     ; SOURCE TYPE = AREA     :
       1   .17200E-01      2   .12400E-01      3   .10800E-01
4   .12600E-01      5   .20300E-01      6   .34000E-01
       7   .43100E-01      8   .45700E-01      9   .43900E-01
10   .41400E-01     11   .42000E-01     12   .43900E-01
      13   .46300E-01     14   .48300E-01     15   .50100E-01
16   .49100E-01     17   .50800E-01     18   .50600E-01
      19   .47200E-01     20   .45900E-01     21   .41700E-01
22   .40800E-01     23   .33400E-01     24   .24800E-01
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.17200E-01	2	.12400E-01	3	.10800E-01
4	.12600E-01	5	.20300E-01	6	.34000E-01
7	.43100E-01	8	.45700E-01	9	.43900E-01
10	.41400E-01	11	.42000E-01	12	.43900E-01
13	.46300E-01	14	.48300E-01	15	.50100E-01
16	.49100E-01	17	.50800E-01	18	.50600E-01
19	.47200E-01	20	.45900E-01	21	.41700E-01
22	.40800E-01	23	.33400E-01	24	.24800E-01

SOURCE ID = A0000010 ; SOURCE TYPE = AREA :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.17200E-01	2	.12400E-01	3	.10800E-01
4	.12600E-01	5	.20300E-01	6	.34000E-01
7	.43100E-01	8	.45700E-01	9	.43900E-01
10	.41400E-01	11	.42000E-01	12	.43900E-01
13	.46300E-01	14	.48300E-01	15	.50100E-01
16	.49100E-01	17	.50800E-01	18	.50600E-01
19	.47200E-01	20	.45900E-01	21	.41700E-01
22	.40800E-01	23	.33400E-01	24	.24800E-01

SOURCE ID = A0000011 ; SOURCE TYPE = AREA :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.17200E-01	2	.12400E-01	3	.10800E-01
4	.12600E-01	5	.20300E-01	6	.34000E-01
7	.43100E-01	8	.45700E-01	9	.43900E-01
10	.41400E-01	11	.42000E-01	12	.43900E-01
13	.46300E-01	14	.48300E-01	15	.50100E-01
16	.49100E-01	17	.50800E-01	18	.50600E-01
19	.47200E-01	20	.45900E-01	21	.41700E-01
22	.40800E-01	23	.33400E-01	24	.24800E-01

SOURCE ID = A0000023 ; SOURCE TYPE = AREA :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.81700E-04	2	.56300E-04	3	.49400E-04
4	.88000E-04	5	.25100E-03	6	.39900E-03
7	.45000E-03	8	.51300E-03	9	.55400E-03
10	.56800E-03	11	.58700E-03	12	.61800E-03
13	.60300E-03	14	.58200E-03	15	.56500E-03
16	.54800E-03	17	.52800E-03	18	.51600E-03
19	.42100E-03	20	.32900E-03	21	.29700E-03
22	.25800E-03	23	.19100E-03	24	.12200E-03

SOURCE ID = A0000024 ; SOURCE TYPE = AREA :

```
       1   .81700E-04      2   .56300E-04      3   .49400E-04
4   .88000E-04      5   .25100E-03      6   .39900E-03
       7   .45000E-03      8   .51300E-03      9   .55400E-03
10   .56800E-03     11   .58700E-03     12   .61800E-03
      13   .60300E-03     14   .58200E-03     15   .56500E-03
16   .54800E-03     17   .52800E-03     18   .51600E-03
      19   .42100E-03     20   .32900E-03     21   .29700E-03
22   .25800E-03     23   .19100E-03     24   .12200E-03


 SOURCE ID = A0000025     ; SOURCE TYPE = AREA     :
       1   .81700E-04      2   .56300E-04      3   .49400E-04
4   .88000E-04      5   .25100E-03      6   .39900E-03
       7   .45000E-03      8   .51300E-03      9   .55400E-03
10   .56800E-03     11   .58700E-03     12   .61800E-03
      13   .60300E-03     14   .58200E-03     15   .56500E-03
16   .54800E-03     17   .52800E-03     18   .51600E-03
      19   .42100E-03     20   .32900E-03     21   .29700E-03
22   .25800E-03     23   .19100E-03     24   .12200E-03
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.81700E-04	2	.56300E-04	3	.49400E-04
4	.88000E-04	5	.25100E-03	6	.39900E-03
7	.45000E-03	8	.51300E-03	9	.55400E-03
10	.56800E-03	11	.58700E-03	12	.61800E-03
13	.60300E-03	14	.58200E-03	15	.56500E-03
16	.54800E-03	17	.52800E-03	18	.51600E-03
19	.42100E-03	20	.32900E-03	21	.29700E-03
22	.25800E-03	23	.19100E-03	24	.12200E-03

SOURCE ID = A0000026 ; SOURCE TYPE = AREA :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.81700E-04	2	.56300E-04	3	.49400E-04
4	.88000E-04	5	.25100E-03	6	.39900E-03
7	.45000E-03	8	.51300E-03	9	.55400E-03
10	.56800E-03	11	.58700E-03	12	.61800E-03
13	.60300E-03	14	.58200E-03	15	.56500E-03
16	.54800E-03	17	.52800E-03	18	.51600E-03
19	.42100E-03	20	.32900E-03	21	.29700E-03
22	.25800E-03	23	.19100E-03	24	.12200E-03

SOURCE ID = A0000027 ; SOURCE TYPE = AREA :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.81700E-04	2	.56300E-04	3	.49400E-04
4	.88000E-04	5	.25100E-03	6	.39900E-03
7	.45000E-03	8	.51300E-03	9	.55400E-03
10	.56800E-03	11	.58700E-03	12	.61800E-03
13	.60300E-03	14	.58200E-03	15	.56500E-03
16	.54800E-03	17	.52800E-03	18	.51600E-03
19	.42100E-03	20	.32900E-03	21	.29700E-03
22	.25800E-03	23	.19100E-03	24	.12200E-03

SOURCE ID = A0000028 ; SOURCE TYPE = AREA :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.81700E-04	2	.56300E-04	3	.49400E-04
4	.88000E-04	5	.25100E-03	6	.39900E-03
7	.45000E-03	8	.51300E-03	9	.55400E-03
10	.56800E-03	11	.58700E-03	12	.61800E-03
13	.60300E-03	14	.58200E-03	15	.56500E-03
16	.54800E-03	17	.52800E-03	18	.51600E-03
19	.42100E-03	20	.32900E-03	21	.29700E-03
22	.25800E-03	23	.19100E-03	24	.12200E-03

SOURCE ID = A0000029 ; SOURCE TYPE = AREA :

```
       1   .81700E-04      2   .56300E-04      3   .49400E-04
4   .88000E-04      5   .25100E-03      6   .39900E-03
       7   .45000E-03      8   .51300E-03      9   .55400E-03
10   .56800E-03     11   .58700E-03     12   .61800E-03
      13   .60300E-03     14   .58200E-03     15   .56500E-03
16   .54800E-03     17   .52800E-03     18   .51600E-03
      19   .42100E-03     20   .32900E-03     21   .29700E-03
22   .25800E-03     23   .19100E-03     24   .12200E-03


 SOURCE ID = A0000030     ; SOURCE TYPE = AREA     :
       1   .81700E-04      2   .56300E-04      3   .49400E-04
4   .88000E-04      5   .25100E-03      6   .39900E-03
       7   .45000E-03      8   .51300E-03      9   .55400E-03
10   .56800E-03     11   .58700E-03     12   .61800E-03
      13   .60300E-03     14   .58200E-03     15   .56500E-03
16   .54800E-03     17   .52800E-03     18   .51600E-03
      19   .42100E-03     20   .32900E-03     21   .29700E-03
22   .25800E-03     23   .19100E-03     24   .12200E-03
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.81700E-04	2	.56300E-04	3	.49400E-04
4	.88000E-04	5	.25100E-03	6	.39900E-03
7	.45000E-03	8	.51300E-03	9	.55400E-03
10	.56800E-03	11	.58700E-03	12	.61800E-03
13	.60300E-03	14	.58200E-03	15	.56500E-03
16	.54800E-03	17	.52800E-03	18	.51600E-03
19	.42100E-03	20	.32900E-03	21	.29700E-03
22	.25800E-03	23	.19100E-03	24	.12200E-03

SOURCE ID = A0000031 ; SOURCE TYPE = AREA :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.81700E-04	2	.56300E-04	3	.49400E-04
4	.88000E-04	5	.25100E-03	6	.39900E-03
7	.45000E-03	8	.51300E-03	9	.55400E-03
10	.56800E-03	11	.58700E-03	12	.61800E-03
13	.60300E-03	14	.58200E-03	15	.56500E-03
16	.54800E-03	17	.52800E-03	18	.51600E-03
19	.42100E-03	20	.32900E-03	21	.29700E-03
22	.25800E-03	23	.19100E-03	24	.12200E-03

SOURCE ID = A0000032 ; SOURCE TYPE = AREA :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.81700E-04	2	.56300E-04	3	.49400E-04
4	.88000E-04	5	.25100E-03	6	.39900E-03
7	.45000E-03	8	.51300E-03	9	.55400E-03
10	.56800E-03	11	.58700E-03	12	.61800E-03
13	.60300E-03	14	.58200E-03	15	.56500E-03
16	.54800E-03	17	.52800E-03	18	.51600E-03
19	.42100E-03	20	.32900E-03	21	.29700E-03
22	.25800E-03	23	.19100E-03	24	.12200E-03

SOURCE ID = A0000033 ; SOURCE TYPE = AREA :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.81700E-04	2	.56300E-04	3	.49400E-04
4	.88000E-04	5	.25100E-03	6	.39900E-03
7	.45000E-03	8	.51300E-03	9	.55400E-03
10	.56800E-03	11	.58700E-03	12	.61800E-03
13	.60300E-03	14	.58200E-03	15	.56500E-03
16	.54800E-03	17	.52800E-03	18	.51600E-03
19	.42100E-03	20	.32900E-03	21	.29700E-03
22	.25800E-03	23	.19100E-03	24	.12200E-03

SOURCE ID = A0000034 ; SOURCE TYPE = AREA :

```
       1   .81700E-04      2   .56300E-04      3   .49400E-04
4   .88000E-04      5   .25100E-03      6   .39900E-03
       7   .45000E-03      8   .51300E-03      9   .55400E-03
10   .56800E-03     11   .58700E-03     12   .61800E-03
      13   .60300E-03     14   .58200E-03     15   .56500E-03
16   .54800E-03     17   .52800E-03     18   .51600E-03
      19   .42100E-03     20   .32900E-03     21   .29700E-03
22   .25800E-03     23   .19100E-03     24   .12200E-03


 SOURCE ID = A0000035     ; SOURCE TYPE = AREA     :
       1   .81700E-04      2   .56300E-04      3   .49400E-04
4   .88000E-04      5   .25100E-03      6   .39900E-03
       7   .45000E-03      8   .51300E-03      9   .55400E-03
10   .56800E-03     11   .58700E-03     12   .61800E-03
      13   .60300E-03     14   .58200E-03     15   .56500E-03
16   .54800E-03     17   .52800E-03     18   .51600E-03
      19   .42100E-03     20   .32900E-03     21   .29700E-03
22   .25800E-03     23   .19100E-03     24   .12200E-03
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.81700E-04	2	.56300E-04	3	.49400E-04
4	.88000E-04	5	.25100E-03	6	.39900E-03
7	.45000E-03	8	.51300E-03	9	.55400E-03
10	.56800E-03	11	.58700E-03	12	.61800E-03
13	.60300E-03	14	.58200E-03	15	.56500E-03
16	.54800E-03	17	.52800E-03	18	.51600E-03
19	.42100E-03	20	.32900E-03	21	.29700E-03
22	.25800E-03	23	.19100E-03	24	.12200E-03

SOURCE ID = A0000036 ; SOURCE TYPE = AREA :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.45100E-04	2	.44600E-04	3	.43300E-04
4	.44700E-04	5	.55800E-04	6	.70800E-04
7	.89000E-04	8	.82500E-04	9	.97100E-04
10	.11600E-03	11	.12300E-03	12	.12000E-03
13	.11300E-03	14	.10400E-03	15	.81500E-04
16	.63000E-04	17	.54800E-04	18	.49700E-04
19	.54100E-04	20	.66200E-04	21	.70100E-04
22	.65500E-04	23	.62500E-04	24	.51600E-04

SOURCE ID = A0000037 ; SOURCE TYPE = AREA :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.45100E-04	2	.44600E-04	3	.43300E-04
4	.44700E-04	5	.55800E-04	6	.70800E-04
7	.89000E-04	8	.82500E-04	9	.97100E-04
10	.11600E-03	11	.12300E-03	12	.12000E-03
13	.11300E-03	14	.10400E-03	15	.81500E-04
16	.63000E-04	17	.54800E-04	18	.49700E-04
19	.54100E-04	20	.66200E-04	21	.70100E-04
22	.65500E-04	23	.62500E-04	24	.51600E-04

SOURCE ID = A0000038 ; SOURCE TYPE = AREA :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.45100E-04	2	.44600E-04	3	.43300E-04
4	.44700E-04	5	.55800E-04	6	.70800E-04
7	.89000E-04	8	.82500E-04	9	.97100E-04
10	.11600E-03	11	.12300E-03	12	.12000E-03
13	.11300E-03	14	.10400E-03	15	.81500E-04
16	.63000E-04	17	.54800E-04	18	.49700E-04
19	.54100E-04	20	.66200E-04	21	.70100E-04
22	.65500E-04	23	.62500E-04	24	.51600E-04

SOURCE ID = A0000039 ; SOURCE TYPE = AREA :

```
       1   .45100E-04      2   .44600E-04      3   .43300E-04
4   .44700E-04      5   .55800E-04      6   .70800E-04
       7   .89000E-04      8   .82500E-04      9   .97100E-04
10   .11600E-03     11   .12300E-03     12   .12000E-03
      13   .11300E-03     14   .10400E-03     15   .81500E-04
16   .63000E-04     17   .54800E-04     18   .49700E-04
      19   .54100E-04     20   .66200E-04     21   .70100E-04
22   .65500E-04     23   .62500E-04     24   .51600E-04


 SOURCE ID = A0000040     ; SOURCE TYPE = AREA     :
       1   .45100E-04      2   .44600E-04      3   .43300E-04
4   .44700E-04      5   .55800E-04      6   .70800E-04
       7   .89000E-04      8   .82500E-04      9   .97100E-04
10   .11600E-03     11   .12300E-03     12   .12000E-03
      13   .11300E-03     14   .10400E-03     15   .81500E-04
16   .63000E-04     17   .54800E-04     18   .49700E-04
      19   .54100E-04     20   .66200E-04     21   .70100E-04
22   .65500E-04     23   .62500E-04     24   .51600E-04
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.45100E-04	2	.44600E-04	3	.43300E-04
4	.44700E-04	5	.55800E-04	6	.70800E-04
7	.89000E-04	8	.82500E-04	9	.97100E-04
10	.11600E-03	11	.12300E-03	12	.12000E-03
13	.11300E-03	14	.10400E-03	15	.81500E-04
16	.63000E-04	17	.54800E-04	18	.49700E-04
19	.54100E-04	20	.66200E-04	21	.70100E-04
22	.65500E-04	23	.62500E-04	24	.51600E-04

SOURCE ID = A0000041 ; SOURCE TYPE = AREA :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.45100E-04	2	.44600E-04	3	.43300E-04
4	.44700E-04	5	.55800E-04	6	.70800E-04
7	.89000E-04	8	.82500E-04	9	.97100E-04
10	.11600E-03	11	.12300E-03	12	.12000E-03
13	.11300E-03	14	.10400E-03	15	.81500E-04
16	.63000E-04	17	.54800E-04	18	.49700E-04
19	.54100E-04	20	.66200E-04	21	.70100E-04
22	.65500E-04	23	.62500E-04	24	.51600E-04

SOURCE ID = A0000042 ; SOURCE TYPE = AREA :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.45100E-04	2	.44600E-04	3	.43300E-04
4	.44700E-04	5	.55800E-04	6	.70800E-04
7	.89000E-04	8	.82500E-04	9	.97100E-04
10	.11600E-03	11	.12300E-03	12	.12000E-03
13	.11300E-03	14	.10400E-03	15	.81500E-04
16	.63000E-04	17	.54800E-04	18	.49700E-04
19	.54100E-04	20	.66200E-04	21	.70100E-04
22	.65500E-04	23	.62500E-04	24	.51600E-04

SOURCE ID = A0000043 ; SOURCE TYPE = AREA :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.45100E-04	2	.44600E-04	3	.43300E-04
4	.44700E-04	5	.55800E-04	6	.70800E-04
7	.89000E-04	8	.82500E-04	9	.97100E-04
10	.11600E-03	11	.12300E-03	12	.12000E-03
13	.11300E-03	14	.10400E-03	15	.81500E-04
16	.63000E-04	17	.54800E-04	18	.49700E-04
19	.54100E-04	20	.66200E-04	21	.70100E-04
22	.65500E-04	23	.62500E-04	24	.51600E-04

SOURCE ID = A0000044 ; SOURCE TYPE = AREA :

```
       1   .45100E-04      2   .44600E-04      3   .43300E-04
4   .44700E-04      5   .55800E-04      6   .70800E-04
       7   .89000E-04      8   .82500E-04      9   .97100E-04
10   .11600E-03     11   .12300E-03     12   .12000E-03
      13   .11300E-03     14   .10400E-03     15   .81500E-04
16   .63000E-04     17   .54800E-04     18   .49700E-04
      19   .54100E-04     20   .66200E-04     21   .70100E-04
22   .65500E-04     23   .62500E-04     24   .51600E-04


 SOURCE ID = A0000045     ; SOURCE TYPE = AREA     :
       1   .31400E-03      2   .31000E-03      3   .30100E-03
4   .31100E-03      5   .38800E-03      6   .49200E-03
       7   .61900E-03      8   .57400E-03      9   .67600E-03
10   .80800E-03     11   .85500E-03     12   .83600E-03
      13   .78900E-03     14   .72000E-03     15   .56700E-03
16   .43800E-03     17   .38100E-03     18   .34500E-03
      19   .37600E-03     20   .46000E-03     21   .48800E-03
22   .45600E-03     23   .43500E-03     24   .35900E-03
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.31400E-03	2	.31000E-03	3	.30100E-03
4	.31100E-03	5	.38800E-03	6	.49200E-03
7	.61900E-03	8	.57400E-03	9	.67600E-03
10	.80800E-03	11	.85500E-03	12	.83600E-03
13	.78900E-03	14	.72000E-03	15	.56700E-03
16	.43800E-03	17	.38100E-03	18	.34500E-03
19	.37600E-03	20	.46000E-03	21	.48800E-03
22	.45600E-03	23	.43500E-03	24	.35900E-03

SOURCE ID = A0000046 ; SOURCE TYPE = AREA :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.31400E-03	2	.31000E-03	3	.30100E-03
4	.31100E-03	5	.38800E-03	6	.49200E-03
7	.61900E-03	8	.57400E-03	9	.67600E-03
10	.80800E-03	11	.85500E-03	12	.83600E-03
13	.78900E-03	14	.72000E-03	15	.56700E-03
16	.43800E-03	17	.38100E-03	18	.34500E-03
19	.37600E-03	20	.46000E-03	21	.48800E-03
22	.45600E-03	23	.43500E-03	24	.35900E-03

SOURCE ID = A0000047 ; SOURCE TYPE = AREA :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.31400E-03	2	.31000E-03	3	.30100E-03
4	.31100E-03	5	.38800E-03	6	.49200E-03
7	.61900E-03	8	.57400E-03	9	.67600E-03
10	.80800E-03	11	.85500E-03	12	.83600E-03
13	.78900E-03	14	.72000E-03	15	.56700E-03
16	.43800E-03	17	.38100E-03	18	.34500E-03
19	.37600E-03	20	.46000E-03	21	.48800E-03
22	.45600E-03	23	.43500E-03	24	.35900E-03

SOURCE ID = A0000048 ; SOURCE TYPE = AREA :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.31400E-03	2	.31000E-03	3	.30100E-03
4	.31100E-03	5	.38800E-03	6	.49200E-03
7	.61900E-03	8	.57400E-03	9	.67600E-03
10	.80800E-03	11	.85500E-03	12	.83600E-03
13	.78900E-03	14	.72000E-03	15	.56700E-03
16	.43800E-03	17	.38100E-03	18	.34500E-03
19	.37600E-03	20	.46000E-03	21	.48800E-03
22	.45600E-03	23	.43500E-03	24	.35900E-03

SOURCE ID = A0000049 ; SOURCE TYPE = AREA :

```
       1   .31400E-03      2   .31000E-03      3   .30100E-03
4   .31100E-03      5   .38800E-03      6   .49200E-03
       7   .61900E-03      8   .57400E-03      9   .67600E-03
10   .80800E-03     11   .85500E-03     12   .83600E-03
      13   .78900E-03     14   .72000E-03     15   .56700E-03
16   .43800E-03     17   .38100E-03     18   .34500E-03
      19   .37600E-03     20   .46000E-03     21   .48800E-03
22   .45600E-03     23   .43500E-03     24   .35900E-03


 SOURCE ID = A0000050     ; SOURCE TYPE = AREA     :
       1   .31400E-03      2   .31000E-03      3   .30100E-03
4   .31100E-03      5   .38800E-03      6   .49200E-03
       7   .61900E-03      8   .57400E-03      9   .67600E-03
10   .80800E-03     11   .85500E-03     12   .83600E-03
      13   .78900E-03     14   .72000E-03     15   .56700E-03
16   .43800E-03     17   .38100E-03     18   .34500E-03
      19   .37600E-03     20   .46000E-03     21   .48800E-03
22   .45600E-03     23   .43500E-03     24   .35900E-03
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.31400E-03	2	.31000E-03	3	.30100E-03
4	.31100E-03	5	.38800E-03	6	.49200E-03
7	.61900E-03	8	.57400E-03	9	.67600E-03
10	.80800E-03	11	.85500E-03	12	.83600E-03
13	.78900E-03	14	.72000E-03	15	.56700E-03
16	.43800E-03	17	.38100E-03	18	.34500E-03
19	.37600E-03	20	.46000E-03	21	.48800E-03
22	.45600E-03	23	.43500E-03	24	.35900E-03

SOURCE ID = A0000051 ; SOURCE TYPE = AREA :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.31400E-03	2	.31000E-03	3	.30100E-03
4	.31100E-03	5	.38800E-03	6	.49200E-03
7	.61900E-03	8	.57400E-03	9	.67600E-03
10	.80800E-03	11	.85500E-03	12	.83600E-03
13	.78900E-03	14	.72000E-03	15	.56700E-03
16	.43800E-03	17	.38100E-03	18	.34500E-03
19	.37600E-03	20	.46000E-03	21	.48800E-03
22	.45600E-03	23	.43500E-03	24	.35900E-03

SOURCE ID = A0000052 ; SOURCE TYPE = AREA :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.31400E-03	2	.31000E-03	3	.30100E-03
4	.31100E-03	5	.38800E-03	6	.49200E-03
7	.61900E-03	8	.57400E-03	9	.67600E-03
10	.80800E-03	11	.85500E-03	12	.83600E-03
13	.78900E-03	14	.72000E-03	15	.56700E-03
16	.43800E-03	17	.38100E-03	18	.34500E-03
19	.37600E-03	20	.46000E-03	21	.48800E-03
22	.45600E-03	23	.43500E-03	24	.35900E-03

SOURCE ID = A0000053 ; SOURCE TYPE = AREA :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.31400E-03	2	.31000E-03	3	.30100E-03
4	.31100E-03	5	.38800E-03	6	.49200E-03
7	.61900E-03	8	.57400E-03	9	.67600E-03
10	.80800E-03	11	.85500E-03	12	.83600E-03
13	.78900E-03	14	.72000E-03	15	.56700E-03
16	.43800E-03	17	.38100E-03	18	.34500E-03
19	.37600E-03	20	.46000E-03	21	.48800E-03
22	.45600E-03	23	.43500E-03	24	.35900E-03

SOURCE ID = A0000054 ; SOURCE TYPE = AREA :

```
       1   .31400E-03      2   .31000E-03      3   .30100E-03
4   .31100E-03      5   .38800E-03      6   .49200E-03
       7   .61900E-03      8   .57400E-03      9   .67600E-03
10   .80800E-03     11   .85500E-03     12   .83600E-03
      13   .78900E-03     14   .72000E-03     15   .56700E-03
16   .43800E-03     17   .38100E-03     18   .34500E-03
      19   .37600E-03     20   .46000E-03     21   .48800E-03
22   .45600E-03     23   .43500E-03     24   .35900E-03


 SOURCE ID = A0000055     ; SOURCE TYPE = AREA     :
       1   .31400E-03      2   .31000E-03      3   .30100E-03
4   .31100E-03      5   .38800E-03      6   .49200E-03
       7   .61900E-03      8   .57400E-03      9   .67600E-03
10   .80800E-03     11   .85500E-03     12   .83600E-03
      13   .78900E-03     14   .72000E-03     15   .56700E-03
16   .43800E-03     17   .38100E-03     18   .34500E-03
      19   .37600E-03     20   .46000E-03     21   .48800E-03
22   .45600E-03     23   .43500E-03     24   .35900E-03
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.31400E-03	2	.31000E-03	3	.30100E-03
4	.31100E-03	5	.38800E-03	6	.49200E-03
7	.61900E-03	8	.57400E-03	9	.67600E-03
10	.80800E-03	11	.85500E-03	12	.83600E-03
13	.78900E-03	14	.72000E-03	15	.56700E-03
16	.43800E-03	17	.38100E-03	18	.34500E-03
19	.37600E-03	20	.46000E-03	21	.48800E-03
22	.45600E-03	23	.43500E-03	24	.35900E-03

SOURCE ID = A0000056 ; SOURCE TYPE = AREA :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.31400E-03	2	.31000E-03	3	.30100E-03
4	.31100E-03	5	.38800E-03	6	.49200E-03
7	.61900E-03	8	.57400E-03	9	.67600E-03
10	.80800E-03	11	.85500E-03	12	.83600E-03
13	.78900E-03	14	.72000E-03	15	.56700E-03
16	.43800E-03	17	.38100E-03	18	.34500E-03
19	.37600E-03	20	.46000E-03	21	.48800E-03
22	.45600E-03	23	.43500E-03	24	.35900E-03

SOURCE ID = A0000057 ; SOURCE TYPE = AREA :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.31400E-03	2	.31000E-03	3	.30100E-03
4	.31100E-03	5	.38800E-03	6	.49200E-03
7	.61900E-03	8	.57400E-03	9	.67600E-03
10	.80800E-03	11	.85500E-03	12	.83600E-03
13	.78900E-03	14	.72000E-03	15	.56700E-03
16	.43800E-03	17	.38100E-03	18	.34500E-03
19	.37600E-03	20	.46000E-03	21	.48800E-03
22	.45600E-03	23	.43500E-03	24	.35900E-03

SOURCE ID = A0000058 ; SOURCE TYPE = AREA :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.31400E-03	2	.31000E-03	3	.30100E-03
4	.31100E-03	5	.38800E-03	6	.49200E-03
7	.61900E-03	8	.57400E-03	9	.67600E-03
10	.80800E-03	11	.85500E-03	12	.83600E-03
13	.78900E-03	14	.72000E-03	15	.56700E-03
16	.43800E-03	17	.38100E-03	18	.34500E-03
19	.37600E-03	20	.46000E-03	21	.48800E-03
22	.45600E-03	23	.43500E-03	24	.35900E-03

SOURCE ID = A0000059 ; SOURCE TYPE = AREA :

```
       1   .31400E-03      2   .31000E-03      3   .30100E-03
4   .31100E-03      5   .38800E-03      6   .49200E-03
       7   .61900E-03      8   .57400E-03      9   .67600E-03
10   .80800E-03     11   .85500E-03     12   .83600E-03
      13   .78900E-03     14   .72000E-03     15   .56700E-03
16   .43800E-03     17   .38100E-03     18   .34500E-03
      19   .37600E-03     20   .46000E-03     21   .48800E-03
22   .45600E-03     23   .43500E-03     24   .35900E-03


 SOURCE ID = A0000060     ; SOURCE TYPE = AREA     :
       1   .31400E-03      2   .31000E-03      3   .30100E-03
4   .31100E-03      5   .38800E-03      6   .49200E-03
       7   .61900E-03      8   .57400E-03      9   .67600E-03
10   .80800E-03     11   .85500E-03     12   .83600E-03
      13   .78900E-03     14   .72000E-03     15   .56700E-03
16   .43800E-03     17   .38100E-03     18   .34500E-03
      19   .37600E-03     20   .46000E-03     21   .48800E-03
22   .45600E-03     23   .43500E-03     24   .35900E-03
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.22900E-04	2	.15800E-04	3	.13900E-04
4	.24700E-04	5	.70400E-04	6	.11200E-03
7	.12600E-03	8	.14400E-03	9	.15500E-03
10	.15900E-03	11	.16500E-03	12	.17300E-03
13	.16900E-03	14	.16300E-03	15	.15800E-03
16	.15400E-03	17	.14800E-03	18	.14500E-03
19	.11800E-03	20	.92300E-04	21	.83400E-04
22	.72300E-04	23	.53500E-04	24	.34200E-04

SOURCE ID = A0000061 ; SOURCE TYPE = AREA :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.22900E-04	2	.15800E-04	3	.13900E-04
4	.24700E-04	5	.70400E-04	6	.11200E-03
7	.12600E-03	8	.14400E-03	9	.15500E-03
10	.15900E-03	11	.16500E-03	12	.17300E-03
13	.16900E-03	14	.16300E-03	15	.15800E-03
16	.15400E-03	17	.14800E-03	18	.14500E-03
19	.11800E-03	20	.92300E-04	21	.83400E-04
22	.72300E-04	23	.53500E-04	24	.34200E-04

SOURCE ID = A0000062 ; SOURCE TYPE = AREA :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.22900E-04	2	.15800E-04	3	.13900E-04
4	.24700E-04	5	.70400E-04	6	.11200E-03
7	.12600E-03	8	.14400E-03	9	.15500E-03
10	.15900E-03	11	.16500E-03	12	.17300E-03
13	.16900E-03	14	.16300E-03	15	.15800E-03
16	.15400E-03	17	.14800E-03	18	.14500E-03
19	.11800E-03	20	.92300E-04	21	.83400E-04
22	.72300E-04	23	.53500E-04	24	.34200E-04

SOURCE ID = A0000063 ; SOURCE TYPE = AREA :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.22900E-04	2	.15800E-04	3	.13900E-04
4	.24700E-04	5	.70400E-04	6	.11200E-03
7	.12600E-03	8	.14400E-03	9	.15500E-03
10	.15900E-03	11	.16500E-03	12	.17300E-03
13	.16900E-03	14	.16300E-03	15	.15800E-03
16	.15400E-03	17	.14800E-03	18	.14500E-03
19	.11800E-03	20	.92300E-04	21	.83400E-04
22	.72300E-04	23	.53500E-04	24	.34200E-04

SOURCE ID = A0000064 ; SOURCE TYPE = AREA :

```
       1   .22900E-04      2   .15800E-04      3   .13900E-04
4   .24700E-04      5   .70400E-04      6   .11200E-03
       7   .12600E-03      8   .14400E-03      9   .15500E-03
10   .15900E-03     11   .16500E-03     12   .17300E-03
      13   .16900E-03     14   .16300E-03     15   .15800E-03
16   .15400E-03     17   .14800E-03     18   .14500E-03
      19   .11800E-03     20   .92300E-04     21   .83400E-04
22   .72300E-04     23   .53500E-04     24   .34200E-04


 SOURCE ID = A0000065     ; SOURCE TYPE = AREA     :
       1   .22900E-04      2   .15800E-04      3   .13900E-04
4   .24700E-04      5   .70400E-04      6   .11200E-03
       7   .12600E-03      8   .14400E-03      9   .15500E-03
10   .15900E-03     11   .16500E-03     12   .17300E-03
      13   .16900E-03     14   .16300E-03     15   .15800E-03
16   .15400E-03     17   .14800E-03     18   .14500E-03
      19   .11800E-03     20   .92300E-04     21   .83400E-04
22   .72300E-04     23   .53500E-04     24   .34200E-04
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

SOURCE ID = A0000066 ; SOURCE TYPE = AREA :

1	.22900E-04	2	.15800E-04	3	.13900E-04
4	.24700E-04	5	.70400E-04	6	.11200E-03
7	.12600E-03	8	.14400E-03	9	.15500E-03
10	.15900E-03	11	.16500E-03	12	.17300E-03
13	.16900E-03	14	.16300E-03	15	.15800E-03
16	.15400E-03	17	.14800E-03	18	.14500E-03
19	.11800E-03	20	.92300E-04	21	.83400E-04
22	.72300E-04	23	.53500E-04	24	.34200E-04

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)

(METERS)

(439674.0, 3765310.0, 289.0, 289.0, 0.0);
(439679.0, 3765310.0, 289.0, 289.0, 0.0);
(439684.0, 3765310.0, 289.0, 289.0, 0.0);
(439689.0, 3765310.0, 289.0, 289.0, 0.0);
(439694.0, 3765310.0, 289.0, 289.0, 0.0);
(439699.0, 3765310.0, 289.0, 289.0, 0.0);
(439704.0, 3765310.0, 289.0, 289.0, 0.0);
(439709.0, 3765310.0, 289.0, 289.0, 0.0);
(439714.0, 3765310.0, 289.0, 289.0, 0.0);
(439719.0, 3765310.0, 289.0, 289.0, 0.0);
(439729.0, 3765310.0, 289.0, 289.0, 0.0);
(439734.0, 3765310.0, 289.0, 289.0, 0.0);
(439739.0, 3765310.0, 289.0, 289.0, 0.0);
(439744.0, 3765310.0, 289.0, 289.0, 0.0);
(439749.0, 3765310.0, 289.0, 289.0, 0.0);
(439764.0, 3765310.0, 289.0, 289.0, 0.0);
(439769.0, 3765310.0, 289.0, 289.0, 0.0);
(439774.0, 3765310.0, 289.0, 289.0, 0.0);
(439779.0, 3765310.0, 289.0, 289.0, 0.0);
(439784.0, 3765310.0, 289.0, 289.0, 0.0);
(439789.0, 3765310.0, 289.0, 289.0, 0.0);
(439794.0, 3765310.0, 289.0, 289.0, 0.0);
(439799.0, 3765310.0, 289.0, 289.0, 0.0);
(439804.0, 3765310.0, 289.0, 289.0, 0.0);
(439809.0, 3765310.0, 289.0, 289.0, 0.0);
(439814.0, 3765310.0, 289.0, 289.0, 0.0);
(439819.0, 3765310.0, 289.0, 289.0, 0.0);
(439824.0, 3765310.0, 289.0, 289.0, 0.0);
(439829.0, 3765310.0, 289.0, 289.0, 0.0);
(439839.0, 3765310.0, 289.0, 289.0, 0.0);
(439844.0, 3765310.0, 289.0, 289.0, 0.0);
(439849.0, 3765310.0, 289.0, 289.0, 0.0);
(439854.0, 3765310.0, 289.0, 289.0, 0.0);
(439859.0, 3765310.0, 289.0, 289.0, 0.0);
(439864.0, 3765310.0, 289.0, 289.0, 0.0);
(439869.0, 3765310.0, 289.0, 289.0, 0.0);

```
     ( 439874.0, 3765310.0,     289.0,     289.0,       0.0);
( 439879.0, 3765310.0,     289.0,     289.0,       0.0);
     ( 439884.0, 3765310.0,     289.0,     289.0,       0.0);
( 439674.0, 3765315.0,     289.0,     289.0,       0.0);
     ( 439679.0, 3765315.0,     289.0,     289.0,       0.0);
( 439684.0, 3765315.0,     289.0,     289.0,       0.0);
     ( 439689.0, 3765315.0,     289.0,     289.0,       0.0);
( 439694.0, 3765315.0,     289.0,     289.0,       0.0);
     ( 439699.0, 3765315.0,     289.0,     289.0,       0.0);
( 439704.0, 3765315.0,     289.0,     289.0,       0.0);
     ( 439709.0, 3765315.0,     289.0,     289.0,       0.0);
( 439714.0, 3765315.0,     289.0,     289.0,       0.0);
     ( 439719.0, 3765315.0,     289.0,     289.0,       0.0);
( 439729.0, 3765315.0,     289.0,     289.0,       0.0);
     ( 439734.0, 3765315.0,     289.0,     289.0,       0.0);
( 439739.0, 3765315.0,     289.0,     289.0,       0.0);
     ( 439744.0, 3765315.0,     289.0,     289.0,       0.0);
( 439749.0, 3765315.0,     289.0,     289.0,       0.0);
     ( 439764.0, 3765315.0,     289.0,     289.0,       0.0);
( 439769.0, 3765315.0,     289.0,     289.0,       0.0);
     ( 439774.0, 3765315.0,     289.0,     289.0,       0.0);
( 439779.0, 3765315.0,     289.0,     289.0,       0.0);
     ( 439784.0, 3765315.0,     289.0,     289.0,       0.0);
( 439789.0, 3765315.0,     289.0,     289.0,       0.0);
     ( 439794.0, 3765315.0,     289.0,     289.0,       0.0);
( 439799.0, 3765315.0,     289.0,     289.0,       0.0);
     ( 439804.0, 3765315.0,     289.0,     289.0,       0.0);
( 439809.0, 3765315.0,     289.0,     289.0,       0.0);
     ( 439814.0, 3765315.0,     289.0,     289.0,       0.0);
( 439819.0, 3765315.0,     289.0,     289.0,       0.0);
     ( 439824.0, 3765315.0,     289.0,     289.0,       0.0);
( 439829.0, 3765315.0,     289.0,     289.0,       0.0);
     ( 439839.0, 3765315.0,     289.0,     289.0,       0.0);
( 439844.0, 3765315.0,     289.0,     289.0,       0.0);
     ( 439849.0, 3765315.0,     289.0,     289.0,       0.0);
( 439854.0, 3765315.0,     289.0,     289.0,       0.0);
     ( 439859.0, 3765315.0,     289.0,     289.0,       0.0);
( 439864.0, 3765315.0,     289.0,     289.0,       0.0);
     ( 439869.0, 3765315.0,     289.0,     289.0,       0.0);
( 439874.0, 3765315.0,     289.0,     289.0,       0.0);
     ( 439879.0, 3765315.0,     289.0,     289.0,       0.0);
( 439884.0, 3765315.0,     289.0,     289.0,       0.0);
     ( 439674.0, 3765320.0,     289.0,     289.0,       0.0);
( 439679.0, 3765320.0,     289.0,     289.0,       0.0);
     ( 439684.0, 3765320.0,     289.0,     289.0,       0.0);
( 439689.0, 3765320.0,     289.0,     289.0,       0.0);
     ( 439694.0, 3765320.0,     289.0,     289.0,       0.0);
( 439699.0, 3765320.0,     289.0,     289.0,       0.0);
     ( 439704.0, 3765320.0,     289.0,     289.0,       0.0);
( 439709.0, 3765320.0,     289.0,     289.0,       0.0);
     ( 439714.0, 3765320.0,     289.0,     289.0,       0.0);
( 439719.0, 3765320.0,     289.0,     289.0,       0.0);
```

```
     ( 439729.0, 3765320.0,     289.0,     289.0,       0.0);
( 439734.0, 3765320.0,     289.0,     289.0,       0.0);
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)

(METERS)

(439739.0, 3765320.0, 289.0, 289.0, 0.0);
(439744.0, 3765320.0, 289.0, 289.0, 0.0);
(439749.0, 3765320.0, 289.0, 289.0, 0.0);
(439764.0, 3765320.0, 289.0, 289.0, 0.0);
(439769.0, 3765320.0, 289.0, 289.0, 0.0);
(439774.0, 3765320.0, 289.0, 289.0, 0.0);
(439779.0, 3765320.0, 289.0, 289.0, 0.0);
(439784.0, 3765320.0, 289.0, 289.0, 0.0);
(439789.0, 3765320.0, 289.0, 289.0, 0.0);
(439794.0, 3765320.0, 289.0, 289.0, 0.0);
(439799.0, 3765320.0, 289.0, 289.0, 0.0);
(439804.0, 3765320.0, 289.0, 289.0, 0.0);
(439809.0, 3765320.0, 289.0, 289.0, 0.0);
(439814.0, 3765320.0, 289.0, 289.0, 0.0);
(439819.0, 3765320.0, 289.0, 289.0, 0.0);
(439824.0, 3765320.0, 289.0, 289.0, 0.0);
(439829.0, 3765320.0, 289.0, 289.0, 0.0);
(439839.0, 3765320.0, 289.0, 289.0, 0.0);
(439844.0, 3765320.0, 289.0, 289.0, 0.0);
(439849.0, 3765320.0, 289.0, 289.0, 0.0);
(439854.0, 3765320.0, 289.0, 289.0, 0.0);
(439859.0, 3765320.0, 289.0, 289.0, 0.0);
(439864.0, 3765320.0, 289.0, 289.0, 0.0);
(439869.0, 3765320.0, 289.0, 289.0, 0.0);
(439874.0, 3765320.0, 289.0, 289.0, 0.0);
(439879.0, 3765320.0, 289.0, 289.0, 0.0);
(439884.0, 3765320.0, 289.0, 289.0, 0.0);
(439674.0, 3765325.0, 289.0, 289.0, 0.0);
(439679.0, 3765325.0, 289.0, 289.0, 0.0);
(439684.0, 3765325.0, 289.0, 289.0, 0.0);
(439689.0, 3765325.0, 289.0, 289.0, 0.0);
(439694.0, 3765325.0, 289.0, 289.0, 0.0);
(439699.0, 3765325.0, 289.0, 289.0, 0.0);
(439704.0, 3765325.0, 289.0, 289.0, 0.0);
(439709.0, 3765325.0, 289.0, 289.0, 0.0);
(439714.0, 3765325.0, 289.0, 289.0, 0.0);

```
     ( 439719.0, 3765325.0,     289.0,     289.0,       0.0);
( 439729.0, 3765325.0,     289.0,     289.0,       0.0);
     ( 439734.0, 3765325.0,     289.0,     289.0,       0.0);
( 439739.0, 3765325.0,     289.0,     289.0,       0.0);
     ( 439744.0, 3765325.0,     289.0,     289.0,       0.0);
( 439749.0, 3765325.0,     289.0,     289.0,       0.0);
     ( 439754.0, 3765325.0,     289.0,     289.0,       0.0);
( 439769.0, 3765325.0,     289.0,     289.0,       0.0);
     ( 439774.0, 3765325.0,     289.0,     289.0,       0.0);
( 439779.0, 3765325.0,     289.0,     289.0,       0.0);
     ( 439784.0, 3765325.0,     289.0,     289.0,       0.0);
( 439789.0, 3765325.0,     289.0,     289.0,       0.0);
     ( 439794.0, 3765325.0,     289.0,     289.0,       0.0);
( 439799.0, 3765325.0,     289.0,     289.0,       0.0);
     ( 439804.0, 3765325.0,     289.0,     289.0,       0.0);
( 439809.0, 3765325.0,     289.0,     289.0,       0.0);
     ( 439814.0, 3765325.0,     289.0,     289.0,       0.0);
( 439819.0, 3765325.0,     289.0,     289.0,       0.0);
     ( 439824.0, 3765325.0,     289.0,     289.0,       0.0);
( 439829.0, 3765325.0,     289.0,     289.0,       0.0);
     ( 439839.0, 3765325.0,     289.0,     289.0,       0.0);
( 439844.0, 3765325.0,     289.0,     289.0,       0.0);
     ( 439849.0, 3765325.0,     289.0,     289.0,       0.0);
( 439854.0, 3765325.0,     289.0,     289.0,       0.0);
     ( 439859.0, 3765325.0,     289.0,     289.0,       0.0);
( 439864.0, 3765325.0,     289.0,     289.0,       0.0);
     ( 439869.0, 3765325.0,     289.0,     289.0,       0.0);
( 439874.0, 3765325.0,     289.0,     289.0,       0.0);
     ( 439879.0, 3765325.0,     289.0,     289.0,       0.0);
( 439884.0, 3765325.0,     289.0,     289.0,       0.0);
     ( 439674.0, 3765330.0,     289.0,     289.0,       0.0);
( 439679.0, 3765330.0,     289.0,     289.0,       0.0);
     ( 439684.0, 3765330.0,     289.0,     289.0,       0.0);
( 439689.0, 3765330.0,     289.0,     289.0,       0.0);
     ( 439694.0, 3765330.0,     289.0,     289.0,       0.0);
( 439699.0, 3765330.0,     289.0,     289.0,       0.0);
     ( 439704.0, 3765330.0,     289.0,     289.0,       0.0);
( 439709.0, 3765330.0,     289.0,     289.0,       0.0);
     ( 439714.0, 3765330.0,     289.0,     289.0,       0.0);
( 439719.0, 3765330.0,     289.0,     289.0,       0.0);
     ( 439729.0, 3765330.0,     289.0,     289.0,       0.0);
( 439734.0, 3765330.0,     289.0,     289.0,       0.0);
     ( 439739.0, 3765330.0,     289.0,     289.0,       0.0);
( 439744.0, 3765330.0,     289.0,     289.0,       0.0);
     ( 439749.0, 3765330.0,     289.0,     289.0,       0.0);
( 439754.0, 3765330.0,     289.0,     289.0,       0.0);
     ( 439774.0, 3765330.0,     289.0,     289.0,       0.0);
( 439779.0, 3765330.0,     289.0,     289.0,       0.0);
     ( 439784.0, 3765330.0,     289.0,     289.0,       0.0);
( 439789.0, 3765330.0,     289.0,     289.0,       0.0);
     ( 439794.0, 3765330.0,     289.0,     289.0,       0.0);
( 439799.0, 3765330.0,     289.0,     289.0,       0.0);
```

```
     ( 439804.0, 3765330.0,     289.0,     289.0,       0.0);
( 439809.0, 3765330.0,     289.0,     289.0,       0.0);
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)

(METERS)

(439814.0, 3765330.0, 289.0, 289.0, 0.0);
(439819.0, 3765330.0, 289.0, 289.0, 0.0);
(439824.0, 3765330.0, 289.0, 289.0, 0.0);
(439829.0, 3765330.0, 289.0, 289.0, 0.0);
(439839.0, 3765330.0, 289.0, 289.0, 0.0);
(439844.0, 3765330.0, 289.0, 289.0, 0.0);
(439849.0, 3765330.0, 289.0, 289.0, 0.0);
(439854.0, 3765330.0, 289.0, 289.0, 0.0);
(439859.0, 3765330.0, 289.0, 289.0, 0.0);
(439864.0, 3765330.0, 289.0, 289.0, 0.0);
(439869.0, 3765330.0, 289.0, 289.0, 0.0);
(439874.0, 3765330.0, 289.0, 289.0, 0.0);
(439879.0, 3765330.0, 289.0, 289.0, 0.0);
(439884.0, 3765330.0, 289.0, 289.0, 0.0);
(439674.0, 3765335.0, 289.0, 289.0, 0.0);
(439679.0, 3765335.0, 289.0, 289.0, 0.0);
(439684.0, 3765335.0, 289.0, 289.0, 0.0);
(439689.0, 3765335.0, 289.0, 289.0, 0.0);
(439694.0, 3765335.0, 289.0, 289.0, 0.0);
(439699.0, 3765335.0, 289.0, 289.0, 0.0);
(439704.0, 3765335.0, 289.0, 289.0, 0.0);
(439709.0, 3765335.0, 289.0, 289.0, 0.0);
(439714.0, 3765335.0, 289.0, 289.0, 0.0);
(439719.0, 3765335.0, 289.0, 289.0, 0.0);
(439729.0, 3765335.0, 289.0, 289.0, 0.0);
(439734.0, 3765335.0, 289.0, 289.0, 0.0);
(439739.0, 3765335.0, 289.0, 289.0, 0.0);
(439744.0, 3765335.0, 289.0, 289.0, 0.0);
(439749.0, 3765335.0, 289.0, 289.0, 0.0);
(439774.0, 3765335.0, 289.0, 289.0, 0.0);
(439779.0, 3765335.0, 289.0, 289.0, 0.0);
(439784.0, 3765335.0, 289.0, 289.0, 0.0);
(439789.0, 3765335.0, 289.0, 289.0, 0.0);
(439794.0, 3765335.0, 289.0, 289.0, 0.0);
(439839.0, 3765335.0, 289.0, 289.0, 0.0);
(439844.0, 3765335.0, 289.0, 289.0, 0.0);

```
     ( 439849.0, 3765335.0,     289.0,     289.0,       0.0);
( 439854.0, 3765335.0,     289.0,     289.0,       0.0);
     ( 439859.0, 3765335.0,     289.0,     289.0,       0.0);
( 439864.0, 3765335.0,     289.0,     289.0,       0.0);
     ( 439869.0, 3765335.0,     289.0,     289.0,       0.0);
( 439874.0, 3765335.0,     289.0,     289.0,       0.0);
     ( 439879.0, 3765335.0,     289.0,     289.0,       0.0);
( 439884.0, 3765335.0,     289.0,     289.0,       0.0);
     ( 439674.0, 3765340.0,     289.0,     289.0,       0.0);
( 439679.0, 3765340.0,     289.0,     289.0,       0.0);
     ( 439684.0, 3765340.0,     289.0,     289.0,       0.0);
( 439689.0, 3765340.0,     289.0,     289.0,       0.0);
     ( 439694.0, 3765340.0,     289.0,     289.0,       0.0);
( 439699.0, 3765340.0,     289.0,     289.0,       0.0);
     ( 439704.0, 3765340.0,     289.0,     289.0,       0.0);
( 439709.0, 3765340.0,     289.0,     289.0,       0.0);
     ( 439714.0, 3765340.0,     289.0,     289.0,       0.0);
( 439719.0, 3765340.0,     289.0,     289.0,       0.0);
     ( 439729.0, 3765340.0,     289.0,     289.0,       0.0);
( 439734.0, 3765340.0,     289.0,     289.0,       0.0);
     ( 439739.0, 3765340.0,     289.0,     289.0,       0.0);
( 439744.0, 3765340.0,     289.0,     289.0,       0.0);
     ( 439749.0, 3765340.0,     289.0,     289.0,       0.0);
( 439774.0, 3765340.0,     289.0,     289.0,       0.0);
     ( 439779.0, 3765340.0,     289.0,     289.0,       0.0);
( 439784.0, 3765340.0,     289.0,     289.0,       0.0);
     ( 439789.0, 3765340.0,     289.0,     289.0,       0.0);
( 439794.0, 3765340.0,     289.0,     289.0,       0.0);
     ( 439839.0, 3765340.0,     289.0,     289.0,       0.0);
( 439844.0, 3765340.0,     289.0,     289.0,       0.0);
     ( 439849.0, 3765340.0,     289.0,     289.0,       0.0);
( 439854.0, 3765340.0,     289.0,     289.0,       0.0);
     ( 439859.0, 3765340.0,     289.0,     289.0,       0.0);
( 439864.0, 3765340.0,     289.0,     289.0,       0.0);
     ( 439869.0, 3765340.0,     289.0,     289.0,       0.0);
( 439874.0, 3765340.0,     289.0,     289.0,       0.0);
     ( 439879.0, 3765340.0,     289.0,     289.0,       0.0);
( 439884.0, 3765340.0,     289.0,     289.0,       0.0);
     ( 439674.0, 3765345.0,     289.0,     289.0,       0.0);
( 439679.0, 3765345.0,     289.0,     289.0,       0.0);
     ( 439684.0, 3765345.0,     289.0,     289.0,       0.0);
( 439689.0, 3765345.0,     289.0,     289.0,       0.0);
     ( 439694.0, 3765345.0,     289.0,     289.0,       0.0);
( 439699.0, 3765345.0,     289.0,     289.0,       0.0);
     ( 439704.0, 3765345.0,     289.0,     289.0,       0.0);
( 439709.0, 3765345.0,     289.0,     289.0,       0.0);
     ( 439714.0, 3765345.0,     289.0,     289.0,       0.0);
( 439719.0, 3765345.0,     289.0,     289.0,       0.0);
     ( 439729.0, 3765345.0,     289.0,     289.0,       0.0);
( 439734.0, 3765345.0,     289.0,     289.0,       0.0);
     ( 439739.0, 3765345.0,     289.0,     289.0,       0.0);
( 439744.0, 3765345.0,     289.0,     289.0,       0.0);
```

```
     ( 439749.0, 3765345.0,     289.0,     289.0,       0.0);
( 439774.0, 3765345.0,     289.0,     289.0,       0.0);
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)

(METERS)

(439779.0, 3765345.0, 289.0, 289.0, 0.0);
(439784.0, 3765345.0, 289.0, 289.0, 0.0);
(439789.0, 3765345.0, 289.0, 289.0, 0.0);
(439794.0, 3765345.0, 289.0, 289.0, 0.0);
(439839.0, 3765345.0, 289.0, 289.0, 0.0);
(439844.0, 3765345.0, 289.0, 289.0, 0.0);
(439849.0, 3765345.0, 289.0, 289.0, 0.0);
(439854.0, 3765345.0, 289.0, 289.0, 0.0);
(439859.0, 3765345.0, 289.0, 289.0, 0.0);
(439864.0, 3765345.0, 289.0, 289.0, 0.0);
(439869.0, 3765345.0, 289.0, 289.0, 0.0);
(439874.0, 3765345.0, 289.0, 289.0, 0.0);
(439879.0, 3765345.0, 289.0, 289.0, 0.0);
(439884.0, 3765345.0, 289.0, 289.0, 0.0);
(439674.0, 3765350.0, 289.0, 289.0, 0.0);
(439679.0, 3765350.0, 289.0, 289.0, 0.0);
(439684.0, 3765350.0, 289.0, 289.0, 0.0);
(439689.0, 3765350.0, 289.0, 289.0, 0.0);
(439694.0, 3765350.0, 289.0, 289.0, 0.0);
(439699.0, 3765350.0, 289.0, 289.0, 0.0);
(439704.0, 3765350.0, 289.0, 289.0, 0.0);
(439709.0, 3765350.0, 289.0, 289.0, 0.0);
(439714.0, 3765350.0, 289.0, 289.0, 0.0);
(439719.0, 3765350.0, 289.0, 289.0, 0.0);
(439729.0, 3765350.0, 289.0, 289.0, 0.0);
(439734.0, 3765350.0, 289.0, 289.0, 0.0);
(439739.0, 3765350.0, 289.0, 289.0, 0.0);
(439744.0, 3765350.0, 289.0, 289.0, 0.0);
(439749.0, 3765350.0, 289.0, 289.0, 0.0);
(439774.0, 3765350.0, 289.0, 289.0, 0.0);
(439779.0, 3765350.0, 289.0, 289.0, 0.0);
(439784.0, 3765350.0, 289.0, 289.0, 0.0);
(439789.0, 3765350.0, 289.0, 289.0, 0.0);
(439794.0, 3765350.0, 289.0, 289.0, 0.0);
(439839.0, 3765350.0, 289.0, 289.0, 0.0);
(439844.0, 3765350.0, 289.0, 289.0, 0.0);

```
     ( 439849.0, 3765350.0,     289.0,     289.0,       0.0);
( 439854.0, 3765350.0,     289.0,     289.0,       0.0);
     ( 439859.0, 3765350.0,     289.0,     289.0,       0.0);
( 439864.0, 3765350.0,     289.0,     289.0,       0.0);
     ( 439869.0, 3765350.0,     289.0,     289.0,       0.0);
( 439874.0, 3765350.0,     289.0,     289.0,       0.0);
     ( 439879.0, 3765350.0,     289.0,     289.0,       0.0);
( 439884.0, 3765350.0,     289.0,     289.0,       0.0);
     ( 439674.0, 3765355.0,     289.0,     289.0,       0.0);
( 439679.0, 3765355.0,     289.0,     289.0,       0.0);
     ( 439684.0, 3765355.0,     289.0,     289.0,       0.0);
( 439689.0, 3765355.0,     289.0,     289.0,       0.0);
     ( 439694.0, 3765355.0,     289.0,     289.0,       0.0);
( 439699.0, 3765355.0,     289.0,     289.0,       0.0);
     ( 439704.0, 3765355.0,     289.0,     289.0,       0.0);
( 439709.0, 3765355.0,     289.0,     289.0,       0.0);
     ( 439714.0, 3765355.0,     289.0,     289.0,       0.0);
( 439719.0, 3765355.0,     289.0,     289.0,       0.0);
     ( 439729.0, 3765355.0,     289.0,     289.0,       0.0);
( 439734.0, 3765355.0,     289.0,     289.0,       0.0);
     ( 439739.0, 3765355.0,     289.0,     289.0,       0.0);
( 439744.0, 3765355.0,     289.0,     289.0,       0.0);
     ( 439749.0, 3765355.0,     289.0,     289.0,       0.0);
( 439774.0, 3765355.0,     289.0,     289.0,       0.0);
     ( 439779.0, 3765355.0,     289.0,     289.0,       0.0);
( 439784.0, 3765355.0,     289.0,     289.0,       0.0);
     ( 439789.0, 3765355.0,     289.0,     289.0,       0.0);
( 439794.0, 3765355.0,     289.0,     289.0,       0.0);
     ( 439839.0, 3765355.0,     289.0,     289.0,       0.0);
( 439844.0, 3765355.0,     289.0,     289.0,       0.0);
     ( 439849.0, 3765355.0,     289.0,     289.0,       0.0);
( 439854.0, 3765355.0,     289.0,     289.0,       0.0);
     ( 439859.0, 3765355.0,     289.0,     289.0,       0.0);
( 439864.0, 3765355.0,     289.0,     289.0,       0.0);
     ( 439869.0, 3765355.0,     289.0,     289.0,       0.0);
( 439874.0, 3765355.0,     289.0,     289.0,       0.0);
     ( 439879.0, 3765355.0,     289.0,     289.0,       0.0);
( 439884.0, 3765355.0,     289.0,     289.0,       0.0);
     ( 439674.0, 3765360.0,     289.0,     289.0,       0.0);
( 439679.0, 3765360.0,     289.0,     289.0,       0.0);
     ( 439684.0, 3765360.0,     289.0,     289.0,       0.0);
( 439689.0, 3765360.0,     289.0,     289.0,       0.0);
     ( 439694.0, 3765360.0,     289.0,     289.0,       0.0);
( 439699.0, 3765360.0,     289.0,     289.0,       0.0);
     ( 439704.0, 3765360.0,     289.0,     289.0,       0.0);
( 439709.0, 3765360.0,     289.0,     289.0,       0.0);
     ( 439714.0, 3765360.0,     289.0,     289.0,       0.0);
( 439719.0, 3765360.0,     289.0,     289.0,       0.0);
     ( 439729.0, 3765360.0,     289.0,     289.0,       0.0);
( 439734.0, 3765360.0,     289.0,     289.0,       0.0);
     ( 439739.0, 3765360.0,     289.0,     289.0,       0.0);
( 439744.0, 3765360.0,     289.0,     289.0,       0.0);
```

```
     ( 439749.0, 3765360.0,     289.0,     289.0,       0.0);
( 439774.0, 3765360.0,     289.0,     289.0,       0.0);
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)

(METERS)

(439779.0, 3765360.0, 289.0, 289.0, 0.0);
(439784.0, 3765360.0, 289.0, 289.0, 0.0);
(439789.0, 3765360.0, 289.0, 289.0, 0.0);
(439794.0, 3765360.0, 289.0, 289.0, 0.0);
(439799.0, 3765360.0, 289.0, 289.0, 0.0);
(439804.0, 3765360.0, 289.0, 289.0, 0.0);
(439809.0, 3765360.0, 289.0, 289.0, 0.0);
(439814.0, 3765360.0, 289.0, 289.0, 0.0);
(439839.0, 3765360.0, 289.0, 289.0, 0.0);
(439844.0, 3765360.0, 289.0, 289.0, 0.0);
(439849.0, 3765360.0, 289.0, 289.0, 0.0);
(439854.0, 3765360.0, 289.0, 289.0, 0.0);
(439859.0, 3765360.0, 289.0, 289.0, 0.0);
(439864.0, 3765360.0, 289.0, 289.0, 0.0);
(439869.0, 3765360.0, 289.0, 289.0, 0.0);
(439874.0, 3765360.0, 289.0, 289.0, 0.0);
(439879.0, 3765360.0, 289.0, 289.0, 0.0);
(439884.0, 3765360.0, 289.0, 289.0, 0.0);
(439674.0, 3765365.0, 289.0, 289.0, 0.0);
(439679.0, 3765365.0, 289.0, 289.0, 0.0);
(439684.0, 3765365.0, 289.0, 289.0, 0.0);
(439689.0, 3765365.0, 289.0, 289.0, 0.0);
(439694.0, 3765365.0, 289.0, 289.0, 0.0);
(439699.0, 3765365.0, 289.0, 289.0, 0.0);
(439704.0, 3765365.0, 289.0, 289.0, 0.0);
(439709.0, 3765365.0, 289.0, 289.0, 0.0);
(439714.0, 3765365.0, 289.0, 289.0, 0.0);
(439719.0, 3765365.0, 289.0, 289.0, 0.0);
(439729.0, 3765365.0, 289.0, 289.0, 0.0);
(439734.0, 3765365.0, 289.0, 289.0, 0.0);
(439739.0, 3765365.0, 289.0, 289.0, 0.0);
(439744.0, 3765365.0, 289.0, 289.0, 0.0);
(439749.0, 3765365.0, 289.0, 289.0, 0.0);
(439774.0, 3765365.0, 289.0, 289.0, 0.0);
(439779.0, 3765365.0, 289.0, 289.0, 0.0);
(439784.0, 3765365.0, 289.0, 289.0, 0.0);

```
     ( 439789.0, 3765365.0,     289.0,     289.0,       0.0);
( 439794.0, 3765365.0,     289.0,     289.0,       0.0);
     ( 439799.0, 3765365.0,     289.0,     289.0,       0.0);
( 439804.0, 3765365.0,     289.0,     289.0,       0.0);
     ( 439809.0, 3765365.0,     289.0,     289.0,       0.0);
( 439814.0, 3765365.0,     289.0,     289.0,       0.0);
     ( 439839.0, 3765365.0,     289.0,     289.0,       0.0);
( 439844.0, 3765365.0,     289.0,     289.0,       0.0);
     ( 439849.0, 3765365.0,     289.0,     289.0,       0.0);
( 439854.0, 3765365.0,     289.0,     289.0,       0.0);
     ( 439859.0, 3765365.0,     289.0,     289.0,       0.0);
( 439864.0, 3765365.0,     289.0,     289.0,       0.0);
     ( 439869.0, 3765365.0,     289.0,     289.0,       0.0);
( 439874.0, 3765365.0,     289.0,     289.0,       0.0);
     ( 439879.0, 3765365.0,     289.0,     289.0,       0.0);
( 439884.0, 3765365.0,     289.0,     289.0,       0.0);
     ( 439674.0, 3765370.0,     289.0,     289.0,       0.0);
( 439679.0, 3765370.0,     289.0,     289.0,       0.0);
     ( 439684.0, 3765370.0,     289.0,     289.0,       0.0);
( 439689.0, 3765370.0,     289.0,     289.0,       0.0);
     ( 439694.0, 3765370.0,     289.0,     289.0,       0.0);
( 439699.0, 3765370.0,     289.0,     289.0,       0.0);
     ( 439704.0, 3765370.0,     289.0,     289.0,       0.0);
( 439709.0, 3765370.0,     289.0,     289.0,       0.0);
     ( 439714.0, 3765370.0,     289.0,     289.0,       0.0);
( 439719.0, 3765370.0,     289.0,     289.0,       0.0);
     ( 439729.0, 3765370.0,     289.0,     289.0,       0.0);
( 439734.0, 3765370.0,     289.0,     289.0,       0.0);
     ( 439739.0, 3765370.0,     289.0,     289.0,       0.0);
( 439744.0, 3765370.0,     289.0,     289.0,       0.0);
     ( 439749.0, 3765370.0,     289.0,     289.0,       0.0);
( 439774.0, 3765370.0,     289.0,     289.0,       0.0);
     ( 439779.0, 3765370.0,     289.0,     289.0,       0.0);
( 439784.0, 3765370.0,     289.0,     289.0,       0.0);
     ( 439789.0, 3765370.0,     289.0,     289.0,       0.0);
( 439794.0, 3765370.0,     289.0,     289.0,       0.0);
     ( 439799.0, 3765370.0,     289.0,     289.0,       0.0);
( 439804.0, 3765370.0,     289.0,     289.0,       0.0);
     ( 439809.0, 3765370.0,     289.0,     289.0,       0.0);
( 439814.0, 3765370.0,     289.0,     289.0,       0.0);
     ( 439839.0, 3765370.0,     289.0,     289.0,       0.0);
( 439844.0, 3765370.0,     289.0,     289.0,       0.0);
     ( 439849.0, 3765370.0,     289.0,     289.0,       0.0);
( 439854.0, 3765370.0,     289.0,     289.0,       0.0);
     ( 439859.0, 3765370.0,     289.0,     289.0,       0.0);
( 439864.0, 3765370.0,     289.0,     289.0,       0.0);
     ( 439869.0, 3765370.0,     289.0,     289.0,       0.0);
( 439874.0, 3765370.0,     289.0,     289.0,       0.0);
     ( 439879.0, 3765370.0,     289.0,     289.0,       0.0);
( 439884.0, 3765370.0,     289.0,     289.0,       0.0);
     ( 439674.0, 3765375.0,     289.0,     289.0,       0.0);
( 439679.0, 3765375.0,     289.0,     289.0,       0.0);
```

```
     ( 439684.0, 3765375.0,     289.0,     289.0,       0.0);
( 439689.0, 3765375.0,     289.0,     289.0,       0.0);
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)

(METERS)

(439694.0, 3765375.0, 289.0, 289.0, 0.0);
(439699.0, 3765375.0, 289.0, 289.0, 0.0);
(439704.0, 3765375.0, 289.0, 289.0, 0.0);
(439709.0, 3765375.0, 289.0, 289.0, 0.0);
(439714.0, 3765375.0, 289.0, 289.0, 0.0);
(439719.0, 3765375.0, 289.0, 289.0, 0.0);
(439729.0, 3765375.0, 289.0, 289.0, 0.0);
(439734.0, 3765375.0, 289.0, 289.0, 0.0);
(439739.0, 3765375.0, 289.0, 289.0, 0.0);
(439744.0, 3765375.0, 289.0, 289.0, 0.0);
(439749.0, 3765375.0, 289.0, 289.0, 0.0);
(439754.0, 3765375.0, 289.0, 289.0, 0.0);
(439774.0, 3765375.0, 289.0, 289.0, 0.0);
(439779.0, 3765375.0, 289.0, 289.0, 0.0);
(439784.0, 3765375.0, 289.0, 289.0, 0.0);
(439789.0, 3765375.0, 289.0, 289.0, 0.0);
(439794.0, 3765375.0, 289.0, 289.0, 0.0);
(439799.0, 3765375.0, 289.0, 289.0, 0.0);
(439804.0, 3765375.0, 289.0, 289.0, 0.0);
(439809.0, 3765375.0, 289.0, 289.0, 0.0);
(439814.0, 3765375.0, 289.0, 289.0, 0.0);
(439839.0, 3765375.0, 289.0, 289.0, 0.0);
(439844.0, 3765375.0, 289.0, 289.0, 0.0);
(439849.0, 3765375.0, 289.0, 289.0, 0.0);
(439854.0, 3765375.0, 289.0, 289.0, 0.0);
(439859.0, 3765375.0, 289.0, 289.0, 0.0);
(439864.0, 3765375.0, 289.0, 289.0, 0.0);
(439869.0, 3765375.0, 289.0, 289.0, 0.0);
(439874.0, 3765375.0, 289.0, 289.0, 0.0);
(439879.0, 3765375.0, 289.0, 289.0, 0.0);
(439884.0, 3765375.0, 289.0, 289.0, 0.0);
(439774.0, 3765380.0, 289.0, 289.0, 0.0);
(439779.0, 3765380.0, 289.0, 289.0, 0.0);
(439784.0, 3765380.0, 289.0, 289.0, 0.0);
(439789.0, 3765380.0, 289.0, 289.0, 0.0);
(439794.0, 3765380.0, 289.0, 289.0, 0.0);

```
     ( 439799.0, 3765380.0,     289.0,     289.0,       0.0);
( 439804.0, 3765380.0,     289.0,     289.0,       0.0);
     ( 439809.0, 3765380.0,     289.0,     289.0,       0.0);
( 439814.0, 3765380.0,     289.0,     289.0,       0.0);
     ( 439769.0, 3765385.0,     289.0,     289.0,       0.0);
( 439819.0, 3765385.0,     289.0,     289.0,       0.0);
     ( 439769.0, 3765400.0,     289.0,     289.0,       0.0);
( 439844.0, 3765400.0,     289.0,     289.0,       0.0);
     ( 439849.0, 3765400.0,     289.0,     289.0,       0.0);
( 439674.0, 3765405.0,     289.0,     289.0,       0.0);
     ( 439714.0, 3765405.0,     289.0,     289.0,       0.0);
( 439719.0, 3765405.0,     289.0,     289.0,       0.0);
     ( 439734.0, 3765405.0,     289.0,     289.0,       0.0);
( 439749.0, 3765405.0,     289.0,     289.0,       0.0);
     ( 439754.0, 3765405.0,     289.0,     289.0,       0.0);
( 439774.0, 3765405.0,     289.0,     289.0,       0.0);
     ( 439779.0, 3765405.0,     289.0,     289.0,       0.0);
( 439784.0, 3765405.0,     289.0,     289.0,       0.0);
     ( 439789.0, 3765405.0,     289.0,     289.0,       0.0);
( 439794.0, 3765405.0,     289.0,     289.0,       0.0);
     ( 439799.0, 3765405.0,     289.0,     289.0,       0.0);
( 439804.0, 3765405.0,     289.0,     289.0,       0.0);
     ( 439809.0, 3765405.0,     289.0,     289.0,       0.0);
( 439814.0, 3765405.0,     289.0,     289.0,       0.0);
     ( 439819.0, 3765405.0,     289.0,     289.0,       0.0);
( 439824.0, 3765405.0,     289.0,     289.0,       0.0);
     ( 439829.0, 3765405.0,     289.0,     289.0,       0.0);
( 439834.0, 3765405.0,     289.0,     289.0,       0.0);
     ( 439839.0, 3765405.0,     289.0,     289.0,       0.0);
( 439844.0, 3765405.0,     289.0,     289.0,       0.0);
     ( 439849.0, 3765405.0,     289.0,     289.0,       0.0);
( 439854.0, 3765405.0,     289.0,     289.0,       0.0);
     ( 439859.0, 3765405.0,     289.0,     289.0,       0.0);
( 439674.0, 3765410.0,     289.0,     289.0,       0.0);
     ( 439679.0, 3765410.0,     289.0,     289.0,       0.0);
( 439684.0, 3765410.0,     289.0,     289.0,       0.0);
     ( 439689.0, 3765410.0,     289.0,     289.0,       0.0);
( 439694.0, 3765410.0,     289.0,     289.0,       0.0);
     ( 439699.0, 3765410.0,     289.0,     289.0,       0.0);
( 439704.0, 3765410.0,     289.0,     289.0,       0.0);
     ( 439709.0, 3765410.0,     289.0,     289.0,       0.0);
( 439714.0, 3765410.0,     289.0,     289.0,       0.0);
     ( 439719.0, 3765410.0,     289.0,     289.0,       0.0);
( 439729.0, 3765410.0,     289.0,     289.0,       0.0);
     ( 439734.0, 3765410.0,     289.0,     289.0,       0.0);
( 439739.0, 3765410.0,     289.0,     289.0,       0.0);
     ( 439744.0, 3765410.0,     289.0,     289.0,       0.0);
( 439749.0, 3765410.0,     289.0,     289.0,       0.0);
     ( 439774.0, 3765410.0,     289.0,     289.0,       0.0);
( 439779.0, 3765410.0,     289.0,     289.0,       0.0);
     ( 439784.0, 3765410.0,     289.0,     289.0,       0.0);
( 439789.0, 3765410.0,     289.0,     289.0,       0.0);
```

```
     ( 439794.0, 3765410.0,     289.0,     289.0,       0.0);
( 439799.0, 3765410.0,     289.0,     289.0,       0.0);
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)

(METERS)

(439804.0, 3765410.0, 289.0, 289.0, 0.0);
(439809.0, 3765410.0, 289.0, 289.0, 0.0);
(439814.0, 3765410.0, 289.0, 289.0, 0.0);
(439819.0, 3765410.0, 289.0, 289.0, 0.0);
(439824.0, 3765410.0, 289.0, 289.0, 0.0);
(439829.0, 3765410.0, 289.0, 289.0, 0.0);
(439834.0, 3765410.0, 289.0, 289.0, 0.0);
(439839.0, 3765410.0, 289.0, 289.0, 0.0);
(439844.0, 3765410.0, 289.0, 289.0, 0.0);
(439849.0, 3765410.0, 289.0, 289.0, 0.0);
(439854.0, 3765410.0, 289.0, 289.0, 0.0);
(439859.0, 3765410.0, 289.0, 289.0, 0.0);
(439674.0, 3765415.0, 289.0, 289.0, 0.0);
(439679.0, 3765415.0, 289.0, 289.0, 0.0);
(439684.0, 3765415.0, 289.0, 289.0, 0.0);
(439689.0, 3765415.0, 289.0, 289.0, 0.0);
(439694.0, 3765415.0, 289.0, 289.0, 0.0);
(439699.0, 3765415.0, 289.0, 289.0, 0.0);
(439704.0, 3765415.0, 289.0, 289.0, 0.0);
(439709.0, 3765415.0, 289.0, 289.0, 0.0);
(439714.0, 3765415.0, 289.0, 289.0, 0.0);
(439719.0, 3765415.0, 289.0, 289.0, 0.0);
(439729.0, 3765415.0, 289.0, 289.0, 0.0);
(439734.0, 3765415.0, 289.0, 289.0, 0.0);
(439739.0, 3765415.0, 289.0, 289.0, 0.0);
(439744.0, 3765415.0, 289.0, 289.0, 0.0);
(439749.0, 3765415.0, 289.0, 289.0, 0.0);
(439774.0, 3765415.0, 289.0, 289.0, 0.0);
(439779.0, 3765415.0, 289.0, 289.0, 0.0);
(439784.0, 3765415.0, 289.0, 289.0, 0.0);
(439789.0, 3765415.0, 289.0, 289.0, 0.0);
(439794.0, 3765415.0, 289.0, 289.0, 0.0);
(439799.0, 3765415.0, 289.0, 289.0, 0.0);
(439804.0, 3765415.0, 289.0, 289.0, 0.0);
(439809.0, 3765415.0, 289.0, 289.0, 0.0);
(439814.0, 3765415.0, 289.0, 289.0, 0.0);

```
     ( 439819.0, 3765415.0,     289.0,     289.0,       0.0);
( 439824.0, 3765415.0,     289.0,     289.0,       0.0);
     ( 439829.0, 3765415.0,     289.0,     289.0,       0.0);
( 439834.0, 3765415.0,     289.0,     289.0,       0.0);
     ( 439839.0, 3765415.0,     289.0,     289.0,       0.0);
( 439844.0, 3765415.0,     289.0,     289.0,       0.0);
     ( 439849.0, 3765415.0,     289.0,     289.0,       0.0);
( 439854.0, 3765415.0,     289.0,     289.0,       0.0);
     ( 439859.0, 3765415.0,     289.0,     289.0,       0.0);
( 439674.0, 3765420.0,     289.0,     289.0,       0.0);
     ( 439679.0, 3765420.0,     289.0,     289.0,       0.0);
( 439684.0, 3765420.0,     289.0,     289.0,       0.0);
     ( 439689.0, 3765420.0,     289.0,     289.0,       0.0);
( 439694.0, 3765420.0,     289.0,     289.0,       0.0);
     ( 439699.0, 3765420.0,     289.0,     289.0,       0.0);
( 439704.0, 3765420.0,     289.0,     289.0,       0.0);
     ( 439709.0, 3765420.0,     289.0,     289.0,       0.0);
( 439714.0, 3765420.0,     289.0,     289.0,       0.0);
     ( 439719.0, 3765420.0,     289.0,     289.0,       0.0);
( 439729.0, 3765420.0,     289.0,     289.0,       0.0);
     ( 439734.0, 3765420.0,     289.0,     289.0,       0.0);
( 439739.0, 3765420.0,     289.0,     289.0,       0.0);
     ( 439744.0, 3765420.0,     289.0,     289.0,       0.0);
( 439749.0, 3765420.0,     289.0,     289.0,       0.0);
     ( 439774.0, 3765420.0,     289.0,     289.0,       0.0);
( 439779.0, 3765420.0,     289.0,     289.0,       0.0);
     ( 439784.0, 3765420.0,     289.0,     289.0,       0.0);
( 439789.0, 3765420.0,     289.0,     289.0,       0.0);
     ( 439794.0, 3765420.0,     289.0,     289.0,       0.0);
( 439799.0, 3765420.0,     289.0,     289.0,       0.0);
     ( 439804.0, 3765420.0,     289.0,     289.0,       0.0);
( 439809.0, 3765420.0,     289.0,     289.0,       0.0);
     ( 439814.0, 3765420.0,     289.0,     289.0,       0.0);
( 439819.0, 3765420.0,     289.0,     289.0,       0.0);
     ( 439824.0, 3765420.0,     289.0,     289.0,       0.0);
( 439829.0, 3765420.0,     289.0,     289.0,       0.0);
     ( 439834.0, 3765420.0,     289.0,     289.0,       0.0);
( 439839.0, 3765420.0,     289.0,     289.0,       0.0);
     ( 439844.0, 3765420.0,     289.0,     289.0,       0.0);
( 439849.0, 3765420.0,     289.0,     289.0,       0.0);
     ( 439854.0, 3765420.0,     289.0,     289.0,       0.0);
( 439859.0, 3765420.0,     289.0,     289.0,       0.0);
     ( 439674.0, 3765425.0,     289.0,     289.0,       0.0);
( 439679.0, 3765425.0,     289.0,     289.0,       0.0);
     ( 439684.0, 3765425.0,     289.0,     289.0,       0.0);
( 439689.0, 3765425.0,     289.0,     289.0,       0.0);
     ( 439694.0, 3765425.0,     289.0,     289.0,       0.0);
( 439699.0, 3765425.0,     289.0,     289.0,       0.0);
     ( 439704.0, 3765425.0,     289.0,     289.0,       0.0);
( 439709.0, 3765425.0,     289.0,     289.0,       0.0);
     ( 439714.0, 3765425.0,     289.0,     289.0,       0.0);
( 439719.0, 3765425.0,     289.0,     289.0,       0.0);
```

```
     ( 439729.0, 3765425.0,     289.0,     289.0,       0.0);
( 439734.0, 3765425.0,     289.0,     289.0,       0.0);
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)

(METERS)

(439739.0, 3765425.0, 289.0, 289.0, 0.0);
(439744.0, 3765425.0, 289.0, 289.0, 0.0);
(439749.0, 3765425.0, 289.0, 289.0, 0.0);
(439774.0, 3765425.0, 289.0, 289.0, 0.0);
(439779.0, 3765425.0, 289.0, 289.0, 0.0);
(439784.0, 3765425.0, 289.0, 289.0, 0.0);
(439789.0, 3765425.0, 289.0, 289.0, 0.0);
(439794.0, 3765425.0, 289.0, 289.0, 0.0);
(439799.0, 3765425.0, 289.0, 289.0, 0.0);
(439804.0, 3765425.0, 289.0, 289.0, 0.0);
(439809.0, 3765425.0, 289.0, 289.0, 0.0);
(439814.0, 3765425.0, 289.0, 289.0, 0.0);
(439819.0, 3765425.0, 289.0, 289.0, 0.0);
(439824.0, 3765425.0, 289.0, 289.0, 0.0);
(439829.0, 3765425.0, 289.0, 289.0, 0.0);
(439834.0, 3765425.0, 289.0, 289.0, 0.0);
(439839.0, 3765425.0, 289.0, 289.0, 0.0);
(439844.0, 3765425.0, 289.0, 289.0, 0.0);
(439849.0, 3765425.0, 289.0, 289.0, 0.0);
(439854.0, 3765425.0, 289.0, 289.0, 0.0);
(439859.0, 3765425.0, 289.0, 289.0, 0.0);
(439674.0, 3765430.0, 289.0, 289.0, 0.0);
(439679.0, 3765430.0, 289.0, 289.0, 0.0);
(439684.0, 3765430.0, 289.0, 289.0, 0.0);
(439689.0, 3765430.0, 289.0, 289.0, 0.0);
(439694.0, 3765430.0, 289.0, 289.0, 0.0);
(439699.0, 3765430.0, 289.0, 289.0, 0.0);
(439704.0, 3765430.0, 289.0, 289.0, 0.0);
(439709.0, 3765430.0, 289.0, 289.0, 0.0);
(439714.0, 3765430.0, 289.0, 289.0, 0.0);
(439719.0, 3765430.0, 289.0, 289.0, 0.0);
(439729.0, 3765430.0, 289.0, 289.0, 0.0);
(439734.0, 3765430.0, 289.0, 289.0, 0.0);
(439739.0, 3765430.0, 289.0, 289.0, 0.0);
(439744.0, 3765430.0, 289.0, 289.0, 0.0);
(439749.0, 3765430.0, 289.0, 289.0, 0.0);

```
     ( 439774.0, 3765430.0,     289.0,     289.0,       0.0);
( 439779.0, 3765430.0,     289.0,     289.0,       0.0);
     ( 439784.0, 3765430.0,     289.0,     289.0,       0.0);
( 439789.0, 3765430.0,     289.0,     289.0,       0.0);
     ( 439794.0, 3765430.0,     289.0,     289.0,       0.0);
( 439799.0, 3765430.0,     289.0,     289.0,       0.0);
     ( 439804.0, 3765430.0,     289.0,     289.0,       0.0);
( 439809.0, 3765430.0,     289.0,     289.0,       0.0);
     ( 439814.0, 3765430.0,     289.0,     289.0,       0.0);
( 439819.0, 3765430.0,     289.0,     289.0,       0.0);
     ( 439824.0, 3765430.0,     289.0,     289.0,       0.0);
( 439829.0, 3765430.0,     289.0,     289.0,       0.0);
     ( 439834.0, 3765430.0,     289.0,     289.0,       0.0);
( 439839.0, 3765430.0,     289.0,     289.0,       0.0);
     ( 439844.0, 3765430.0,     289.0,     289.0,       0.0);
( 439849.0, 3765430.0,     289.0,     289.0,       0.0);
     ( 439854.0, 3765430.0,     289.0,     289.0,       0.0);
( 439859.0, 3765430.0,     289.0,     289.0,       0.0);
     ( 439674.0, 3765435.0,     289.0,     289.0,       0.0);
( 439679.0, 3765435.0,     289.0,     289.0,       0.0);
     ( 439684.0, 3765435.0,     289.0,     289.0,       0.0);
( 439689.0, 3765435.0,     289.0,     289.0,       0.0);
     ( 439694.0, 3765435.0,     289.0,     289.0,       0.0);
( 439699.0, 3765435.0,     289.0,     289.0,       0.0);
     ( 439704.0, 3765435.0,     289.0,     289.0,       0.0);
( 439709.0, 3765435.0,     289.0,     289.0,       0.0);
     ( 439714.0, 3765435.0,     289.0,     289.0,       0.0);
( 439719.0, 3765435.0,     289.0,     289.0,       0.0);
     ( 439729.0, 3765435.0,     289.0,     289.0,       0.0);
( 439734.0, 3765435.0,     289.0,     289.0,       0.0);
     ( 439739.0, 3765435.0,     289.0,     289.0,       0.0);
( 439744.0, 3765435.0,     289.0,     289.0,       0.0);
     ( 439749.0, 3765435.0,     289.0,     289.0,       0.0);
( 439774.0, 3765435.0,     289.0,     289.0,       0.0);
     ( 439779.0, 3765435.0,     289.0,     289.0,       0.0);
( 439784.0, 3765435.0,     289.0,     289.0,       0.0);
     ( 439789.0, 3765435.0,     289.0,     289.0,       0.0);
( 439794.0, 3765435.0,     289.0,     289.0,       0.0);
     ( 439799.0, 3765435.0,     289.0,     289.0,       0.0);
( 439804.0, 3765435.0,     289.0,     289.0,       0.0);
     ( 439809.0, 3765435.0,     289.0,     289.0,       0.0);
( 439814.0, 3765435.0,     289.0,     289.0,       0.0);
     ( 439819.0, 3765435.0,     289.0,     289.0,       0.0);
( 439824.0, 3765435.0,     289.0,     289.0,       0.0);
     ( 439829.0, 3765435.0,     289.0,     289.0,       0.0);
( 439834.0, 3765435.0,     289.0,     289.0,       0.0);
     ( 439839.0, 3765435.0,     289.0,     289.0,       0.0);
( 439844.0, 3765435.0,     289.0,     289.0,       0.0);
     ( 439849.0, 3765435.0,     289.0,     289.0,       0.0);
( 439854.0, 3765435.0,     289.0,     289.0,       0.0);
     ( 439859.0, 3765435.0,     289.0,     289.0,       0.0);
( 439674.0, 3765440.0,     289.0,     289.0,       0.0);
```

```
     ( 439679.0, 3765440.0,     289.0,     289.0,       0.0);
( 439684.0, 3765440.0,     289.0,     289.0,       0.0);
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)

(METERS)

(439689.0, 3765440.0, 289.0, 289.0, 0.0);
(439694.0, 3765440.0, 289.0, 289.0, 0.0);
(439699.0, 3765440.0, 289.0, 289.0, 0.0);
(439704.0, 3765440.0, 289.0, 289.0, 0.0);
(439709.0, 3765440.0, 289.0, 289.0, 0.0);
(439714.0, 3765440.0, 289.0, 289.0, 0.0);
(439719.0, 3765440.0, 289.0, 289.0, 0.0);
(439729.0, 3765440.0, 289.0, 289.0, 0.0);
(439734.0, 3765440.0, 289.0, 289.0, 0.0);
(439739.0, 3765440.0, 289.0, 289.0, 0.0);
(439744.0, 3765440.0, 289.0, 289.0, 0.0);
(439749.0, 3765440.0, 289.0, 289.0, 0.0);
(439774.0, 3765440.0, 289.0, 289.0, 0.0);
(439779.0, 3765440.0, 289.0, 289.0, 0.0);
(439784.0, 3765440.0, 289.0, 289.0, 0.0);
(439789.0, 3765440.0, 289.0, 289.0, 0.0);
(439794.0, 3765440.0, 289.0, 289.0, 0.0);
(439799.0, 3765440.0, 289.0, 289.0, 0.0);
(439804.0, 3765440.0, 289.0, 289.0, 0.0);
(439809.0, 3765440.0, 289.0, 289.0, 0.0);
(439814.0, 3765440.0, 289.0, 289.0, 0.0);
(439819.0, 3765440.0, 289.0, 289.0, 0.0);
(439824.0, 3765440.0, 289.0, 289.0, 0.0);
(439829.0, 3765440.0, 289.0, 289.0, 0.0);
(439834.0, 3765440.0, 289.0, 289.0, 0.0);
(439839.0, 3765440.0, 289.0, 289.0, 0.0);
(439844.0, 3765440.0, 289.0, 289.0, 0.0);
(439849.0, 3765440.0, 289.0, 289.0, 0.0);
(439854.0, 3765440.0, 289.0, 289.0, 0.0);
(439859.0, 3765440.0, 289.0, 289.0, 0.0);
(439674.0, 3765445.0, 289.0, 289.0, 0.0);
(439679.0, 3765445.0, 289.0, 289.0, 0.0);
(439684.0, 3765445.0, 289.0, 289.0, 0.0);
(439689.0, 3765445.0, 289.0, 289.0, 0.0);
(439694.0, 3765445.0, 289.0, 289.0, 0.0);
(439699.0, 3765445.0, 289.0, 289.0, 0.0);

```
     ( 439704.0, 3765445.0,     289.0,     289.0,       0.0);
( 439709.0, 3765445.0,     289.0,     289.0,       0.0);
     ( 439714.0, 3765445.0,     289.0,     289.0,       0.0);
( 439719.0, 3765445.0,     289.0,     289.0,       0.0);
     ( 439729.0, 3765445.0,     289.0,     289.0,       0.0);
( 439734.0, 3765445.0,     289.0,     289.0,       0.0);
     ( 439739.0, 3765445.0,     289.0,     289.0,       0.0);
( 439744.0, 3765445.0,     289.0,     289.0,       0.0);
     ( 439749.0, 3765445.0,     289.0,     289.0,       0.0);
( 439774.0, 3765445.0,     289.0,     289.0,       0.0);
     ( 439779.0, 3765445.0,     289.0,     289.0,       0.0);
( 439784.0, 3765445.0,     289.0,     289.0,       0.0);
     ( 439789.0, 3765445.0,     289.0,     289.0,       0.0);
( 439794.0, 3765445.0,     289.0,     289.0,       0.0);
     ( 439799.0, 3765445.0,     289.0,     289.0,       0.0);
( 439804.0, 3765445.0,     289.0,     289.0,       0.0);
     ( 439809.0, 3765445.0,     289.0,     289.0,       0.0);
( 439814.0, 3765445.0,     289.0,     289.0,       0.0);
     ( 439819.0, 3765445.0,     289.0,     289.0,       0.0);
( 439824.0, 3765445.0,     289.0,     289.0,       0.0);
     ( 439829.0, 3765445.0,     289.0,     289.0,       0.0);
( 439834.0, 3765445.0,     289.0,     289.0,       0.0);
     ( 439839.0, 3765445.0,     289.0,     289.0,       0.0);
( 439844.0, 3765445.0,     289.0,     289.0,       0.0);
     ( 439849.0, 3765445.0,     289.0,     289.0,       0.0);
( 439854.0, 3765445.0,     289.0,     289.0,       0.0);
     ( 439859.0, 3765445.0,     289.0,     289.0,       0.0);
( 439674.0, 3765450.0,     289.0,     289.0,       0.0);
     ( 439679.0, 3765450.0,     289.0,     289.0,       0.0);
( 439684.0, 3765450.0,     289.0,     289.0,       0.0);
     ( 439689.0, 3765450.0,     289.0,     289.0,       0.0);
( 439694.0, 3765450.0,     289.0,     289.0,       0.0);
     ( 439699.0, 3765450.0,     289.0,     289.0,       0.0);
( 439704.0, 3765450.0,     289.0,     289.0,       0.0);
     ( 439709.0, 3765450.0,     289.0,     289.0,       0.0);
( 439714.0, 3765450.0,     289.0,     289.0,       0.0);
     ( 439719.0, 3765450.0,     289.0,     289.0,       0.0);
( 439729.0, 3765450.0,     289.0,     289.0,       0.0);
     ( 439734.0, 3765450.0,     289.0,     289.0,       0.0);
( 439739.0, 3765450.0,     289.0,     289.0,       0.0);
     ( 439744.0, 3765450.0,     289.0,     289.0,       0.0);
( 439749.0, 3765450.0,     289.0,     289.0,       0.0);
     ( 439774.0, 3765450.0,     289.0,     289.0,       0.0);
( 439844.0, 3765450.0,     289.0,     289.0,       0.0);
     ( 439849.0, 3765450.0,     289.0,     289.0,       0.0);
( 439854.0, 3765450.0,     289.0,     289.0,       0.0);
     ( 439859.0, 3765450.0,     289.0,     289.0,       0.0);
( 439674.0, 3765455.0,     289.0,     289.0,       0.0);
     ( 439679.0, 3765455.0,     289.0,     289.0,       0.0);
( 439684.0, 3765455.0,     289.0,     289.0,       0.0);
     ( 439689.0, 3765455.0,     289.0,     289.0,       0.0);
( 439694.0, 3765455.0,     289.0,     289.0,       0.0);
```

```
     ( 439699.0, 3765455.0,     289.0,     289.0,       0.0);
( 439704.0, 3765455.0,     289.0,     289.0,       0.0);
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)

(METERS)

(439709.0, 3765455.0, 289.0, 289.0, 0.0);
(439714.0, 3765455.0, 289.0, 289.0, 0.0);
(439719.0, 3765455.0, 289.0, 289.0, 0.0);
(439729.0, 3765455.0, 289.0, 289.0, 0.0);
(439734.0, 3765455.0, 289.0, 289.0, 0.0);
(439739.0, 3765455.0, 289.0, 289.0, 0.0);
(439744.0, 3765455.0, 289.0, 289.0, 0.0);
(439749.0, 3765455.0, 289.0, 289.0, 0.0);
(439844.0, 3765455.0, 289.0, 289.0, 0.0);
(439849.0, 3765455.0, 289.0, 289.0, 0.0);
(439854.0, 3765455.0, 289.0, 289.0, 0.0);
(439859.0, 3765455.0, 289.0, 289.0, 0.0);
(439674.0, 3765460.0, 289.0, 289.0, 0.0);
(439679.0, 3765460.0, 289.0, 289.0, 0.0);
(439684.0, 3765460.0, 289.0, 289.0, 0.0);
(439689.0, 3765460.0, 289.0, 289.0, 0.0);
(439694.0, 3765460.0, 289.0, 289.0, 0.0);
(439699.0, 3765460.0, 289.0, 289.0, 0.0);
(439704.0, 3765460.0, 289.0, 289.0, 0.0);
(439709.0, 3765460.0, 289.0, 289.0, 0.0);
(439714.0, 3765460.0, 289.0, 289.0, 0.0);
(439719.0, 3765460.0, 289.0, 289.0, 0.0);
(439729.0, 3765460.0, 289.0, 289.0, 0.0);
(439734.0, 3765460.0, 289.0, 289.0, 0.0);
(439739.0, 3765460.0, 289.0, 289.0, 0.0);
(439744.0, 3765460.0, 289.0, 289.0, 0.0);
(439749.0, 3765460.0, 289.0, 289.0, 0.0);
(439789.0, 3765460.0, 289.0, 289.0, 0.0);
(439794.0, 3765460.0, 289.0, 289.0, 0.0);
(439799.0, 3765460.0, 289.0, 289.0, 0.0);
(439804.0, 3765460.0, 289.0, 289.0, 0.0);
(439809.0, 3765460.0, 289.0, 289.0, 0.0);
(439814.0, 3765460.0, 289.0, 289.0, 0.0);
(439819.0, 3765460.0, 289.0, 289.0, 0.0);
(439824.0, 3765460.0, 289.0, 289.0, 0.0);
(439829.0, 3765460.0, 289.0, 289.0, 0.0);

```
     ( 439844.0, 3765460.0,     289.0,     289.0,       0.0);
( 439849.0, 3765460.0,     289.0,     289.0,       0.0);
     ( 439854.0, 3765460.0,     289.0,     289.0,       0.0);
( 439859.0, 3765460.0,     289.0,     289.0,       0.0);
     ( 439674.0, 3765465.0,     289.0,     289.0,       0.0);
( 439679.0, 3765465.0,     289.0,     289.0,       0.0);
     ( 439684.0, 3765465.0,     289.0,     289.0,       0.0);
( 439689.0, 3765465.0,     289.0,     289.0,       0.0);
     ( 439694.0, 3765465.0,     289.0,     289.0,       0.0);
( 439699.0, 3765465.0,     289.0,     289.0,       0.0);
     ( 439704.0, 3765465.0,     289.0,     289.0,       0.0);
( 439709.0, 3765465.0,     289.0,     289.0,       0.0);
     ( 439714.0, 3765465.0,     289.0,     289.0,       0.0);
( 439719.0, 3765465.0,     289.0,     289.0,       0.0);
     ( 439729.0, 3765465.0,     289.0,     289.0,       0.0);
( 439734.0, 3765465.0,     289.0,     289.0,       0.0);
     ( 439739.0, 3765465.0,     289.0,     289.0,       0.0);
( 439744.0, 3765465.0,     289.0,     289.0,       0.0);
     ( 439749.0, 3765465.0,     289.0,     289.0,       0.0);
( 439789.0, 3765465.0,     289.0,     289.0,       0.0);
     ( 439794.0, 3765465.0,     289.0,     289.0,       0.0);
( 439799.0, 3765465.0,     289.0,     289.0,       0.0);
     ( 439804.0, 3765465.0,     289.0,     289.0,       0.0);
( 439809.0, 3765465.0,     289.0,     289.0,       0.0);
     ( 439814.0, 3765465.0,     289.0,     289.0,       0.0);
( 439819.0, 3765465.0,     289.0,     289.0,       0.0);
     ( 439824.0, 3765465.0,     289.0,     289.0,       0.0);
( 439829.0, 3765465.0,     289.0,     289.0,       0.0);
     ( 439844.0, 3765465.0,     289.0,     289.0,       0.0);
( 439849.0, 3765465.0,     289.0,     289.0,       0.0);
     ( 439854.0, 3765465.0,     289.0,     289.0,       0.0);
( 439859.0, 3765465.0,     289.0,     289.0,       0.0);
     ( 439674.0, 3765470.0,     289.0,     289.0,       0.0);
( 439679.0, 3765470.0,     289.0,     289.0,       0.0);
     ( 439684.0, 3765470.0,     289.0,     289.0,       0.0);
( 439689.0, 3765470.0,     289.0,     289.0,       0.0);
     ( 439694.0, 3765470.0,     289.0,     289.0,       0.0);
( 439699.0, 3765470.0,     289.0,     289.0,       0.0);
     ( 439704.0, 3765470.0,     289.0,     289.0,       0.0);
( 439709.0, 3765470.0,     289.0,     289.0,       0.0);
     ( 439714.0, 3765470.0,     289.0,     289.0,       0.0);
( 439719.0, 3765470.0,     289.0,     289.0,       0.0);
     ( 439729.0, 3765470.0,     289.0,     289.0,       0.0);
( 439734.0, 3765470.0,     289.0,     289.0,       0.0);
     ( 439739.0, 3765470.0,     289.0,     289.0,       0.0);
( 439744.0, 3765470.0,     289.0,     289.0,       0.0);
     ( 439749.0, 3765470.0,     289.0,     289.0,       0.0);
( 439789.0, 3765470.0,     289.0,     289.0,       0.0);
     ( 439794.0, 3765470.0,     289.0,     289.0,       0.0);
( 439799.0, 3765470.0,     289.0,     289.0,       0.0);
     ( 439804.0, 3765470.0,     289.0,     289.0,       0.0);
( 439809.0, 3765470.0,     289.0,     289.0,       0.0);
```

```
     ( 439814.0, 3765470.0,     289.0,     289.0,       0.0);
( 439819.0, 3765470.0,     289.0,     289.0,       0.0);
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)

(METERS)

(439824.0, 3765470.0, 289.0, 289.0, 0.0);
(439829.0, 3765470.0, 289.0, 289.0, 0.0);
(439844.0, 3765470.0, 289.0, 289.0, 0.0);
(439849.0, 3765470.0, 289.0, 289.0, 0.0);
(439854.0, 3765470.0, 289.0, 289.0, 0.0);
(439859.0, 3765470.0, 289.0, 289.0, 0.0);
(439674.0, 3765475.0, 289.0, 289.0, 0.0);
(439679.0, 3765475.0, 289.0, 289.0, 0.0);
(439684.0, 3765475.0, 289.0, 289.0, 0.0);
(439689.0, 3765475.0, 289.0, 289.0, 0.0);
(439694.0, 3765475.0, 289.0, 289.0, 0.0);
(439699.0, 3765475.0, 289.0, 289.0, 0.0);
(439704.0, 3765475.0, 289.0, 289.0, 0.0);
(439709.0, 3765475.0, 289.0, 289.0, 0.0);
(439714.0, 3765475.0, 289.0, 289.0, 0.0);
(439719.0, 3765475.0, 289.0, 289.0, 0.0);
(439729.0, 3765475.0, 289.0, 289.0, 0.0);
(439734.0, 3765475.0, 289.0, 289.0, 0.0);
(439739.0, 3765475.0, 289.0, 289.0, 0.0);
(439744.0, 3765475.0, 289.0, 289.0, 0.0);
(439749.0, 3765475.0, 289.0, 289.0, 0.0);
(439754.0, 3765475.0, 289.0, 289.0, 0.0);
(439789.0, 3765475.0, 289.0, 289.0, 0.0);
(439794.0, 3765475.0, 289.0, 289.0, 0.0);
(439799.0, 3765475.0, 289.0, 289.0, 0.0);
(439804.0, 3765475.0, 289.0, 289.0, 0.0);
(439809.0, 3765475.0, 289.0, 289.0, 0.0);
(439814.0, 3765475.0, 289.0, 289.0, 0.0);
(439819.0, 3765475.0, 289.0, 289.0, 0.0);
(439824.0, 3765475.0, 289.0, 289.0, 0.0);
(439829.0, 3765475.0, 289.0, 289.0, 0.0);
(439269.0, 3764900.0, 289.0, 289.0, 0.0);
(439369.0, 3764900.0, 289.0, 289.0, 0.0);
(439469.0, 3764900.0, 289.0, 289.0, 0.0);
(439569.0, 3764900.0, 289.0, 289.0, 0.0);
(439669.0, 3764900.0, 289.0, 289.0, 0.0);

```
     ( 439769.0, 3764900.0,     289.0,     289.0,       0.0);
( 439869.0, 3764900.0,     289.0,     289.0,       0.0);
     ( 439969.0, 3764900.0,     289.0,     289.0,       0.0);
( 440069.0, 3764900.0,     289.0,     289.0,       0.0);
     ( 440169.0, 3764900.0,     289.0,     289.0,       0.0);
( 440269.0, 3764900.0,     289.0,     289.0,       0.0);
     ( 439269.0, 3765000.0,     289.0,     289.0,       0.0);
( 439369.0, 3765000.0,     289.0,     289.0,       0.0);
     ( 439469.0, 3765000.0,     289.0,     289.0,       0.0);
( 439569.0, 3765000.0,     289.0,     289.0,       0.0);
     ( 439669.0, 3765000.0,     289.0,     289.0,       0.0);
( 439769.0, 3765000.0,     289.0,     289.0,       0.0);
     ( 439869.0, 3765000.0,     289.0,     289.0,       0.0);
( 439969.0, 3765000.0,     289.0,     289.0,       0.0);
     ( 440069.0, 3765000.0,     289.0,     289.0,       0.0);
( 440169.0, 3765000.0,     289.0,     289.0,       0.0);
     ( 440269.0, 3765000.0,     289.0,     289.0,       0.0);
( 439269.0, 3765100.0,     289.0,     289.0,       0.0);
     ( 439369.0, 3765100.0,     289.0,     289.0,       0.0);
( 439469.0, 3765100.0,     289.0,     289.0,       0.0);
     ( 439569.0, 3765100.0,     289.0,     289.0,       0.0);
( 439669.0, 3765100.0,     289.0,     289.0,       0.0);
     ( 439769.0, 3765100.0,     289.0,     289.0,       0.0);
( 439869.0, 3765100.0,     289.0,     289.0,       0.0);
     ( 439969.0, 3765100.0,     289.0,     289.0,       0.0);
( 440069.0, 3765100.0,     289.0,     289.0,       0.0);
     ( 440169.0, 3765100.0,     289.0,     289.0,       0.0);
( 440269.0, 3765100.0,     289.0,     289.0,       0.0);
     ( 439269.0, 3765200.0,     289.0,     289.0,       0.0);
( 439369.0, 3765200.0,     289.0,     289.0,       0.0);
     ( 439469.0, 3765200.0,     289.0,     289.0,       0.0);
( 439569.0, 3765200.0,     289.0,     289.0,       0.0);
     ( 439669.0, 3765200.0,     289.0,     289.0,       0.0);
( 439769.0, 3765200.0,     289.0,     289.0,       0.0);
     ( 439869.0, 3765200.0,     289.0,     289.0,       0.0);
( 439969.0, 3765200.0,     289.0,     289.0,       0.0);
     ( 440069.0, 3765200.0,     289.0,     289.0,       0.0);
( 440169.0, 3765200.0,     289.0,     289.0,       0.0);
     ( 440269.0, 3765200.0,     289.0,     289.0,       0.0);
( 439269.0, 3765300.0,     289.0,     289.0,       0.0);
     ( 439369.0, 3765300.0,     289.0,     289.0,       0.0);
( 439469.0, 3765300.0,     289.0,     289.0,       0.0);
     ( 439569.0, 3765300.0,     289.0,     289.0,       0.0);
( 439669.0, 3765300.0,     289.0,     289.0,       0.0);
     ( 439769.0, 3765300.0,     289.0,     289.0,       0.0);
( 439869.0, 3765300.0,     289.0,     289.0,       0.0);
     ( 439969.0, 3765300.0,     289.0,     289.0,       0.0);
( 440069.0, 3765300.0,     289.0,     289.0,       0.0);
     ( 440169.0, 3765300.0,     289.0,     289.0,       0.0);
( 440269.0, 3765300.0,     289.0,     289.0,       0.0);
     ( 439269.0, 3765400.0,     289.0,     289.0,       0.0);
( 439369.0, 3765400.0,     289.0,     289.0,       0.0);
```

```
     ( 439469.0, 3765400.0,     289.0,     289.0,       0.0);
( 439569.0, 3765400.0,     289.0,     289.0,       0.0);
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)

(METERS)

(439669.0, 3765400.0, 289.0, 289.0, 0.0);
(439769.0, 3765400.0, 289.0, 289.0, 0.0);
(439869.0, 3765400.0, 289.0, 289.0, 0.0);
(439969.0, 3765400.0, 289.0, 289.0, 0.0);
(440069.0, 3765400.0, 289.0, 289.0, 0.0);
(440169.0, 3765400.0, 289.0, 289.0, 0.0);
(440269.0, 3765400.0, 289.0, 289.0, 0.0);
(439269.0, 3765500.0, 289.0, 289.0, 0.0);
(439369.0, 3765500.0, 289.0, 289.0, 0.0);
(439469.0, 3765500.0, 289.0, 289.0, 0.0);
(439569.0, 3765500.0, 289.0, 289.0, 0.0);
(439669.0, 3765500.0, 289.0, 289.0, 0.0);
(439769.0, 3765500.0, 289.0, 289.0, 0.0);
(439869.0, 3765500.0, 289.0, 289.0, 0.0);
(439969.0, 3765500.0, 289.0, 289.0, 0.0);
(440069.0, 3765500.0, 289.0, 289.0, 0.0);
(440169.0, 3765500.0, 289.0, 289.0, 0.0);
(440269.0, 3765500.0, 289.0, 289.0, 0.0);
(439269.0, 3765600.0, 289.0, 289.0, 0.0);
(439369.0, 3765600.0, 289.0, 289.0, 0.0);
(439469.0, 3765600.0, 289.0, 289.0, 0.0);
(439569.0, 3765600.0, 289.0, 289.0, 0.0);
(439669.0, 3765600.0, 289.0, 289.0, 0.0);
(439769.0, 3765600.0, 289.0, 289.0, 0.0);
(439869.0, 3765600.0, 289.0, 289.0, 0.0);
(439969.0, 3765600.0, 289.0, 289.0, 0.0);
(440069.0, 3765600.0, 289.0, 289.0, 0.0);
(440169.0, 3765600.0, 289.0, 289.0, 0.0);
(440269.0, 3765600.0, 289.0, 289.0, 0.0);
(439269.0, 3765700.0, 289.0, 289.0, 0.0);
(439369.0, 3765700.0, 289.0, 289.0, 0.0);
(439469.0, 3765700.0, 289.0, 289.0, 0.0);
(439569.0, 3765700.0, 289.0, 289.0, 0.0);
(439669.0, 3765700.0, 289.0, 289.0, 0.0);
(439769.0, 3765700.0, 289.0, 289.0, 0.0);
(439869.0, 3765700.0, 289.0, 289.0, 0.0);

```
     ( 439969.0, 3765700.0,     289.0,     289.0,       0.0);
( 440069.0, 3765700.0,     289.0,     289.0,       0.0);
     ( 440169.0, 3765700.0,     289.0,     289.0,       0.0);
( 440269.0, 3765700.0,     289.0,     289.0,       0.0);
     ( 439269.0, 3765800.0,     289.0,     289.0,       0.0);
( 439369.0, 3765800.0,     289.0,     289.0,       0.0);
     ( 439469.0, 3765800.0,     289.0,     289.0,       0.0);
( 439569.0, 3765800.0,     289.0,     289.0,       0.0);
     ( 439669.0, 3765800.0,     289.0,     289.0,       0.0);
( 439769.0, 3765800.0,     289.0,     289.0,       0.0);
     ( 439869.0, 3765800.0,     289.0,     289.0,       0.0);
( 439969.0, 3765800.0,     289.0,     289.0,       0.0);
     ( 440069.0, 3765800.0,     289.0,     289.0,       0.0);
( 440169.0, 3765800.0,     289.0,     289.0,       0.0);
     ( 440269.0, 3765800.0,     289.0,     289.0,       0.0);
( 439269.0, 3765900.0,     289.0,     289.0,       0.0);
     ( 439369.0, 3765900.0,     289.0,     289.0,       0.0);
( 439469.0, 3765900.0,     289.0,     289.0,       0.0);
     ( 439569.0, 3765900.0,     289.0,     289.0,       0.0);
( 439669.0, 3765900.0,     289.0,     289.0,       0.0);
     ( 439769.0, 3765900.0,     289.0,     289.0,       0.0);
( 439869.0, 3765900.0,     289.0,     289.0,       0.0);
     ( 439969.0, 3765900.0,     289.0,     289.0,       0.0);
( 440069.0, 3765900.0,     289.0,     289.0,       0.0);
     ( 440169.0, 3765900.0,     289.0,     289.0,       0.0);
( 440269.0, 3765900.0,     289.0,     289.0,       0.0);
     ( 439649.0, 3765310.0,     289.0,     289.0,       0.0);
( 439679.0, 3765310.0,     289.0,     289.0,       0.0);
     ( 439709.0, 3765310.0,     289.0,     289.0,       0.0);
( 439739.0, 3765310.0,     289.0,     289.0,       0.0);
     ( 439769.0, 3765310.0,     289.0,     289.0,       0.0);
( 439799.0, 3765310.0,     289.0,     289.0,       0.0);
     ( 439829.0, 3765310.0,     289.0,     289.0,       0.0);
( 439859.0, 3765310.0,     289.0,     289.0,       0.0);
     ( 439889.0, 3765310.0,     289.0,     289.0,       0.0);
( 439649.0, 3765340.0,     289.0,     289.0,       0.0);
     ( 439679.0, 3765340.0,     289.0,     289.0,       0.0);
( 439709.0, 3765340.0,     289.0,     289.0,       0.0);
     ( 439739.0, 3765340.0,     289.0,     289.0,       0.0);
( 439769.0, 3765340.0,     289.0,     289.0,       0.0);
     ( 439799.0, 3765340.0,     289.0,     289.0,       0.0);
( 439829.0, 3765340.0,     289.0,     289.0,       0.0);
     ( 439859.0, 3765340.0,     289.0,     289.0,       0.0);
( 439889.0, 3765340.0,     289.0,     289.0,       0.0);
     ( 439649.0, 3765370.0,     289.0,     289.0,       0.0);
( 439679.0, 3765370.0,     289.0,     289.0,       0.0);
     ( 439709.0, 3765370.0,     289.0,     289.0,       0.0);
( 439739.0, 3765370.0,     289.0,     289.0,       0.0);
     ( 439769.0, 3765370.0,     289.0,     289.0,       0.0);
( 439799.0, 3765370.0,     289.0,     289.0,       0.0);
     ( 439829.0, 3765370.0,     289.0,     289.0,       0.0);
( 439859.0, 3765370.0,     289.0,     289.0,       0.0);
```

```
     ( 439889.0, 3765370.0,     289.0,     289.0,       0.0);
( 439649.0, 3765400.0,     289.0,     289.0,       0.0);
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)

(METERS)

(439679.0, 3765400.0, 289.0, 289.0, 0.0);
(439709.0, 3765400.0, 289.0, 289.0, 0.0);
(439739.0, 3765400.0, 289.0, 289.0, 0.0);
(439769.0, 3765400.0, 289.0, 289.0, 0.0);
(439799.0, 3765400.0, 289.0, 289.0, 0.0);
(439829.0, 3765400.0, 289.0, 289.0, 0.0);
(439859.0, 3765400.0, 289.0, 289.0, 0.0);
(439889.0, 3765400.0, 289.0, 289.0, 0.0);
(439649.0, 3765430.0, 289.0, 289.0, 0.0);
(439679.0, 3765430.0, 289.0, 289.0, 0.0);
(439709.0, 3765430.0, 289.0, 289.0, 0.0);
(439739.0, 3765430.0, 289.0, 289.0, 0.0);
(439769.0, 3765430.0, 289.0, 289.0, 0.0);
(439799.0, 3765430.0, 289.0, 289.0, 0.0);
(439829.0, 3765430.0, 289.0, 289.0, 0.0);
(439859.0, 3765430.0, 289.0, 289.0, 0.0);
(439889.0, 3765430.0, 289.0, 289.0, 0.0);
(439649.0, 3765460.0, 289.0, 289.0, 0.0);
(439679.0, 3765460.0, 289.0, 289.0, 0.0);
(439709.0, 3765460.0, 289.0, 289.0, 0.0);
(439739.0, 3765460.0, 289.0, 289.0, 0.0);
(439769.0, 3765460.0, 289.0, 289.0, 0.0);
(439799.0, 3765460.0, 289.0, 289.0, 0.0);
(439829.0, 3765460.0, 289.0, 289.0, 0.0);
(439859.0, 3765460.0, 289.0, 289.0, 0.0);
(439889.0, 3765460.0, 289.0, 289.0, 0.0);
(439649.0, 3765490.0, 289.0, 289.0, 0.0);
(439679.0, 3765490.0, 289.0, 289.0, 0.0);
(439709.0, 3765490.0, 289.0, 289.0, 0.0);
(439739.0, 3765490.0, 289.0, 289.0, 0.0);
(439769.0, 3765490.0, 289.0, 289.0, 0.0);
(439799.0, 3765490.0, 289.0, 289.0, 0.0);
(439829.0, 3765490.0, 289.0, 289.0, 0.0);
(439859.0, 3765490.0, 289.0, 289.0, 0.0);
(439889.0, 3765490.0, 289.0, 289.0, 0.0);

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** METEOROLOGICAL DAYS SELECTED FOR PROCESSING ***

(1=YES; 0=NO)

```
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1
1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1
1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1
1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1
1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1
1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1
1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1
1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1
```

NOTE: METEOROLOGICAL DATA ACTUALLY PROCESSED WILL ALSO DEPEND ON WHAT IS INCLUDED IN THE DATA FILE.

*** UPPER BOUND OF FIRST THROUGH FIFTH WIND SPEED CATEGORIES ***

(METERS/SEC)

1.54, 3.09, 5.14, 8.23, 10.80,

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** UP TO THE FIRST 24 HOURS OF METEOROLOGICAL DATA ***

Surface file: C:\Users\sjremote\Desktop\Ontario_PUD-Legacy\OntarioIntlAirportADJU (1)\KONT_V9_ Met Version: 16216
Profile file: C:\Users\sjremote\Desktop\Ontario_PUD-Legacy\OntarioIntlAirportADJU (1)\KONT_V9_
Surface format: FREE
Profile format: FREE
Surface station no.: 3102 Upper air station no.: 3190
Name: ONTARIO_APT Name: UNKNOWN
Year: 2012 Year: 2012

First 24 hours of scalar data

YR	MO	DY	JDY	HR	H0	U*	W*	DT/DZ	ZICNV	ZIMCH	M-O LEN	Z0	BOWEN	ALBEDO	REF WS	WD	HT	REF TA	HT
12	01	01	1	01	-16.4	0.171	-9.000	-9.000	-999.	170.	32.3	0.09	1.12	1.00	2.03	43.	7.9	285.9	2.0
12	01	01	1	02	-18.8	0.194	-9.000	-9.000	-999.	205.	41.3	0.09	1.12	1.00	2.28	34.	7.9	285.4	2.0
12	01	01	1	03	-17.8	0.182	-9.000	-9.000	-999.	187.	36.5	0.09	1.12	1.00	2.15	24.	7.9	282.0	2.0
12	01	01	1	04	-9.4	0.128	-9.000	-9.000	-999.	110.	19.6	0.09	1.12	1.00	1.55	41.	7.9	283.1	2.0
12	01	01	1	05	-16.9	0.173	-9.000	-9.000	-999.	173.	33.0	0.09	1.12	1.00	2.05	39.	7.9	280.4	2.0
12	01	01	1	06	-8.0	0.117	-9.000	-9.000	-999.	97.	17.8	0.09	1.12	1.00	1.43	21.	7.9	282.0	2.0
12	01	01	1	07	-7.6	0.115	-9.000	-9.000	-999.	93.	17.4	0.09	1.12	1.00	1.40	31.	7.9	282.5	2.0
12	01	01	1	08	-13.6	0.184	-9.000	-9.000	-999.	190.	40.5	0.09	1.12	0.54	2.16	34.	7.9	284.2	2.0
12	01	01	1	09	28.4	0.126	0.300	0.011	33.	108.	-6.2	0.09	1.12	0.32	1.03	29.	7.9	289.2	2.0
12	01	01	1	10	79.8	0.133	0.607	0.010	99.	116.	-2.6	0.09	1.12	0.25	0.94	173.	7.9	292.5	2.0
12	01	01	1	11	115.8	0.137	0.932	0.006	246.	121.	-2.0	0.09	1.12	0.22	0.92	172.	7.9	295.4	2.0

```
 12 01 01   1 12  133.7  0.139  1.197  0.005  453.  125.     -1.8
0.09   1.12   0.21    0.92  146.    7.9  297.5    2.0
 12 01 01   1 13  133.2  0.160  1.354  0.005  657.  153.     -2.7
0.09   1.12   0.21    1.14  117.    7.9  299.9    2.0
 12 01 01   1 14  113.5  0.159  1.454  0.005  955.  151.     -3.1
0.09   1.12   0.23    1.16  285.    7.9  300.9    2.0
 12 01 01   1 15   76.2  0.166  1.350  0.005 1138.  163.     -5.3
0.09   1.12   0.26    1.33   72.    7.9  302.0    2.0
 12 01 01   1 16   23.5  0.175  0.925  0.005 1183.  175.    -19.9
0.09   1.12   0.35    1.65  107.    7.9  301.4    2.0
 12 01 01   1 17   -6.1  0.107 -9.000 -9.000 -999.   86.     18.0
0.09   1.12   0.63    1.31  107.    7.9  298.1    2.0
 12 01 01   1 18  -11.1  0.141 -9.000 -9.000 -999.  127.     22.1
0.09   1.12   1.00    1.69   86.    7.9  293.1    2.0
 12 01 01   1 19   -3.2  0.076 -9.000 -9.000 -999.   51.     11.8
0.09   1.12   1.00    0.91   64.    7.9  292.0    2.0
 12 01 01   1 20   -2.3  0.066 -9.000 -9.000 -999.   41.     11.2
0.09   1.12   1.00    0.74   73.    7.9  288.8    2.0
 12 01 01   1 21  -10.0  0.133 -9.000 -9.000 -999.  116.     20.5
0.09   1.12   1.00    1.60   14.    7.9  288.1    2.0
 12 01 01   1 22  -19.4  0.201 -9.000 -9.000 -999.  216.     44.5
0.09   1.12   1.00    2.36   22.    7.9  287.5    2.0
 12 01 01   1 23  -23.7  0.246 -9.000 -9.000 -999.  293.     66.5
0.09   1.12   1.00    2.86   40.    7.9  287.0    2.0
 12 01 01   1 24  -12.3  0.147 -9.000 -9.000 -999.  139.     23.8
0.09   1.12   1.00    1.76   40.    7.9  283.8    2.0


 First hour of profile data
 YR MO DY HR HEIGHT F  WDIR    WSPD AMB_TMP sigmaA  sigmaW
sigmaV
 12 01 01 01    7.9 1   43.    2.03   286.0
99.0  -99.00  -99.00

 F indicates top of profile (=1) or below (=0)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: EXH *** INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439674.00	3765310.00	0.10334	439679.00	3765310.00	0.10335
439684.00	3765310.00	0.10335	439689.00	3765310.00	0.10335
439694.00	3765310.00	0.10335	439699.00	3765310.00	0.10335
439704.00	3765310.00	0.10334	439709.00	3765310.00	0.10334
439714.00	3765310.00	0.10333	439719.00	3765310.00	0.10332
439729.00	3765310.00	0.10330	439734.00	3765310.00	0.10329
439739.00	3765310.00	0.10327	439744.00	3765310.00	0.10325
439749.00	3765310.00	0.10324	439764.00	3765310.00	0.10317
439769.00	3765310.00	0.10314	439774.00	3765310.00	0.10312

```
         439779.00    3765310.00        0.10309
439784.00    3765310.00        0.10305
         439789.00    3765310.00        0.10302
439794.00    3765310.00        0.10298
         439799.00    3765310.00        0.10295
439804.00    3765310.00        0.10291
         439809.00    3765310.00        0.10286
439814.00    3765310.00        0.10282
         439819.00    3765310.00        0.10277
439824.00    3765310.00        0.10272
         439829.00    3765310.00        0.10267
439839.00    3765310.00        0.10256
         439844.00    3765310.00        0.10250
439849.00    3765310.00        0.10244
         439854.00    3765310.00        0.10238
439859.00    3765310.00        0.10231
         439864.00    3765310.00        0.10224
439869.00    3765310.00        0.10217
         439874.00    3765310.00        0.10209
439879.00    3765310.00        0.10202
         439884.00    3765310.00        0.10194
439674.00    3765315.00        0.10472
         439679.00    3765315.00        0.10472
439684.00    3765315.00        0.10473
         439689.00    3765315.00        0.10473
439694.00    3765315.00        0.10473
         439699.00    3765315.00        0.10473
439704.00    3765315.00        0.10473
         439709.00    3765315.00        0.10472
439714.00    3765315.00        0.10472
         439719.00    3765315.00        0.10471
439729.00    3765315.00        0.10469
         439734.00    3765315.00        0.10468
439739.00    3765315.00        0.10467
         439744.00    3765315.00        0.10465
439749.00    3765315.00        0.10464
         439764.00    3765315.00        0.10458
439769.00    3765315.00        0.10455
         439774.00    3765315.00        0.10453
439779.00    3765315.00        0.10450
         439784.00    3765315.00        0.10447
439789.00    3765315.00        0.10444
         439794.00    3765315.00        0.10440
439799.00    3765315.00        0.10437
         439804.00    3765315.00        0.10433
439809.00    3765315.00        0.10429
         439814.00    3765315.00        0.10424
439819.00    3765315.00        0.10420
         439824.00    3765315.00        0.10415
439829.00    3765315.00        0.10410
         439839.00    3765315.00        0.10400
439844.00    3765315.00        0.10394
```

```
         439849.00    3765315.00        0.10388
439854.00    3765315.00        0.10382
         439859.00    3765315.00        0.10375
439864.00    3765315.00        0.10368
         439869.00    3765315.00        0.10361
439874.00    3765315.00        0.10354
         439879.00    3765315.00        0.10346
439884.00    3765315.00        0.10339
         439674.00    3765320.00        0.10612
439679.00    3765320.00        0.10613
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: EXH *** INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439684.00	3765320.00	0.10614	439689.00	3765320.00	0.10614
439694.00	3765320.00	0.10614	439699.00	3765320.00	0.10614
439704.00	3765320.00	0.10614	439709.00	3765320.00	0.10614
439714.00	3765320.00	0.10614	439719.00	3765320.00	0.10613
439729.00	3765320.00	0.10612	439734.00	3765320.00	0.10611
439739.00	3765320.00	0.10610	439744.00	3765320.00	0.10609
439749.00	3765320.00	0.10607	439764.00	3765320.00	0.10602
439769.00	3765320.00	0.10599	439774.00	3765320.00	0.10597
439779.00	3765320.00	0.10594	439784.00	3765320.00	0.10592

```
         439789.00    3765320.00        0.10589
439794.00    3765320.00        0.10585
         439799.00    3765320.00        0.10582
439804.00    3765320.00        0.10578
         439809.00    3765320.00        0.10574
439814.00    3765320.00        0.10570
         439819.00    3765320.00        0.10566
439824.00    3765320.00        0.10561
         439829.00    3765320.00        0.10557
439839.00    3765320.00        0.10546
         439844.00    3765320.00        0.10541
439849.00    3765320.00        0.10535
         439854.00    3765320.00        0.10529
439859.00    3765320.00        0.10523
         439864.00    3765320.00        0.10516
439869.00    3765320.00        0.10509
         439874.00    3765320.00        0.10502
439879.00    3765320.00        0.10495
         439884.00    3765320.00        0.10487
439674.00    3765325.00        0.10756
         439679.00    3765325.00        0.10757
439684.00    3765325.00        0.10758
         439689.00    3765325.00        0.10758
439694.00    3765325.00        0.10759
         439699.00    3765325.00        0.10759
439704.00    3765325.00        0.10759
         439709.00    3765325.00        0.10760
439714.00    3765325.00        0.10759
         439719.00    3765325.00        0.10759
439729.00    3765325.00        0.10758
         439734.00    3765325.00        0.10757
439739.00    3765325.00        0.10756
         439744.00    3765325.00        0.10755
439749.00    3765325.00        0.10754
         439754.00    3765325.00        0.10752
439769.00    3765325.00        0.10747
         439774.00    3765325.00        0.10745
439779.00    3765325.00        0.10742
         439784.00    3765325.00        0.10740
439789.00    3765325.00        0.10737
         439794.00    3765325.00        0.10734
439799.00    3765325.00        0.10731
         439804.00    3765325.00        0.10727
439809.00    3765325.00        0.10724
         439814.00    3765325.00        0.10720
439819.00    3765325.00        0.10716
         439824.00    3765325.00        0.10711
439829.00    3765325.00        0.10707
         439839.00    3765325.00        0.10697
439844.00    3765325.00        0.10691
         439849.00    3765325.00        0.10686
439854.00    3765325.00        0.10680
```

```
         439859.00    3765325.00        0.10674
439864.00    3765325.00        0.10667
         439869.00    3765325.00        0.10661
439874.00    3765325.00        0.10654
         439879.00    3765325.00        0.10647
439884.00    3765325.00        0.10639
         439674.00    3765330.00        0.10903
439679.00    3765330.00        0.10905
         439684.00    3765330.00        0.10906
439689.00    3765330.00        0.10906
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: EXH ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439694.00	3765330.00	0.10907	439699.00	3765330.00	0.10908
439704.00	3765330.00	0.10908	439709.00	3765330.00	0.10908
439714.00	3765330.00	0.10908	439719.00	3765330.00	0.10908
439729.00	3765330.00	0.10908	439734.00	3765330.00	0.10907
439739.00	3765330.00	0.10906	439744.00	3765330.00	0.10905
439749.00	3765330.00	0.10904	439754.00	3765330.00	0.10903
439774.00	3765330.00	0.10896	439779.00	3765330.00	0.10894
439784.00	3765330.00	0.10891	439789.00	3765330.00	0.10889
439794.00	3765330.00	0.10886	439799.00	3765330.00	0.10883

```
         439804.00    3765330.00        0.10880
439809.00    3765330.00        0.10876
         439814.00    3765330.00        0.10873
439819.00    3765330.00        0.10869
         439824.00    3765330.00        0.10865
439829.00    3765330.00        0.10860
         439839.00    3765330.00        0.10851
439844.00    3765330.00        0.10846
         439849.00    3765330.00        0.10840
439854.00    3765330.00        0.10835
         439859.00    3765330.00        0.10829
439864.00    3765330.00        0.10822
         439869.00    3765330.00        0.10816
439874.00    3765330.00        0.10809
         439879.00    3765330.00        0.10802
439884.00    3765330.00        0.10795
         439674.00    3765335.00        0.11054
439679.00    3765335.00        0.11056
         439684.00    3765335.00        0.11057
439689.00    3765335.00        0.11058
         439694.00    3765335.00        0.11059
439699.00    3765335.00        0.11060
         439704.00    3765335.00        0.11060
439709.00    3765335.00        0.11061
         439714.00    3765335.00        0.11061
439719.00    3765335.00        0.11061
         439729.00    3765335.00        0.11061
439734.00    3765335.00        0.11060
         439739.00    3765335.00        0.11060
439744.00    3765335.00        0.11059
         439749.00    3765335.00        0.11058
439774.00    3765335.00        0.11051
         439779.00    3765335.00        0.11049
439784.00    3765335.00        0.11047
         439789.00    3765335.00        0.11044
439794.00    3765335.00        0.11042
         439839.00    3765335.00        0.11008
439844.00    3765335.00        0.11003
         439849.00    3765335.00        0.10998
439854.00    3765335.00        0.10993
         439859.00    3765335.00        0.10987
439864.00    3765335.00        0.10981
         439869.00    3765335.00        0.10975
439874.00    3765335.00        0.10968
         439879.00    3765335.00        0.10961
439884.00    3765335.00        0.10954
         439674.00    3765340.00        0.11209
439679.00    3765340.00        0.11211
         439684.00    3765340.00        0.11212
439689.00    3765340.00        0.11213
         439694.00    3765340.00        0.11214
439699.00    3765340.00        0.11215
```

```
         439704.00    3765340.00        0.11216
439709.00    3765340.00        0.11217
         439714.00    3765340.00        0.11217
439719.00    3765340.00        0.11217
         439729.00    3765340.00        0.11218
439734.00    3765340.00        0.11217
         439739.00    3765340.00        0.11217
439744.00    3765340.00        0.11217
         439749.00    3765340.00        0.11216
439774.00    3765340.00        0.11210
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: EXH *** INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439779.00	3765340.00	0.11208	439784.00	3765340.00	0.11206
439789.00	3765340.00	0.11204	439794.00	3765340.00	0.11202
439839.00	3765340.00	0.11170	439844.00	3765340.00	0.11165
439849.00	3765340.00	0.11160	439854.00	3765340.00	0.11155
439859.00	3765340.00	0.11150	439864.00	3765340.00	0.11144
439869.00	3765340.00	0.11138	439874.00	3765340.00	0.11131
439879.00	3765340.00	0.11125	439884.00	3765340.00	0.11118
439674.00	3765345.00	0.11368	439679.00	3765345.00	0.11369
439684.00	3765345.00	0.11371	439689.00	3765345.00	0.11372

```
          439694.00    3765345.00        0.11374
439699.00    3765345.00        0.11375
          439704.00    3765345.00        0.11376
439709.00    3765345.00        0.11377
          439714.00    3765345.00        0.11377
439719.00    3765345.00        0.11378
          439729.00    3765345.00        0.11378
439734.00    3765345.00        0.11378
          439739.00    3765345.00        0.11378
439744.00    3765345.00        0.11378
          439749.00    3765345.00        0.11378
439774.00    3765345.00        0.11373
          439779.00    3765345.00        0.11371
439784.00    3765345.00        0.11369
          439789.00    3765345.00        0.11367
439794.00    3765345.00        0.11365
          439839.00    3765345.00        0.11336
439844.00    3765345.00        0.11331
          439849.00    3765345.00        0.11327
439854.00    3765345.00        0.11322
          439859.00    3765345.00        0.11316
439864.00    3765345.00        0.11311
          439869.00    3765345.00        0.11305
439874.00    3765345.00        0.11299
          439879.00    3765345.00        0.11292
439884.00    3765345.00        0.11285
          439674.00    3765350.00        0.11530
439679.00    3765350.00        0.11532
          439684.00    3765350.00        0.11534
439689.00    3765350.00        0.11535
          439694.00    3765350.00        0.11537
439699.00    3765350.00        0.11538
          439704.00    3765350.00        0.11539
439709.00    3765350.00        0.11540
          439714.00    3765350.00        0.11541
439719.00    3765350.00        0.11542
          439729.00    3765350.00        0.11543
439734.00    3765350.00        0.11543
          439739.00    3765350.00        0.11544
439744.00    3765350.00        0.11543
          439749.00    3765350.00        0.11543
439774.00    3765350.00        0.11539
          439779.00    3765350.00        0.11538
439784.00    3765350.00        0.11537
          439789.00    3765350.00        0.11535
439794.00    3765350.00        0.11533
          439839.00    3765350.00        0.11506
439844.00    3765350.00        0.11501
          439849.00    3765350.00        0.11497
439854.00    3765350.00        0.11492
          439859.00    3765350.00        0.11487
439864.00    3765350.00        0.11482
```

```
         439869.00    3765350.00        0.11476
439874.00    3765350.00        0.11470
         439879.00    3765350.00        0.11464
439884.00    3765350.00        0.11457
         439674.00    3765355.00        0.11697
439679.00    3765355.00        0.11699
         439684.00    3765355.00        0.11701
439689.00    3765355.00        0.11703
         439694.00    3765355.00        0.11704
439699.00    3765355.00        0.11706
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: EXH *** INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439704.00	3765355.00	0.11707	439709.00	3765355.00	0.11709
439714.00	3765355.00	0.11710	439719.00	3765355.00	0.11711
439729.00	3765355.00	0.11712	439734.00	3765355.00	0.11713
439739.00	3765355.00	0.11713	439744.00	3765355.00	0.11713
439749.00	3765355.00	0.11713	439774.00	3765355.00	0.11711
439779.00	3765355.00	0.11710	439784.00	3765355.00	0.11708
439789.00	3765355.00	0.11707	439794.00	3765355.00	0.11705
439839.00	3765355.00	0.11680	439844.00	3765355.00	0.11676
439849.00	3765355.00	0.11672	439854.00	3765355.00	0.11667

```
          439859.00    3765355.00        0.11662
439864.00    3765355.00        0.11657
          439869.00    3765355.00        0.11652
439874.00    3765355.00        0.11646
          439879.00    3765355.00        0.11640
439884.00    3765355.00        0.11634
          439674.00    3765360.00        0.11868
439679.00    3765360.00        0.11870
          439684.00    3765360.00        0.11872
439689.00    3765360.00        0.11874
          439694.00    3765360.00        0.11876
439699.00    3765360.00        0.11878
          439704.00    3765360.00        0.11880
439709.00    3765360.00        0.11881
          439714.00    3765360.00        0.11883
439719.00    3765360.00        0.11884
          439729.00    3765360.00        0.11886
439734.00    3765360.00        0.11886
          439739.00    3765360.00        0.11887
439744.00    3765360.00        0.11887
          439749.00    3765360.00        0.11888
439774.00    3765360.00        0.11886
          439779.00    3765360.00        0.11885
439784.00    3765360.00        0.11884
          439789.00    3765360.00        0.11883
439794.00    3765360.00        0.11882
          439799.00    3765360.00        0.11880
439804.00    3765360.00        0.11878
          439809.00    3765360.00        0.11876
439814.00    3765360.00        0.11874
          439839.00    3765360.00        0.11859
439844.00    3765360.00        0.11855
          439849.00    3765360.00        0.11851
439854.00    3765360.00        0.11847
          439859.00    3765360.00        0.11842
439864.00    3765360.00        0.11837
          439869.00    3765360.00        0.11832
439874.00    3765360.00        0.11827
          439879.00    3765360.00        0.11821
439884.00    3765360.00        0.11815
          439674.00    3765365.00        0.12043
439679.00    3765365.00        0.12046
          439684.00    3765365.00        0.12048
439689.00    3765365.00        0.12051
          439694.00    3765365.00        0.12053
439699.00    3765365.00        0.12055
          439704.00    3765365.00        0.12057
439709.00    3765365.00        0.12058
          439714.00    3765365.00        0.12060
439719.00    3765365.00        0.12061
          439729.00    3765365.00        0.12064
439734.00    3765365.00        0.12065
```

```
         439739.00    3765365.00        0.12066
439744.00    3765365.00        0.12066
         439749.00    3765365.00        0.12067
439774.00    3765365.00        0.12066
         439779.00    3765365.00        0.12066
439784.00    3765365.00        0.12065
         439789.00    3765365.00        0.12064
439794.00    3765365.00        0.12063
         439799.00    3765365.00        0.12062
439804.00    3765365.00        0.12060
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: EXH *** INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 , A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439809.00	3765365.00	0.12058	439814.00	3765365.00	0.12056
439839.00	3765365.00	0.12042	439844.00	3765365.00	0.12039
439849.00	3765365.00	0.12035	439854.00	3765365.00	0.12031
439859.00	3765365.00	0.12027	439864.00	3765365.00	0.12022
439869.00	3765365.00	0.12017	439874.00	3765365.00	0.12012
439879.00	3765365.00	0.12006	439884.00	3765365.00	0.12001
439674.00	3765370.00	0.12224	439679.00	3765370.00	0.12226
439684.00	3765370.00	0.12229	439689.00	3765370.00	0.12232
439694.00	3765370.00	0.12234	439699.00	3765370.00	0.12236

```
          439704.00    3765370.00        0.12238
439709.00    3765370.00        0.12240
          439714.00    3765370.00        0.12242
439719.00    3765370.00        0.12244
          439729.00    3765370.00        0.12247
439734.00    3765370.00        0.12248
          439739.00    3765370.00        0.12249
439744.00    3765370.00        0.12250
          439749.00    3765370.00        0.12250
439774.00    3765370.00        0.12251
          439779.00    3765370.00        0.12251
439784.00    3765370.00        0.12251
          439789.00    3765370.00        0.12250
439794.00    3765370.00        0.12249
          439799.00    3765370.00        0.12248
439804.00    3765370.00        0.12247
          439809.00    3765370.00        0.12245
439814.00    3765370.00        0.12243
          439839.00    3765370.00        0.12231
439844.00    3765370.00        0.12228
          439849.00    3765370.00        0.12224
439854.00    3765370.00        0.12220
          439859.00    3765370.00        0.12216
439864.00    3765370.00        0.12212
          439869.00    3765370.00        0.12207
439874.00    3765370.00        0.12202
          439879.00    3765370.00        0.12197
439884.00    3765370.00        0.12191
          439674.00    3765375.00        0.12409
439679.00    3765375.00        0.12412
          439684.00    3765375.00        0.12415
439689.00    3765375.00        0.12417
          439694.00    3765375.00        0.12420
439699.00    3765375.00        0.12423
          439704.00    3765375.00        0.12425
439709.00    3765375.00        0.12427
          439714.00    3765375.00        0.12429
439719.00    3765375.00        0.12431
          439729.00    3765375.00        0.12434
439734.00    3765375.00        0.12436
          439739.00    3765375.00        0.12437
439744.00    3765375.00        0.12438
          439749.00    3765375.00        0.12439
439754.00    3765375.00        0.12440
          439774.00    3765375.00        0.12442
439779.00    3765375.00        0.12442
          439784.00    3765375.00        0.12441
439789.00    3765375.00        0.12441
          439794.00    3765375.00        0.12440
439799.00    3765375.00        0.12439
          439804.00    3765375.00        0.12438
439809.00    3765375.00        0.12437
```

```
         439814.00    3765375.00        0.12435
439839.00    3765375.00        0.12424
         439844.00    3765375.00        0.12421
439849.00    3765375.00        0.12418
         439854.00    3765375.00        0.12415
439859.00    3765375.00        0.12411
         439864.00    3765375.00        0.12407
439869.00    3765375.00        0.12402
         439874.00    3765375.00        0.12398
439879.00    3765375.00        0.12393
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: EXH *** INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439884.00	3765375.00	0.12388	439774.00	3765380.00	0.12637
439779.00	3765380.00	0.12637	439784.00	3765380.00	0.12637
439789.00	3765380.00	0.12637	439794.00	3765380.00	0.12637
439799.00	3765380.00	0.12636	439804.00	3765380.00	0.12635
439809.00	3765380.00	0.12634	439814.00	3765380.00	0.12633
439769.00	3765385.00	0.12837	439819.00	3765385.00	0.12835
439769.00	3765400.00	0.13474	439844.00	3765400.00	0.13476
439849.00	3765400.00	0.13475	439674.00	3765405.00	0.13636
439714.00	3765405.00	0.13668	439719.00	3765405.00	0.13672

```
          439734.00    3765405.00        0.13681
439749.00    3765405.00        0.13689
          439754.00    3765405.00        0.13692
439774.00    3765405.00        0.13700
          439779.00    3765405.00        0.13702
439784.00    3765405.00        0.13704
          439789.00    3765405.00        0.13705
439794.00    3765405.00        0.13706
          439799.00    3765405.00        0.13707
439804.00    3765405.00        0.13708
          439809.00    3765405.00        0.13709
439814.00    3765405.00        0.13709
          439819.00    3765405.00        0.13709
439824.00    3765405.00        0.13709
          439829.00    3765405.00        0.13709
439834.00    3765405.00        0.13708
          439839.00    3765405.00        0.13707
439844.00    3765405.00        0.13706
          439849.00    3765405.00        0.13705
439854.00    3765405.00        0.13703
          439859.00    3765405.00        0.13701
439674.00    3765410.00        0.13862
          439679.00    3765410.00        0.13867
439684.00    3765410.00        0.13872
          439689.00    3765410.00        0.13876
439694.00    3765410.00        0.13880
          439699.00    3765410.00        0.13885
439704.00    3765410.00        0.13889
          439709.00    3765410.00        0.13893
439714.00    3765410.00        0.13897
          439719.00    3765410.00        0.13900
439729.00    3765410.00        0.13907
          439734.00    3765410.00        0.13911
439739.00    3765410.00        0.13914
          439744.00    3765410.00        0.13917
439749.00    3765410.00        0.13920
          439774.00    3765410.00        0.13932
439779.00    3765410.00        0.13934
          439784.00    3765410.00        0.13936
439789.00    3765410.00        0.13938
          439794.00    3765410.00        0.13940
439799.00    3765410.00        0.13941
          439804.00    3765410.00        0.13942
439809.00    3765410.00        0.13943
          439814.00    3765410.00        0.13944
439819.00    3765410.00        0.13944
          439824.00    3765410.00        0.13944
439829.00    3765410.00        0.13944
          439834.00    3765410.00        0.13944
439839.00    3765410.00        0.13944
          439844.00    3765410.00        0.13943
439849.00    3765410.00        0.13942
```

```
         439854.00    3765410.00        0.13941
439859.00    3765410.00        0.13939
         439674.00    3765415.00        0.14095
439679.00    3765415.00        0.14100
         439684.00    3765415.00        0.14105
439689.00    3765415.00        0.14110
         439694.00    3765415.00        0.14115
439699.00    3765415.00        0.14119
         439704.00    3765415.00        0.14124
439709.00    3765415.00        0.14128
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: EXH ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439714.00	3765415.00	0.14132	439719.00	3765415.00	0.14136
439729.00	3765415.00	0.14144	439734.00	3765415.00	0.14147
439739.00	3765415.00	0.14151	439744.00	3765415.00	0.14154
439749.00	3765415.00	0.14158	439774.00	3765415.00	0.14172
439779.00	3765415.00	0.14174	439784.00	3765415.00	0.14176
439789.00	3765415.00	0.14178	439794.00	3765415.00	0.14180
439799.00	3765415.00	0.14182	439804.00	3765415.00	0.14183
439809.00	3765415.00	0.14185	439814.00	3765415.00	0.14186
439819.00	3765415.00	0.14186	439824.00	3765415.00	0.14187

```
          439829.00    3765415.00        0.14188
439834.00    3765415.00        0.14188
          439839.00    3765415.00        0.14188
439844.00    3765415.00        0.14187
          439849.00    3765415.00        0.14187
439854.00    3765415.00        0.14186
          439859.00    3765415.00        0.14185
439674.00    3765420.00        0.14336
          439679.00    3765420.00        0.14341
439684.00    3765420.00        0.14347
          439689.00    3765420.00        0.14352
439694.00    3765420.00        0.14357
          439699.00    3765420.00        0.14361
439704.00    3765420.00        0.14366
          439709.00    3765420.00        0.14371
439714.00    3765420.00        0.14375
          439719.00    3765420.00        0.14379
439729.00    3765420.00        0.14388
          439734.00    3765420.00        0.14392
439739.00    3765420.00        0.14395
          439744.00    3765420.00        0.14399
439749.00    3765420.00        0.14403
          439774.00    3765420.00        0.14418
439779.00    3765420.00        0.14421
          439784.00    3765420.00        0.14423
439789.00    3765420.00        0.14426
          439794.00    3765420.00        0.14428
439799.00    3765420.00        0.14430
          439804.00    3765420.00        0.14432
439809.00    3765420.00        0.14434
          439814.00    3765420.00        0.14435
439819.00    3765420.00        0.14436
          439824.00    3765420.00        0.14437
439829.00    3765420.00        0.14438
          439834.00    3765420.00        0.14439
439839.00    3765420.00        0.14439
          439844.00    3765420.00        0.14439
439849.00    3765420.00        0.14439
          439854.00    3765420.00        0.14439
439859.00    3765420.00        0.14438
          439674.00    3765425.00        0.14584
439679.00    3765425.00        0.14590
          439684.00    3765425.00        0.14596
439689.00    3765425.00        0.14601
          439694.00    3765425.00        0.14606
439699.00    3765425.00        0.14611
          439704.00    3765425.00        0.14616
439709.00    3765425.00        0.14621
          439714.00    3765425.00        0.14626
439719.00    3765425.00        0.14630
          439729.00    3765425.00        0.14639
439734.00    3765425.00        0.14643
```

```
         439739.00    3765425.00        0.14648
439744.00    3765425.00        0.14652
         439749.00    3765425.00        0.14656
439774.00    3765425.00        0.14673
         439779.00    3765425.00        0.14676
439784.00    3765425.00        0.14679
         439789.00    3765425.00        0.14682
439794.00    3765425.00        0.14684
         439799.00    3765425.00        0.14686
439804.00    3765425.00        0.14689
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: EXH *** INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 , A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439809.00	3765425.00	0.14691	439814.00	3765425.00	0.14693
439819.00	3765425.00	0.14694	439824.00	3765425.00	0.14696
439829.00	3765425.00	0.14697	439834.00	3765425.00	0.14698
439839.00	3765425.00	0.14699	439844.00	3765425.00	0.14699
439849.00	3765425.00	0.14699	439854.00	3765425.00	0.14699
439859.00	3765425.00	0.14699	439674.00	3765430.00	0.14841
439679.00	3765430.00	0.14847	439684.00	3765430.00	0.14853
439689.00	3765430.00	0.14858	439694.00	3765430.00	0.14864
439699.00	3765430.00	0.14869	439704.00	3765430.00	0.14874

```
          439709.00    3765430.00        0.14880
439714.00    3765430.00        0.14885
          439719.00    3765430.00        0.14890
439729.00    3765430.00        0.14899
          439734.00    3765430.00        0.14904
439739.00    3765430.00        0.14908
          439744.00    3765430.00        0.14912
439749.00    3765430.00        0.14917
          439774.00    3765430.00        0.14936
439779.00    3765430.00        0.14939
          439784.00    3765430.00        0.14942
439789.00    3765430.00        0.14945
          439794.00    3765430.00        0.14948
439799.00    3765430.00        0.14951
          439804.00    3765430.00        0.14954
439809.00    3765430.00        0.14956
          439814.00    3765430.00        0.14958
439819.00    3765430.00        0.14961
          439824.00    3765430.00        0.14962
439829.00    3765430.00        0.14964
          439834.00    3765430.00        0.14965
439839.00    3765430.00        0.14967
          439844.00    3765430.00        0.14967
439849.00    3765430.00        0.14968
          439854.00    3765430.00        0.14968
439859.00    3765430.00        0.14968
          439674.00    3765435.00        0.15106
439679.00    3765435.00        0.15112
          439684.00    3765435.00        0.15118
439689.00    3765435.00        0.15124
          439694.00    3765435.00        0.15130
439699.00    3765435.00        0.15136
          439704.00    3765435.00        0.15141
439709.00    3765435.00        0.15147
          439714.00    3765435.00        0.15152
439719.00    3765435.00        0.15158
          439729.00    3765435.00        0.15168
439734.00    3765435.00        0.15172
          439739.00    3765435.00        0.15177
439744.00    3765435.00        0.15182
          439749.00    3765435.00        0.15186
439774.00    3765435.00        0.15207
          439779.00    3765435.00        0.15211
439784.00    3765435.00        0.15215
          439789.00    3765435.00        0.15218
439794.00    3765435.00        0.15221
          439799.00    3765435.00        0.15225
439804.00    3765435.00        0.15228
          439809.00    3765435.00        0.15230
439814.00    3765435.00        0.15233
          439819.00    3765435.00        0.15236
439824.00    3765435.00        0.15238
```

```
         439829.00    3765435.00        0.15240
439834.00    3765435.00        0.15242
         439839.00    3765435.00        0.15243
439844.00    3765435.00        0.15245
         439849.00    3765435.00        0.15246
439854.00    3765435.00        0.15247
         439859.00    3765435.00        0.15247
439674.00    3765440.00        0.15380
         439679.00    3765440.00        0.15387
439684.00    3765440.00        0.15393
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: EXH *** INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 , A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439689.00	3765440.00	0.15399	439694.00	3765440.00	0.15406
439699.00	3765440.00	0.15412	439704.00	3765440.00	0.15417
439709.00	3765440.00	0.15423	439714.00	3765440.00	0.15429
439719.00	3765440.00	0.15434	439729.00	3765440.00	0.15445
439734.00	3765440.00	0.15450	439739.00	3765440.00	0.15455
439744.00	3765440.00	0.15460	439749.00	3765440.00	0.15465
439774.00	3765440.00	0.15488	439779.00	3765440.00	0.15492
439784.00	3765440.00	0.15496	439789.00	3765440.00	0.15500
439794.00	3765440.00	0.15504	439799.00	3765440.00	0.15507

```
          439804.00    3765440.00        0.15511
439809.00    3765440.00        0.15514
          439814.00    3765440.00        0.15517
439819.00    3765440.00        0.15520
          439824.00    3765440.00        0.15523
439829.00    3765440.00        0.15525
          439834.00    3765440.00        0.15527
439839.00    3765440.00        0.15529
          439844.00    3765440.00        0.15531
439849.00    3765440.00        0.15533
          439854.00    3765440.00        0.15534
439859.00    3765440.00        0.15535
          439674.00    3765445.00        0.15664
439679.00    3765445.00        0.15671
          439684.00    3765445.00        0.15677
439689.00    3765445.00        0.15684
          439694.00    3765445.00        0.15690
439699.00    3765445.00        0.15697
          439704.00    3765445.00        0.15703
439709.00    3765445.00        0.15709
          439714.00    3765445.00        0.15715
439719.00    3765445.00        0.15721
          439729.00    3765445.00        0.15732
439734.00    3765445.00        0.15738
          439739.00    3765445.00        0.15743
439744.00    3765445.00        0.15749
          439749.00    3765445.00        0.15754
439774.00    3765445.00        0.15778
          439779.00    3765445.00        0.15783
439784.00    3765445.00        0.15787
          439789.00    3765445.00        0.15791
439794.00    3765445.00        0.15795
          439799.00    3765445.00        0.15800
439804.00    3765445.00        0.15803
          439809.00    3765445.00        0.15807
439814.00    3765445.00        0.15810
          439819.00    3765445.00        0.15814
439824.00    3765445.00        0.15817
          439829.00    3765445.00        0.15820
439834.00    3765445.00        0.15823
          439839.00    3765445.00        0.15825
439844.00    3765445.00        0.15828
          439849.00    3765445.00        0.15830
439854.00    3765445.00        0.15831
          439859.00    3765445.00        0.15833
439674.00    3765450.00        0.15958
          439679.00    3765450.00        0.15965
439684.00    3765450.00        0.15972
          439689.00    3765450.00        0.15979
439694.00    3765450.00        0.15985
          439699.00    3765450.00        0.15992
439704.00    3765450.00        0.15999
```

```
         439709.00    3765450.00        0.16005
439714.00    3765450.00        0.16011
         439719.00    3765450.00        0.16017
439729.00    3765450.00        0.16030
         439734.00    3765450.00        0.16035
439739.00    3765450.00        0.16041
         439744.00    3765450.00        0.16047
439749.00    3765450.00        0.16052
         439774.00    3765450.00        0.16079
439844.00    3765450.00        0.16134
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: EXH *** INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439849.00	3765450.00	0.16137	439854.00	3765450.00	0.16139
439859.00	3765450.00	0.16141	439674.00	3765455.00	0.16262
439679.00	3765455.00	0.16269	439684.00	3765455.00	0.16277
439689.00	3765455.00	0.16284	439694.00	3765455.00	0.16291
439699.00	3765455.00	0.16298	439704.00	3765455.00	0.16305
439709.00	3765455.00	0.16311	439714.00	3765455.00	0.16318
439719.00	3765455.00	0.16325	439729.00	3765455.00	0.16337
439734.00	3765455.00	0.16344	439739.00	3765455.00	0.16350
439744.00	3765455.00	0.16356	439749.00	3765455.00	0.16362

```
          439844.00    3765455.00        0.16452
439849.00    3765455.00        0.16455
          439854.00    3765455.00        0.16458
439859.00    3765455.00        0.16460
          439674.00    3765460.00        0.16577
439679.00    3765460.00        0.16585
          439684.00    3765460.00        0.16593
439689.00    3765460.00        0.16600
          439694.00    3765460.00        0.16608
439699.00    3765460.00        0.16615
          439704.00    3765460.00        0.16622
439709.00    3765460.00        0.16629
          439714.00    3765460.00        0.16636
439719.00    3765460.00        0.16643
          439729.00    3765460.00        0.16656
439734.00    3765460.00        0.16663
          439739.00    3765460.00        0.16670
439744.00    3765460.00        0.16676
          439749.00    3765460.00        0.16682
439789.00    3765460.00        0.16729
          439794.00    3765460.00        0.16735
439799.00    3765460.00        0.16740
          439804.00    3765460.00        0.16745
439809.00    3765460.00        0.16750
          439814.00    3765460.00        0.16755
439819.00    3765460.00        0.16760
          439824.00    3765460.00        0.16764
439829.00    3765460.00        0.16769
          439844.00    3765460.00        0.16781
439849.00    3765460.00        0.16785
          439854.00    3765460.00        0.16788
439859.00    3765460.00        0.16791
          439674.00    3765465.00        0.16904
439679.00    3765465.00        0.16913
          439684.00    3765465.00        0.16921
439689.00    3765465.00        0.16928
          439694.00    3765465.00        0.16936
439699.00    3765465.00        0.16944
          439704.00    3765465.00        0.16951
439709.00    3765465.00        0.16959
          439714.00    3765465.00        0.16966
439719.00    3765465.00        0.16973
          439729.00    3765465.00        0.16988
439734.00    3765465.00        0.16994
          439739.00    3765465.00        0.17001
439744.00    3765465.00        0.17008
          439749.00    3765465.00        0.17015
439789.00    3765465.00        0.17065
          439794.00    3765465.00        0.17071
439799.00    3765465.00        0.17076
          439804.00    3765465.00        0.17082
439809.00    3765465.00        0.17088
```

```
         439814.00    3765465.00        0.17093
439819.00    3765465.00        0.17098
         439824.00    3765465.00        0.17104
439829.00    3765465.00        0.17109
         439844.00    3765465.00        0.17123
439849.00    3765465.00        0.17127
         439854.00    3765465.00        0.17131
439859.00    3765465.00        0.17134
         439674.00    3765470.00        0.17244
439679.00    3765470.00        0.17253
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: EXH *** INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439684.00	3765470.00	0.17261	439689.00	3765470.00	0.17269
439694.00	3765470.00	0.17277	439699.00	3765470.00	0.17285
439704.00	3765470.00	0.17293	439709.00	3765470.00	0.17301
439714.00	3765470.00	0.17309	439719.00	3765470.00	0.17316
439729.00	3765470.00	0.17331	439734.00	3765470.00	0.17338
439739.00	3765470.00	0.17346	439744.00	3765470.00	0.17353
439749.00	3765470.00	0.17360	439789.00	3765470.00	0.17413
439794.00	3765470.00	0.17420	439799.00	3765470.00	0.17426
439804.00	3765470.00	0.17432	439809.00	3765470.00	0.17438

```
          439814.00    3765470.00        0.17444
439819.00    3765470.00        0.17450
          439824.00    3765470.00        0.17456
439829.00    3765470.00        0.17461
          439844.00    3765470.00        0.17477
439849.00    3765470.00        0.17482
          439854.00    3765470.00        0.17486
439859.00    3765470.00        0.17491
          439674.00    3765475.00        0.17597
439679.00    3765475.00        0.17606
          439684.00    3765475.00        0.17615
439689.00    3765475.00        0.17623
          439694.00    3765475.00        0.17632
439699.00    3765475.00        0.17640
          439704.00    3765475.00        0.17648
439709.00    3765475.00        0.17656
          439714.00    3765475.00        0.17665
439719.00    3765475.00        0.17673
          439729.00    3765475.00        0.17688
439734.00    3765475.00        0.17696
          439739.00    3765475.00        0.17703
439744.00    3765475.00        0.17711
          439749.00    3765475.00        0.17718
439754.00    3765475.00        0.17726
          439789.00    3765475.00        0.17775
439794.00    3765475.00        0.17782
          439799.00    3765475.00        0.17789
439804.00    3765475.00        0.17795
          439809.00    3765475.00        0.17802
439814.00    3765475.00        0.17808
          439819.00    3765475.00        0.17815
439824.00    3765475.00        0.17821
          439829.00    3765475.00        0.17827
439269.00    3764900.00        0.04606
          439369.00    3764900.00        0.04642
439469.00    3764900.00        0.04639
          439569.00    3764900.00        0.04597
439669.00    3764900.00        0.04512
          439769.00    3764900.00        0.04385
439869.00    3764900.00        0.04214
          439969.00    3764900.00        0.04002
440069.00    3764900.00        0.03753
          440169.00    3764900.00        0.03475
440269.00    3764900.00        0.03183
          439269.00    3765000.00        0.05372
439369.00    3765000.00        0.05436
          439469.00    3765000.00        0.05456
439569.00    3765000.00        0.05430
          439669.00    3765000.00        0.05356
439769.00    3765000.00        0.05232
          439869.00    3765000.00        0.05055
439969.00    3765000.00        0.04821
```

```
         440069.00    3765000.00        0.04534
440169.00    3765000.00        0.04199
         440269.00    3765000.00        0.03833
439269.00    3765100.00        0.06359
         439369.00    3765100.00        0.06461
439469.00    3765100.00        0.06510
         439569.00    3765100.00        0.06509
439669.00    3765100.00        0.06456
         439769.00    3765100.00        0.06346
439869.00    3765100.00        0.06172
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: EXH *** INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439969.00	3765100.00	0.05926	440069.00	3765100.00	0.05603
440169.00	3765100.00	0.05206	440269.00	3765100.00	0.04746
439269.00	3765200.00	0.07686	439369.00	3765200.00	0.07837
439469.00	3765200.00	0.07926	439569.00	3765200.00	0.07961
439669.00	3765200.00	0.07941	439769.00	3765200.00	0.07861
439869.00	3765200.00	0.07708	439969.00	3765200.00	0.07466
440069.00	3765200.00	0.07121	440169.00	3765200.00	0.06661
440269.00	3765200.00	0.06089	439269.00	3765300.00	0.09575
439369.00	3765300.00	0.09797	439469.00	3765300.00	0.09947

```
         439569.00    3765300.00        0.10035
439669.00    3765300.00        0.10068
         439769.00    3765300.00        0.10042
439869.00    3765300.00        0.09937
         439969.00    3765300.00        0.09727
440069.00    3765300.00        0.09384
         440169.00    3765300.00        0.08878
440269.00    3765300.00        0.08184
         439269.00    3765400.00        0.12516
439369.00    3765400.00        0.12859
         439469.00    3765400.00        0.13115
439569.00    3765400.00        0.13295
         439669.00    3765400.00        0.13412
439769.00    3765400.00        0.13474
         439869.00    3765400.00        0.13465
439969.00    3765400.00        0.13333
         440069.00    3765400.00        0.13031
440169.00    3765400.00        0.12517
         440269.00    3765400.00        0.11721
439269.00    3765500.00        0.17876
         439369.00    3765500.00        0.18478
439469.00    3765500.00        0.18961
         439569.00    3765500.00        0.19322
439669.00    3765500.00        0.19582
         439769.00    3765500.00        0.19781
439869.00    3765500.00        0.19964
         439969.00    3765500.00        0.20029
440069.00    3765500.00        0.19829
         440169.00    3765500.00        0.19359
440269.00    3765500.00        0.18527
         439269.00    3765600.00        0.31632
439369.00    3765600.00        0.32940
         439469.00    3765600.00        0.34044
439569.00    3765600.00        0.34849
         439669.00    3765600.00        0.35423
439769.00    3765600.00        0.35865
         439869.00    3765600.00        0.36362
439969.00    3765600.00        0.37453
         440069.00    3765600.00        0.37423
440169.00    3765600.00        0.36957
         440269.00    3765600.00        0.36104
439269.00    3765700.00        1.67000
         439369.00    3765700.00        1.75481
439469.00    3765700.00        1.85402
         439569.00    3765700.00        1.93748
439669.00    3765700.00        1.99410
         439769.00    3765700.00        2.03560
439869.00    3765700.00        2.05444
         439969.00    3765700.00        2.07937
440069.00    3765700.00        2.11887
         440169.00    3765700.00        2.14786
440269.00    3765700.00        2.18082
```

```
         439269.00    3765800.00        0.55059
439369.00    3765800.00        0.58078
         439469.00    3765800.00        0.60591
439569.00    3765800.00        0.62930
         439669.00    3765800.00        0.64728
439769.00    3765800.00        0.66861
         439869.00    3765800.00        0.69784
439969.00    3765800.00        0.66347
         440069.00    3765800.00        0.65659
440169.00    3765800.00        0.65426
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: EXH *** INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
440269.00	3765800.00	0.65258	439269.00	3765900.00	0.20138
439369.00	3765900.00	0.23137	439469.00	3765900.00	0.25454
439569.00	3765900.00	0.27290	439669.00	3765900.00	0.28770
439769.00	3765900.00	0.29954	439869.00	3765900.00	0.30880
439969.00	3765900.00	0.31495	440069.00	3765900.00	0.31797
440169.00	3765900.00	0.31964	440269.00	3765900.00	0.32025
439649.00	3765310.00	0.10330	439679.00	3765310.00	0.10335
439709.00	3765310.00	0.10334	439739.00	3765310.00	0.10327
439769.00	3765310.00	0.10314	439799.00	3765310.00	0.10295

```
          439829.00    3765310.00        0.10267
439859.00    3765310.00        0.10231
          439889.00    3765310.00        0.10185
439649.00    3765340.00        0.11199
          439679.00    3765340.00        0.11211
439709.00    3765340.00        0.11217
          439739.00    3765340.00        0.11217
439769.00    3765340.00        0.11211
          439799.00    3765340.00        0.11199
439829.00    3765340.00        0.11179
          439859.00    3765340.00        0.11150
439889.00    3765340.00        0.11111
          439649.00    3765370.00        0.12208
439679.00    3765370.00        0.12226
          439709.00    3765370.00        0.12240
439739.00    3765370.00        0.12249
          439769.00    3765370.00        0.12252
439799.00    3765370.00        0.12248
          439829.00    3765370.00        0.12237
439859.00    3765370.00        0.12216
          439889.00    3765370.00        0.12186
439649.00    3765400.00        0.13393
          439679.00    3765400.00        0.13420
439709.00    3765400.00        0.13443
          439739.00    3765400.00        0.13461
439769.00    3765400.00        0.13474
          439799.00    3765400.00        0.13480
439829.00    3765400.00        0.13480
          439859.00    3765400.00        0.13471
439889.00    3765400.00        0.13450
          439649.00    3765430.00        0.14810
439679.00    3765430.00        0.14847
          439709.00    3765430.00        0.14880
439739.00    3765430.00        0.14908
          439769.00    3765430.00        0.14932
439799.00    3765430.00        0.14951
          439829.00    3765430.00        0.14964
439859.00    3765430.00        0.14968
          439889.00    3765430.00        0.14962
439649.00    3765460.00        0.16536
          439679.00    3765460.00        0.16585
439709.00    3765460.00        0.16629
          439739.00    3765460.00        0.16670
439769.00    3765460.00        0.16706
          439799.00    3765460.00        0.16740
439829.00    3765460.00        0.16769
          439859.00    3765460.00        0.16791
439889.00    3765460.00        0.16803
          439649.00    3765490.00        0.18692
439679.00    3765490.00        0.18754
          439709.00    3765490.00        0.18812
439739.00    3765490.00        0.18865
```

```
         439769.00    3765490.00        0.18917
439799.00    3765490.00        0.18967
         439829.00    3765490.00        0.19015
439859.00    3765490.00        0.19061
         439889.00    3765490.00        0.19098
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: FREEEXH ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439674.00	3765310.00	0.10015	439679.00	3765310.00	0.10014
439684.00	3765310.00	0.10013	439689.00	3765310.00	0.10011
439694.00	3765310.00	0.10010	439699.00	3765310.00	0.10008
439704.00	3765310.00	0.10006	439709.00	3765310.00	0.10004
439714.00	3765310.00	0.10002	439719.00	3765310.00	0.09999
439729.00	3765310.00	0.09994	439734.00	3765310.00	0.09991
439739.00	3765310.00	0.09988	439744.00	3765310.00	0.09985
439749.00	3765310.00	0.09982	439764.00	3765310.00	0.09971
439769.00	3765310.00	0.09967	439774.00	3765310.00	0.09962
439779.00	3765310.00	0.09958	439784.00	3765310.00	0.09953

```
          439789.00    3765310.00        0.09949
439794.00    3765310.00        0.09944
          439799.00    3765310.00        0.09939
439804.00    3765310.00        0.09933
          439809.00    3765310.00        0.09928
439814.00    3765310.00        0.09922
          439819.00    3765310.00        0.09916
439824.00    3765310.00        0.09910
          439829.00    3765310.00        0.09904
439839.00    3765310.00        0.09891
          439844.00    3765310.00        0.09884
439849.00    3765310.00        0.09877
          439854.00    3765310.00        0.09870
439859.00    3765310.00        0.09862
          439864.00    3765310.00        0.09854
439869.00    3765310.00        0.09847
          439874.00    3765310.00        0.09838
439879.00    3765310.00        0.09830
          439884.00    3765310.00        0.09821
439674.00    3765315.00        0.10149
          439679.00    3765315.00        0.10148
439684.00    3765315.00        0.10147
          439689.00    3765315.00        0.10145
439694.00    3765315.00        0.10144
          439699.00    3765315.00        0.10142
439704.00    3765315.00        0.10141
          439709.00    3765315.00        0.10139
439714.00    3765315.00        0.10137
          439719.00    3765315.00        0.10134
439729.00    3765315.00        0.10129
          439734.00    3765315.00        0.10127
439739.00    3765315.00        0.10124
          439744.00    3765315.00        0.10121
439749.00    3765315.00        0.10117
          439764.00    3765315.00        0.10107
439769.00    3765315.00        0.10103
          439774.00    3765315.00        0.10099
439779.00    3765315.00        0.10095
          439784.00    3765315.00        0.10090
439789.00    3765315.00        0.10085
          439794.00    3765315.00        0.10081
439799.00    3765315.00        0.10076
          439804.00    3765315.00        0.10070
439809.00    3765315.00        0.10065
          439814.00    3765315.00        0.10060
439819.00    3765315.00        0.10054
          439824.00    3765315.00        0.10048
439829.00    3765315.00        0.10042
          439839.00    3765315.00        0.10029
439844.00    3765315.00        0.10022
          439849.00    3765315.00        0.10015
439854.00    3765315.00        0.10008
```

```
         439859.00    3765315.00        0.10001
439864.00    3765315.00        0.09993
         439869.00    3765315.00        0.09985
439874.00    3765315.00        0.09977
         439879.00    3765315.00        0.09969
439884.00    3765315.00        0.09961
         439674.00    3765320.00        0.10286
439679.00    3765320.00        0.10285
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: FREEEXH ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439684.00	3765320.00	0.10284	439689.00	3765320.00	0.10283
439694.00	3765320.00	0.10281	439699.00	3765320.00	0.10280
439704.00	3765320.00	0.10278	439709.00	3765320.00	0.10276
439714.00	3765320.00	0.10275	439719.00	3765320.00	0.10272
439729.00	3765320.00	0.10268	439734.00	3765320.00	0.10265
439739.00	3765320.00	0.10262	439744.00	3765320.00	0.10260
439749.00	3765320.00	0.10256	439764.00	3765320.00	0.10246
439769.00	3765320.00	0.10242	439774.00	3765320.00	0.10238
439779.00	3765320.00	0.10234	439784.00	3765320.00	0.10230
439789.00	3765320.00	0.10225	439794.00	3765320.00	0.10221

```
         439799.00    3765320.00        0.10216
439804.00    3765320.00        0.10211
         439809.00    3765320.00        0.10206
439814.00    3765320.00        0.10200
         439819.00    3765320.00        0.10194
439824.00    3765320.00        0.10189
         439829.00    3765320.00        0.10183
439839.00    3765320.00        0.10170
         439844.00    3765320.00        0.10163
439849.00    3765320.00        0.10157
         439854.00    3765320.00        0.10150
439859.00    3765320.00        0.10142
         439864.00    3765320.00        0.10135
439869.00    3765320.00        0.10127
         439874.00    3765320.00        0.10119
439879.00    3765320.00        0.10111
         439884.00    3765320.00        0.10103
439674.00    3765325.00        0.10426
         439679.00    3765325.00        0.10425
439684.00    3765325.00        0.10424
         439689.00    3765325.00        0.10423
439694.00    3765325.00        0.10422
         439699.00    3765325.00        0.10421
439704.00    3765325.00        0.10419
         439709.00    3765325.00        0.10418
439714.00    3765325.00        0.10416
         439719.00    3765325.00        0.10414
439729.00    3765325.00        0.10409
         439734.00    3765325.00        0.10407
439739.00    3765325.00        0.10404
         439744.00    3765325.00        0.10402
439749.00    3765325.00        0.10399
         439754.00    3765325.00        0.10396
439769.00    3765325.00        0.10385
         439774.00    3765325.00        0.10381
439779.00    3765325.00        0.10377
         439784.00    3765325.00        0.10373
439789.00    3765325.00        0.10369
         439794.00    3765325.00        0.10364
439799.00    3765325.00        0.10359
         439804.00    3765325.00        0.10355
439809.00    3765325.00        0.10349
         439814.00    3765325.00        0.10344
439819.00    3765325.00        0.10339
         439824.00    3765325.00        0.10333
439829.00    3765325.00        0.10327
         439839.00    3765325.00        0.10315
439844.00    3765325.00        0.10308
         439849.00    3765325.00        0.10301
439854.00    3765325.00        0.10294
         439859.00    3765325.00        0.10287
439864.00    3765325.00        0.10280
```

```
         439869.00    3765325.00        0.10272
439874.00    3765325.00        0.10265
         439879.00    3765325.00        0.10257
439884.00    3765325.00        0.10248
         439674.00    3765330.00        0.10569
439679.00    3765330.00        0.10569
         439684.00    3765330.00        0.10568
439689.00    3765330.00        0.10567
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: FREEEXH ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439694.00	3765330.00	0.10566	439699.00	3765330.00	0.10565
439704.00	3765330.00	0.10564	439709.00	3765330.00	0.10562
439714.00	3765330.00	0.10560	439719.00	3765330.00	0.10559
439729.00	3765330.00	0.10555	439734.00	3765330.00	0.10552
439739.00	3765330.00	0.10550	439744.00	3765330.00	0.10547
439749.00	3765330.00	0.10544	439754.00	3765330.00	0.10541
439774.00	3765330.00	0.10528	439779.00	3765330.00	0.10524
439784.00	3765330.00	0.10520	439789.00	3765330.00	0.10516
439794.00	3765330.00	0.10511	439799.00	3765330.00	0.10506
439804.00	3765330.00	0.10502	439809.00	3765330.00	0.10497

```
          439814.00    3765330.00        0.10492
439819.00    3765330.00        0.10486
          439824.00    3765330.00        0.10481
439829.00    3765330.00        0.10475
          439839.00    3765330.00        0.10463
439844.00    3765330.00        0.10456
          439849.00    3765330.00        0.10450
439854.00    3765330.00        0.10443
          439859.00    3765330.00        0.10436
439864.00    3765330.00        0.10429
          439869.00    3765330.00        0.10421
439874.00    3765330.00        0.10414
          439879.00    3765330.00        0.10406
439884.00    3765330.00        0.10398
          439674.00    3765335.00        0.10716
439679.00    3765335.00        0.10716
          439684.00    3765335.00        0.10715
439689.00    3765335.00        0.10714
          439694.00    3765335.00        0.10714
439699.00    3765335.00        0.10713
          439704.00    3765335.00        0.10712
439709.00    3765335.00        0.10710
          439714.00    3765335.00        0.10709
439719.00    3765335.00        0.10707
          439729.00    3765335.00        0.10703
439734.00    3765335.00        0.10701
          439739.00    3765335.00        0.10699
439744.00    3765335.00        0.10696
          439749.00    3765335.00        0.10694
439774.00    3765335.00        0.10678
          439779.00    3765335.00        0.10674
439784.00    3765335.00        0.10670
          439789.00    3765335.00        0.10666
439794.00    3765335.00        0.10662
          439839.00    3765335.00        0.10614
439844.00    3765335.00        0.10608
          439849.00    3765335.00        0.10602
439854.00    3765335.00        0.10595
          439859.00    3765335.00        0.10588
439864.00    3765335.00        0.10581
          439869.00    3765335.00        0.10574
439874.00    3765335.00        0.10566
          439879.00    3765335.00        0.10558
439884.00    3765335.00        0.10550
          439674.00    3765340.00        0.10867
439679.00    3765340.00        0.10866
          439684.00    3765340.00        0.10866
439689.00    3765340.00        0.10866
          439694.00    3765340.00        0.10865
439699.00    3765340.00        0.10864
          439704.00    3765340.00        0.10863
439709.00    3765340.00        0.10862
```

```
         439714.00    3765340.00        0.10861
439719.00    3765340.00        0.10859
         439729.00    3765340.00        0.10856
439734.00    3765340.00        0.10854
         439739.00    3765340.00        0.10851
439744.00    3765340.00        0.10849
         439749.00    3765340.00        0.10847
439774.00    3765340.00        0.10831
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: FREEEXH ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439779.00	3765340.00	0.10828	439784.00	3765340.00	0.10824
439789.00	3765340.00	0.10820	439794.00	3765340.00	0.10816
439839.00	3765340.00	0.10770	439844.00	3765340.00	0.10764
439849.00	3765340.00	0.10757	439854.00	3765340.00	0.10751
439859.00	3765340.00	0.10744	439864.00	3765340.00	0.10737
439869.00	3765340.00	0.10730	439874.00	3765340.00	0.10723
439879.00	3765340.00	0.10715	439884.00	3765340.00	0.10707
439674.00	3765345.00	0.11021	439679.00	3765345.00	0.11021
439684.00	3765345.00	0.11021	439689.00	3765345.00	0.11021
439694.00	3765345.00	0.11020	439699.00	3765345.00	0.11019

```
          439704.00    3765345.00        0.11018
439709.00    3765345.00        0.11017
          439714.00    3765345.00        0.11016
439719.00    3765345.00        0.11015
          439729.00    3765345.00        0.11012
439734.00    3765345.00        0.11010
          439739.00    3765345.00        0.11008
439744.00    3765345.00        0.11006
          439749.00    3765345.00        0.11003
439774.00    3765345.00        0.10989
          439779.00    3765345.00        0.10985
439784.00    3765345.00        0.10982
          439789.00    3765345.00        0.10978
439794.00    3765345.00        0.10974
          439839.00    3765345.00        0.10929
439844.00    3765345.00        0.10923
          439849.00    3765345.00        0.10917
439854.00    3765345.00        0.10911
          439859.00    3765345.00        0.10904
439864.00    3765345.00        0.10897
          439869.00    3765345.00        0.10890
439874.00    3765345.00        0.10883
          439879.00    3765345.00        0.10875
439884.00    3765345.00        0.10868
          439674.00    3765350.00        0.11180
439679.00    3765350.00        0.11180
          439684.00    3765350.00        0.11180
439689.00    3765350.00        0.11179
          439694.00    3765350.00        0.11179
439699.00    3765350.00        0.11178
          439704.00    3765350.00        0.11178
439709.00    3765350.00        0.11177
          439714.00    3765350.00        0.11176
439719.00    3765350.00        0.11175
          439729.00    3765350.00        0.11172
439734.00    3765350.00        0.11170
          439739.00    3765350.00        0.11168
439744.00    3765350.00        0.11166
          439749.00    3765350.00        0.11164
439774.00    3765350.00        0.11150
          439779.00    3765350.00        0.11147
439784.00    3765350.00        0.11144
          439789.00    3765350.00        0.11140
439794.00    3765350.00        0.11136
          439839.00    3765350.00        0.11093
439844.00    3765350.00        0.11087
          439849.00    3765350.00        0.11081
439854.00    3765350.00        0.11075
          439859.00    3765350.00        0.11068
439864.00    3765350.00        0.11061
          439869.00    3765350.00        0.11054
439874.00    3765350.00        0.11047
```

```
         439879.00    3765350.00        0.11040
439884.00    3765350.00        0.11032
         439674.00    3765355.00        0.11342
439679.00    3765355.00        0.11342
         439684.00    3765355.00        0.11342
439689.00    3765355.00        0.11342
         439694.00    3765355.00        0.11342
439699.00    3765355.00        0.11342
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: FREEEXH ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439704.00	3765355.00	0.11341	439709.00	3765355.00	0.11341
439714.00	3765355.00	0.11340	439719.00	3765355.00	0.11339
439729.00	3765355.00	0.11336	439734.00	3765355.00	0.11335
439739.00	3765355.00	0.11333	439744.00	3765355.00	0.11331
439749.00	3765355.00	0.11329	439774.00	3765355.00	0.11316
439779.00	3765355.00	0.11313	439784.00	3765355.00	0.11310
439789.00	3765355.00	0.11306	439794.00	3765355.00	0.11303
439839.00	3765355.00	0.11260	439844.00	3765355.00	0.11255
439849.00	3765355.00	0.11249	439854.00	3765355.00	0.11243
439859.00	3765355.00	0.11236	439864.00	3765355.00	0.11230

```
         439869.00    3765355.00        0.11223
439874.00    3765355.00        0.11216
         439879.00    3765355.00        0.11209
439884.00    3765355.00        0.11201
         439674.00    3765360.00        0.11509
439679.00    3765360.00        0.11509
         439684.00    3765360.00        0.11509
439689.00    3765360.00        0.11510
         439694.00    3765360.00        0.11510
439699.00    3765360.00        0.11509
         439704.00    3765360.00        0.11509
439709.00    3765360.00        0.11509
         439714.00    3765360.00        0.11508
439719.00    3765360.00        0.11507
         439729.00    3765360.00        0.11505
439734.00    3765360.00        0.11504
         439739.00    3765360.00        0.11502
439744.00    3765360.00        0.11500
         439749.00    3765360.00        0.11498
439774.00    3765360.00        0.11486
         439779.00    3765360.00        0.11483
439784.00    3765360.00        0.11480
         439789.00    3765360.00        0.11477
439794.00    3765360.00        0.11473
         439799.00    3765360.00        0.11470
439804.00    3765360.00        0.11466
         439809.00    3765360.00        0.11462
439814.00    3765360.00        0.11457
         439839.00    3765360.00        0.11433
439844.00    3765360.00        0.11427
         439849.00    3765360.00        0.11421
439854.00    3765360.00        0.11415
         439859.00    3765360.00        0.11409
439864.00    3765360.00        0.11403
         439869.00    3765360.00        0.11396
439874.00    3765360.00        0.11389
         439879.00    3765360.00        0.11382
439884.00    3765360.00        0.11375
         439674.00    3765365.00        0.11680
439679.00    3765365.00        0.11680
         439684.00    3765365.00        0.11681
439689.00    3765365.00        0.11681
         439694.00    3765365.00        0.11681
439699.00    3765365.00        0.11681
         439704.00    3765365.00        0.11681
439709.00    3765365.00        0.11681
         439714.00    3765365.00        0.11680
439719.00    3765365.00        0.11680
         439729.00    3765365.00        0.11678
439734.00    3765365.00        0.11677
         439739.00    3765365.00        0.11675
439744.00    3765365.00        0.11674
```

```
         439749.00    3765365.00        0.11672
439774.00    3765365.00        0.11661
         439779.00    3765365.00        0.11658
439784.00    3765365.00        0.11655
         439789.00    3765365.00        0.11652
439794.00    3765365.00        0.11649
         439799.00    3765365.00        0.11645
439804.00    3765365.00        0.11641
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: FREEEXH ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439809.00	3765365.00	0.11637	439814.00	3765365.00	0.11633
439839.00	3765365.00	0.11609	439844.00	3765365.00	0.11604
439849.00	3765365.00	0.11598	439854.00	3765365.00	0.11592
439859.00	3765365.00	0.11586	439864.00	3765365.00	0.11580
439869.00	3765365.00	0.11574	439874.00	3765365.00	0.11567
439879.00	3765365.00	0.11560	439884.00	3765365.00	0.11553
439674.00	3765370.00	0.11856	439679.00	3765370.00	0.11856
439684.00	3765370.00	0.11857	439689.00	3765370.00	0.11858
439694.00	3765370.00	0.11858	439699.00	3765370.00	0.11858
439704.00	3765370.00	0.11858	439709.00	3765370.00	0.11858

```
          439714.00    3765370.00         0.11858
439719.00    3765370.00         0.11857
          439729.00    3765370.00         0.11856
439734.00    3765370.00         0.11855
          439739.00    3765370.00         0.11854
439744.00    3765370.00         0.11852
          439749.00    3765370.00         0.11851
439774.00    3765370.00         0.11840
          439779.00    3765370.00         0.11838
439784.00    3765370.00         0.11835
          439789.00    3765370.00         0.11832
439794.00    3765370.00         0.11829
          439799.00    3765370.00         0.11825
439804.00    3765370.00         0.11822
          439809.00    3765370.00         0.11818
439814.00    3765370.00         0.11814
          439839.00    3765370.00         0.11791
439844.00    3765370.00         0.11786
          439849.00    3765370.00         0.11780
439854.00    3765370.00         0.11774
          439859.00    3765370.00         0.11769
439864.00    3765370.00         0.11762
          439869.00    3765370.00         0.11756
439874.00    3765370.00         0.11750
          439879.00    3765370.00         0.11743
439884.00    3765370.00         0.11736
          439674.00    3765375.00         0.12036
439679.00    3765375.00         0.12037
          439684.00    3765375.00         0.12038
439689.00    3765375.00         0.12039
          439694.00    3765375.00         0.12039
439699.00    3765375.00         0.12040
          439704.00    3765375.00         0.12040
439709.00    3765375.00         0.12040
          439714.00    3765375.00         0.12040
439719.00    3765375.00         0.12040
          439729.00    3765375.00         0.12038
439734.00    3765375.00         0.12038
          439739.00    3765375.00         0.12037
439744.00    3765375.00         0.12035
          439749.00    3765375.00         0.12034
439754.00    3765375.00         0.12033
          439774.00    3765375.00         0.12025
439779.00    3765375.00         0.12022
          439784.00    3765375.00         0.12019
439789.00    3765375.00         0.12017
          439794.00    3765375.00         0.12014
439799.00    3765375.00         0.12010
          439804.00    3765375.00         0.12007
439809.00    3765375.00         0.12003
          439814.00    3765375.00         0.11999
439839.00    3765375.00         0.11977
```

```
         439844.00    3765375.00        0.11972
439849.00    3765375.00        0.11967
         439854.00    3765375.00        0.11961
439859.00    3765375.00        0.11956
         439864.00    3765375.00        0.11950
439869.00    3765375.00        0.11943
         439874.00    3765375.00        0.11937
439879.00    3765375.00        0.11930
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: FREEEXH ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439884.00	3765375.00	0.11924	439774.00	3765380.00	0.12214
439779.00	3765380.00	0.12212	439784.00	3765380.00	0.12209
439789.00	3765380.00	0.12207	439794.00	3765380.00	0.12204
439799.00	3765380.00	0.12201	439804.00	3765380.00	0.12197
439809.00	3765380.00	0.12194	439814.00	3765380.00	0.12190
439769.00	3765385.00	0.12411	439819.00	3765385.00	0.12383
439769.00	3765400.00	0.13029	439844.00	3765400.00	0.12988
439849.00	3765400.00	0.12984	439674.00	3765405.00	0.13234
439714.00	3765405.00	0.13247	439719.00	3765405.00	0.13248
439734.00	3765405.00	0.13250	439749.00	3765405.00	0.13250

```
          439754.00    3765405.00        0.13250
439774.00    3765405.00        0.13246
          439779.00    3765405.00        0.13245
439784.00    3765405.00        0.13244
          439789.00    3765405.00        0.13242
439794.00    3765405.00        0.13240
          439799.00    3765405.00        0.13238
439804.00    3765405.00        0.13235
          439809.00    3765405.00        0.13233
439814.00    3765405.00        0.13230
          439819.00    3765405.00        0.13227
439824.00    3765405.00        0.13224
          439829.00    3765405.00        0.13221
439834.00    3765405.00        0.13217
          439839.00    3765405.00        0.13213
439844.00    3765405.00        0.13209
          439849.00    3765405.00        0.13205
439854.00    3765405.00        0.13201
          439859.00    3765405.00        0.13196
439674.00    3765410.00        0.13454
          439679.00    3765410.00        0.13457
439684.00    3765410.00        0.13460
          439689.00    3765410.00        0.13462
439694.00    3765410.00        0.13464
          439699.00    3765410.00        0.13466
439704.00    3765410.00        0.13467
          439709.00    3765410.00        0.13469
439714.00    3765410.00        0.13470
          439719.00    3765410.00        0.13471
439729.00    3765410.00        0.13473
          439734.00    3765410.00        0.13474
439739.00    3765410.00        0.13474
          439744.00    3765410.00        0.13474
439749.00    3765410.00        0.13474
          439774.00    3765410.00        0.13472
439779.00    3765410.00        0.13471
          439784.00    3765410.00        0.13469
439789.00    3765410.00        0.13468
          439794.00    3765410.00        0.13466
439799.00    3765410.00        0.13464
          439804.00    3765410.00        0.13462
439809.00    3765410.00        0.13460
          439814.00    3765410.00        0.13457
439819.00    3765410.00        0.13455
          439824.00    3765410.00        0.13452
439829.00    3765410.00        0.13448
          439834.00    3765410.00        0.13445
439839.00    3765410.00        0.13442
          439844.00    3765410.00        0.13438
439849.00    3765410.00        0.13434
          439854.00    3765410.00        0.13429
439859.00    3765410.00        0.13425
```

```
         439674.00    3765415.00        0.13682
439679.00    3765415.00        0.13685
         439684.00    3765415.00        0.13688
439689.00    3765415.00        0.13690
         439694.00    3765415.00        0.13693
439699.00    3765415.00        0.13695
         439704.00    3765415.00        0.13697
439709.00    3765415.00        0.13698
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: FREEEXH ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439714.00	3765415.00	0.13700	439719.00	3765415.00	0.13701
439729.00	3765415.00	0.13704	439734.00	3765415.00	0.13704
439739.00	3765415.00	0.13705	439744.00	3765415.00	0.13705
439749.00	3765415.00	0.13706	439774.00	3765415.00	0.13704
439779.00	3765415.00	0.13703	439784.00	3765415.00	0.13702
439789.00	3765415.00	0.13701	439794.00	3765415.00	0.13700
439799.00	3765415.00	0.13698	439804.00	3765415.00	0.13696
439809.00	3765415.00	0.13694	439814.00	3765415.00	0.13691
439819.00	3765415.00	0.13689	439824.00	3765415.00	0.13686
439829.00	3765415.00	0.13683	439834.00	3765415.00	0.13680

```
          439839.00    3765415.00        0.13677
439844.00    3765415.00        0.13673
          439849.00    3765415.00        0.13669
439854.00    3765415.00        0.13665
          439859.00    3765415.00        0.13661
439674.00    3765420.00        0.13917
          439679.00    3765420.00        0.13921
439684.00    3765420.00        0.13923
          439689.00    3765420.00        0.13926
439694.00    3765420.00        0.13929
          439699.00    3765420.00        0.13931
439704.00    3765420.00        0.13933
          439709.00    3765420.00        0.13935
439714.00    3765420.00        0.13937
          439719.00    3765420.00        0.13939
439729.00    3765420.00        0.13941
          439734.00    3765420.00        0.13942
439739.00    3765420.00        0.13943
          439744.00    3765420.00        0.13944
439749.00    3765420.00        0.13944
          439774.00    3765420.00        0.13944
439779.00    3765420.00        0.13943
          439784.00    3765420.00        0.13942
439789.00    3765420.00        0.13941
          439794.00    3765420.00        0.13940
439799.00    3765420.00        0.13939
          439804.00    3765420.00        0.13937
439809.00    3765420.00        0.13935
          439814.00    3765420.00        0.13933
439819.00    3765420.00        0.13931
          439824.00    3765420.00        0.13928
439829.00    3765420.00        0.13925
          439834.00    3765420.00        0.13923
439839.00    3765420.00        0.13919
          439844.00    3765420.00        0.13916
439849.00    3765420.00        0.13912
          439854.00    3765420.00        0.13908
439859.00    3765420.00        0.13904
          439674.00    3765425.00        0.14160
439679.00    3765425.00        0.14163
          439684.00    3765425.00        0.14167
439689.00    3765425.00        0.14170
          439694.00    3765425.00        0.14172
439699.00    3765425.00        0.14175
          439704.00    3765425.00        0.14177
439709.00    3765425.00        0.14180
          439714.00    3765425.00        0.14182
439719.00    3765425.00        0.14184
          439729.00    3765425.00        0.14187
439734.00    3765425.00        0.14188
          439739.00    3765425.00        0.14189
439744.00    3765425.00        0.14190
```

```
         439749.00    3765425.00        0.14191
439774.00    3765425.00        0.14192
         439779.00    3765425.00        0.14191
439784.00    3765425.00        0.14191
         439789.00    3765425.00        0.14190
439794.00    3765425.00        0.14189
         439799.00    3765425.00        0.14187
439804.00    3765425.00        0.14186
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: FREEEXH ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439809.00	3765425.00	0.14184	439814.00	3765425.00	0.14182
439819.00	3765425.00	0.14180	439824.00	3765425.00	0.14178
439829.00	3765425.00	0.14175	439834.00	3765425.00	0.14173
439839.00	3765425.00	0.14170	439844.00	3765425.00	0.14167
439849.00	3765425.00	0.14163	439854.00	3765425.00	0.14159
439859.00	3765425.00	0.14156	439674.00	3765430.00	0.14411
439679.00	3765430.00	0.14414	439684.00	3765430.00	0.14418
439689.00	3765430.00	0.14421	439694.00	3765430.00	0.14424
439699.00	3765430.00	0.14427	439704.00	3765430.00	0.14430
439709.00	3765430.00	0.14432	439714.00	3765430.00	0.14434

```
          439719.00    3765430.00        0.14437
439729.00    3765430.00        0.14440
          439734.00    3765430.00        0.14442
439739.00    3765430.00        0.14443
          439744.00    3765430.00        0.14444
439749.00    3765430.00        0.14445
          439774.00    3765430.00        0.14447
439779.00    3765430.00        0.14447
          439784.00    3765430.00        0.14447
439789.00    3765430.00        0.14446
          439794.00    3765430.00        0.14445
439799.00    3765430.00        0.14444
          439804.00    3765430.00        0.14443
439809.00    3765430.00        0.14442
          439814.00    3765430.00        0.14440
439819.00    3765430.00        0.14438
          439824.00    3765430.00        0.14436
439829.00    3765430.00        0.14434
          439834.00    3765430.00        0.14431
439839.00    3765430.00        0.14428
          439844.00    3765430.00        0.14425
439849.00    3765430.00        0.14422
          439854.00    3765430.00        0.14419
439859.00    3765430.00        0.14415
          439674.00    3765435.00        0.14670
439679.00    3765435.00        0.14674
          439684.00    3765435.00        0.14677
439689.00    3765435.00        0.14681
          439694.00    3765435.00        0.14684
439699.00    3765435.00        0.14687
          439704.00    3765435.00        0.14690
439709.00    3765435.00        0.14693
          439714.00    3765435.00        0.14696
439719.00    3765435.00        0.14698
          439729.00    3765435.00        0.14702
439734.00    3765435.00        0.14704
          439739.00    3765435.00        0.14706
439744.00    3765435.00        0.14707
          439749.00    3765435.00        0.14708
439774.00    3765435.00        0.14712
          439779.00    3765435.00        0.14712
439784.00    3765435.00        0.14711
          439789.00    3765435.00        0.14711
439794.00    3765435.00        0.14710
          439799.00    3765435.00        0.14710
439804.00    3765435.00        0.14709
          439809.00    3765435.00        0.14707
439814.00    3765435.00        0.14706
          439819.00    3765435.00        0.14704
439824.00    3765435.00        0.14703
          439829.00    3765435.00        0.14700
439834.00    3765435.00        0.14698
```

```
         439839.00    3765435.00        0.14696
439844.00    3765435.00        0.14693
         439849.00    3765435.00        0.14690
439854.00    3765435.00        0.14687
         439859.00    3765435.00        0.14683
439674.00    3765440.00        0.14938
         439679.00    3765440.00        0.14942
439684.00    3765440.00        0.14946
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: FREEEXH ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439689.00	3765440.00	0.14950	439694.00	3765440.00	0.14953
439699.00	3765440.00	0.14957	439704.00	3765440.00	0.14960
439709.00	3765440.00	0.14963	439714.00	3765440.00	0.14966
439719.00	3765440.00	0.14968	439729.00	3765440.00	0.14973
439734.00	3765440.00	0.14975	439739.00	3765440.00	0.14977
439744.00	3765440.00	0.14979	439749.00	3765440.00	0.14980
439774.00	3765440.00	0.14985	439779.00	3765440.00	0.14985
439784.00	3765440.00	0.14985	439789.00	3765440.00	0.14985
439794.00	3765440.00	0.14985	439799.00	3765440.00	0.14984
439804.00	3765440.00	0.14983	439809.00	3765440.00	0.14982

```
          439814.00    3765440.00        0.14981
439819.00    3765440.00        0.14980
          439824.00    3765440.00        0.14978
439829.00    3765440.00        0.14976
          439834.00    3765440.00        0.14974
439839.00    3765440.00        0.14972
          439844.00    3765440.00        0.14970
439849.00    3765440.00        0.14967
          439854.00    3765440.00        0.14964
439859.00    3765440.00        0.14961
          439674.00    3765445.00        0.15215
439679.00    3765445.00        0.15219
          439684.00    3765445.00        0.15224
439689.00    3765445.00        0.15228
          439694.00    3765445.00        0.15232
439699.00    3765445.00        0.15235
          439704.00    3765445.00        0.15239
439709.00    3765445.00        0.15242
          439714.00    3765445.00        0.15245
439719.00    3765445.00        0.15248
          439729.00    3765445.00        0.15254
439734.00    3765445.00        0.15256
          439739.00    3765445.00        0.15258
439744.00    3765445.00        0.15260
          439749.00    3765445.00        0.15262
439774.00    3765445.00        0.15268
          439779.00    3765445.00        0.15268
439784.00    3765445.00        0.15268
          439789.00    3765445.00        0.15269
439794.00    3765445.00        0.15268
          439799.00    3765445.00        0.15268
439804.00    3765445.00        0.15268
          439809.00    3765445.00        0.15267
439814.00    3765445.00        0.15266
          439819.00    3765445.00        0.15265
439824.00    3765445.00        0.15263
          439829.00    3765445.00        0.15262
439834.00    3765445.00        0.15260
          439839.00    3765445.00        0.15258
439844.00    3765445.00        0.15256
          439849.00    3765445.00        0.15253
439854.00    3765445.00        0.15250
          439859.00    3765445.00        0.15247
439674.00    3765450.00        0.15502
          439679.00    3765450.00        0.15507
439684.00    3765450.00        0.15511
          439689.00    3765450.00        0.15516
439694.00    3765450.00        0.15520
          439699.00    3765450.00        0.15524
439704.00    3765450.00        0.15528
          439709.00    3765450.00        0.15531
439714.00    3765450.00        0.15535
```

```
         439719.00    3765450.00        0.15538
439729.00    3765450.00        0.15544
         439734.00    3765450.00        0.15546
439739.00    3765450.00        0.15549
         439744.00    3765450.00        0.15551
439749.00    3765450.00        0.15553
         439774.00    3765450.00        0.15560
439844.00    3765450.00        0.15552
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: FREEEXH ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439849.00	3765450.00	0.15550	439854.00	3765450.00	0.15547
439859.00	3765450.00	0.15544	439674.00	3765455.00	0.15799
439679.00	3765455.00	0.15805	439684.00	3765455.00	0.15809
439689.00	3765455.00	0.15814	439694.00	3765455.00	0.15819
439699.00	3765455.00	0.15823	439704.00	3765455.00	0.15827
439709.00	3765455.00	0.15831	439714.00	3765455.00	0.15835
439719.00	3765455.00	0.15838	439729.00	3765455.00	0.15845
439734.00	3765455.00	0.15847	439739.00	3765455.00	0.15850
439744.00	3765455.00	0.15853	439749.00	3765455.00	0.15855
439844.00	3765455.00	0.15859	439849.00	3765455.00	0.15857

```
          439854.00    3765455.00        0.15855
439859.00    3765455.00        0.15852
          439674.00    3765460.00        0.16108
439679.00    3765460.00        0.16113
          439684.00    3765460.00        0.16118
439689.00    3765460.00        0.16123
          439694.00    3765460.00        0.16128
439699.00    3765460.00        0.16133
          439704.00    3765460.00        0.16137
439709.00    3765460.00        0.16141
          439714.00    3765460.00        0.16145
439719.00    3765460.00        0.16149
          439729.00    3765460.00        0.16156
439734.00    3765460.00        0.16160
          439739.00    3765460.00        0.16163
439744.00    3765460.00        0.16165
          439749.00    3765460.00        0.16168
439789.00    3765460.00        0.16181
          439794.00    3765460.00        0.16182
439799.00    3765460.00        0.16183
          439804.00    3765460.00        0.16183
439809.00    3765460.00        0.16183
          439814.00    3765460.00        0.16183
439819.00    3765460.00        0.16182
          439824.00    3765460.00        0.16182
439829.00    3765460.00        0.16181
          439844.00    3765460.00        0.16177
439849.00    3765460.00        0.16175
          439854.00    3765460.00        0.16173
439859.00    3765460.00        0.16171
          439674.00    3765465.00        0.16428
439679.00    3765465.00        0.16434
          439684.00    3765465.00        0.16439
439689.00    3765465.00        0.16444
          439694.00    3765465.00        0.16450
439699.00    3765465.00        0.16454
          439704.00    3765465.00        0.16459
439709.00    3765465.00        0.16464
          439714.00    3765465.00        0.16468
439719.00    3765465.00        0.16472
          439729.00    3765465.00        0.16480
439734.00    3765465.00        0.16483
          439739.00    3765465.00        0.16487
439744.00    3765465.00        0.16490
          439749.00    3765465.00        0.16493
439789.00    3765465.00        0.16508
          439794.00    3765465.00        0.16509
439799.00    3765465.00        0.16510
          439804.00    3765465.00        0.16511
439809.00    3765465.00        0.16511
          439814.00    3765465.00        0.16511
439819.00    3765465.00        0.16511
```

```
         439824.00    3765465.00        0.16511
439829.00    3765465.00        0.16510
         439844.00    3765465.00        0.16507
439849.00    3765465.00        0.16505
         439854.00    3765465.00        0.16504
439859.00    3765465.00        0.16502
         439674.00    3765470.00        0.16760
439679.00    3765470.00        0.16766
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: FREEEXH ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439684.00	3765470.00	0.16772	439689.00	3765470.00	0.16778
439694.00	3765470.00	0.16783	439699.00	3765470.00	0.16788
439704.00	3765470.00	0.16793	439709.00	3765470.00	0.16798
439714.00	3765470.00	0.16803	439719.00	3765470.00	0.16808
439729.00	3765470.00	0.16816	439734.00	3765470.00	0.16820
439739.00	3765470.00	0.16823	439744.00	3765470.00	0.16827
439749.00	3765470.00	0.16830	439789.00	3765470.00	0.16848
439794.00	3765470.00	0.16849	439799.00	3765470.00	0.16850
439804.00	3765470.00	0.16851	439809.00	3765470.00	0.16852
439814.00	3765470.00	0.16852	439819.00	3765470.00	0.16852

```
          439824.00    3765470.00        0.16852
439829.00    3765470.00        0.16852
          439844.00    3765470.00        0.16850
439849.00    3765470.00        0.16848
          439854.00    3765470.00        0.16847
439859.00    3765470.00        0.16845
          439674.00    3765475.00        0.17105
439679.00    3765475.00        0.17112
          439684.00    3765475.00        0.17118
439689.00    3765475.00        0.17124
          439694.00    3765475.00        0.17130
439699.00    3765475.00        0.17135
          439704.00    3765475.00        0.17141
439709.00    3765475.00        0.17146
          439714.00    3765475.00        0.17151
439719.00    3765475.00        0.17156
          439729.00    3765475.00        0.17165
439734.00    3765475.00        0.17169
          439739.00    3765475.00        0.17173
439744.00    3765475.00        0.17177
          439749.00    3765475.00        0.17180
439754.00    3765475.00        0.17183
          439789.00    3765475.00        0.17201
439794.00    3765475.00        0.17202
          439799.00    3765475.00        0.17204
439804.00    3765475.00        0.17205
          439809.00    3765475.00        0.17206
439814.00    3765475.00        0.17206
          439819.00    3765475.00        0.17207
439824.00    3765475.00        0.17207
          439829.00    3765475.00        0.17207
439269.00    3764900.00        0.04488
          439369.00    3764900.00        0.04516
439469.00    3764900.00        0.04507
          439569.00    3764900.00        0.04460
439669.00    3764900.00        0.04374
          439769.00    3764900.00        0.04249
439869.00    3764900.00        0.04083
          439969.00    3764900.00        0.03879
440069.00    3764900.00        0.03640
          440169.00    3764900.00        0.03373
440269.00    3764900.00        0.03092
          439269.00    3765000.00        0.05238
439369.00    3765000.00        0.05292
          439469.00    3765000.00        0.05302
439569.00    3765000.00        0.05269
          439669.00    3765000.00        0.05190
439769.00    3765000.00        0.05066
          439869.00    3765000.00        0.04892
439969.00    3765000.00        0.04668
          440069.00    3765000.00        0.04393
440169.00    3765000.00        0.04073
```

```
         440269.00    3765000.00        0.03722
439269.00    3765100.00        0.06207
         439369.00    3765100.00        0.06294
439469.00    3765100.00        0.06330
         439569.00    3765100.00        0.06316
439669.00    3765100.00        0.06253
         439769.00    3765100.00        0.06138
439869.00    3765100.00        0.05966
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: FREEEXH ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439969.00	3765100.00	0.05729	440069.00	3765100.00	0.05423
440169.00	3765100.00	0.05045	440269.00	3765100.00	0.04607
439269.00	3765200.00	0.07513	439369.00	3765200.00	0.07643
439469.00	3765200.00	0.07713	439569.00	3765200.00	0.07729
439669.00	3765200.00	0.07692	439769.00	3765200.00	0.07598
439869.00	3765200.00	0.07440	439969.00	3765200.00	0.07206
440069.00	3765200.00	0.06880	440169.00	3765200.00	0.06448
440269.00	3765200.00	0.05907	439269.00	3765300.00	0.09375
439369.00	3765300.00	0.09566	439469.00	3765300.00	0.09689
439569.00	3765300.00	0.09752	439669.00	3765300.00	0.09758

```
         439769.00    3765300.00        0.09703
439869.00    3765300.00        0.09579
         439969.00    3765300.00        0.09367
440069.00    3765300.00        0.09044
         440169.00    3765300.00        0.08577
440269.00    3765300.00        0.07931
         439269.00    3765400.00        0.12284
439369.00    3765400.00        0.12577
         439469.00    3765400.00        0.12791
439569.00    3765400.00        0.12937
         439669.00    3765400.00        0.13017
439769.00    3765400.00        0.13029
         439869.00    3765400.00        0.12964
439969.00    3765400.00        0.12803
         440069.00    3765400.00        0.12517
440169.00    3765400.00        0.12053
         440269.00    3765400.00        0.11336
439269.00    3765500.00        0.17606
         439369.00    3765500.00        0.18117
439469.00    3765500.00        0.18521
         439569.00    3765500.00        0.18830
439669.00    3765500.00        0.19049
         439769.00    3765500.00        0.19179
439869.00    3765500.00        0.19217
         439969.00    3765500.00        0.19148
440069.00    3765500.00        0.18942
         440169.00    3765500.00        0.18542
440269.00    3765500.00        0.17836
         439269.00    3765600.00        0.31335
439369.00    3765600.00        0.32449
         439469.00    3765600.00        0.33334
439569.00    3765600.00        0.34028
         439669.00    3765600.00        0.34548
439769.00    3765600.00        0.34917
         439869.00    3765600.00        0.35147
439969.00    3765600.00        0.35246
         440069.00    3765600.00        0.35191
440169.00    3765600.00        0.34931
         440269.00    3765600.00        0.34361
439269.00    3765700.00        1.66725
         439369.00    3765700.00        1.74831
439469.00    3765700.00        1.82739
         439569.00    3765700.00        1.90454
439669.00    3765700.00        1.96641
         439769.00    3765700.00        2.01278
439869.00    3765700.00        2.03652
         439969.00    3765700.00        2.05764
440069.00    3765700.00        2.07627
         440169.00    3765700.00        2.08198
440269.00    3765700.00        2.08072
         439269.00    3765800.00        0.54859
439369.00    3765800.00        0.57719
```

```
         439469.00    3765800.00        0.59530
439569.00    3765800.00        0.60721
         439669.00    3765800.00        0.61549
439769.00    3765800.00        0.62173
         439869.00    3765800.00        0.62640
439969.00    3765800.00        0.62970
         440069.00    3765800.00        0.63144
440169.00    3765800.00        0.63147
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: FREEEXH ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
440269.00	3765800.00	0.62942	439269.00	3765900.00	0.20001
439369.00	3765900.00	0.22948	439469.00	3765900.00	0.25167
439569.00	3765900.00	0.26832	439669.00	3765900.00	0.28089
439769.00	3765900.00	0.29047	439869.00	3765900.00	0.29780
439969.00	3765900.00	0.30332	440069.00	3765900.00	0.30727
440169.00	3765900.00	0.30970	440269.00	3765900.00	0.31052
439649.00	3765310.00	0.10018	439679.00	3765310.00	0.10014
439709.00	3765310.00	0.10004	439739.00	3765310.00	0.09988
439769.00	3765310.00	0.09967	439799.00	3765310.00	0.09939
439829.00	3765310.00	0.09904	439859.00	3765310.00	0.09862

```
          439889.00    3765310.00        0.09813
439649.00    3765340.00        0.10866
          439679.00    3765340.00        0.10866
439709.00    3765340.00        0.10862
          439739.00    3765340.00        0.10851
439769.00    3765340.00        0.10835
          439799.00    3765340.00        0.10812
439829.00    3765340.00        0.10782
          439859.00    3765340.00        0.10744
439889.00    3765340.00        0.10699
          439649.00    3765370.00        0.11849
439679.00    3765370.00        0.11856
          439709.00    3765370.00        0.11858
439739.00    3765370.00        0.11854
          439769.00    3765370.00        0.11843
439799.00    3765370.00        0.11825
          439829.00    3765370.00        0.11801
439859.00    3765370.00        0.11769
          439889.00    3765370.00        0.11728
439649.00    3765400.00        0.13006
          439679.00    3765400.00        0.13021
439709.00    3765400.00        0.13030
          439739.00    3765400.00        0.13033
439769.00    3765400.00        0.13029
          439799.00    3765400.00        0.13018
439829.00    3765400.00        0.13000
          439859.00    3765400.00        0.12974
439889.00    3765400.00        0.12940
          439649.00    3765430.00        0.14390
439679.00    3765430.00        0.14414
          439709.00    3765430.00        0.14432
439739.00    3765430.00        0.14443
          439769.00    3765430.00        0.14447
439799.00    3765430.00        0.14444
          439829.00    3765430.00        0.14434
439859.00    3765430.00        0.14415
          439889.00    3765430.00        0.14388
439649.00    3765460.00        0.16078
          439679.00    3765460.00        0.16113
439709.00    3765460.00        0.16141
          439739.00    3765460.00        0.16163
439769.00    3765460.00        0.16176
          439799.00    3765460.00        0.16183
439829.00    3765460.00        0.16181
          439859.00    3765460.00        0.16171
439889.00    3765460.00        0.16152
          439649.00    3765490.00        0.18186
439679.00    3765490.00        0.18235
          439709.00    3765490.00        0.18276
439739.00    3765490.00        0.18309
          439769.00    3765490.00        0.18335
439799.00    3765490.00        0.18352
```

```
          439829.00    3765490.00        0.18361
439859.00    3765490.00        0.18361
          439889.00    3765490.00        0.18352
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONOFFEXH ***
INCLUDING SOURCE(S):
A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , A0000029 , A0000030 , A0000031 , A0000032 , A0000033 , A0000034 , A0000035 ,
A0000036 , A0000037 , A0000038 , A0000039 , A0000040 , A0000041 , A0000042 , A0000043 ,
A0000044 , A0000045 , A0000046 , A0000047 , A0000048 , A0000049 , A0000050 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439674.00	3765310.00	0.00319	439679.00	3765310.00	0.00321
439684.00	3765310.00	0.00322	439689.00	3765310.00	0.00324
439694.00	3765310.00	0.00325	439699.00	3765310.00	0.00327
439704.00	3765310.00	0.00328	439709.00	3765310.00	0.00330
439714.00	3765310.00	0.00331	439719.00	3765310.00	0.00333
439729.00	3765310.00	0.00336	439734.00	3765310.00	0.00337
439739.00	3765310.00	0.00339	439744.00	3765310.00	0.00340
439749.00	3765310.00	0.00342	439764.00	3765310.00	0.00346
439769.00	3765310.00	0.00348	439774.00	3765310.00	0.00349

```
          439779.00    3765310.00         0.00351
439784.00    3765310.00         0.00352
          439789.00    3765310.00         0.00353
439794.00    3765310.00         0.00355
          439799.00    3765310.00         0.00356
439804.00    3765310.00         0.00357
          439809.00    3765310.00         0.00358
439814.00    3765310.00         0.00360
          439819.00    3765310.00         0.00361
439824.00    3765310.00         0.00362
          439829.00    3765310.00         0.00363
439839.00    3765310.00         0.00365
          439844.00    3765310.00         0.00366
439849.00    3765310.00         0.00367
          439854.00    3765310.00         0.00368
439859.00    3765310.00         0.00369
          439864.00    3765310.00         0.00370
439869.00    3765310.00         0.00370
          439874.00    3765310.00         0.00371
439879.00    3765310.00         0.00372
          439884.00    3765310.00         0.00372
439674.00    3765315.00         0.00323
          439679.00    3765315.00         0.00324
439684.00    3765315.00         0.00326
          439689.00    3765315.00         0.00328
439694.00    3765315.00         0.00329
          439699.00    3765315.00         0.00331
439704.00    3765315.00         0.00332
          439709.00    3765315.00         0.00334
439714.00    3765315.00         0.00335
          439719.00    3765315.00         0.00337
439729.00    3765315.00         0.00340
          439734.00    3765315.00         0.00342
439739.00    3765315.00         0.00343
          439744.00    3765315.00         0.00345
439749.00    3765315.00         0.00346
          439764.00    3765315.00         0.00351
439769.00    3765315.00         0.00352
          439774.00    3765315.00         0.00354
439779.00    3765315.00         0.00355
          439784.00    3765315.00         0.00357
439789.00    3765315.00         0.00358
          439794.00    3765315.00         0.00360
439799.00    3765315.00         0.00361
          439804.00    3765315.00         0.00362
439809.00    3765315.00         0.00364
          439814.00    3765315.00         0.00365
439819.00    3765315.00         0.00366
          439824.00    3765315.00         0.00367
439829.00    3765315.00         0.00368
          439839.00    3765315.00         0.00371
439844.00    3765315.00         0.00372
```

```
         439849.00    3765315.00        0.00373
439854.00    3765315.00        0.00374
         439859.00    3765315.00        0.00375
439864.00    3765315.00        0.00375
         439869.00    3765315.00        0.00376
439874.00    3765315.00        0.00377
         439879.00    3765315.00        0.00378
439884.00    3765315.00        0.00378
         439674.00    3765320.00        0.00327
439679.00    3765320.00        0.00328
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONOFFEXH ***
INCLUDING SOURCE(S):
A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , A0000029 , A0000030 , A0000031 , A0000032 , A0000033 , A0000034 , A0000035 ,
A0000036 , A0000037 , A0000038 , A0000039 , A0000040 , A0000041 , A0000042 , A0000043 ,
A0000044 , A0000045 , A0000046 , A0000047 , A0000048 , A0000049 , A0000050 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439684.00	3765320.00	0.00330	439689.00	3765320.00	0.00331
439694.00	3765320.00	0.00333	439699.00	3765320.00	0.00335
439704.00	3765320.00	0.00336	439709.00	3765320.00	0.00338
439714.00	3765320.00	0.00339	439719.00	3765320.00	0.00341
439729.00	3765320.00	0.00344	439734.00	3765320.00	0.00346
439739.00	3765320.00	0.00348	439744.00	3765320.00	0.00349
439749.00	3765320.00	0.00351	439764.00	3765320.00	0.00355
439769.00	3765320.00	0.00357	439774.00	3765320.00	0.00359
439779.00	3765320.00	0.00360	439784.00	3765320.00	0.00362

```
          439789.00    3765320.00         0.00363
439794.00    3765320.00         0.00365
          439799.00    3765320.00         0.00366
439804.00    3765320.00         0.00367
          439809.00    3765320.00         0.00369
439814.00    3765320.00         0.00370
          439819.00    3765320.00         0.00371
439824.00    3765320.00         0.00373
          439829.00    3765320.00         0.00374
439839.00    3765320.00         0.00376
          439844.00    3765320.00         0.00377
439849.00    3765320.00         0.00378
          439854.00    3765320.00         0.00379
439859.00    3765320.00         0.00380
          439864.00    3765320.00         0.00381
439869.00    3765320.00         0.00382
          439874.00    3765320.00         0.00383
439879.00    3765320.00         0.00384
          439884.00    3765320.00         0.00384
439674.00    3765325.00         0.00330
          439679.00    3765325.00         0.00332
439684.00    3765325.00         0.00334
          439689.00    3765325.00         0.00335
439694.00    3765325.00         0.00337
          439699.00    3765325.00         0.00339
439704.00    3765325.00         0.00340
          439709.00    3765325.00         0.00342
439714.00    3765325.00         0.00344
          439719.00    3765325.00         0.00345
439729.00    3765325.00         0.00349
          439734.00    3765325.00         0.00350
439739.00    3765325.00         0.00352
          439744.00    3765325.00         0.00354
439749.00    3765325.00         0.00355
          439754.00    3765325.00         0.00357
439769.00    3765325.00         0.00362
          439774.00    3765325.00         0.00363
439779.00    3765325.00         0.00365
          439784.00    3765325.00         0.00367
439789.00    3765325.00         0.00368
          439794.00    3765325.00         0.00370
439799.00    3765325.00         0.00371
          439804.00    3765325.00         0.00373
439809.00    3765325.00         0.00374
          439814.00    3765325.00         0.00376
439819.00    3765325.00         0.00377
          439824.00    3765325.00         0.00378
439829.00    3765325.00         0.00380
          439839.00    3765325.00         0.00382
439844.00    3765325.00         0.00383
          439849.00    3765325.00         0.00384
439854.00    3765325.00         0.00385
```

```
         439859.00    3765325.00        0.00386
439864.00    3765325.00        0.00387
         439869.00    3765325.00        0.00388
439874.00    3765325.00        0.00389
         439879.00    3765325.00        0.00390
439884.00    3765325.00        0.00391
         439674.00    3765330.00        0.00334
439679.00    3765330.00        0.00336
         439684.00    3765330.00        0.00338
439689.00    3765330.00        0.00339
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONOFFEXH ***
INCLUDING SOURCE(S):
A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , A0000029 , A0000030 , A0000031 , A0000032 , A0000033 , A0000034 , A0000035 ,
A0000036 , A0000037 , A0000038 , A0000039 , A0000040 , A0000041 , A0000042 , A0000043 ,
A0000044 , A0000045 , A0000046 , A0000047 , A0000048 , A0000049 , A0000050 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439694.00	3765330.00	0.00341	439699.00	3765330.00	0.00343
439704.00	3765330.00	0.00344	439709.00	3765330.00	0.00346
439714.00	3765330.00	0.00348	439719.00	3765330.00	0.00350
439729.00	3765330.00	0.00353	439734.00	3765330.00	0.00355
439739.00	3765330.00	0.00356	439744.00	3765330.00	0.00358
439749.00	3765330.00	0.00360	439754.00	3765330.00	0.00362
439774.00	3765330.00	0.00368	439779.00	3765330.00	0.00370
439784.00	3765330.00	0.00372	439789.00	3765330.00	0.00373
439794.00	3765330.00	0.00375	439799.00	3765330.00	0.00377

```
          439804.00    3765330.00         0.00378
439809.00    3765330.00         0.00380
          439814.00    3765330.00         0.00381
439819.00    3765330.00         0.00383
          439824.00    3765330.00         0.00384
439829.00    3765330.00         0.00385
          439839.00    3765330.00         0.00388
439844.00    3765330.00         0.00389
          439849.00    3765330.00         0.00390
439854.00    3765330.00         0.00392
          439859.00    3765330.00         0.00393
439864.00    3765330.00         0.00394
          439869.00    3765330.00         0.00395
439874.00    3765330.00         0.00396
          439879.00    3765330.00         0.00396
439884.00    3765330.00         0.00397
          439674.00    3765335.00         0.00338
439679.00    3765335.00         0.00340
          439684.00    3765335.00         0.00342
439689.00    3765335.00         0.00343
          439694.00    3765335.00         0.00345
439699.00    3765335.00         0.00347
          439704.00    3765335.00         0.00349
439709.00    3765335.00         0.00350
          439714.00    3765335.00         0.00352
439719.00    3765335.00         0.00354
          439729.00    3765335.00         0.00357
439734.00    3765335.00         0.00359
          439739.00    3765335.00         0.00361
439744.00    3765335.00         0.00363
          439749.00    3765335.00         0.00365
439774.00    3765335.00         0.00373
          439779.00    3765335.00         0.00375
439784.00    3765335.00         0.00377
          439789.00    3765335.00         0.00379
439794.00    3765335.00         0.00380
          439839.00    3765335.00         0.00394
439844.00    3765335.00         0.00395
          439849.00    3765335.00         0.00397
439854.00    3765335.00         0.00398
          439859.00    3765335.00         0.00399
439864.00    3765335.00         0.00400
          439869.00    3765335.00         0.00401
439874.00    3765335.00         0.00402
          439879.00    3765335.00         0.00403
439884.00    3765335.00         0.00404
          439674.00    3765340.00         0.00342
439679.00    3765340.00         0.00344
          439684.00    3765340.00         0.00346
439689.00    3765340.00         0.00348
          439694.00    3765340.00         0.00349
439699.00    3765340.00         0.00351
```

```
          439704.00    3765340.00         0.00353
439709.00    3765340.00         0.00355
          439714.00    3765340.00         0.00356
439719.00    3765340.00         0.00358
          439729.00    3765340.00         0.00362
439734.00    3765340.00         0.00364
          439739.00    3765340.00         0.00366
439744.00    3765340.00         0.00368
          439749.00    3765340.00         0.00369
439774.00    3765340.00         0.00379
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONOFFEXH ***
INCLUDING SOURCE(S):
A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , A0000029 , A0000030 , A0000031 , A0000032 , A0000033 , A0000034 , A0000035 ,
A0000036 , A0000037 , A0000038 , A0000039 , A0000040 , A0000041 , A0000042 , A0000043 ,
A0000044 , A0000045 , A0000046 , A0000047 , A0000048 , A0000049 , A0000050 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439779.00	3765340.00	0.00380	439784.00	3765340.00	0.00382
439789.00	3765340.00	0.00384	439794.00	3765340.00	0.00386
439839.00	3765340.00	0.00400	439844.00	3765340.00	0.00402
439849.00	3765340.00	0.00403	439854.00	3765340.00	0.00404
439859.00	3765340.00	0.00405	439864.00	3765340.00	0.00407
439869.00	3765340.00	0.00408	439874.00	3765340.00	0.00409
439879.00	3765340.00	0.00410	439884.00	3765340.00	0.00411
439674.00	3765345.00	0.00346	439679.00	3765345.00	0.00348
439684.00	3765345.00	0.00350	439689.00	3765345.00	0.00352

```
          439694.00    3765345.00         0.00354
439699.00    3765345.00         0.00355
          439704.00    3765345.00         0.00357
439709.00    3765345.00         0.00359
          439714.00    3765345.00         0.00361
439719.00    3765345.00         0.00363
          439729.00    3765345.00         0.00367
439734.00    3765345.00         0.00368
          439739.00    3765345.00         0.00370
439744.00    3765345.00         0.00372
          439749.00    3765345.00         0.00374
439774.00    3765345.00         0.00384
          439779.00    3765345.00         0.00386
439784.00    3765345.00         0.00388
          439789.00    3765345.00         0.00389
439794.00    3765345.00         0.00391
          439839.00    3765345.00         0.00406
439844.00    3765345.00         0.00408
          439849.00    3765345.00         0.00409
439854.00    3765345.00         0.00411
          439859.00    3765345.00         0.00412
439864.00    3765345.00         0.00413
          439869.00    3765345.00         0.00415
439874.00    3765345.00         0.00416
          439879.00    3765345.00         0.00417
439884.00    3765345.00         0.00418
          439674.00    3765350.00         0.00351
439679.00    3765350.00         0.00352
          439684.00    3765350.00         0.00354
439689.00    3765350.00         0.00356
          439694.00    3765350.00         0.00358
439699.00    3765350.00         0.00360
          439704.00    3765350.00         0.00362
439709.00    3765350.00         0.00364
          439714.00    3765350.00         0.00365
439719.00    3765350.00         0.00367
          439729.00    3765350.00         0.00371
439734.00    3765350.00         0.00373
          439739.00    3765350.00         0.00375
439744.00    3765350.00         0.00377
          439749.00    3765350.00         0.00379
439774.00    3765350.00         0.00389
          439779.00    3765350.00         0.00391
439784.00    3765350.00         0.00393
          439789.00    3765350.00         0.00395
439794.00    3765350.00         0.00397
          439839.00    3765350.00         0.00413
439844.00    3765350.00         0.00414
          439849.00    3765350.00         0.00416
439854.00    3765350.00         0.00417
          439859.00    3765350.00         0.00419
439864.00    3765350.00         0.00420
```

```
         439869.00    3765350.00        0.00422
439874.00    3765350.00        0.00423
         439879.00    3765350.00        0.00424
439884.00    3765350.00        0.00425
         439674.00    3765355.00        0.00355
439679.00    3765355.00        0.00357
         439684.00    3765355.00        0.00359
439689.00    3765355.00        0.00360
         439694.00    3765355.00        0.00362
439699.00    3765355.00        0.00364
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONOFFEXH ***
INCLUDING SOURCE(S):
A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , A0000029 , A0000030 , A0000031 , A0000032 , A0000033 , A0000034 , A0000035 ,
A0000036 , A0000037 , A0000038 , A0000039 , A0000040 , A0000041 , A0000042 , A0000043 ,
A0000044 , A0000045 , A0000046 , A0000047 , A0000048 , A0000049 , A0000050 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439704.00	3765355.00	0.00366	439709.00	3765355.00	0.00368
439714.00	3765355.00	0.00370	439719.00	3765355.00	0.00372
439729.00	3765355.00	0.00376	439734.00	3765355.00	0.00378
439739.00	3765355.00	0.00380	439744.00	3765355.00	0.00382
439749.00	3765355.00	0.00384	439774.00	3765355.00	0.00394
439779.00	3765355.00	0.00397	439784.00	3765355.00	0.00399
439789.00	3765355.00	0.00401	439794.00	3765355.00	0.00403
439839.00	3765355.00	0.00419	439844.00	3765355.00	0.00421
439849.00	3765355.00	0.00423	439854.00	3765355.00	0.00424

```
          439859.00    3765355.00         0.00426
439864.00    3765355.00         0.00427
          439869.00    3765355.00         0.00429
439874.00    3765355.00         0.00430
          439879.00    3765355.00         0.00431
439884.00    3765355.00         0.00432
          439674.00    3765360.00         0.00359
439679.00    3765360.00         0.00361
          439684.00    3765360.00         0.00363
439689.00    3765360.00         0.00365
          439694.00    3765360.00         0.00367
439699.00    3765360.00         0.00369
          439704.00    3765360.00         0.00371
439709.00    3765360.00         0.00373
          439714.00    3765360.00         0.00375
439719.00    3765360.00         0.00377
          439729.00    3765360.00         0.00381
439734.00    3765360.00         0.00383
          439739.00    3765360.00         0.00385
439744.00    3765360.00         0.00387
          439749.00    3765360.00         0.00389
439774.00    3765360.00         0.00400
          439779.00    3765360.00         0.00402
439784.00    3765360.00         0.00404
          439789.00    3765360.00         0.00406
439794.00    3765360.00         0.00408
          439799.00    3765360.00         0.00411
439804.00    3765360.00         0.00413
          439809.00    3765360.00         0.00415
439814.00    3765360.00         0.00417
          439839.00    3765360.00         0.00426
439844.00    3765360.00         0.00428
          439849.00    3765360.00         0.00430
439854.00    3765360.00         0.00431
          439859.00    3765360.00         0.00433
439864.00    3765360.00         0.00434
          439869.00    3765360.00         0.00436
439874.00    3765360.00         0.00437
          439879.00    3765360.00         0.00439
439884.00    3765360.00         0.00440
          439674.00    3765365.00         0.00364
439679.00    3765365.00         0.00365
          439684.00    3765365.00         0.00367
439689.00    3765365.00         0.00369
          439694.00    3765365.00         0.00371
439699.00    3765365.00         0.00373
          439704.00    3765365.00         0.00375
439709.00    3765365.00         0.00377
          439714.00    3765365.00         0.00379
439719.00    3765365.00         0.00382
          439729.00    3765365.00         0.00386
439734.00    3765365.00         0.00388
```

```
         439739.00    3765365.00        0.00390
439744.00    3765365.00        0.00392
         439749.00    3765365.00        0.00394
439774.00    3765365.00        0.00406
         439779.00    3765365.00        0.00408
439784.00    3765365.00        0.00410
         439789.00    3765365.00        0.00412
439794.00    3765365.00        0.00414
         439799.00    3765365.00        0.00417
439804.00    3765365.00        0.00419
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONOFFEXH ***
INCLUDING SOURCE(S):
A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , A0000029 , A0000030 , A0000031 , A0000032 , A0000033 , A0000034 , A0000035 ,
A0000036 , A0000037 , A0000038 , A0000039 , A0000040 , A0000041 , A0000042 , A0000043 ,
A0000044 , A0000045 , A0000046 , A0000047 , A0000048 , A0000049 , A0000050 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439809.00	3765365.00	0.00421	439814.00	3765365.00	0.00423
439839.00	3765365.00	0.00433	439844.00	3765365.00	0.00435
439849.00	3765365.00	0.00437	439854.00	3765365.00	0.00439
439859.00	3765365.00	0.00440	439864.00	3765365.00	0.00442
439869.00	3765365.00	0.00443	439874.00	3765365.00	0.00445
439879.00	3765365.00	0.00446	439884.00	3765365.00	0.00448
439674.00	3765370.00	0.00368	439679.00	3765370.00	0.00370
439684.00	3765370.00	0.00372	439689.00	3765370.00	0.00374
439694.00	3765370.00	0.00376	439699.00	3765370.00	0.00378

```
          439704.00    3765370.00         0.00380
439709.00    3765370.00         0.00382
          439714.00    3765370.00         0.00384
439719.00    3765370.00         0.00386
          439729.00    3765370.00         0.00391
439734.00    3765370.00         0.00393
          439739.00    3765370.00         0.00395
439744.00    3765370.00         0.00397
          439749.00    3765370.00         0.00400
439774.00    3765370.00         0.00411
          439779.00    3765370.00         0.00414
439784.00    3765370.00         0.00416
          439789.00    3765370.00         0.00418
439794.00    3765370.00         0.00420
          439799.00    3765370.00         0.00423
439804.00    3765370.00         0.00425
          439809.00    3765370.00         0.00427
439814.00    3765370.00         0.00429
          439839.00    3765370.00         0.00440
439844.00    3765370.00         0.00442
          439849.00    3765370.00         0.00444
439854.00    3765370.00         0.00446
          439859.00    3765370.00         0.00448
439864.00    3765370.00         0.00449
          439869.00    3765370.00         0.00451
439874.00    3765370.00         0.00453
          439879.00    3765370.00         0.00454
439884.00    3765370.00         0.00456
          439674.00    3765375.00         0.00373
439679.00    3765375.00         0.00375
          439684.00    3765375.00         0.00377
439689.00    3765375.00         0.00379
          439694.00    3765375.00         0.00381
439699.00    3765375.00         0.00383
          439704.00    3765375.00         0.00385
439709.00    3765375.00         0.00387
          439714.00    3765375.00         0.00389
439719.00    3765375.00         0.00391
          439729.00    3765375.00         0.00396
439734.00    3765375.00         0.00398
          439739.00    3765375.00         0.00400
439744.00    3765375.00         0.00403
          439749.00    3765375.00         0.00405
439754.00    3765375.00         0.00407
          439774.00    3765375.00         0.00417
439779.00    3765375.00         0.00419
          439784.00    3765375.00         0.00422
439789.00    3765375.00         0.00424
          439794.00    3765375.00         0.00427
439799.00    3765375.00         0.00429
          439804.00    3765375.00         0.00431
439809.00    3765375.00         0.00434
```

```
         439814.00    3765375.00        0.00436
439839.00    3765375.00        0.00447
         439844.00    3765375.00        0.00449
439849.00    3765375.00        0.00451
         439854.00    3765375.00        0.00453
439859.00    3765375.00        0.00455
         439864.00    3765375.00        0.00457
439869.00    3765375.00        0.00459
         439874.00    3765375.00        0.00461
439879.00    3765375.00        0.00462
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONOFFEXH ***
INCLUDING SOURCE(S):
A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , A0000029 , A0000030 , A0000031 , A0000032 , A0000033 , A0000034 , A0000035 ,
A0000036 , A0000037 , A0000038 , A0000039 , A0000040 , A0000041 , A0000042 , A0000043 ,
A0000044 , A0000045 , A0000046 , A0000047 , A0000048 , A0000049 , A0000050 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439884.00	3765375.00	0.00464	439774.00	3765380.00	0.00423
439779.00	3765380.00	0.00425	439784.00	3765380.00	0.00428
439789.00	3765380.00	0.00430	439794.00	3765380.00	0.00433
439799.00	3765380.00	0.00435	439804.00	3765380.00	0.00438
439809.00	3765380.00	0.00440	439814.00	3765380.00	0.00443
439769.00	3765385.00	0.00426	439819.00	3765385.00	0.00452
439769.00	3765400.00	0.00445	439844.00	3765400.00	0.00488
439849.00	3765400.00	0.00491	439674.00	3765405.00	0.00402
439714.00	3765405.00	0.00421	439719.00	3765405.00	0.00423

```
          439734.00    3765405.00         0.00431
439749.00    3765405.00         0.00439
          439754.00    3765405.00         0.00442
439774.00    3765405.00         0.00454
          439779.00    3765405.00         0.00457
439784.00    3765405.00         0.00460
          439789.00    3765405.00         0.00463
439794.00    3765405.00         0.00466
          439799.00    3765405.00         0.00469
439804.00    3765405.00         0.00472
          439809.00    3765405.00         0.00476
439814.00    3765405.00         0.00479
          439819.00    3765405.00         0.00482
439824.00    3765405.00         0.00485
          439829.00    3765405.00         0.00488
439834.00    3765405.00         0.00491
          439839.00    3765405.00         0.00494
439844.00    3765405.00         0.00497
          439849.00    3765405.00         0.00500
439854.00    3765405.00         0.00503
          439859.00    3765405.00         0.00505
439674.00    3765410.00         0.00408
          439679.00    3765410.00         0.00410
439684.00    3765410.00         0.00412
          439689.00    3765410.00         0.00414
439694.00    3765410.00         0.00417
          439699.00    3765410.00         0.00419
439704.00    3765410.00         0.00421
          439709.00    3765410.00         0.00424
439714.00    3765410.00         0.00426
          439719.00    3765410.00         0.00429
439729.00    3765410.00         0.00434
          439734.00    3765410.00         0.00437
439739.00    3765410.00         0.00440
          439744.00    3765410.00         0.00443
439749.00    3765410.00         0.00446
          439774.00    3765410.00         0.00461
439779.00    3765410.00         0.00464
          439784.00    3765410.00         0.00467
439789.00    3765410.00         0.00470
          439794.00    3765410.00         0.00473
439799.00    3765410.00         0.00477
          439804.00    3765410.00         0.00480
439809.00    3765410.00         0.00483
          439814.00    3765410.00         0.00486
439819.00    3765410.00         0.00490
          439824.00    3765410.00         0.00493
439829.00    3765410.00         0.00496
          439834.00    3765410.00         0.00499
439839.00    3765410.00         0.00502
          439844.00    3765410.00         0.00505
439849.00    3765410.00         0.00509
```

```
         439854.00    3765410.00        0.00512
439859.00    3765410.00        0.00515
         439674.00    3765415.00        0.00413
439679.00    3765415.00        0.00415
         439684.00    3765415.00        0.00418
439689.00    3765415.00        0.00420
         439694.00    3765415.00        0.00422
439699.00    3765415.00        0.00425
         439704.00    3765415.00        0.00427
439709.00    3765415.00        0.00430
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONOFFEXH ***
INCLUDING SOURCE(S):
A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , A0000029 , A0000030 , A0000031 , A0000032 , A0000033 , A0000034 , A0000035 ,
A0000036 , A0000037 , A0000038 , A0000039 , A0000040 , A0000041 , A0000042 , A0000043 ,
A0000044 , A0000045 , A0000046 , A0000047 , A0000048 , A0000049 , A0000050 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439714.00	3765415.00	0.00432	439719.00	3765415.00	0.00435
439729.00	3765415.00	0.00440	439734.00	3765415.00	0.00443
439739.00	3765415.00	0.00446	439744.00	3765415.00	0.00449
439749.00	3765415.00	0.00452	439774.00	3765415.00	0.00467
439779.00	3765415.00	0.00471	439784.00	3765415.00	0.00474
439789.00	3765415.00	0.00477	439794.00	3765415.00	0.00481
439799.00	3765415.00	0.00484	439804.00	3765415.00	0.00487
439809.00	3765415.00	0.00491	439814.00	3765415.00	0.00494
439819.00	3765415.00	0.00498	439824.00	3765415.00	0.00501

```
          439829.00    3765415.00        0.00504
439834.00    3765415.00        0.00508
          439839.00    3765415.00        0.00511
439844.00    3765415.00        0.00514
          439849.00    3765415.00        0.00518
439854.00    3765415.00        0.00521
          439859.00    3765415.00        0.00524
439674.00    3765420.00        0.00419
          439679.00    3765420.00        0.00421
439684.00    3765420.00        0.00423
          439689.00    3765420.00        0.00426
439694.00    3765420.00        0.00428
          439699.00    3765420.00        0.00430
439704.00    3765420.00        0.00433
          439709.00    3765420.00        0.00435
439714.00    3765420.00        0.00438
          439719.00    3765420.00        0.00441
439729.00    3765420.00        0.00446
          439734.00    3765420.00        0.00449
439739.00    3765420.00        0.00452
          439744.00    3765420.00        0.00455
439749.00    3765420.00        0.00458
          439774.00    3765420.00        0.00474
439779.00    3765420.00        0.00478
          439784.00    3765420.00        0.00481
439789.00    3765420.00        0.00484
          439794.00    3765420.00        0.00488
439799.00    3765420.00        0.00491
          439804.00    3765420.00        0.00495
439809.00    3765420.00        0.00498
          439814.00    3765420.00        0.00502
439819.00    3765420.00        0.00506
          439824.00    3765420.00        0.00509
439829.00    3765420.00        0.00513
          439834.00    3765420.00        0.00516
439839.00    3765420.00        0.00520
          439844.00    3765420.00        0.00523
439849.00    3765420.00        0.00527
          439854.00    3765420.00        0.00530
439859.00    3765420.00        0.00533
          439674.00    3765425.00        0.00424
439679.00    3765425.00        0.00427
          439684.00    3765425.00        0.00429
439689.00    3765425.00        0.00431
          439694.00    3765425.00        0.00434
439699.00    3765425.00        0.00436
          439704.00    3765425.00        0.00439
439709.00    3765425.00        0.00441
          439714.00    3765425.00        0.00444
439719.00    3765425.00        0.00447
          439729.00    3765425.00        0.00453
439734.00    3765425.00        0.00455
```

```
         439739.00    3765425.00        0.00458
439744.00    3765425.00        0.00461
         439749.00    3765425.00        0.00465
439774.00    3765425.00        0.00481
         439779.00    3765425.00        0.00485
439784.00    3765425.00        0.00488
         439789.00    3765425.00        0.00492
439794.00    3765425.00        0.00495
         439799.00    3765425.00        0.00499
439804.00    3765425.00        0.00503
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONOFFEXH ***
INCLUDING SOURCE(S):
A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , A0000029 , A0000030 , A0000031 , A0000032 , A0000033 , A0000034 , A0000035 ,
A0000036 , A0000037 , A0000038 , A0000039 , A0000040 , A0000041 , A0000042 , A0000043 ,
A0000044 , A0000045 , A0000046 , A0000047 , A0000048 , A0000049 , A0000050 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439809.00	3765425.00	0.00506	439814.00	3765425.00	0.00510
439819.00	3765425.00	0.00514	439824.00	3765425.00	0.00518
439829.00	3765425.00	0.00521	439834.00	3765425.00	0.00525
439839.00	3765425.00	0.00529	439844.00	3765425.00	0.00533
439849.00	3765425.00	0.00536	439854.00	3765425.00	0.00540
439859.00	3765425.00	0.00543	439674.00	3765430.00	0.00430
439679.00	3765430.00	0.00433	439684.00	3765430.00	0.00435
439689.00	3765430.00	0.00437	439694.00	3765430.00	0.00440
439699.00	3765430.00	0.00442	439704.00	3765430.00	0.00445

```
         439709.00    3765430.00        0.00448
439714.00    3765430.00        0.00450
         439719.00    3765430.00        0.00453
439729.00    3765430.00        0.00459
         439734.00    3765430.00        0.00462
439739.00    3765430.00        0.00465
         439744.00    3765430.00        0.00468
439749.00    3765430.00        0.00471
         439774.00    3765430.00        0.00488
439779.00    3765430.00        0.00492
         439784.00    3765430.00        0.00496
439789.00    3765430.00        0.00499
         439794.00    3765430.00        0.00503
439799.00    3765430.00        0.00507
         439804.00    3765430.00        0.00511
439809.00    3765430.00        0.00515
         439814.00    3765430.00        0.00519
439819.00    3765430.00        0.00522
         439824.00    3765430.00        0.00526
439829.00    3765430.00        0.00530
         439834.00    3765430.00        0.00534
439839.00    3765430.00        0.00538
         439844.00    3765430.00        0.00542
439849.00    3765430.00        0.00546
         439854.00    3765430.00        0.00550
439859.00    3765430.00        0.00553
         439674.00    3765435.00        0.00436
439679.00    3765435.00        0.00439
         439684.00    3765435.00        0.00441
439689.00    3765435.00        0.00443
         439694.00    3765435.00        0.00446
439699.00    3765435.00        0.00449
         439704.00    3765435.00        0.00451
439709.00    3765435.00        0.00454
         439714.00    3765435.00        0.00457
439719.00    3765435.00        0.00459
         439729.00    3765435.00        0.00465
439734.00    3765435.00        0.00468
         439739.00    3765435.00        0.00471
439744.00    3765435.00        0.00475
         439749.00    3765435.00        0.00478
439774.00    3765435.00        0.00496
         439779.00    3765435.00        0.00499
439784.00    3765435.00        0.00503
         439789.00    3765435.00        0.00507
439794.00    3765435.00        0.00511
         439799.00    3765435.00        0.00515
439804.00    3765435.00        0.00519
         439809.00    3765435.00        0.00523
439814.00    3765435.00        0.00527
         439819.00    3765435.00        0.00531
439824.00    3765435.00        0.00535
```

```
         439829.00    3765435.00        0.00539
439834.00    3765435.00        0.00544
         439839.00    3765435.00        0.00548
439844.00    3765435.00        0.00552
         439849.00    3765435.00        0.00556
439854.00    3765435.00        0.00560
         439859.00    3765435.00        0.00564
439674.00    3765440.00        0.00443
         439679.00    3765440.00        0.00445
439684.00    3765440.00        0.00447
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONOFFEXH ***
INCLUDING SOURCE(S):
A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , A0000029 , A0000030 , A0000031 , A0000032 , A0000033 , A0000034 , A0000035 ,
A0000036 , A0000037 , A0000038 , A0000039 , A0000040 , A0000041 , A0000042 , A0000043 ,
A0000044 , A0000045 , A0000046 , A0000047 , A0000048 , A0000049 , A0000050 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439689.00	3765440.00	0.00450	439694.00	3765440.00	0.00452
439699.00	3765440.00	0.00455	439704.00	3765440.00	0.00458
439709.00	3765440.00	0.00460	439714.00	3765440.00	0.00463
439719.00	3765440.00	0.00466	439729.00	3765440.00	0.00472
439734.00	3765440.00	0.00475	439739.00	3765440.00	0.00478
439744.00	3765440.00	0.00482	439749.00	3765440.00	0.00485
439774.00	3765440.00	0.00503	439779.00	3765440.00	0.00507
439784.00	3765440.00	0.00511	439789.00	3765440.00	0.00515
439794.00	3765440.00	0.00519	439799.00	3765440.00	0.00523

```
          439804.00    3765440.00         0.00527
439809.00    3765440.00         0.00531
          439814.00    3765440.00         0.00536
439819.00    3765440.00         0.00540
          439824.00    3765440.00         0.00544
439829.00    3765440.00         0.00549
          439834.00    3765440.00         0.00553
439839.00    3765440.00         0.00557
          439844.00    3765440.00         0.00562
439849.00    3765440.00         0.00566
          439854.00    3765440.00         0.00570
439859.00    3765440.00         0.00575
          439674.00    3765445.00         0.00449
439679.00    3765445.00         0.00451
          439684.00    3765445.00         0.00454
439689.00    3765445.00         0.00456
          439694.00    3765445.00         0.00459
439699.00    3765445.00         0.00461
          439704.00    3765445.00         0.00464
439709.00    3765445.00         0.00467
          439714.00    3765445.00         0.00470
439719.00    3765445.00         0.00473
          439729.00    3765445.00         0.00479
439734.00    3765445.00         0.00482
          439739.00    3765445.00         0.00485
439744.00    3765445.00         0.00489
          439749.00    3765445.00         0.00492
439774.00    3765445.00         0.00511
          439779.00    3765445.00         0.00515
439784.00    3765445.00         0.00519
          439789.00    3765445.00         0.00523
439794.00    3765445.00         0.00527
          439799.00    3765445.00         0.00531
439804.00    3765445.00         0.00536
          439809.00    3765445.00         0.00540
439814.00    3765445.00         0.00545
          439819.00    3765445.00         0.00549
439824.00    3765445.00         0.00554
          439829.00    3765445.00         0.00558
439834.00    3765445.00         0.00563
          439839.00    3765445.00         0.00567
439844.00    3765445.00         0.00572
          439849.00    3765445.00         0.00577
439854.00    3765445.00         0.00581
          439859.00    3765445.00         0.00586
439674.00    3765450.00         0.00456
          439679.00    3765450.00         0.00458
439684.00    3765450.00         0.00460
          439689.00    3765450.00         0.00463
439694.00    3765450.00         0.00465
          439699.00    3765450.00         0.00468
439704.00    3765450.00         0.00471
```

```
         439709.00    3765450.00        0.00474
439714.00    3765450.00        0.00476
         439719.00    3765450.00        0.00479
439729.00    3765450.00        0.00486
         439734.00    3765450.00        0.00489
439739.00    3765450.00        0.00492
         439744.00    3765450.00        0.00496
439749.00    3765450.00        0.00499
         439774.00    3765450.00        0.00518
439844.00    3765450.00        0.00582
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONOFFEXH ***
INCLUDING SOURCE(S):
A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , A0000029 , A0000030 , A0000031 , A0000032 , A0000033 , A0000034 , A0000035 ,
A0000036 , A0000037 , A0000038 , A0000039 , A0000040 , A0000041 , A0000042 , A0000043 ,
A0000044 , A0000045 , A0000046 , A0000047 , A0000048 , A0000049 , A0000050 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439849.00	3765450.00	0.00587	439854.00	3765450.00	0.00592
439859.00	3765450.00	0.00597	439674.00	3765455.00	0.00462
439679.00	3765455.00	0.00465	439684.00	3765455.00	0.00467
439689.00	3765455.00	0.00470	439694.00	3765455.00	0.00472
439699.00	3765455.00	0.00475	439704.00	3765455.00	0.00478
439709.00	3765455.00	0.00481	439714.00	3765455.00	0.00483
439719.00	3765455.00	0.00486	439729.00	3765455.00	0.00493
439734.00	3765455.00	0.00496	439739.00	3765455.00	0.00499
439744.00	3765455.00	0.00503	439749.00	3765455.00	0.00507

```
          439844.00    3765455.00         0.00593
439849.00    3765455.00         0.00598
          439854.00    3765455.00         0.00603
439859.00    3765455.00         0.00608
          439674.00    3765460.00         0.00469
439679.00    3765460.00         0.00472
          439684.00    3765460.00         0.00474
439689.00    3765460.00         0.00477
          439694.00    3765460.00         0.00479
439699.00    3765460.00         0.00482
          439704.00    3765460.00         0.00485
439709.00    3765460.00         0.00488
          439714.00    3765460.00         0.00491
439719.00    3765460.00         0.00494
          439729.00    3765460.00         0.00500
439734.00    3765460.00         0.00503
          439739.00    3765460.00         0.00507
439744.00    3765460.00         0.00510
          439749.00    3765460.00         0.00514
439789.00    3765460.00         0.00548
          439794.00    3765460.00         0.00552
439799.00    3765460.00         0.00557
          439804.00    3765460.00         0.00562
439809.00    3765460.00         0.00567
          439814.00    3765460.00         0.00572
439819.00    3765460.00         0.00578
          439824.00    3765460.00         0.00583
439829.00    3765460.00         0.00588
          439844.00    3765460.00         0.00604
439849.00    3765460.00         0.00610
          439854.00    3765460.00         0.00615
439859.00    3765460.00         0.00620
          439674.00    3765465.00         0.00477
439679.00    3765465.00         0.00479
          439684.00    3765465.00         0.00481
439689.00    3765465.00         0.00484
          439694.00    3765465.00         0.00487
439699.00    3765465.00         0.00489
          439704.00    3765465.00         0.00492
439709.00    3765465.00         0.00495
          439714.00    3765465.00         0.00498
439719.00    3765465.00         0.00501
          439729.00    3765465.00         0.00508
439734.00    3765465.00         0.00511
          439739.00    3765465.00         0.00515
439744.00    3765465.00         0.00518
          439749.00    3765465.00         0.00522
439789.00    3765465.00         0.00556
          439794.00    3765465.00         0.00561
439799.00    3765465.00         0.00566
          439804.00    3765465.00         0.00571
439809.00    3765465.00         0.00577
```

```
         439814.00    3765465.00        0.00582
439819.00    3765465.00        0.00587
         439824.00    3765465.00        0.00593
439829.00    3765465.00        0.00599
         439844.00    3765465.00        0.00616
439849.00    3765465.00        0.00621
         439854.00    3765465.00        0.00627
439859.00    3765465.00        0.00633
         439674.00    3765470.00        0.00484
439679.00    3765470.00        0.00487
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONOFFEXH ***
INCLUDING SOURCE(S):
A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , A0000029 , A0000030 , A0000031 , A0000032 , A0000033 , A0000034 , A0000035 ,
A0000036 , A0000037 , A0000038 , A0000039 , A0000040 , A0000041 , A0000042 , A0000043 ,
A0000044 , A0000045 , A0000046 , A0000047 , A0000048 , A0000049 , A0000050 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439684.00	3765470.00	0.00489	439689.00	3765470.00	0.00492
439694.00	3765470.00	0.00494	439699.00	3765470.00	0.00497
439704.00	3765470.00	0.00500	439709.00	3765470.00	0.00503
439714.00	3765470.00	0.00506	439719.00	3765470.00	0.00509
439729.00	3765470.00	0.00515	439734.00	3765470.00	0.00519
439739.00	3765470.00	0.00522	439744.00	3765470.00	0.00526
439749.00	3765470.00	0.00530	439789.00	3765470.00	0.00565
439794.00	3765470.00	0.00570	439799.00	3765470.00	0.00576
439804.00	3765470.00	0.00581	439809.00	3765470.00	0.00586

```
          439814.00    3765470.00         0.00592
439819.00    3765470.00         0.00598
          439824.00    3765470.00         0.00603
439829.00    3765470.00         0.00609
          439844.00    3765470.00         0.00627
439849.00    3765470.00         0.00633
          439854.00    3765470.00         0.00639
439859.00    3765470.00         0.00645
          439674.00    3765475.00         0.00492
439679.00    3765475.00         0.00494
          439684.00    3765475.00         0.00497
439689.00    3765475.00         0.00499
          439694.00    3765475.00         0.00502
439699.00    3765475.00         0.00505
          439704.00    3765475.00         0.00508
439709.00    3765475.00         0.00511
          439714.00    3765475.00         0.00514
439719.00    3765475.00         0.00517
          439729.00    3765475.00         0.00523
439734.00    3765475.00         0.00527
          439739.00    3765475.00         0.00530
439744.00    3765475.00         0.00534
          439749.00    3765475.00         0.00538
439754.00    3765475.00         0.00542
          439789.00    3765475.00         0.00574
439794.00    3765475.00         0.00580
          439799.00    3765475.00         0.00585
439804.00    3765475.00         0.00591
          439809.00    3765475.00         0.00596
439814.00    3765475.00         0.00602
          439819.00    3765475.00         0.00608
439824.00    3765475.00         0.00614
          439829.00    3765475.00         0.00620
439269.00    3764900.00         0.00118
          439369.00    3764900.00         0.00126
439469.00    3764900.00         0.00132
          439569.00    3764900.00         0.00136
439669.00    3764900.00         0.00138
          439769.00    3764900.00         0.00136
439869.00    3764900.00         0.00131
          439969.00    3764900.00         0.00123
440069.00    3764900.00         0.00113
          440169.00    3764900.00         0.00102
440269.00    3764900.00         0.00091
          439269.00    3765000.00         0.00134
439369.00    3765000.00         0.00145
          439469.00    3765000.00         0.00154
439569.00    3765000.00         0.00162
          439669.00    3765000.00         0.00166
439769.00    3765000.00         0.00167
          439869.00    3765000.00         0.00163
439969.00    3765000.00         0.00153
```

```
         440069.00    3765000.00        0.00141
440169.00    3765000.00        0.00126
         440269.00    3765000.00        0.00111
439269.00    3765100.00        0.00152
         439369.00    3765100.00        0.00167
439469.00    3765100.00        0.00180
         439569.00    3765100.00        0.00193
439669.00    3765100.00        0.00203
         439769.00    3765100.00        0.00208
439869.00    3765100.00        0.00206
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONOFFEXH ***
INCLUDING SOURCE(S):
A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , A0000029 , A0000030 , A0000031 , A0000032 , A0000033 , A0000034 , A0000035 ,
A0000036 , A0000037 , A0000038 , A0000039 , A0000040 , A0000041 , A0000042 , A0000043 ,
A0000044 , A0000045 , A0000046 , A0000047 , A0000048 , A0000049 , A0000050 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439969.00	3765100.00	0.00197	440069.00	3765100.00	0.00181
440169.00	3765100.00	0.00160	440269.00	3765100.00	0.00139
439269.00	3765200.00	0.00173	439369.00	3765200.00	0.00194
439469.00	3765200.00	0.00214	439569.00	3765200.00	0.00232
439669.00	3765200.00	0.00249	439769.00	3765200.00	0.00263
439869.00	3765200.00	0.00268	439969.00	3765200.00	0.00260
440069.00	3765200.00	0.00241	440169.00	3765200.00	0.00214
440269.00	3765200.00	0.00182	439269.00	3765300.00	0.00200
439369.00	3765300.00	0.00231	439469.00	3765300.00	0.00258

```
          439569.00    3765300.00         0.00283
439669.00    3765300.00         0.00311
          439769.00    3765300.00         0.00339
439869.00    3765300.00         0.00359
          439969.00    3765300.00         0.00360
440069.00    3765300.00         0.00340
          440169.00    3765300.00         0.00302
440269.00    3765300.00         0.00253
          439269.00    3765400.00         0.00233
439369.00    3765400.00         0.00282
          439469.00    3765400.00         0.00324
439569.00    3765400.00         0.00358
          439669.00    3765400.00         0.00395
439769.00    3765400.00         0.00445
          439869.00    3765400.00         0.00502
439969.00    3765400.00         0.00530
          440069.00    3765400.00         0.00515
440169.00    3765400.00         0.00464
          440269.00    3765400.00         0.00386
439269.00    3765500.00         0.00270
          439369.00    3765500.00         0.00362
439469.00    3765500.00         0.00441
          439569.00    3765500.00         0.00492
439669.00    3765500.00         0.00533
          439769.00    3765500.00         0.00602
439869.00    3765500.00         0.00747
          439969.00    3765500.00         0.00881
440069.00    3765500.00         0.00887
          440169.00    3765500.00         0.00817
440269.00    3765500.00         0.00691
          439269.00    3765600.00         0.00296
439369.00    3765600.00         0.00491
          439469.00    3765600.00         0.00709
439569.00    3765600.00         0.00822
          439669.00    3765600.00         0.00875
439769.00    3765600.00         0.00948
          439869.00    3765600.00         0.01214
439969.00    3765600.00         0.02207
          440069.00    3765600.00         0.02232
440169.00    3765600.00         0.02025
          440269.00    3765600.00         0.01743
439269.00    3765700.00         0.00274
          439369.00    3765700.00         0.00650
439469.00    3765700.00         0.02663
          439569.00    3765700.00         0.03295
439669.00    3765700.00         0.02769
          439769.00    3765700.00         0.02282
439869.00    3765700.00         0.01792
          439969.00    3765700.00         0.02173
440069.00    3765700.00         0.04260
          440169.00    3765700.00         0.06589
440269.00    3765700.00         0.10010
```

```
         439269.00    3765800.00        0.00200
439369.00    3765800.00        0.00359
         439469.00    3765800.00        0.01061
439569.00    3765800.00        0.02209
         439669.00    3765800.00        0.03178
439769.00    3765800.00        0.04688
         439869.00    3765800.00        0.07144
439969.00    3765800.00        0.03377
         440069.00    3765800.00        0.02516
440169.00    3765800.00        0.02279
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONOFFEXH ***
INCLUDING SOURCE(S):
A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , A0000029 , A0000030 , A0000031 , A0000032 , A0000033 , A0000034 , A0000035 ,
A0000036 , A0000037 , A0000038 , A0000039 , A0000040 , A0000041 , A0000042 , A0000043 ,
A0000044 , A0000045 , A0000046 , A0000047 , A0000048 , A0000049 , A0000050 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
440269.00	3765800.00	0.02315	439269.00	3765900.00	0.00137
439369.00	3765900.00	0.00190	439469.00	3765900.00	0.00287
439569.00	3765900.00	0.00458	439669.00	3765900.00	0.00681
439769.00	3765900.00	0.00906	439869.00	3765900.00	0.01100
439969.00	3765900.00	0.01163	440069.00	3765900.00	0.01070
440169.00	3765900.00	0.00994	440269.00	3765900.00	0.00973
439649.00	3765310.00	0.00312	439679.00	3765310.00	0.00321
439709.00	3765310.00	0.00330	439739.00	3765310.00	0.00339
439769.00	3765310.00	0.00348	439799.00	3765310.00	0.00356

```
          439829.00    3765310.00        0.00363
439859.00    3765310.00        0.00369
          439889.00    3765310.00        0.00373
439649.00    3765340.00        0.00334
          439679.00    3765340.00        0.00344
439709.00    3765340.00        0.00355
          439739.00    3765340.00        0.00366
439769.00    3765340.00        0.00377
          439799.00    3765340.00        0.00387
439829.00    3765340.00        0.00397
          439859.00    3765340.00        0.00405
439889.00    3765340.00        0.00412
          439649.00    3765370.00        0.00359
439679.00    3765370.00        0.00370
          439709.00    3765370.00        0.00382
439739.00    3765370.00        0.00395
          439769.00    3765370.00        0.00409
439799.00    3765370.00        0.00423
          439829.00    3765370.00        0.00436
439859.00    3765370.00        0.00448
          439889.00    3765370.00        0.00457
439649.00    3765400.00        0.00387
          439679.00    3765400.00        0.00399
439709.00    3765400.00        0.00413
          439739.00    3765400.00        0.00428
439769.00    3765400.00        0.00445
          439799.00    3765400.00        0.00462
439829.00    3765400.00        0.00480
          439859.00    3765400.00        0.00497
439889.00    3765400.00        0.00511
          439649.00    3765430.00        0.00419
439679.00    3765430.00        0.00433
          439709.00    3765430.00        0.00448
439739.00    3765430.00        0.00465
          439769.00    3765430.00        0.00485
439799.00    3765430.00        0.00507
          439829.00    3765430.00        0.00530
439859.00    3765430.00        0.00553
          439889.00    3765430.00        0.00574
439649.00    3765460.00        0.00458
          439679.00    3765460.00        0.00472
439709.00    3765460.00        0.00488
          439739.00    3765460.00        0.00507
439769.00    3765460.00        0.00530
          439799.00    3765460.00        0.00557
439829.00    3765460.00        0.00588
          439859.00    3765460.00        0.00620
439889.00    3765460.00        0.00651
          439649.00    3765490.00        0.00506
439679.00    3765490.00        0.00519
          439709.00    3765490.00        0.00536
439739.00    3765490.00        0.00556
```

```
         439769.00    3765490.00        0.00582
439799.00    3765490.00        0.00615
         439829.00    3765490.00        0.00655
439859.00    3765490.00        0.00700
         439889.00    3765490.00        0.00746
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439674.00	3765310.00	0.10334	439679.00	3765310.00	0.10335
439684.00	3765310.00	0.10335	439689.00	3765310.00	0.10335
439694.00	3765310.00	0.10335	439699.00	3765310.00	0.10335
439704.00	3765310.00	0.10334	439709.00	3765310.00	0.10334
439714.00	3765310.00	0.10333	439719.00	3765310.00	0.10332
439729.00	3765310.00	0.10330	439734.00	3765310.00	0.10329
439739.00	3765310.00	0.10327	439744.00	3765310.00	0.10325
439749.00	3765310.00	0.10324	439764.00	3765310.00	0.10317
439769.00	3765310.00	0.10314	439774.00	3765310.00	0.10312

```
         439779.00    3765310.00        0.10309
439784.00    3765310.00        0.10305
         439789.00    3765310.00        0.10302
439794.00    3765310.00        0.10298
         439799.00    3765310.00        0.10295
439804.00    3765310.00        0.10291
         439809.00    3765310.00        0.10286
439814.00    3765310.00        0.10282
         439819.00    3765310.00        0.10277
439824.00    3765310.00        0.10272
         439829.00    3765310.00        0.10267
439839.00    3765310.00        0.10256
         439844.00    3765310.00        0.10250
439849.00    3765310.00        0.10244
         439854.00    3765310.00        0.10238
439859.00    3765310.00        0.10231
         439864.00    3765310.00        0.10224
439869.00    3765310.00        0.10217
         439874.00    3765310.00        0.10209
439879.00    3765310.00        0.10202
         439884.00    3765310.00        0.10194
439674.00    3765315.00        0.10472
         439679.00    3765315.00        0.10472
439684.00    3765315.00        0.10473
         439689.00    3765315.00        0.10473
439694.00    3765315.00        0.10473
         439699.00    3765315.00        0.10473
439704.00    3765315.00        0.10473
         439709.00    3765315.00        0.10472
439714.00    3765315.00        0.10472
         439719.00    3765315.00        0.10471
439729.00    3765315.00        0.10469
         439734.00    3765315.00        0.10468
439739.00    3765315.00        0.10467
         439744.00    3765315.00        0.10465
439749.00    3765315.00        0.10464
         439764.00    3765315.00        0.10458
439769.00    3765315.00        0.10455
         439774.00    3765315.00        0.10453
439779.00    3765315.00        0.10450
         439784.00    3765315.00        0.10447
439789.00    3765315.00        0.10444
         439794.00    3765315.00        0.10440
439799.00    3765315.00        0.10437
         439804.00    3765315.00        0.10433
439809.00    3765315.00        0.10429
         439814.00    3765315.00        0.10424
439819.00    3765315.00        0.10420
         439824.00    3765315.00        0.10415
439829.00    3765315.00        0.10410
         439839.00    3765315.00        0.10400
439844.00    3765315.00        0.10394
```

```
         439849.00    3765315.00        0.10388
439854.00    3765315.00        0.10382
         439859.00    3765315.00        0.10375
439864.00    3765315.00        0.10368
         439869.00    3765315.00        0.10361
439874.00    3765315.00        0.10354
         439879.00    3765315.00        0.10346
439884.00    3765315.00        0.10339
         439674.00    3765320.00        0.10612
439679.00    3765320.00        0.10613
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439684.00	3765320.00	0.10614	439689.00	3765320.00	0.10614
439694.00	3765320.00	0.10614	439699.00	3765320.00	0.10614
439704.00	3765320.00	0.10614	439709.00	3765320.00	0.10614
439714.00	3765320.00	0.10614	439719.00	3765320.00	0.10613
439729.00	3765320.00	0.10612	439734.00	3765320.00	0.10611
439739.00	3765320.00	0.10610	439744.00	3765320.00	0.10609
439749.00	3765320.00	0.10607	439764.00	3765320.00	0.10602
439769.00	3765320.00	0.10599	439774.00	3765320.00	0.10597
439779.00	3765320.00	0.10594	439784.00	3765320.00	0.10592

```
         439789.00    3765320.00        0.10589
439794.00    3765320.00        0.10585
         439799.00    3765320.00        0.10582
439804.00    3765320.00        0.10578
         439809.00    3765320.00        0.10574
439814.00    3765320.00        0.10570
         439819.00    3765320.00        0.10566
439824.00    3765320.00        0.10561
         439829.00    3765320.00        0.10557
439839.00    3765320.00        0.10546
         439844.00    3765320.00        0.10541
439849.00    3765320.00        0.10535
         439854.00    3765320.00        0.10529
439859.00    3765320.00        0.10523
         439864.00    3765320.00        0.10516
439869.00    3765320.00        0.10509
         439874.00    3765320.00        0.10502
439879.00    3765320.00        0.10495
         439884.00    3765320.00        0.10487
439674.00    3765325.00        0.10756
         439679.00    3765325.00        0.10757
439684.00    3765325.00        0.10758
         439689.00    3765325.00        0.10758
439694.00    3765325.00        0.10759
         439699.00    3765325.00        0.10759
439704.00    3765325.00        0.10759
         439709.00    3765325.00        0.10760
439714.00    3765325.00        0.10759
         439719.00    3765325.00        0.10759
439729.00    3765325.00        0.10758
         439734.00    3765325.00        0.10757
439739.00    3765325.00        0.10756
         439744.00    3765325.00        0.10755
439749.00    3765325.00        0.10754
         439754.00    3765325.00        0.10752
439769.00    3765325.00        0.10747
         439774.00    3765325.00        0.10745
439779.00    3765325.00        0.10742
         439784.00    3765325.00        0.10740
439789.00    3765325.00        0.10737
         439794.00    3765325.00        0.10734
439799.00    3765325.00        0.10731
         439804.00    3765325.00        0.10727
439809.00    3765325.00        0.10724
         439814.00    3765325.00        0.10720
439819.00    3765325.00        0.10716
         439824.00    3765325.00        0.10711
439829.00    3765325.00        0.10707
         439839.00    3765325.00        0.10697
439844.00    3765325.00        0.10691
         439849.00    3765325.00        0.10686
439854.00    3765325.00        0.10680
```

```
         439859.00    3765325.00        0.10674
439864.00    3765325.00        0.10667
         439869.00    3765325.00        0.10661
439874.00    3765325.00        0.10654
         439879.00    3765325.00        0.10647
439884.00    3765325.00        0.10639
         439674.00    3765330.00        0.10903
439679.00    3765330.00        0.10905
         439684.00    3765330.00        0.10906
439689.00    3765330.00        0.10906
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439694.00	3765330.00	0.10907	439699.00	3765330.00	0.10908
439704.00	3765330.00	0.10908	439709.00	3765330.00	0.10908
439714.00	3765330.00	0.10908	439719.00	3765330.00	0.10908
439729.00	3765330.00	0.10908	439734.00	3765330.00	0.10907
439739.00	3765330.00	0.10906	439744.00	3765330.00	0.10905
439749.00	3765330.00	0.10904	439754.00	3765330.00	0.10903
439774.00	3765330.00	0.10896	439779.00	3765330.00	0.10894
439784.00	3765330.00	0.10891	439789.00	3765330.00	0.10889
439794.00	3765330.00	0.10886	439799.00	3765330.00	0.10883

```
          439804.00    3765330.00        0.10880
439809.00    3765330.00        0.10876
          439814.00    3765330.00        0.10873
439819.00    3765330.00        0.10869
          439824.00    3765330.00        0.10865
439829.00    3765330.00        0.10860
          439839.00    3765330.00        0.10851
439844.00    3765330.00        0.10846
          439849.00    3765330.00        0.10840
439854.00    3765330.00        0.10835
          439859.00    3765330.00        0.10829
439864.00    3765330.00        0.10822
          439869.00    3765330.00        0.10816
439874.00    3765330.00        0.10809
          439879.00    3765330.00        0.10802
439884.00    3765330.00        0.10795
          439674.00    3765335.00        0.11054
439679.00    3765335.00        0.11056
          439684.00    3765335.00        0.11057
439689.00    3765335.00        0.11058
          439694.00    3765335.00        0.11059
439699.00    3765335.00        0.11060
          439704.00    3765335.00        0.11060
439709.00    3765335.00        0.11061
          439714.00    3765335.00        0.11061
439719.00    3765335.00        0.11061
          439729.00    3765335.00        0.11061
439734.00    3765335.00        0.11060
          439739.00    3765335.00        0.11060
439744.00    3765335.00        0.11059
          439749.00    3765335.00        0.11058
439774.00    3765335.00        0.11051
          439779.00    3765335.00        0.11049
439784.00    3765335.00        0.11047
          439789.00    3765335.00        0.11044
439794.00    3765335.00        0.11042
          439839.00    3765335.00        0.11008
439844.00    3765335.00        0.11003
          439849.00    3765335.00        0.10998
439854.00    3765335.00        0.10993
          439859.00    3765335.00        0.10987
439864.00    3765335.00        0.10981
          439869.00    3765335.00        0.10975
439874.00    3765335.00        0.10968
          439879.00    3765335.00        0.10961
439884.00    3765335.00        0.10954
          439674.00    3765340.00        0.11209
439679.00    3765340.00        0.11211
          439684.00    3765340.00        0.11212
439689.00    3765340.00        0.11213
          439694.00    3765340.00        0.11214
439699.00    3765340.00        0.11215
```

```
         439704.00    3765340.00        0.11216
439709.00    3765340.00        0.11217
         439714.00    3765340.00        0.11217
439719.00    3765340.00        0.11217
         439729.00    3765340.00        0.11218
439734.00    3765340.00        0.11217
         439739.00    3765340.00        0.11217
439744.00    3765340.00        0.11217
         439749.00    3765340.00        0.11216
439774.00    3765340.00        0.11210
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439779.00	3765340.00	0.11208	439784.00	3765340.00	0.11206
439789.00	3765340.00	0.11204	439794.00	3765340.00	0.11202
439839.00	3765340.00	0.11170	439844.00	3765340.00	0.11165
439849.00	3765340.00	0.11160	439854.00	3765340.00	0.11155
439859.00	3765340.00	0.11150	439864.00	3765340.00	0.11144
439869.00	3765340.00	0.11138	439874.00	3765340.00	0.11131
439879.00	3765340.00	0.11125	439884.00	3765340.00	0.11118
439674.00	3765345.00	0.11368	439679.00	3765345.00	0.11369
439684.00	3765345.00	0.11371	439689.00	3765345.00	0.11372

```
          439694.00    3765345.00        0.11374
439699.00    3765345.00        0.11375
          439704.00    3765345.00        0.11376
439709.00    3765345.00        0.11377
          439714.00    3765345.00        0.11377
439719.00    3765345.00        0.11378
          439729.00    3765345.00        0.11378
439734.00    3765345.00        0.11378
          439739.00    3765345.00        0.11378
439744.00    3765345.00        0.11378
          439749.00    3765345.00        0.11378
439774.00    3765345.00        0.11373
          439779.00    3765345.00        0.11371
439784.00    3765345.00        0.11369
          439789.00    3765345.00        0.11367
439794.00    3765345.00        0.11365
          439839.00    3765345.00        0.11336
439844.00    3765345.00        0.11331
          439849.00    3765345.00        0.11327
439854.00    3765345.00        0.11322
          439859.00    3765345.00        0.11316
439864.00    3765345.00        0.11311
          439869.00    3765345.00        0.11305
439874.00    3765345.00        0.11299
          439879.00    3765345.00        0.11292
439884.00    3765345.00        0.11285
          439674.00    3765350.00        0.11530
439679.00    3765350.00        0.11532
          439684.00    3765350.00        0.11534
439689.00    3765350.00        0.11535
          439694.00    3765350.00        0.11537
439699.00    3765350.00        0.11538
          439704.00    3765350.00        0.11539
439709.00    3765350.00        0.11540
          439714.00    3765350.00        0.11541
439719.00    3765350.00        0.11542
          439729.00    3765350.00        0.11543
439734.00    3765350.00        0.11543
          439739.00    3765350.00        0.11544
439744.00    3765350.00        0.11543
          439749.00    3765350.00        0.11543
439774.00    3765350.00        0.11539
          439779.00    3765350.00        0.11538
439784.00    3765350.00        0.11537
          439789.00    3765350.00        0.11535
439794.00    3765350.00        0.11533
          439839.00    3765350.00        0.11506
439844.00    3765350.00        0.11501
          439849.00    3765350.00        0.11497
439854.00    3765350.00        0.11492
          439859.00    3765350.00        0.11487
439864.00    3765350.00        0.11482
```

```
         439869.00    3765350.00        0.11476
439874.00    3765350.00        0.11470
         439879.00    3765350.00        0.11464
439884.00    3765350.00        0.11457
         439674.00    3765355.00        0.11697
439679.00    3765355.00        0.11699
         439684.00    3765355.00        0.11701
439689.00    3765355.00        0.11703
         439694.00    3765355.00        0.11704
439699.00    3765355.00        0.11706
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439704.00	3765355.00	0.11707	439709.00	3765355.00	0.11709
439714.00	3765355.00	0.11710	439719.00	3765355.00	0.11711
439729.00	3765355.00	0.11712	439734.00	3765355.00	0.11713
439739.00	3765355.00	0.11713	439744.00	3765355.00	0.11713
439749.00	3765355.00	0.11713	439774.00	3765355.00	0.11711
439779.00	3765355.00	0.11710	439784.00	3765355.00	0.11708
439789.00	3765355.00	0.11707	439794.00	3765355.00	0.11705
439839.00	3765355.00	0.11680	439844.00	3765355.00	0.11676
439849.00	3765355.00	0.11672	439854.00	3765355.00	0.11667

```
          439859.00    3765355.00        0.11662
439864.00    3765355.00        0.11657
          439869.00    3765355.00        0.11652
439874.00    3765355.00        0.11646
          439879.00    3765355.00        0.11640
439884.00    3765355.00        0.11634
          439674.00    3765360.00        0.11868
439679.00    3765360.00        0.11870
          439684.00    3765360.00        0.11872
439689.00    3765360.00        0.11874
          439694.00    3765360.00        0.11876
439699.00    3765360.00        0.11878
          439704.00    3765360.00        0.11880
439709.00    3765360.00        0.11881
          439714.00    3765360.00        0.11883
439719.00    3765360.00        0.11884
          439729.00    3765360.00        0.11886
439734.00    3765360.00        0.11886
          439739.00    3765360.00        0.11887
439744.00    3765360.00        0.11887
          439749.00    3765360.00        0.11888
439774.00    3765360.00        0.11886
          439779.00    3765360.00        0.11885
439784.00    3765360.00        0.11884
          439789.00    3765360.00        0.11883
439794.00    3765360.00        0.11882
          439799.00    3765360.00        0.11880
439804.00    3765360.00        0.11878
          439809.00    3765360.00        0.11876
439814.00    3765360.00        0.11874
          439839.00    3765360.00        0.11859
439844.00    3765360.00        0.11855
          439849.00    3765360.00        0.11851
439854.00    3765360.00        0.11847
          439859.00    3765360.00        0.11842
439864.00    3765360.00        0.11837
          439869.00    3765360.00        0.11832
439874.00    3765360.00        0.11827
          439879.00    3765360.00        0.11821
439884.00    3765360.00        0.11815
          439674.00    3765365.00        0.12043
439679.00    3765365.00        0.12046
          439684.00    3765365.00        0.12048
439689.00    3765365.00        0.12051
          439694.00    3765365.00        0.12053
439699.00    3765365.00        0.12055
          439704.00    3765365.00        0.12057
439709.00    3765365.00        0.12058
          439714.00    3765365.00        0.12060
439719.00    3765365.00        0.12061
          439729.00    3765365.00        0.12064
439734.00    3765365.00        0.12065
```

```
         439739.00    3765365.00        0.12066
439744.00    3765365.00        0.12066
         439749.00    3765365.00        0.12067
439774.00    3765365.00        0.12066
         439779.00    3765365.00        0.12066
439784.00    3765365.00        0.12065
         439789.00    3765365.00        0.12064
439794.00    3765365.00        0.12063
         439799.00    3765365.00        0.12062
439804.00    3765365.00        0.12060
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439809.00	3765365.00	0.12058	439814.00	3765365.00	0.12056
439839.00	3765365.00	0.12042	439844.00	3765365.00	0.12039
439849.00	3765365.00	0.12035	439854.00	3765365.00	0.12031
439859.00	3765365.00	0.12027	439864.00	3765365.00	0.12022
439869.00	3765365.00	0.12017	439874.00	3765365.00	0.12012
439879.00	3765365.00	0.12006	439884.00	3765365.00	0.12001
439674.00	3765370.00	0.12224	439679.00	3765370.00	0.12226
439684.00	3765370.00	0.12229	439689.00	3765370.00	0.12232
439694.00	3765370.00	0.12234	439699.00	3765370.00	0.12236

```
          439704.00    3765370.00        0.12238
439709.00    3765370.00        0.12240
          439714.00    3765370.00        0.12242
439719.00    3765370.00        0.12244
          439729.00    3765370.00        0.12247
439734.00    3765370.00        0.12248
          439739.00    3765370.00        0.12249
439744.00    3765370.00        0.12250
          439749.00    3765370.00        0.12250
439774.00    3765370.00        0.12251
          439779.00    3765370.00        0.12251
439784.00    3765370.00        0.12251
          439789.00    3765370.00        0.12250
439794.00    3765370.00        0.12249
          439799.00    3765370.00        0.12248
439804.00    3765370.00        0.12247
          439809.00    3765370.00        0.12245
439814.00    3765370.00        0.12243
          439839.00    3765370.00        0.12231
439844.00    3765370.00        0.12228
          439849.00    3765370.00        0.12224
439854.00    3765370.00        0.12220
          439859.00    3765370.00        0.12216
439864.00    3765370.00        0.12212
          439869.00    3765370.00        0.12207
439874.00    3765370.00        0.12202
          439879.00    3765370.00        0.12197
439884.00    3765370.00        0.12191
          439674.00    3765375.00        0.12409
439679.00    3765375.00        0.12412
          439684.00    3765375.00        0.12415
439689.00    3765375.00        0.12417
          439694.00    3765375.00        0.12420
439699.00    3765375.00        0.12423
          439704.00    3765375.00        0.12425
439709.00    3765375.00        0.12427
          439714.00    3765375.00        0.12429
439719.00    3765375.00        0.12431
          439729.00    3765375.00        0.12434
439734.00    3765375.00        0.12436
          439739.00    3765375.00        0.12437
439744.00    3765375.00        0.12438
          439749.00    3765375.00        0.12439
439754.00    3765375.00        0.12440
          439774.00    3765375.00        0.12442
439779.00    3765375.00        0.12442
          439784.00    3765375.00        0.12441
439789.00    3765375.00        0.12441
          439794.00    3765375.00        0.12440
439799.00    3765375.00        0.12439
          439804.00    3765375.00        0.12438
439809.00    3765375.00        0.12437
```

```
         439814.00    3765375.00        0.12435
439839.00    3765375.00        0.12424
         439844.00    3765375.00        0.12421
439849.00    3765375.00        0.12418
         439854.00    3765375.00        0.12415
439859.00    3765375.00        0.12411
         439864.00    3765375.00        0.12407
439869.00    3765375.00        0.12402
         439874.00    3765375.00        0.12398
439879.00    3765375.00        0.12393
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439884.00	3765375.00	0.12388	439774.00	3765380.00	0.12637
439779.00	3765380.00	0.12637	439784.00	3765380.00	0.12637
439789.00	3765380.00	0.12637	439794.00	3765380.00	0.12637
439799.00	3765380.00	0.12636	439804.00	3765380.00	0.12635
439809.00	3765380.00	0.12634	439814.00	3765380.00	0.12633
439769.00	3765385.00	0.12837	439819.00	3765385.00	0.12835
439769.00	3765400.00	0.13474	439844.00	3765400.00	0.13476
439849.00	3765400.00	0.13475	439674.00	3765405.00	0.13636
439714.00	3765405.00	0.13668	439719.00	3765405.00	0.13672

```
          439734.00    3765405.00        0.13681
439749.00    3765405.00        0.13689
          439754.00    3765405.00        0.13692
439774.00    3765405.00        0.13700
          439779.00    3765405.00        0.13702
439784.00    3765405.00        0.13704
          439789.00    3765405.00        0.13705
439794.00    3765405.00        0.13706
          439799.00    3765405.00        0.13707
439804.00    3765405.00        0.13708
          439809.00    3765405.00        0.13709
439814.00    3765405.00        0.13709
          439819.00    3765405.00        0.13709
439824.00    3765405.00        0.13709
          439829.00    3765405.00        0.13709
439834.00    3765405.00        0.13708
          439839.00    3765405.00        0.13707
439844.00    3765405.00        0.13706
          439849.00    3765405.00        0.13705
439854.00    3765405.00        0.13703
          439859.00    3765405.00        0.13701
439674.00    3765410.00        0.13862
          439679.00    3765410.00        0.13867
439684.00    3765410.00        0.13872
          439689.00    3765410.00        0.13876
439694.00    3765410.00        0.13880
          439699.00    3765410.00        0.13885
439704.00    3765410.00        0.13889
          439709.00    3765410.00        0.13893
439714.00    3765410.00        0.13897
          439719.00    3765410.00        0.13900
439729.00    3765410.00        0.13907
          439734.00    3765410.00        0.13911
439739.00    3765410.00        0.13914
          439744.00    3765410.00        0.13917
439749.00    3765410.00        0.13920
          439774.00    3765410.00        0.13932
439779.00    3765410.00        0.13934
          439784.00    3765410.00        0.13936
439789.00    3765410.00        0.13938
          439794.00    3765410.00        0.13940
439799.00    3765410.00        0.13941
          439804.00    3765410.00        0.13942
439809.00    3765410.00        0.13943
          439814.00    3765410.00        0.13944
439819.00    3765410.00        0.13944
          439824.00    3765410.00        0.13944
439829.00    3765410.00        0.13944
          439834.00    3765410.00        0.13944
439839.00    3765410.00        0.13944
          439844.00    3765410.00        0.13943
439849.00    3765410.00        0.13942
```

```
         439854.00    3765410.00        0.13941
439859.00    3765410.00        0.13939
         439674.00    3765415.00        0.14095
439679.00    3765415.00        0.14100
         439684.00    3765415.00        0.14105
439689.00    3765415.00        0.14110
         439694.00    3765415.00        0.14115
439699.00    3765415.00        0.14119
         439704.00    3765415.00        0.14124
439709.00    3765415.00        0.14128
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439714.00	3765415.00	0.14132	439719.00	3765415.00	0.14136
439729.00	3765415.00	0.14144	439734.00	3765415.00	0.14147
439739.00	3765415.00	0.14151	439744.00	3765415.00	0.14154
439749.00	3765415.00	0.14158	439774.00	3765415.00	0.14172
439779.00	3765415.00	0.14174	439784.00	3765415.00	0.14176
439789.00	3765415.00	0.14178	439794.00	3765415.00	0.14180
439799.00	3765415.00	0.14182	439804.00	3765415.00	0.14183
439809.00	3765415.00	0.14185	439814.00	3765415.00	0.14186
439819.00	3765415.00	0.14186	439824.00	3765415.00	0.14187

```
          439829.00    3765415.00        0.14188
439834.00    3765415.00        0.14188
          439839.00    3765415.00        0.14188
439844.00    3765415.00        0.14187
          439849.00    3765415.00        0.14187
439854.00    3765415.00        0.14186
          439859.00    3765415.00        0.14185
439674.00    3765420.00        0.14336
          439679.00    3765420.00        0.14341
439684.00    3765420.00        0.14347
          439689.00    3765420.00        0.14352
439694.00    3765420.00        0.14357
          439699.00    3765420.00        0.14361
439704.00    3765420.00        0.14366
          439709.00    3765420.00        0.14371
439714.00    3765420.00        0.14375
          439719.00    3765420.00        0.14379
439729.00    3765420.00        0.14388
          439734.00    3765420.00        0.14392
439739.00    3765420.00        0.14395
          439744.00    3765420.00        0.14399
439749.00    3765420.00        0.14403
          439774.00    3765420.00        0.14418
439779.00    3765420.00        0.14421
          439784.00    3765420.00        0.14423
439789.00    3765420.00        0.14426
          439794.00    3765420.00        0.14428
439799.00    3765420.00        0.14430
          439804.00    3765420.00        0.14432
439809.00    3765420.00        0.14434
          439814.00    3765420.00        0.14435
439819.00    3765420.00        0.14436
          439824.00    3765420.00        0.14437
439829.00    3765420.00        0.14438
          439834.00    3765420.00        0.14439
439839.00    3765420.00        0.14439
          439844.00    3765420.00        0.14439
439849.00    3765420.00        0.14439
          439854.00    3765420.00        0.14439
439859.00    3765420.00        0.14438
          439674.00    3765425.00        0.14584
439679.00    3765425.00        0.14590
          439684.00    3765425.00        0.14596
439689.00    3765425.00        0.14601
          439694.00    3765425.00        0.14606
439699.00    3765425.00        0.14611
          439704.00    3765425.00        0.14616
439709.00    3765425.00        0.14621
          439714.00    3765425.00        0.14626
439719.00    3765425.00        0.14630
          439729.00    3765425.00        0.14639
439734.00    3765425.00        0.14643
```

```
         439739.00    3765425.00        0.14648
439744.00    3765425.00        0.14652
         439749.00    3765425.00        0.14656
439774.00    3765425.00        0.14673
         439779.00    3765425.00        0.14676
439784.00    3765425.00        0.14679
         439789.00    3765425.00        0.14682
439794.00    3765425.00        0.14684
         439799.00    3765425.00        0.14686
439804.00    3765425.00        0.14689
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439809.00	3765425.00	0.14691	439814.00	3765425.00	0.14693
439819.00	3765425.00	0.14694	439824.00	3765425.00	0.14696
439829.00	3765425.00	0.14697	439834.00	3765425.00	0.14698
439839.00	3765425.00	0.14699	439844.00	3765425.00	0.14699
439849.00	3765425.00	0.14699	439854.00	3765425.00	0.14699
439859.00	3765425.00	0.14699	439674.00	3765430.00	0.14841
439679.00	3765430.00	0.14847	439684.00	3765430.00	0.14853
439689.00	3765430.00	0.14858	439694.00	3765430.00	0.14864
439699.00	3765430.00	0.14869	439704.00	3765430.00	0.14874

```
          439709.00    3765430.00        0.14880
439714.00    3765430.00        0.14885
          439719.00    3765430.00        0.14890
439729.00    3765430.00        0.14899
          439734.00    3765430.00        0.14904
439739.00    3765430.00        0.14908
          439744.00    3765430.00        0.14912
439749.00    3765430.00        0.14917
          439774.00    3765430.00        0.14936
439779.00    3765430.00        0.14939
          439784.00    3765430.00        0.14942
439789.00    3765430.00        0.14945
          439794.00    3765430.00        0.14948
439799.00    3765430.00        0.14951
          439804.00    3765430.00        0.14954
439809.00    3765430.00        0.14956
          439814.00    3765430.00        0.14958
439819.00    3765430.00        0.14961
          439824.00    3765430.00        0.14962
439829.00    3765430.00        0.14964
          439834.00    3765430.00        0.14965
439839.00    3765430.00        0.14967
          439844.00    3765430.00        0.14967
439849.00    3765430.00        0.14968
          439854.00    3765430.00        0.14968
439859.00    3765430.00        0.14968
          439674.00    3765435.00        0.15106
439679.00    3765435.00        0.15112
          439684.00    3765435.00        0.15118
439689.00    3765435.00        0.15124
          439694.00    3765435.00        0.15130
439699.00    3765435.00        0.15136
          439704.00    3765435.00        0.15141
439709.00    3765435.00        0.15147
          439714.00    3765435.00        0.15152
439719.00    3765435.00        0.15158
          439729.00    3765435.00        0.15168
439734.00    3765435.00        0.15172
          439739.00    3765435.00        0.15177
439744.00    3765435.00        0.15182
          439749.00    3765435.00        0.15186
439774.00    3765435.00        0.15207
          439779.00    3765435.00        0.15211
439784.00    3765435.00        0.15215
          439789.00    3765435.00        0.15218
439794.00    3765435.00        0.15221
          439799.00    3765435.00        0.15225
439804.00    3765435.00        0.15228
          439809.00    3765435.00        0.15230
439814.00    3765435.00        0.15233
          439819.00    3765435.00        0.15236
439824.00    3765435.00        0.15238
```

```
         439829.00    3765435.00        0.15240
439834.00    3765435.00        0.15242
         439839.00    3765435.00        0.15243
439844.00    3765435.00        0.15245
         439849.00    3765435.00        0.15246
439854.00    3765435.00        0.15247
         439859.00    3765435.00        0.15247
439674.00    3765440.00        0.15380
         439679.00    3765440.00        0.15387
439684.00    3765440.00        0.15393
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439689.00	3765440.00	0.15399	439694.00	3765440.00	0.15406
439699.00	3765440.00	0.15412	439704.00	3765440.00	0.15417
439709.00	3765440.00	0.15423	439714.00	3765440.00	0.15429
439719.00	3765440.00	0.15434	439729.00	3765440.00	0.15445
439734.00	3765440.00	0.15450	439739.00	3765440.00	0.15455
439744.00	3765440.00	0.15460	439749.00	3765440.00	0.15465
439774.00	3765440.00	0.15488	439779.00	3765440.00	0.15492
439784.00	3765440.00	0.15496	439789.00	3765440.00	0.15500
439794.00	3765440.00	0.15504	439799.00	3765440.00	0.15507

```
          439804.00    3765440.00        0.15511
439809.00    3765440.00        0.15514
          439814.00    3765440.00        0.15517
439819.00    3765440.00        0.15520
          439824.00    3765440.00        0.15523
439829.00    3765440.00        0.15525
          439834.00    3765440.00        0.15527
439839.00    3765440.00        0.15529
          439844.00    3765440.00        0.15531
439849.00    3765440.00        0.15533
          439854.00    3765440.00        0.15534
439859.00    3765440.00        0.15535
          439674.00    3765445.00        0.15664
439679.00    3765445.00        0.15671
          439684.00    3765445.00        0.15677
439689.00    3765445.00        0.15684
          439694.00    3765445.00        0.15690
439699.00    3765445.00        0.15697
          439704.00    3765445.00        0.15703
439709.00    3765445.00        0.15709
          439714.00    3765445.00        0.15715
439719.00    3765445.00        0.15721
          439729.00    3765445.00        0.15732
439734.00    3765445.00        0.15738
          439739.00    3765445.00        0.15743
439744.00    3765445.00        0.15749
          439749.00    3765445.00        0.15754
439774.00    3765445.00        0.15778
          439779.00    3765445.00        0.15783
439784.00    3765445.00        0.15787
          439789.00    3765445.00        0.15791
439794.00    3765445.00        0.15795
          439799.00    3765445.00        0.15800
439804.00    3765445.00        0.15803
          439809.00    3765445.00        0.15807
439814.00    3765445.00        0.15810
          439819.00    3765445.00        0.15814
439824.00    3765445.00        0.15817
          439829.00    3765445.00        0.15820
439834.00    3765445.00        0.15823
          439839.00    3765445.00        0.15825
439844.00    3765445.00        0.15828
          439849.00    3765445.00        0.15830
439854.00    3765445.00        0.15831
          439859.00    3765445.00        0.15833
439674.00    3765450.00        0.15958
          439679.00    3765450.00        0.15965
439684.00    3765450.00        0.15972
          439689.00    3765450.00        0.15979
439694.00    3765450.00        0.15985
          439699.00    3765450.00        0.15992
439704.00    3765450.00        0.15999
```

```
         439709.00    3765450.00        0.16005
439714.00    3765450.00        0.16011
         439719.00    3765450.00        0.16017
439729.00    3765450.00        0.16030
         439734.00    3765450.00        0.16035
439739.00    3765450.00        0.16041
         439744.00    3765450.00        0.16047
439749.00    3765450.00        0.16052
         439774.00    3765450.00        0.16079
439844.00    3765450.00        0.16134
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439849.00	3765450.00	0.16137	439854.00	3765450.00	0.16139
439859.00	3765450.00	0.16141	439674.00	3765455.00	0.16262
439679.00	3765455.00	0.16269	439684.00	3765455.00	0.16277
439689.00	3765455.00	0.16284	439694.00	3765455.00	0.16291
439699.00	3765455.00	0.16298	439704.00	3765455.00	0.16305
439709.00	3765455.00	0.16311	439714.00	3765455.00	0.16318
439719.00	3765455.00	0.16325	439729.00	3765455.00	0.16337
439734.00	3765455.00	0.16344	439739.00	3765455.00	0.16350
439744.00	3765455.00	0.16356	439749.00	3765455.00	0.16362

```
          439844.00    3765455.00        0.16452
439849.00    3765455.00        0.16455
          439854.00    3765455.00        0.16458
439859.00    3765455.00        0.16460
          439674.00    3765460.00        0.16577
439679.00    3765460.00        0.16585
          439684.00    3765460.00        0.16593
439689.00    3765460.00        0.16600
          439694.00    3765460.00        0.16608
439699.00    3765460.00        0.16615
          439704.00    3765460.00        0.16622
439709.00    3765460.00        0.16629
          439714.00    3765460.00        0.16636
439719.00    3765460.00        0.16643
          439729.00    3765460.00        0.16656
439734.00    3765460.00        0.16663
          439739.00    3765460.00        0.16670
439744.00    3765460.00        0.16676
          439749.00    3765460.00        0.16682
439789.00    3765460.00        0.16729
          439794.00    3765460.00        0.16735
439799.00    3765460.00        0.16740
          439804.00    3765460.00        0.16745
439809.00    3765460.00        0.16750
          439814.00    3765460.00        0.16755
439819.00    3765460.00        0.16760
          439824.00    3765460.00        0.16764
439829.00    3765460.00        0.16769
          439844.00    3765460.00        0.16781
439849.00    3765460.00        0.16785
          439854.00    3765460.00        0.16788
439859.00    3765460.00        0.16791
          439674.00    3765465.00        0.16904
439679.00    3765465.00        0.16913
          439684.00    3765465.00        0.16921
439689.00    3765465.00        0.16928
          439694.00    3765465.00        0.16936
439699.00    3765465.00        0.16944
          439704.00    3765465.00        0.16951
439709.00    3765465.00        0.16959
          439714.00    3765465.00        0.16966
439719.00    3765465.00        0.16973
          439729.00    3765465.00        0.16988
439734.00    3765465.00        0.16994
          439739.00    3765465.00        0.17001
439744.00    3765465.00        0.17008
          439749.00    3765465.00        0.17015
439789.00    3765465.00        0.17065
          439794.00    3765465.00        0.17071
439799.00    3765465.00        0.17076
          439804.00    3765465.00        0.17082
439809.00    3765465.00        0.17088
```

```
         439814.00    3765465.00        0.17093
439819.00    3765465.00        0.17098
         439824.00    3765465.00        0.17104
439829.00    3765465.00        0.17109
         439844.00    3765465.00        0.17123
439849.00    3765465.00        0.17127
         439854.00    3765465.00        0.17131
439859.00    3765465.00        0.17134
         439674.00    3765470.00        0.17244
439679.00    3765470.00        0.17253
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439684.00	3765470.00	0.17261	439689.00	3765470.00	0.17269
439694.00	3765470.00	0.17277	439699.00	3765470.00	0.17285
439704.00	3765470.00	0.17293	439709.00	3765470.00	0.17301
439714.00	3765470.00	0.17309	439719.00	3765470.00	0.17316
439729.00	3765470.00	0.17331	439734.00	3765470.00	0.17338
439739.00	3765470.00	0.17346	439744.00	3765470.00	0.17353
439749.00	3765470.00	0.17360	439789.00	3765470.00	0.17413
439794.00	3765470.00	0.17420	439799.00	3765470.00	0.17426
439804.00	3765470.00	0.17432	439809.00	3765470.00	0.17438

```
         439814.00    3765470.00        0.17444
439819.00    3765470.00        0.17450
         439824.00    3765470.00        0.17456
439829.00    3765470.00        0.17461
         439844.00    3765470.00        0.17477
439849.00    3765470.00        0.17482
         439854.00    3765470.00        0.17486
439859.00    3765470.00        0.17491
         439674.00    3765475.00        0.17597
439679.00    3765475.00        0.17606
         439684.00    3765475.00        0.17615
439689.00    3765475.00        0.17623
         439694.00    3765475.00        0.17632
439699.00    3765475.00        0.17640
         439704.00    3765475.00        0.17648
439709.00    3765475.00        0.17656
         439714.00    3765475.00        0.17665
439719.00    3765475.00        0.17673
         439729.00    3765475.00        0.17688
439734.00    3765475.00        0.17696
         439739.00    3765475.00        0.17703
439744.00    3765475.00        0.17711
         439749.00    3765475.00        0.17718
439754.00    3765475.00        0.17726
         439789.00    3765475.00        0.17775
439794.00    3765475.00        0.17782
         439799.00    3765475.00        0.17789
439804.00    3765475.00        0.17795
         439809.00    3765475.00        0.17802
439814.00    3765475.00        0.17808
         439819.00    3765475.00        0.17815
439824.00    3765475.00        0.17821
         439829.00    3765475.00        0.17827
439269.00    3764900.00        0.04606
         439369.00    3764900.00        0.04642
439469.00    3764900.00        0.04639
         439569.00    3764900.00        0.04597
439669.00    3764900.00        0.04512
         439769.00    3764900.00        0.04385
439869.00    3764900.00        0.04214
         439969.00    3764900.00        0.04002
440069.00    3764900.00        0.03753
         440169.00    3764900.00        0.03475
440269.00    3764900.00        0.03183
         439269.00    3765000.00        0.05372
439369.00    3765000.00        0.05436
         439469.00    3765000.00        0.05456
439569.00    3765000.00        0.05430
         439669.00    3765000.00        0.05356
439769.00    3765000.00        0.05232
         439869.00    3765000.00        0.05055
439969.00    3765000.00        0.04821
```

```
         440069.00    3765000.00        0.04534
440169.00    3765000.00        0.04199
         440269.00    3765000.00        0.03833
439269.00    3765100.00        0.06359
         439369.00    3765100.00        0.06461
439469.00    3765100.00        0.06510
         439569.00    3765100.00        0.06509
439669.00    3765100.00        0.06456
         439769.00    3765100.00        0.06346
439869.00    3765100.00        0.06172
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439969.00	3765100.00	0.05926	440069.00	3765100.00	0.05603
440169.00	3765100.00	0.05206	440269.00	3765100.00	0.04746
439269.00	3765200.00	0.07686	439369.00	3765200.00	0.07837
439469.00	3765200.00	0.07926	439569.00	3765200.00	0.07961
439669.00	3765200.00	0.07941	439769.00	3765200.00	0.07861
439869.00	3765200.00	0.07708	439969.00	3765200.00	0.07466
440069.00	3765200.00	0.07121	440169.00	3765200.00	0.06661
440269.00	3765200.00	0.06089	439269.00	3765300.00	0.09575
439369.00	3765300.00	0.09797	439469.00	3765300.00	0.09947

```
         439569.00    3765300.00        0.10035
439669.00    3765300.00        0.10068
         439769.00    3765300.00        0.10042
439869.00    3765300.00        0.09937
         439969.00    3765300.00        0.09727
440069.00    3765300.00        0.09384
         440169.00    3765300.00        0.08878
440269.00    3765300.00        0.08184
         439269.00    3765400.00        0.12516
439369.00    3765400.00        0.12859
         439469.00    3765400.00        0.13115
439569.00    3765400.00        0.13295
         439669.00    3765400.00        0.13412
439769.00    3765400.00        0.13474
         439869.00    3765400.00        0.13465
439969.00    3765400.00        0.13333
         440069.00    3765400.00        0.13031
440169.00    3765400.00        0.12517
         440269.00    3765400.00        0.11721
439269.00    3765500.00        0.17876
         439369.00    3765500.00        0.18478
439469.00    3765500.00        0.18961
         439569.00    3765500.00        0.19322
439669.00    3765500.00        0.19582
         439769.00    3765500.00        0.19781
439869.00    3765500.00        0.19964
         439969.00    3765500.00        0.20029
440069.00    3765500.00        0.19829
         440169.00    3765500.00        0.19359
440269.00    3765500.00        0.18527
         439269.00    3765600.00        0.31632
439369.00    3765600.00        0.32940
         439469.00    3765600.00        0.34044
439569.00    3765600.00        0.34849
         439669.00    3765600.00        0.35423
439769.00    3765600.00        0.35865
         439869.00    3765600.00        0.36362
439969.00    3765600.00        0.37453
         440069.00    3765600.00        0.37423
440169.00    3765600.00        0.36957
         440269.00    3765600.00        0.36104
439269.00    3765700.00        1.67000
         439369.00    3765700.00        1.75481
439469.00    3765700.00        1.85402
         439569.00    3765700.00        1.93748
439669.00    3765700.00        1.99410
         439769.00    3765700.00        2.03560
439869.00    3765700.00        2.05444
         439969.00    3765700.00        2.07937
440069.00    3765700.00        2.11887
         440169.00    3765700.00        2.14786
440269.00    3765700.00        2.18082
```

```
         439269.00    3765800.00        0.55059
439369.00    3765800.00        0.58078
         439469.00    3765800.00        0.60591
439569.00    3765800.00        0.62930
         439669.00    3765800.00        0.64728
439769.00    3765800.00        0.66861
         439869.00    3765800.00        0.69784
439969.00    3765800.00        0.66347
         440069.00    3765800.00        0.65659
440169.00    3765800.00        0.65426
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
440269.00	3765800.00	0.65258	439269.00	3765900.00	0.20138
439369.00	3765900.00	0.23137	439469.00	3765900.00	0.25454
439569.00	3765900.00	0.27290	439669.00	3765900.00	0.28770
439769.00	3765900.00	0.29954	439869.00	3765900.00	0.30880
439969.00	3765900.00	0.31495	440069.00	3765900.00	0.31797
440169.00	3765900.00	0.31964	440269.00	3765900.00	0.32025
439649.00	3765310.00	0.10330	439679.00	3765310.00	0.10335
439709.00	3765310.00	0.10334	439739.00	3765310.00	0.10327
439769.00	3765310.00	0.10314	439799.00	3765310.00	0.10295

```
          439829.00    3765310.00        0.10267
439859.00    3765310.00        0.10231
          439889.00    3765310.00        0.10185
439649.00    3765340.00        0.11199
          439679.00    3765340.00        0.11211
439709.00    3765340.00        0.11217
          439739.00    3765340.00        0.11217
439769.00    3765340.00        0.11211
          439799.00    3765340.00        0.11199
439829.00    3765340.00        0.11179
          439859.00    3765340.00        0.11150
439889.00    3765340.00        0.11111
          439649.00    3765370.00        0.12208
439679.00    3765370.00        0.12226
          439709.00    3765370.00        0.12240
439739.00    3765370.00        0.12249
          439769.00    3765370.00        0.12252
439799.00    3765370.00        0.12248
          439829.00    3765370.00        0.12237
439859.00    3765370.00        0.12216
          439889.00    3765370.00        0.12186
439649.00    3765400.00        0.13393
          439679.00    3765400.00        0.13420
439709.00    3765400.00        0.13443
          439739.00    3765400.00        0.13461
439769.00    3765400.00        0.13474
          439799.00    3765400.00        0.13480
439829.00    3765400.00        0.13480
          439859.00    3765400.00        0.13471
439889.00    3765400.00        0.13450
          439649.00    3765430.00        0.14810
439679.00    3765430.00        0.14847
          439709.00    3765430.00        0.14880
439739.00    3765430.00        0.14908
          439769.00    3765430.00        0.14932
439799.00    3765430.00        0.14951
          439829.00    3765430.00        0.14964
439859.00    3765430.00        0.14968
          439889.00    3765430.00        0.14962
439649.00    3765460.00        0.16536
          439679.00    3765460.00        0.16585
439709.00    3765460.00        0.16629
          439739.00    3765460.00        0.16670
439769.00    3765460.00        0.16706
          439799.00    3765460.00        0.16740
439829.00    3765460.00        0.16769
          439859.00    3765460.00        0.16791
439889.00    3765460.00        0.16803
          439649.00    3765490.00        0.18692
439679.00    3765490.00        0.18754
          439709.00    3765490.00        0.18812
439739.00    3765490.00        0.18865
```

```
         439769.00    3765490.00        0.18917
439799.00    3765490.00        0.18967
         439829.00    3765490.00        0.19015
439859.00    3765490.00        0.19061
         439889.00    3765490.00        0.19098
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: EXH ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439674.00	3765310.00	1.31612	(13120808)	439679.00	3765310.00	1.31670	(13120808)
439684.00	3765310.00	1.31705	(13120808)	439689.00	3765310.00	1.31782	(13120808)
439694.00	3765310.00	1.31803	(13120808)	439699.00	3765310.00	1.31894	(13120808)
439704.00	3765310.00	1.31920	(13120808)	439709.00	3765310.00	1.32027	(13120808)
439714.00	3765310.00	1.32024	(13120808)	439719.00	3765310.00	1.32148	(13120808)
439729.00	3765310.00	1.32258	(13120808)	439734.00	3765310.00	1.32296	(13120808)
439739.00	3765310.00	1.32370	(13120808)	439744.00	3765310.00	1.32434	(13120808)
439749.00	3765310.00	1.32490	(13120808)	439764.00	3765310.00	1.32726	(13120808)
439769.00	3765310.00	1.32752	(13120808)				

```
439774.00   3765310.00        1.32859  (13120808)
        439779.00   3765310.00        1.32889  (13120808)
439784.00   3765310.00        1.32992  (13120808)
        439789.00   3765310.00        1.33004  (13120808)
439794.00   3765310.00        1.33092  (13120808)
        439799.00   3765310.00        1.33138  (13120808)
439804.00   3765310.00        1.33171  (13120808)
        439809.00   3765310.00        1.33224  (13120808)
439814.00   3765310.00        1.33253  (13120808)
        439819.00   3765310.00        1.33326  (13120808)
439824.00   3765310.00        1.33321  (13120808)
        439829.00   3765310.00        1.33388  (13120808)
439839.00   3765310.00        1.33458  (13120808)
        439844.00   3765310.00        1.33421  (13120808)
439849.00   3765310.00        1.33489  (13120808)
        439854.00   3765310.00        1.33438  (13120808)
439859.00   3765310.00        1.33500  (13120808)
        439864.00   3765310.00        1.33445  (13120808)
439869.00   3765310.00        1.33451  (13120808)
        439874.00   3765310.00        1.33440  (13120808)
439879.00   3765310.00        1.33413  (13120808)
        439884.00   3765310.00        1.33419  (13120808)
439674.00   3765315.00        1.32690  (13120808)
        439679.00   3765315.00        1.32790  (13120808)
439684.00   3765315.00        1.32777  (13120808)
        439689.00   3765315.00        1.32893  (13120808)
439694.00   3765315.00        1.32893  (13120808)
        439699.00   3765315.00        1.32961  (13120808)
439704.00   3765315.00        1.33012  (13120808)
        439709.00   3765315.00        1.33071  (13120808)
439714.00   3765315.00        1.33148  (13120808)
        439719.00   3765315.00        1.33173  (13120808)
439729.00   3765315.00        1.33318  (13120808)
        439734.00   3765315.00        1.33411  (13120808)
439739.00   3765315.00        1.33443  (13120808)
        439744.00   3765315.00        1.33565  (13120808)
439749.00   3765315.00        1.33592  (13120808)
        439764.00   3765315.00        1.33823  (13120808)
439769.00   3765315.00        1.33881  (13120808)
        439774.00   3765315.00        1.33935  (13120808)
439779.00   3765315.00        1.34020  (13120808)
        439784.00   3765315.00        1.34061  (13120808)
439789.00   3765315.00        1.34153  (13120808)
        439794.00   3765315.00        1.34174  (13120808)
439799.00   3765315.00        1.34274  (13120808)
        439804.00   3765315.00        1.34295  (13120808)
439809.00   3765315.00        1.34398  (13120808)
        439814.00   3765315.00        1.34391  (13120808)
439819.00   3765315.00        1.34486  (13120808)
        439824.00   3765315.00        1.34489  (13120808)
439829.00   3765315.00        1.34540  (13120808)
        439839.00   3765315.00        1.34572  (13120808)
```

```
439844.00   3765315.00        1.34618  (13120808)
        439849.00   3765315.00        1.34603  (13120808)
439854.00   3765315.00        1.34633  (13120808)
        439859.00   3765315.00        1.34623  (13120808)
439864.00   3765315.00        1.34661  (13120808)
        439869.00   3765315.00        1.34627  (13120808)
439874.00   3765315.00        1.34651  (13120808)
        439879.00   3765315.00        1.34605  (13120808)
439884.00   3765315.00        1.34646  (13120808)
        439674.00   3765320.00        1.33823  (13120808)
439679.00   3765320.00        1.33856  (13120808)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: EXH ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439684.00	3765320.00	1.33904	(13120808)	439689.00	3765320.00	1.33944	(13120808)
439694.00	3765320.00	1.34029	(13120808)	439699.00	3765320.00	1.34055	(13120808)
439704.00	3765320.00	1.34142	(13120808)	439709.00	3765320.00	1.34158	(13120808)
439714.00	3765320.00	1.34294	(13120808)	439719.00	3765320.00	1.34292	(13120808)
439729.00	3765320.00	1.34427	(13120808)	439734.00	3765320.00	1.34523	(13120808)
439739.00	3765320.00	1.34572	(13120808)	439744.00	3765320.00	1.34643	(13120808)
439749.00	3765320.00	1.34715	(13120808)	439764.00	3765320.00	1.34917	(13120808)
439769.00	3765320.00	1.35023	(13120808)	439774.00	3765320.00	1.35066	(13120808)
439779.00	3765320.00	1.35174	(13120808)				

439784.00 3765320.00 1.35197 (13120808)
439789.00 3765320.00 1.35316 (13120808)
439794.00 3765320.00 1.35331 (13120808)
439799.00 3765320.00 1.35415 (13120808)
439804.00 3765320.00 1.35449 (13120808)
439809.00 3765320.00 1.35519 (13120808)
439814.00 3765320.00 1.35568 (13120808)
439819.00 3765320.00 1.35610 (13120808)
439824.00 3765320.00 1.35667 (13120808)
439829.00 3765320.00 1.35692 (13120808)
439839.00 3765320.00 1.35748 (13120808)
439844.00 3765320.00 1.35817 (13120808)
439849.00 3765320.00 1.35800 (13120808)
439854.00 3765320.00 1.35861 (13120808)
439859.00 3765320.00 1.35823 (13120808)
439864.00 3765320.00 1.35853 (13120808)
439869.00 3765320.00 1.35847 (13120808)
439874.00 3765320.00 1.35833 (13120808)
439879.00 3765320.00 1.35833 (13120808)
439884.00 3765320.00 1.35809 (13120808)
439674.00 3765325.00 1.34958 (13120808)
439679.00 3765325.00 1.34997 (13120808)
439684.00 3765325.00 1.35058 (13120808)
439689.00 3765325.00 1.35082 (13120808)
439694.00 3765325.00 1.35145 (13120808)
439699.00 3765325.00 1.35212 (13120808)
439704.00 3765325.00 1.35248 (13120808)
439709.00 3765325.00 1.35321 (13120808)
439714.00 3765325.00 1.35367 (13120808)
439719.00 3765325.00 1.35448 (13120808)
439729.00 3765325.00 1.35586 (13120808)
439734.00 3765325.00 1.35627 (13120808)
439739.00 3765325.00 1.35747 (13120808)
439744.00 3765325.00 1.35785 (13120808)
439749.00 3765325.00 1.35883 (13120808)
439754.00 3765325.00 1.35925 (13120808)
439769.00 3765325.00 1.36165 (13120808)
439774.00 3765325.00 1.36226 (13120808)
439779.00 3765325.00 1.36296 (13120808)
439784.00 3765325.00 1.36375 (13120808)
439789.00 3765325.00 1.36430 (13120808)
439794.00 3765325.00 1.36514 (13120808)
439799.00 3765325.00 1.36562 (13120808)
439804.00 3765325.00 1.36653 (13120808)
439809.00 3765325.00 1.36680 (13120808)
439814.00 3765325.00 1.36769 (13120808)
439819.00 3765325.00 1.36800 (13120808)
439824.00 3765325.00 1.36876 (13120808)
439829.00 3765325.00 1.36889 (13120808)
439839.00 3765325.00 1.36970 (13120808)
439844.00 3765325.00 1.36997 (13120808)
439849.00 3765325.00 1.37023 (13120808)

439854.00   3765325.00   1.37042 (13120808)
        439859.00   3765325.00   1.37062 (13120808)
439864.00   3765325.00   1.37059 (13120808)
        439869.00   3765325.00   1.37086 (13120808)
439874.00   3765325.00   1.37063 (13120808)
        439879.00   3765325.00   1.37093 (13120808)
439884.00   3765325.00   1.37041 (13120808)
        439674.00   3765330.00   1.36097 (13120808)
439679.00   3765330.00   1.36130 (13120808)
        439684.00   3765330.00   1.36198 (13120808)
439689.00   3765330.00   1.36246 (13120808)

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: EXH ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439694.00	3765330.00	1.36278	(13120808)	439699.00	3765330.00	1.36353	(13120808)
439704.00	3765330.00	1.36396	(13120808)	439709.00	3765330.00	1.36499	(13120808)
439714.00	3765330.00	1.36520	(13120808)	439719.00	3765330.00	1.36616	(13120808)
439729.00	3765330.00	1.36754	(13120808)	439734.00	3765330.00	1.36805	(13120808)
439739.00	3765330.00	1.36870	(13120808)	439744.00	3765330.00	1.36958	(13120808)
439749.00	3765330.00	1.37026	(13120808)	439754.00	3765330.00	1.37112	(13120808)
439774.00	3765330.00	1.37429	(13120808)	439779.00	3765330.00	1.37461	(13120808)
439784.00	3765330.00	1.37595	(13120808)	439789.00	3765330.00	1.37618	(13120808)
439794.00	3765330.00	1.37722	(13120808)				

439799.00 3765330.00 1.37753 (13120808)
439804.00 3765330.00 1.37849 (13120808)
439809.00 3765330.00 1.37888 (13120808)
439814.00 3765330.00 1.37957 (13120808)
439819.00 3765330.00 1.38010 (13120808)
439824.00 3765330.00 1.38069 (13120808)
439829.00 3765330.00 1.38122 (13120808)
439839.00 3765330.00 1.38211 (13120808)
439844.00 3765330.00 1.38229 (13120808)
439849.00 3765330.00 1.38288 (13120808)
439854.00 3765330.00 1.38277 (13120808)
439859.00 3765330.00 1.38323 (13120808)
439864.00 3765330.00 1.38324 (13120808)
439869.00 3765330.00 1.38323 (13120808)
439874.00 3765330.00 1.38337 (13120808)
439879.00 3765330.00 1.38333 (13120808)
439884.00 3765330.00 1.38324 (13120808)
439674.00 3765335.00 1.37292 (13120808)
439679.00 3765335.00 1.37324 (13120808)
439684.00 3765335.00 1.37362 (13120808)
439689.00 3765335.00 1.37434 (13120808)
439694.00 3765335.00 1.37473 (13120808)
439699.00 3765335.00 1.37529 (13120808)
439704.00 3765335.00 1.37567 (13120808)
439709.00 3765335.00 1.37655 (13120808)
439714.00 3765335.00 1.37711 (13120808)
439719.00 3765335.00 1.37777 (13120808)
439729.00 3765335.00 1.37918 (13120808)
439734.00 3765335.00 1.38007 (13120808)
439739.00 3765335.00 1.38058 (13120808)
439744.00 3765335.00 1.38132 (13120808)
439749.00 3765335.00 1.38213 (13120808)
439774.00 3765335.00 1.38613 (13120808)
439779.00 3765335.00 1.38685 (13120808)
439784.00 3765335.00 1.38754 (13120808)
439789.00 3765335.00 1.38848 (13120808)
439794.00 3765335.00 1.38916 (13120808)
439839.00 3765335.00 1.39456 (13120808)
439844.00 3765335.00 1.39484 (13120808)
439849.00 3765335.00 1.39534 (13120808)
439854.00 3765335.00 1.39555 (13120808)
439859.00 3765335.00 1.39570 (13120808)
439864.00 3765335.00 1.39607 (13120808)
439869.00 3765335.00 1.39591 (13120808)
439874.00 3765335.00 1.39628 (13120808)
439879.00 3765335.00 1.39603 (13120808)
439884.00 3765335.00 1.39648 (13120808)
439674.00 3765340.00 1.38492 (13120808)
439679.00 3765340.00 1.38545 (13120808)
439684.00 3765340.00 1.38575 (13120808)
439689.00 3765340.00 1.38612 (13120808)
439694.00 3765340.00 1.38688 (13120808)

```
439699.00   3765340.00        1.38718  (13120808)
        439704.00   3765340.00        1.38802  (13120808)
439709.00   3765340.00        1.38828  (13120808)
        439714.00   3765340.00        1.38932  (13120808)
439719.00   3765340.00        1.38983  (13120808)
        439729.00   3765340.00        1.39116  (13120808)
439734.00   3765340.00        1.39211  (13120808)
        439739.00   3765340.00        1.39287  (13120808)
439744.00   3765340.00        1.39346  (13120808)
        439749.00   3765340.00        1.39425  (13120808)
439774.00   3765340.00        1.39816  (13120808)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: EXH ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439779.00	3765340.00	1.39948	(13120808)	439784.00	3765340.00	1.39982	(13120808)
439789.00	3765340.00	1.40080	(13120808)	439794.00	3765340.00	1.40141	(13120808)
439839.00	3765340.00	1.40723	(13120808)	439844.00	3765340.00	1.40792	(13120808)
439849.00	3765340.00	1.40814	(13120808)	439854.00	3765340.00	1.40867	(13120808)
439859.00	3765340.00	1.40874	(13120808)	439864.00	3765340.00	1.40913	(13120808)
439869.00	3765340.00	1.40916	(13120808)	439874.00	3765340.00	1.40939	(13120808)
439879.00	3765340.00	1.40915	(13120808)	439884.00	3765340.00	1.40940	(13120808)
439674.00	3765345.00	1.39736	(13120808)	439679.00	3765345.00	1.39767	(13120808)
439684.00	3765345.00	1.39832	(13120808)				

439689.00 3765345.00 1.39860 (13120808)
439694.00 3765345.00 1.39929 (13120808)
439699.00 3765345.00 1.39942 (13120808)
439704.00 3765345.00 1.40043 (13120808)
439709.00 3765345.00 1.40056 (13120808)
439714.00 3765345.00 1.40155 (13120808)
439719.00 3765345.00 1.40214 (13120808)
439729.00 3765345.00 1.40350 (13120808)
439734.00 3765345.00 1.40432 (13120808)
439739.00 3765345.00 1.40501 (13120808)
439744.00 3765345.00 1.40599 (13120808)
439749.00 3765345.00 1.40677 (13120808)
439774.00 3765345.00 1.41072 (13120808)
439779.00 3765345.00 1.41175 (13120808)
439784.00 3765345.00 1.41273 (13120808)
439789.00 3765345.00 1.41332 (13120808)
439794.00 3765345.00 1.41414 (13120808)
439839.00 3765345.00 1.42026 (13120808)
439844.00 3765345.00 1.42095 (13120808)
439849.00 3765345.00 1.42138 (13120808)
439854.00 3765345.00 1.42167 (13120808)
439859.00 3765345.00 1.42214 (13120808)
439864.00 3765345.00 1.42217 (13120808)
439869.00 3765345.00 1.42267 (13120808)
439874.00 3765345.00 1.42256 (13120808)
439879.00 3765345.00 1.42302 (13120808)
439884.00 3765345.00 1.42277 (13120808)
439674.00 3765350.00 1.41020 (13120808)
439679.00 3765350.00 1.41050 (13120808)
439684.00 3765350.00 1.41061 (13120808)
439689.00 3765350.00 1.41121 (13120808)
439694.00 3765350.00 1.41175 (13120808)
439699.00 3765350.00 1.41237 (13120808)
439704.00 3765350.00 1.41270 (13120808)
439709.00 3765350.00 1.41346 (13120808)
439714.00 3765350.00 1.41403 (13120808)
439719.00 3765350.00 1.41480 (13120808)
439729.00 3765350.00 1.41626 (13120808)
439734.00 3765350.00 1.41695 (13120808)
439739.00 3765350.00 1.41777 (13120808)
439744.00 3765350.00 1.41853 (13120808)
439749.00 3765350.00 1.41937 (13120808)
439774.00 3765350.00 1.42368 (13120808)
439779.00 3765350.00 1.42449 (13120808)
439784.00 3765350.00 1.42546 (13120808)
439789.00 3765350.00 1.42636 (13120808)
439794.00 3765350.00 1.42723 (13120808)
439839.00 3765350.00 1.43369 (13120808)
439844.00 3765350.00 1.43417 (13120808)
439849.00 3765350.00 1.43492 (13120808)
439854.00 3765350.00 1.43518 (13120808)
439859.00 3765350.00 1.43562 (13120808)

```
439864.00   3765350.00        1.43586  (13120808)
        439869.00   3765350.00        1.43637  (13120808)
439874.00   3765350.00        1.43611  (13120808)
        439879.00   3765350.00        1.43654  (13120808)
439884.00   3765350.00        1.43653  (13120808)
        439674.00   3765355.00        1.42294  (13120808)
439679.00   3765355.00        1.42365  (13120808)
        439684.00   3765355.00        1.42382  (13120808)
439689.00   3765355.00        1.42425  (13120808)
        439694.00   3765355.00        1.42441  (13120808)
439699.00   3765355.00        1.42554  (13120808)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: EXH ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439704.00	3765355.00	1.42553	(13120808)	439709.00	3765355.00	1.42624	(13120808)
439714.00	3765355.00	1.42691	(13120808)	439719.00	3765355.00	1.42775	(13120808)
439729.00	3765355.00	1.42894	(13120808)	439734.00	3765355.00	1.42972	(13120808)
439739.00	3765355.00	1.43066	(13120808)	439744.00	3765355.00	1.43159	(13120808)
439749.00	3765355.00	1.43222	(13120808)	439774.00	3765355.00	1.43686	(13120808)
439779.00	3765355.00	1.43768	(13120808)	439784.00	3765355.00	1.43864	(13120808)
439789.00	3765355.00	1.43951	(13120808)	439794.00	3765355.00	1.44054	(13120808)
439839.00	3765355.00	1.44730	(13120808)	439844.00	3765355.00	1.44779	(13120808)
439849.00	3765355.00	1.44849	(13120808)				

439854.00 3765355.00 1.44913 (13120808)
439859.00 3765355.00 1.44922 (13120808)
439864.00 3765355.00 1.44963 (13120808)
439869.00 3765355.00 1.45009 (13120808)
439874.00 3765355.00 1.45044 (13120808)
439879.00 3765355.00 1.45049 (13120808)
439884.00 3765355.00 1.45048 (13120808)
439674.00 3765360.00 1.43629 (13120808)
439679.00 3765360.00 1.43659 (13120808)
439684.00 3765360.00 1.43719 (13120808)
439689.00 3765360.00 1.43748 (13120808)
439694.00 3765360.00 1.43779 (13120808)
439699.00 3765360.00 1.43844 (13120808)
439704.00 3765360.00 1.43912 (13120808)
439709.00 3765360.00 1.43957 (13120808)
439714.00 3765360.00 1.43996 (13120808)
439719.00 3765360.00 1.44072 (13120808)
439729.00 3765360.00 1.44219 (13120808)
439734.00 3765360.00 1.44296 (13120808)
439739.00 3765360.00 1.44379 (13120808)
439744.00 3765360.00 1.44483 (13120808)
439749.00 3765360.00 1.44544 (13120808)
439774.00 3765360.00 1.45009 (13120808)
439779.00 3765360.00 1.45097 (13120808)
439784.00 3765360.00 1.45205 (13120808)
439789.00 3765360.00 1.45317 (13120808)
439794.00 3765360.00 1.45390 (13120808)
439799.00 3765360.00 1.45480 (13120808)
439804.00 3765360.00 1.45575 (13120808)
439809.00 3765360.00 1.45668 (13120808)
439814.00 3765360.00 1.45742 (13120808)
439839.00 3765360.00 1.46128 (13120808)
439844.00 3765360.00 1.46175 (13120808)
439849.00 3765360.00 1.46239 (13120808)
439854.00 3765360.00 1.46320 (13120808)
439859.00 3765360.00 1.46353 (13120808)
439864.00 3765360.00 1.46392 (13120808)
439869.00 3765360.00 1.46395 (13120808)
439874.00 3765360.00 1.46469 (13120808)
439879.00 3765360.00 1.46480 (13120808)
439884.00 3765360.00 1.46482 (13120808)
439674.00 3765365.00 1.44994 (13120808)
439679.00 3765365.00 1.45032 (13120808)
439684.00 3765365.00 1.45087 (13120808)
439689.00 3765365.00 1.45105 (13120808)
439694.00 3765365.00 1.45165 (13120808)
439699.00 3765365.00 1.45173 (13120808)
439704.00 3765365.00 1.45252 (13120808)
439709.00 3765365.00 1.45331 (13120808)
439714.00 3765365.00 1.45373 (13120808)
439719.00 3765365.00 1.45425 (13120808)
439729.00 3765365.00 1.45586 (13120808)

439734.00   3765365.00   1.45648 (13120808)
        439739.00   3765365.00   1.45730 (13120808)
439744.00   3765365.00   1.45806 (13120808)
        439749.00   3765365.00   1.45950 (14100607)
439774.00   3765365.00   1.46384 (13120808)
        439779.00   3765365.00   1.46480 (13120808)
439784.00   3765365.00   1.46567 (13120808)
        439789.00   3765365.00   1.46701 (13120808)
439794.00   3765365.00   1.46761 (13120808)
        439799.00   3765365.00   1.46870 (13120808)
439804.00   3765365.00   1.46959 (13120808)

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: EXH ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439809.00	3765365.00	1.47059	(13120808)	439814.00	3765365.00	1.47152	(13120808)
439839.00	3765365.00	1.47547	(13120808)	439844.00	3765365.00	1.47616	(13120808)
439849.00	3765365.00	1.47669	(13120808)	439854.00	3765365.00	1.47734	(13120808)
439859.00	3765365.00	1.47785	(13120808)	439864.00	3765365.00	1.47843	(13120808)
439869.00	3765365.00	1.47859	(13120808)	439874.00	3765365.00	1.47913	(13120808)
439879.00	3765365.00	1.47931	(13120808)	439884.00	3765365.00	1.47971	(13120808)
439674.00	3765370.00	1.46394	(13120808)	439679.00	3765370.00	1.46419	(13120808)
439684.00	3765370.00	1.46471	(13120808)	439689.00	3765370.00	1.46498	(13120808)
439694.00	3765370.00	1.46552	(13120808)				

439699.00 3765370.00 1.46579 (13120808)
439704.00 3765370.00 1.46644 (13120808)
439709.00 3765370.00 1.46693 (13120808)
439714.00 3765370.00 1.46749 (13120808)
439719.00 3765370.00 1.46841 (13120808)
439729.00 3765370.00 1.46972 (13120808)
439734.00 3765370.00 1.47055 (13120808)
439739.00 3765370.00 1.47127 (13120808)
439744.00 3765370.00 1.47183 (13120808)
439749.00 3765370.00 1.47302 (13120808)
439774.00 3765370.00 1.47807 (14100607)
439779.00 3765370.00 1.47872 (13120808)
439784.00 3765370.00 1.47989 (13120808)
439789.00 3765370.00 1.48072 (13120808)
439794.00 3765370.00 1.48210 (13120808)
439799.00 3765370.00 1.48285 (13120808)
439804.00 3765370.00 1.48390 (13120808)
439809.00 3765370.00 1.48460 (13120808)
439814.00 3765370.00 1.48595 (13120808)
439839.00 3765370.00 1.49008 (13120808)
439844.00 3765370.00 1.49062 (13120808)
439849.00 3765370.00 1.49141 (13120808)
439854.00 3765370.00 1.49209 (13120808)
439859.00 3765370.00 1.49280 (13120808)
439864.00 3765370.00 1.49295 (13120808)
439869.00 3765370.00 1.49362 (13120808)
439874.00 3765370.00 1.49386 (13120808)
439879.00 3765370.00 1.49421 (13120808)
439884.00 3765370.00 1.49459 (13120808)
439674.00 3765375.00 1.47842 (13120808)
439679.00 3765375.00 1.47866 (13120808)
439684.00 3765375.00 1.47895 (13120808)
439689.00 3765375.00 1.47955 (13120808)
439694.00 3765375.00 1.47958 (13120808)
439699.00 3765375.00 1.48000 (13120808)
439704.00 3765375.00 1.48073 (13120808)
439709.00 3765375.00 1.48131 (13120808)
439714.00 3765375.00 1.48172 (13120808)
439719.00 3765375.00 1.48244 (13120808)
439729.00 3765375.00 1.48378 (13120808)
439734.00 3765375.00 1.48461 (13120808)
439739.00 3765375.00 1.48540 (13120808)
439744.00 3765375.00 1.48668 (14100607)
439749.00 3765375.00 1.48719 (13120808)
439754.00 3765375.00 1.48820 (14100607)
439774.00 3765375.00 1.49224 (13120808)
439779.00 3765375.00 1.49312 (13120808)
439784.00 3765375.00 1.49436 (13120808)
439789.00 3765375.00 1.49494 (13120808)
439794.00 3765375.00 1.49633 (13120808)
439799.00 3765375.00 1.49742 (13120808)
439804.00 3765375.00 1.49839 (13120808)

```
439809.00   3765375.00        1.49940  (13120808)
        439814.00   3765375.00        1.50043  (13120808)
439839.00   3765375.00        1.50515  (13120808)
        439844.00   3765375.00        1.50566  (13120808)
439849.00   3765375.00        1.50627  (13120808)
        439854.00   3765375.00        1.50687  (13120808)
439859.00   3765375.00        1.50789  (13120808)
        439864.00   3765375.00        1.50824  (13120808)
439869.00   3765375.00        1.50871  (13120808)
        439874.00   3765375.00        1.50905  (13120808)
439879.00   3765375.00        1.50969  (13120808)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: EXH ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439884.00	3765375.00	1.50995	(13120808)	439774.00	3765380.00	1.50673	(14100607)
439779.00	3765380.00	1.50818	(14100607)	439784.00	3765380.00	1.50884	(13120808)
439789.00	3765380.00	1.51031	(14100607)	439794.00	3765380.00	1.51106	(13120808)
439799.00	3765380.00	1.51214	(13120808)	439804.00	3765380.00	1.51314	(13120808)
439809.00	3765380.00	1.51442	(13120808)	439814.00	3765380.00	1.51528	(13120808)
439769.00	3765385.00	1.52073	(14100607)	439819.00	3765385.00	1.53170	(13120808)
439769.00	3765400.00	1.56826	(14100607)	439844.00	3765400.00	1.58582	(13120808)
439849.00	3765400.00	1.58694	(13120808)	439674.00	3765405.00	1.58403	(12011417)
439714.00	3765405.00	1.57955	(12011808)				

439719.00 3765405.00 1.57922 (12011808)
439734.00 3765405.00 1.57966 (12011808)
439749.00 3765405.00 1.58035 (13120808)
439754.00 3765405.00 1.58132 (13120808)
439774.00 3765405.00 1.58630 (14100607)
439779.00 3765405.00 1.58746 (14100607)
439784.00 3765405.00 1.58901 (14100607)
439789.00 3765405.00 1.59057 (14100607)
439794.00 3765405.00 1.59135 (14100607)
439799.00 3765405.00 1.59277 (14100607)
439804.00 3765405.00 1.59390 (14100607)
439809.00 3765405.00 1.59508 (14100607)
439814.00 3765405.00 1.59574 (13120808)
439819.00 3765405.00 1.59706 (13120808)
439824.00 3765405.00 1.59833 (13120808)
439829.00 3765405.00 1.59969 (13120808)
439834.00 3765405.00 1.60082 (13120808)
439839.00 3765405.00 1.60212 (13120808)
439844.00 3765405.00 1.60308 (13120808)
439849.00 3765405.00 1.60417 (13120808)
439854.00 3765405.00 1.60529 (13120808)
439859.00 3765405.00 1.60631 (13120808)
439674.00 3765410.00 1.60830 (12011417)
439679.00 3765410.00 1.60634 (12011417)
439684.00 3765410.00 1.60303 (12011417)
439689.00 3765410.00 1.60160 (12011417)
439694.00 3765410.00 1.59839 (12011417)
439699.00 3765410.00 1.59717 (12011808)
439704.00 3765410.00 1.59773 (12011808)
439709.00 3765410.00 1.59782 (12011808)
439714.00 3765410.00 1.59797 (12011808)
439719.00 3765410.00 1.59819 (12011808)
439729.00 3765410.00 1.59861 (12011808)
439734.00 3765410.00 1.59804 (12011808)
439739.00 3765410.00 1.59867 (12011808)
439744.00 3765410.00 1.59809 (12011808)
439749.00 3765410.00 1.59895 (12011808)
439774.00 3765410.00 1.60330 (14100607)
439779.00 3765410.00 1.60494 (14100607)
439784.00 3765410.00 1.60562 (14100607)
439789.00 3765410.00 1.60774 (14100607)
439794.00 3765410.00 1.60905 (14100607)
439799.00 3765410.00 1.61003 (14100607)
439804.00 3765410.00 1.61119 (14100607)
439809.00 3765410.00 1.61246 (14100607)
439814.00 3765410.00 1.61416 (14100607)
439819.00 3765410.00 1.61457 (14100607)
439824.00 3765410.00 1.61585 (14100607)
439829.00 3765410.00 1.61712 (13120808)
439834.00 3765410.00 1.61843 (13120808)
439839.00 3765410.00 1.61975 (13120808)
439844.00 3765410.00 1.62087 (13120808)

```
439849.00   3765410.00        1.62206  (13120808)
        439854.00   3765410.00        1.62304  (13120808)
439859.00   3765410.00        1.62411  (13120808)
        439674.00   3765415.00        1.63418  (12011417)
439679.00   3765415.00        1.63095  (12011417)
        439684.00   3765415.00        1.62937  (12011417)
439689.00   3765415.00        1.62579  (12011417)
        439694.00   3765415.00        1.62443  (12011417)
439699.00   3765415.00        1.62118  (12011417)
        439704.00   3765415.00        1.61906  (12011417)
439709.00   3765415.00        1.61685  (12011808)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: EXH ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439714.00	3765415.00	1.61659	(12011808)	439719.00	3765415.00	1.61727	(12011808)
439729.00	3765415.00	1.61737	(12011808)	439734.00	3765415.00	1.61765	(12011808)
439739.00	3765415.00	1.61771	(12011808)	439744.00	3765415.00	1.61800	(12011808)
439749.00	3765415.00	1.61777	(12011808)	439774.00	3765415.00	1.62103	(14100607)
439779.00	3765415.00	1.62219	(14100607)	439784.00	3765415.00	1.62400	(14100607)
439789.00	3765415.00	1.62461	(14100607)	439794.00	3765415.00	1.62651	(14100607)
439799.00	3765415.00	1.62796	(14100607)	439804.00	3765415.00	1.62938	(14100607)
439809.00	3765415.00	1.63035	(14100607)	439814.00	3765415.00	1.63155	(14100607)
439819.00	3765415.00	1.63324	(14100607)				

439824.00 3765415.00 1.63388 (14100607)
439829.00 3765415.00 1.63514 (13120808)
439834.00 3765415.00 1.63636 (13120808)
439839.00 3765415.00 1.63781 (13120808)
439844.00 3765415.00 1.63896 (13120808)
439849.00 3765415.00 1.64032 (13120808)
439854.00 3765415.00 1.64159 (13120808)
439859.00 3765415.00 1.64252 (13120808)
439674.00 3765420.00 1.65883 (12011417)
439679.00 3765420.00 1.65702 (12011417)
439684.00 3765420.00 1.65416 (12011417)
439689.00 3765420.00 1.65278 (12011417)
439694.00 3765420.00 1.64933 (12011417)
439699.00 3765420.00 1.64783 (12011417)
439704.00 3765420.00 1.64468 (12011417)
439709.00 3765420.00 1.64294 (12011417)
439714.00 3765420.00 1.63928 (12011417)
439719.00 3765420.00 1.63693 (12011417)
439729.00 3765420.00 1.63639 (12011808)
439734.00 3765420.00 1.63717 (12011808)
439739.00 3765420.00 1.63701 (12011808)
439744.00 3765420.00 1.63785 (12011808)
439749.00 3765420.00 1.63734 (12011808)
439774.00 3765420.00 1.63858 (14100607)
439779.00 3765420.00 1.64015 (14100607)
439784.00 3765420.00 1.64166 (14100607)
439789.00 3765420.00 1.64347 (14100607)
439794.00 3765420.00 1.64448 (14100607)
439799.00 3765420.00 1.64619 (14100607)
439804.00 3765420.00 1.64749 (14100607)
439809.00 3765420.00 1.64892 (14100607)
439814.00 3765420.00 1.64992 (14100607)
439819.00 3765420.00 1.65139 (14100607)
439824.00 3765420.00 1.65274 (14100607)
439829.00 3765420.00 1.65404 (14100607)
439834.00 3765420.00 1.65497 (14100607)
439839.00 3765420.00 1.65621 (13120808)
439844.00 3765420.00 1.65778 (13120808)
439849.00 3765420.00 1.65890 (13120808)
439854.00 3765420.00 1.66025 (13120808)
439859.00 3765420.00 1.66150 (13120808)
439674.00 3765425.00 1.68504 (12011417)
439679.00 3765425.00 1.68286 (12011417)
439684.00 3765425.00 1.68072 (12011417)
439689.00 3765425.00 1.67819 (12011417)
439694.00 3765425.00 1.67681 (12011417)
439699.00 3765425.00 1.67365 (12011417)
439704.00 3765425.00 1.67212 (12011417)
439709.00 3765425.00 1.66861 (12011417)
439714.00 3765425.00 1.66724 (12011417)
439719.00 3765425.00 1.66366 (12011417)
439729.00 3765425.00 1.65837 (12011417)

```
439734.00   3765425.00        1.65690  (12011808)
        439739.00   3765425.00        1.65766  (12011808)
439744.00   3765425.00        1.65728  (12011808)
        439749.00   3765425.00        1.65863  (12011808)
439774.00   3765425.00        1.65841  (12011808)
        439779.00   3765425.00        1.65888  (12011808)
439784.00   3765425.00        1.66011  (14100607)
        439789.00   3765425.00        1.66180  (14100607)
439794.00   3765425.00        1.66359  (14100607)
        439799.00   3765425.00        1.66482  (14100607)
439804.00   3765425.00        1.66634  (14100607)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: EXH ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439809.00	3765425.00	1.66760	(14100607)	439814.00	3765425.00	1.66956	(14100607)
439819.00	3765425.00	1.67041	(14100607)	439824.00	3765425.00	1.67198	(14100607)
439829.00	3765425.00	1.67291	(14100607)	439834.00	3765425.00	1.67452	(14100607)
439839.00	3765425.00	1.67540	(13120808)	439844.00	3765425.00	1.67694	(13120808)
439849.00	3765425.00	1.67820	(13120808)	439854.00	3765425.00	1.67962	(13120808)
439859.00	3765425.00	1.68086	(13120808)	439674.00	3765430.00	1.71166	(12011417)
439679.00	3765430.00	1.70940	(12011417)	439684.00	3765430.00	1.70752	(12011417)
439689.00	3765430.00	1.70522	(12011417)	439694.00	3765430.00	1.70285	(12011417)
439699.00	3765430.00	1.70128	(12011417)				

439704.00 3765430.00 1.69835 (12011417)
439709.00 3765430.00 1.69707 (12011417)
439714.00 3765430.00 1.69314 (12011417)
439719.00 3765430.00 1.69204 (12011417)
439729.00 3765430.00 1.68659 (12011417)
439734.00 3765430.00 1.68308 (12011417)
439739.00 3765430.00 1.68119 (12011417)
439744.00 3765430.00 1.67867 (12011808)
439749.00 3765430.00 1.67841 (12011808)
439774.00 3765430.00 1.68072 (12011808)
439779.00 3765430.00 1.67941 (12011808)
439784.00 3765430.00 1.68045 (12011808)
439789.00 3765430.00 1.68068 (14100607)
439794.00 3765430.00 1.68227 (14100607)
439799.00 3765430.00 1.68418 (14100607)
439804.00 3765430.00 1.68582 (14100607)
439809.00 3765430.00 1.68731 (14100607)
439814.00 3765430.00 1.68842 (14100607)
439819.00 3765430.00 1.69041 (14100607)
439824.00 3765430.00 1.69156 (14100607)
439829.00 3765430.00 1.69291 (14100607)
439834.00 3765430.00 1.69385 (14100607)
439839.00 3765430.00 1.69572 (14100607)
439844.00 3765430.00 1.69653 (13120808)
439849.00 3765430.00 1.69819 (13120808)
439854.00 3765430.00 1.69944 (13120808)
439859.00 3765430.00 1.70109 (13120808)
439674.00 3765435.00 1.73801 (12011417)
439679.00 3765435.00 1.73663 (12011417)
439684.00 3765435.00 1.73442 (12011417)
439689.00 3765435.00 1.73262 (12011417)
439694.00 3765435.00 1.73051 (12011417)
439699.00 3765435.00 1.72792 (12011417)
439704.00 3765435.00 1.72647 (12011417)
439709.00 3765435.00 1.72347 (12011417)
439714.00 3765435.00 1.72262 (12011417)
439719.00 3765435.00 1.71852 (12011417)
439729.00 3765435.00 1.71390 (12011417)
439734.00 3765435.00 1.71260 (12011417)
439739.00 3765435.00 1.70873 (12011417)
439744.00 3765435.00 1.70712 (12011417)
439749.00 3765435.00 1.70350 (12011417)
439774.00 3765435.00 1.70117 (12011808)
439779.00 3765435.00 1.70258 (12011808)
439784.00 3765435.00 1.70167 (12011808)
439789.00 3765435.00 1.70253 (12011808)
439794.00 3765435.00 1.70215 (14100607)
439799.00 3765435.00 1.70377 (14100607)
439804.00 3765435.00 1.70563 (14100607)
439809.00 3765435.00 1.70727 (14100607)
439814.00 3765435.00 1.70878 (14100607)
439819.00 3765435.00 1.71017 (14100607)

```
439824.00   3765435.00        1.71181  (14100607)
        439829.00   3765435.00        1.71352  (14100607)
439834.00   3765435.00        1.71479  (14100607)
        439839.00   3765435.00        1.71559  (14100607)
439844.00   3765435.00        1.71745  (14100607)
        439849.00   3765435.00        1.71842  (13120808)
439854.00   3765435.00        1.72000  (13120808)
        439859.00   3765435.00        1.72117  (13120808)
439674.00   3765440.00        1.76621  (12011417)
        439679.00   3765440.00        1.76348  (12011417)
439684.00   3765440.00        1.76245  (12011417)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: EXH ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439689.00	3765440.00	1.75977	(12011417)	439694.00	3765440.00	1.75838	(12011417)
439699.00	3765440.00	1.75638	(12011417)	439704.00	3765440.00	1.75389	(12011417)
439709.00	3765440.00	1.75229	(12011417)	439714.00	3765440.00	1.74953	(12011417)
439719.00	3765440.00	1.74876	(12011417)	439729.00	3765440.00	1.74398	(12011417)
439734.00	3765440.00	1.74010	(12011417)	439739.00	3765440.00	1.73916	(12011417)
439744.00	3765440.00	1.73489	(12011417)	439749.00	3765440.00	1.73362	(12011417)
439774.00	3765440.00	1.72363	(12011808)	439779.00	3765440.00	1.72400	(12011808)
439784.00	3765440.00	1.72475	(12011808)	439789.00	3765440.00	1.72472	(12011808)
439794.00	3765440.00	1.72524	(12011808)				

439799.00 3765440.00 1.72453 (12011808)
439804.00 3765440.00 1.72587 (12011808)
439809.00 3765440.00 1.72756 (14100607)
439814.00 3765440.00 1.72946 (14100607)
439819.00 3765440.00 1.73106 (14100607)
439824.00 3765440.00 1.73269 (14100607)
439829.00 3765440.00 1.73402 (14100607)
439834.00 3765440.00 1.73569 (14100607)
439839.00 3765440.00 1.73716 (14100607)
439844.00 3765440.00 1.73833 (14100607)
439849.00 3765440.00 1.73947 (14100607)
439854.00 3765440.00 1.74096 (13120808)
439859.00 3765440.00 1.74266 (13120808)
439674.00 3765445.00 1.79292 (12011417)
439679.00 3765445.00 1.79243 (12011417)
439684.00 3765445.00 1.78980 (12011417)
439689.00 3765445.00 1.78880 (12011417)
439694.00 3765445.00 1.78626 (12011417)
439699.00 3765445.00 1.78496 (12011417)
439704.00 3765445.00 1.78286 (12011417)
439709.00 3765445.00 1.78076 (12011417)
439714.00 3765445.00 1.77915 (12011417)
439719.00 3765445.00 1.77608 (12011417)
439729.00 3765445.00 1.77187 (12011417)
439734.00 3765445.00 1.77081 (12011417)
439739.00 3765445.00 1.76687 (12011417)
439744.00 3765445.00 1.76632 (12011417)
439749.00 3765445.00 1.76206 (12011417)
439774.00 3765445.00 1.74872 (12011417)
439779.00 3765445.00 1.74647 (12011808)
439784.00 3765445.00 1.74756 (12011808)
439789.00 3765445.00 1.74740 (12011808)
439794.00 3765445.00 1.74847 (12011808)
439799.00 3765445.00 1.74854 (12011808)
439804.00 3765445.00 1.74830 (12011808)
439809.00 3765445.00 1.74919 (12011808)
439814.00 3765445.00 1.75040 (14100607)
439819.00 3765445.00 1.75224 (14100607)
439824.00 3765445.00 1.75402 (14100607)
439829.00 3765445.00 1.75563 (14100607)
439834.00 3765445.00 1.75700 (14100607)
439839.00 3765445.00 1.75874 (14100607)
439844.00 3765445.00 1.76005 (14100607)
439849.00 3765445.00 1.76184 (14100607)
439854.00 3765445.00 1.76265 (13120808)
439859.00 3765445.00 1.76445 (13120808)
439674.00 3765450.00 1.82235 (12011417)
439679.00 3765450.00 1.81987 (12011417)
439684.00 3765450.00 1.81950 (12011417)
439689.00 3765450.00 1.81686 (12011417)
439694.00 3765450.00 1.81579 (12011417)
439699.00 3765450.00 1.81346 (12011417)

439704.00 3765450.00 1.81242 (12011417)
439709.00 3765450.00 1.81005 (12011417)
439714.00 3765450.00 1.80806 (12011417)
439719.00 3765450.00 1.80653 (12011417)
439729.00 3765450.00 1.80285 (12011417)
439734.00 3765450.00 1.79944 (12011417)
439739.00 3765450.00 1.79865 (12011417)
439744.00 3765450.00 1.79459 (12011417)
439749.00 3765450.00 1.79413 (12011417)
439774.00 3765450.00 1.78012 (12011417)
439844.00 3765450.00 1.78274 (14100607)

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: EXH ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439849.00	3765450.00	1.78406	(14100607)	439854.00	3765450.00	1.78545	(14100607)
439859.00	3765450.00	1.78648	(14100607)	439674.00	3765455.00	1.85042	(12011417)
439679.00	3765455.00	1.85012	(12011417)	439684.00	3765455.00	1.84763	(12011417)
439689.00	3765455.00	1.84713	(12011417)	439694.00	3765455.00	1.84468	(12011417)
439699.00	3765455.00	1.84366	(12011417)	439704.00	3765455.00	1.84145	(12011417)
439709.00	3765455.00	1.84017	(12011417)	439714.00	3765455.00	1.83815	(12011417)
439719.00	3765455.00	1.83610	(12011417)	439729.00	3765455.00	1.83192	(12011417)
439734.00	3765455.00	1.83127	(12011417)	439739.00	3765455.00	1.82790	(12011417)
439744.00	3765455.00	1.82713	(12011417)				

439749.00 3765455.00 1.82347 (12011417)
439844.00 3765455.00 1.80561 (14100607)
439849.00 3765455.00 1.80707 (14100607)
439854.00 3765455.00 1.80889 (14100607)
439859.00 3765455.00 1.81036 (14100607)
439674.00 3765460.00 1.88097 (12011417)
439679.00 3765460.00 1.87852 (12011417)
439684.00 3765460.00 1.87840 (12011417)
439689.00 3765460.00 1.87621 (12011417)
439694.00 3765460.00 1.87561 (12011417)
439699.00 3765460.00 1.87294 (12011417)
439704.00 3765460.00 1.87271 (12011417)
439709.00 3765460.00 1.87026 (12011417)
439714.00 3765460.00 1.86903 (12011417)
439719.00 3765460.00 1.86716 (12011417)
439729.00 3765460.00 1.86390 (12011417)
439734.00 3765460.00 1.86129 (12011417)
439739.00 3765460.00 1.86032 (12011417)
439744.00 3765460.00 1.85725 (12011417)
439749.00 3765460.00 1.85651 (12011417)
439789.00 3765460.00 1.83622 (12011417)
439794.00 3765460.00 1.83344 (12011417)
439799.00 3765460.00 1.82996 (12011417)
439804.00 3765460.00 1.82763 (12011417)
439809.00 3765460.00 1.82364 (12011417)
439814.00 3765460.00 1.82310 (12011808)
439819.00 3765460.00 1.82443 (12011808)
439824.00 3765460.00 1.82320 (12011808)
439829.00 3765460.00 1.82431 (12011808)
439844.00 3765460.00 1.82912 (14100607)
439849.00 3765460.00 1.83164 (14100607)
439854.00 3765460.00 1.83310 (14100607)
439859.00 3765460.00 1.83409 (14100607)
439674.00 3765465.00 1.91085 (12011417)
439679.00 3765465.00 1.91008 (12011417)
439684.00 3765465.00 1.90774 (12011417)
439689.00 3765465.00 1.90774 (12011417)
439694.00 3765465.00 1.90564 (12011417)
439699.00 3765465.00 1.90508 (12011417)
439704.00 3765465.00 1.90272 (12011417)
439709.00 3765465.00 1.90226 (12011417)
439714.00 3765465.00 1.89991 (12011417)
439719.00 3765465.00 1.89894 (12011417)
439729.00 3765465.00 1.89471 (12011417)
439734.00 3765465.00 1.89387 (12011417)
439739.00 3765465.00 1.89152 (12011417)
439744.00 3765465.00 1.89037 (12011417)
439749.00 3765465.00 1.88750 (12011417)
439789.00 3765465.00 1.86972 (12011417)
439794.00 3765465.00 1.86698 (12011417)
439799.00 3765465.00 1.86449 (12011417)
439804.00 3765465.00 1.86110 (12011417)

```
439809.00   3765465.00        1.85871  (12011417)
        439814.00   3765465.00        1.85455  (12011417)
439819.00   3765465.00        1.85252  (12011417)
        439824.00   3765465.00        1.85125  (12011808)
439829.00   3765465.00        1.85036  (12011808)
        439844.00   3765465.00        1.85435  (14100607)
439849.00   3765465.00        1.85569  (14100607)
        439854.00   3765465.00        1.85761  (14100607)
439859.00   3765465.00        1.85972  (14100607)
        439674.00   3765470.00        1.94250  (12011417)
439679.00   3765470.00        1.94058  (12011417)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: EXH ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439684.00	3765470.00	1.93994	(12011417)	439689.00	3765470.00	1.93815	(12011417)
439694.00	3765470.00	1.93787	(12011417)	439699.00	3765470.00	1.93591	(12011417)
439704.00	3765470.00	1.93538	(12011417)	439709.00	3765470.00	1.93304	(12011417)
439714.00	3765470.00	1.93276	(12011417)	439719.00	3765470.00	1.93045	(12011417)
439729.00	3765470.00	1.92778	(12011417)	439734.00	3765470.00	1.92561	(12011417)
439739.00	3765470.00	1.92467	(12011417)	439744.00	3765470.00	1.92253	(12011417)
439749.00	3765470.00	1.92150	(12011417)	439789.00	3765470.00	1.90425	(12011417)
439794.00	3765470.00	1.90157	(12011417)	439799.00	3765470.00	1.89872	(12011417)
439804.00	3765470.00	1.89660	(12011417)				

439809.00 3765470.00 1.89286 (12011417)
439814.00 3765470.00 1.89066 (12011417)
439819.00 3765470.00 1.88695 (12011417)
439824.00 3765470.00 1.88465 (12011417)
439829.00 3765470.00 1.88045 (12011417)
439844.00 3765470.00 1.87916 (14100607)
439849.00 3765470.00 1.88121 (14100607)
439854.00 3765470.00 1.88322 (14100607)
439859.00 3765470.00 1.88545 (14100607)
439674.00 3765475.00 1.97380 (12011417)
439679.00 3765475.00 1.97335 (12011417)
439684.00 3765475.00 1.97137 (12011417)
439689.00 3765475.00 1.97123 (12011417)
439694.00 3765475.00 1.96926 (12011417)
439699.00 3765475.00 1.96920 (12011417)
439704.00 3765475.00 1.96705 (12011417)
439709.00 3765475.00 1.96659 (12011417)
439714.00 3765475.00 1.96460 (12011417)
439719.00 3765475.00 1.96409 (12011417)
439729.00 3765475.00 1.96099 (12011417)
439734.00 3765475.00 1.95936 (12011417)
439739.00 3765475.00 1.95751 (12011417)
439744.00 3765475.00 1.95664 (12011417)
439749.00 3765475.00 1.95449 (12011417)
439754.00 3765475.00 1.95348 (12011417)
439789.00 3765475.00 1.93922 (12011417)
439794.00 3765475.00 1.93712 (12011417)
439799.00 3765475.00 1.93433 (12011417)
439804.00 3765475.00 1.93159 (12011417)
439809.00 3765475.00 1.92962 (12011417)
439814.00 3765475.00 1.92596 (12011417)
439819.00 3765475.00 1.92369 (12011417)
439824.00 3765475.00 1.92022 (12011417)
439829.00 3765475.00 1.91807 (12011417)
439269.00 3764900.00 0.81860 (13120808)
439369.00 3764900.00 0.81738 (13120808)
439469.00 3764900.00 0.81421 (13120808)
439569.00 3764900.00 0.80580 (13120808)
439669.00 3764900.00 0.78696 (12010217)
439769.00 3764900.00 0.78488 (12010217)
439869.00 3764900.00 0.77825 (12010217)
439969.00 3764900.00 0.75971 (12010217)
440069.00 3764900.00 0.76638 (15010717)
440169.00 3764900.00 0.77186 (15010717)
440269.00 3764900.00 0.77514 (15010717)
439269.00 3765000.00 0.89521 (13120808)
439369.00 3765000.00 0.89461 (13120808)
439469.00 3765000.00 0.89407 (13120808)
439569.00 3765000.00 0.89240 (13120808)
439669.00 3765000.00 0.88376 (13120808)
439769.00 3765000.00 0.85967 (12010217)
439869.00 3765000.00 0.85734 (12010217)

```
439969.00   3765000.00        0.84706  (12010217)
        440069.00   3765000.00        0.84339  (15010717)
440169.00   3765000.00        0.84664  (15010717)
        440269.00   3765000.00        0.84848  (15010717)
439269.00   3765100.00        0.99136  (13120808)
        439369.00   3765100.00        0.99107  (13120808)
439469.00   3765100.00        0.99051  (13120808)
        439569.00   3765100.00        0.99203  (13120808)
439669.00   3765100.00        0.99228  (13120808)
        439769.00   3765100.00        0.98315  (13120808)
439869.00   3765100.00        0.95380  (13120808)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: EXH ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439969.00	3765100.00	0.94992	(12010217)	440069.00	3765100.00	0.93766	(15010717)
440169.00	3765100.00	0.93990	(15010717)	440269.00	3765100.00	0.94031	(15010717)
439269.00	3765200.00	1.11783	(13120808)	439369.00	3765200.00	1.11904	(13120808)
439469.00	3765200.00	1.11696	(13120808)	439569.00	3765200.00	1.11716	(13120808)
439669.00	3765200.00	1.12179	(13120808)	439769.00	3765200.00	1.12546	(13120808)
439869.00	3765200.00	1.11526	(13120808)	439969.00	3765200.00	1.07910	(13120808)
440069.00	3765200.00	1.07036	(12010217)	440169.00	3765200.00	1.06123	(15010717)
440269.00	3765200.00	1.06152	(15010717)	439269.00	3765300.00	1.33818	(12011417)
439369.00	3765300.00	1.30845	(12011417)				

439469.00 3765300.00 1.29458 (13120808)
439569.00 3765300.00 1.29112 (13120808)
439669.00 3765300.00 1.29474 (13120808)
439769.00 3765300.00 1.30661 (13120808)
439869.00 3765300.00 1.31146 (13120808)
439969.00 3765300.00 1.29756 (13120808)
440069.00 3765300.00 1.25571 (13120808)
440169.00 3765300.00 1.23672 (12010217)
440269.00 3765300.00 1.23086 (15010717)
439269.00 3765400.00 1.67154 (12011417)
439369.00 3765400.00 1.65476 (12011417)
439469.00 3765400.00 1.63212 (12011417)
439569.00 3765400.00 1.60324 (12011417)
439669.00 3765400.00 1.56211 (12011417)
439769.00 3765400.00 1.56826 (14100607)
439869.00 3765400.00 1.59038 (13120808)
439969.00 3765400.00 1.59150 (13120808)
440069.00 3765400.00 1.57499 (13120808)
440169.00 3765400.00 1.52549 (13120808)
440269.00 3765400.00 1.52387 (12011608)
439269.00 3765500.00 2.19780 (12011417)
439369.00 3765500.00 2.19361 (12011417)
439469.00 3765500.00 2.18060 (12011417)
439569.00 3765500.00 2.16371 (12011417)
439669.00 3765500.00 2.14880 (12011417)
439769.00 3765500.00 2.13312 (12011417)
439869.00 3765500.00 2.09228 (12011417)
439969.00 3765500.00 2.08853 (13120808)
440069.00 3765500.00 2.08038 (13120808)
440169.00 3765500.00 2.06199 (13120808)
440269.00 3765500.00 2.06692 (12011608)
439269.00 3765600.00 3.48269 (12101307)
439369.00 3765600.00 3.46847 (12101307)
439469.00 3765600.00 3.43151 (12101307)
439569.00 3765600.00 3.38714 (12011417)
439669.00 3765600.00 3.37011 (12011417)
439769.00 3765600.00 3.36283 (12011417)
439869.00 3765600.00 3.39883 (12011417)
439969.00 3765600.00 3.42312 (12011417)
440069.00 3765600.00 3.53049 (14101107)
440169.00 3765600.00 3.61368 (14101107)
440269.00 3765600.00 3.66595 (14101107)
439269.00 3765700.00 14.56472 (12101307)
439369.00 3765700.00 15.07590 (12101307)
439469.00 3765700.00 15.66274 (12101307)
439569.00 3765700.00 16.04418 (14101107)
439669.00 3765700.00 16.42742 (14101107)
439769.00 3765700.00 16.65484 (14101107)
439869.00 3765700.00 16.87478 (14101107)
439969.00 3765700.00 16.90265 (14101107)
440069.00 3765700.00 17.19848 (12101207)
440169.00 3765700.00 17.28501 (12101207)

```
440269.00   3765700.00       17.52593  (12101207)
        439269.00   3765800.00        4.32810  (12100707)
439369.00   3765800.00        4.36921  (12100707)
        439469.00   3765800.00        4.34561  (12100707)
439569.00   3765800.00        4.31596  (12100707)
        439669.00   3765800.00        4.30851  (12100707)
439769.00   3765800.00        4.31304  (12100707)
        439869.00   3765800.00        4.38199  (13111217)
439969.00   3765800.00        4.12393  (12011717)
        440069.00   3765800.00        4.06776  (12011717)
440169.00   3765800.00        4.06044  (12011717)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: EXH ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
440269.00	3765800.00	4.07663	(12011717)	439269.00	3765900.00	2.49048	(12100707)
439369.00	3765900.00	2.44857	(12100707)	439469.00	3765900.00	2.39490	(12100707)
439569.00	3765900.00	2.32766	(12100707)	439669.00	3765900.00	2.34570	(13111217)
439769.00	3765900.00	2.39147	(13111217)	439869.00	3765900.00	2.42311	(13111217)
439969.00	3765900.00	2.42579	(13111217)	440069.00	3765900.00	2.39105	(13111217)
440169.00	3765900.00	2.38063	(13111217)	440269.00	3765900.00	2.39922	(12011717)
439649.00	3765310.00	1.31420	(13120808)	439679.00	3765310.00	1.31670	(13120808)
439709.00	3765310.00	1.32027	(13120808)	439739.00	3765310.00	1.32370	(13120808)
439769.00	3765310.00	1.32752	(13120808)				

```
439799.00   3765310.00        1.33138  (13120808)
        439829.00   3765310.00        1.33388  (13120808)
439859.00   3765310.00        1.33500  (13120808)
        439889.00   3765310.00        1.33348  (13120808)
439649.00   3765340.00        1.38371  (13120808)
        439679.00   3765340.00        1.38545  (13120808)
439709.00   3765340.00        1.38828  (13120808)
        439739.00   3765340.00        1.39287  (13120808)
439769.00   3765340.00        1.39757  (13120808)
        439799.00   3765340.00        1.40256  (13120808)
439829.00   3765340.00        1.40612  (13120808)
        439859.00   3765340.00        1.40874  (13120808)
439889.00   3765340.00        1.40931  (13120808)
        439649.00   3765370.00        1.46317  (13120808)
439679.00   3765370.00        1.46419  (13120808)
        439709.00   3765370.00        1.46693  (13120808)
439739.00   3765370.00        1.47127  (13120808)
        439769.00   3765370.00        1.47678  (13120808)
439799.00   3765370.00        1.48285  (13120808)
        439829.00   3765370.00        1.48834  (13120808)
439859.00   3765370.00        1.49280  (13120808)
        439889.00   3765370.00        1.49469  (13120808)
439649.00   3765400.00        1.57213  (12011417)
        439679.00   3765400.00        1.56119  (12011808)
439709.00   3765400.00        1.56142  (12011808)
        439739.00   3765400.00        1.56204  (13120808)
439769.00   3765400.00        1.56826  (14100607)
        439799.00   3765400.00        1.57546  (14100607)
439829.00   3765400.00        1.58255  (13120808)
        439859.00   3765400.00        1.58877  (13120808)
439889.00   3765400.00        1.59279  (13120808)
        439649.00   3765430.00        1.71989  (12011417)
439679.00   3765430.00        1.70940  (12011417)
        439709.00   3765430.00        1.69707  (12011417)
439739.00   3765430.00        1.68119  (12011417)
        439769.00   3765430.00        1.67905  (12011808)
439799.00   3765430.00        1.68418  (14100607)
        439829.00   3765430.00        1.69291  (14100607)
439859.00   3765430.00        1.70109  (13120808)
        439889.00   3765430.00        1.70744  (13120808)
439649.00   3765460.00        1.88705  (12011417)
        439679.00   3765460.00        1.87852  (12011417)
439709.00   3765460.00        1.87026  (12011417)
        439739.00   3765460.00        1.86032  (12011417)
439769.00   3765460.00        1.84734  (12011417)
        439799.00   3765460.00        1.82996  (12011417)
439829.00   3765460.00        1.82431  (12011808)
        439859.00   3765460.00        1.83409  (14100607)
439889.00   3765460.00        1.84365  (13120808)
        439649.00   3765490.00        2.08024  (12011417)
439679.00   3765490.00        2.07413  (12011417)
        439709.00   3765490.00        2.06936  (12011417)
```

```
439739.00   3765490.00        2.06333  (12011417)
        439769.00   3765490.00        2.05619  (12011417)
439799.00   3765490.00        2.04596  (12011417)
        439829.00   3765490.00        2.03231  (12011417)
439859.00   3765490.00        2.01424  (12011417)
        439889.00   3765490.00        2.01037  (13120808)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: FREEEXH ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439674.00	3765310.00	1.27030	(13120808)	439679.00	3765310.00	1.27044	(13120808)
439684.00	3765310.00	1.27032	(13120808)	439689.00	3765310.00	1.27059	(13120808)
439694.00	3765310.00	1.27028	(13120808)	439699.00	3765310.00	1.27063	(13120808)
439704.00	3765310.00	1.27034	(13120808)	439709.00	3765310.00	1.27081	(13120808)
439714.00	3765310.00	1.27017	(13120808)	439719.00	3765310.00	1.27079	(13120808)
439729.00	3765310.00	1.27058	(13120808)	439734.00	3765310.00	1.27029	(13120808)
439739.00	3765310.00	1.27035	(13120808)	439744.00	3765310.00	1.27030	(13120808)
439749.00	3765310.00	1.27016	(13120808)	439764.00	3765310.00	1.27046	(13120808)
439769.00	3765310.00	1.27002	(13120808)	439774.00	3765310.00	1.27043	(13120808)
439779.00	3765310.00	1.27006	(13120808)				

439784.00 3765310.00 1.27045 (13120808)
439789.00 3765310.00 1.26993 (13120808)
439794.00 3765310.00 1.27020 (13120808)
439799.00 3765310.00 1.27007 (13120808)
439804.00 3765310.00 1.26984 (13120808)
439809.00 3765310.00 1.26982 (13120808)
439814.00 3765310.00 1.26960 (13120808)
439819.00 3765310.00 1.26985 (13120808)
439824.00 3765310.00 1.26937 (13120808)
439829.00 3765310.00 1.26960 (13120808)
439839.00 3765310.00 1.26959 (13120808)
439844.00 3765310.00 1.26891 (13120808)
439849.00 3765310.00 1.26933 (13120808)
439854.00 3765310.00 1.26858 (13120808)
439859.00 3765310.00 1.26901 (13120808)
439864.00 3765310.00 1.26831 (13120808)
439869.00 3765310.00 1.26826 (13120808)
439874.00 3765310.00 1.26806 (13120808)
439879.00 3765310.00 1.26775 (13120808)
439884.00 3765310.00 1.26781 (13120808)
439674.00 3765315.00 1.28111 (13120808)
439679.00 3765315.00 1.28166 (13120808)
439684.00 3765315.00 1.28109 (13120808)
439689.00 3765315.00 1.28173 (13120808)
439694.00 3765315.00 1.28122 (13120808)
439699.00 3765315.00 1.28136 (13120808)
439704.00 3765315.00 1.28128 (13120808)
439709.00 3765315.00 1.28129 (13120808)
439714.00 3765315.00 1.28144 (13120808)
439719.00 3765315.00 1.28106 (13120808)
439729.00 3765315.00 1.28119 (13120808)
439734.00 3765315.00 1.28142 (13120808)
439739.00 3765315.00 1.28105 (13120808)
439744.00 3765315.00 1.28157 (13120808)
439749.00 3765315.00 1.28112 (13120808)
439764.00 3765315.00 1.28129 (13120808)
439769.00 3765315.00 1.28116 (13120808)
439774.00 3765315.00 1.28100 (13120808)
439779.00 3765315.00 1.28117 (13120808)
439784.00 3765315.00 1.28090 (13120808)
439789.00 3765315.00 1.28117 (13120808)
439794.00 3765315.00 1.28072 (13120808)
439799.00 3765315.00 1.28111 (13120808)
439804.00 3765315.00 1.28071 (13120808)
439809.00 3765315.00 1.28118 (13120808)
439814.00 3765315.00 1.28057 (13120808)
439819.00 3765315.00 1.28101 (13120808)
439824.00 3765315.00 1.28057 (13120808)
439829.00 3765315.00 1.28062 (13120808)
439839.00 3765315.00 1.28015 (13120808)
439844.00 3765315.00 1.28030 (13120808)
439849.00 3765315.00 1.27984 (13120808)

```
439854.00   3765315.00        1.27989  (13120808)
        439859.00   3765315.00        1.27957  (13120808)
439864.00   3765315.00        1.27976  (13120808)
        439869.00   3765315.00        1.27930  (13120808)
439874.00   3765315.00        1.27943  (13120808)
        439879.00   3765315.00        1.27890  (13120808)
439884.00   3765315.00        1.27929  (13120808)
        439674.00   3765320.00        1.29245  (13120808)
439679.00   3765320.00        1.29235  (13120808)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: FREEEXH ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439684.00	3765320.00	1.29237	(13120808)
439689.00	3765320.00	1.29228	(13120808)
439694.00	3765320.00	1.29262	(13120808)
439699.00	3765320.00	1.29234	(13120808)
439704.00	3765320.00	1.29263	(13120808)
439709.00	3765320.00	1.29220	(13120808)
439714.00	3765320.00	1.29293	(13120808)
439719.00	3765320.00	1.29227	(13120808)
439729.00	3765320.00	1.29228	(13120808)
439734.00	3765320.00	1.29254	(13120808)
439739.00	3765320.00	1.29232	(13120808)
439744.00	3765320.00	1.29232	(13120808)
439749.00	3765320.00	1.29232	(13120808)
439764.00	3765320.00	1.29212	(13120808)
439769.00	3765320.00	1.29244	(13120808)
439774.00	3765320.00	1.29215	(13120808)
439779.00	3765320.00	1.29251	(13120808)
439784.00	3765320.00	1.29204	(13120808)
439789.00	3765320.00	1.29254	(13120808)

439794.00 3765320.00 1.29202 (13120808)
439799.00 3765320.00 1.29220 (13120808)
439804.00 3765320.00 1.29191 (13120808)
439809.00 3765320.00 1.29201 (13120808)
439814.00 3765320.00 1.29192 (13120808)
439819.00 3765320.00 1.29181 (13120808)
439824.00 3765320.00 1.29185 (13120808)
439829.00 3765320.00 1.29165 (13120808)
439839.00 3765320.00 1.29136 (13120808)
439844.00 3765320.00 1.29169 (13120808)
439849.00 3765320.00 1.29119 (13120808)
439854.00 3765320.00 1.29151 (13120808)
439859.00 3765320.00 1.29088 (13120808)
439864.00 3765320.00 1.29098 (13120808)
439869.00 3765320.00 1.29076 (13120808)
439874.00 3765320.00 1.29049 (13120808)
439879.00 3765320.00 1.29041 (13120808)
439884.00 3765320.00 1.29013 (13120808)
439674.00 3765325.00 1.30382 (13120808)
439679.00 3765325.00 1.30377 (13120808)
439684.00 3765325.00 1.30394 (13120808)
439689.00 3765325.00 1.30371 (13120808)
439694.00 3765325.00 1.30382 (13120808)
439699.00 3765325.00 1.30395 (13120808)
439704.00 3765325.00 1.30374 (13120808)
439709.00 3765325.00 1.30387 (13120808)
439714.00 3765325.00 1.30371 (13120808)
439719.00 3765325.00 1.30388 (13120808)
439729.00 3765325.00 1.30390 (13120808)
439734.00 3765325.00 1.30360 (13120808)
439739.00 3765325.00 1.30406 (13120808)
439744.00 3765325.00 1.30372 (13120808)
439749.00 3765325.00 1.30394 (13120808)
439754.00 3765325.00 1.30362 (13120808)
439769.00 3765325.00 1.30374 (13120808)
439774.00 3765325.00 1.30360 (13120808)
439779.00 3765325.00 1.30355 (13120808)
439784.00 3765325.00 1.30361 (13120808)
439789.00 3765325.00 1.30344 (13120808)
439794.00 3765325.00 1.30358 (13120808)
439799.00 3765325.00 1.30338 (13120808)
439804.00 3765325.00 1.30363 (13120808)
439809.00 3765325.00 1.30325 (13120808)
439814.00 3765325.00 1.30355 (13120808)
439819.00 3765325.00 1.30328 (13120808)
439824.00 3765325.00 1.30349 (13120808)
439829.00 3765325.00 1.30312 (13120808)
439839.00 3765325.00 1.30302 (13120808)
439844.00 3765325.00 1.30289 (13120808)
439849.00 3765325.00 1.30280 (13120808)
439854.00 3765325.00 1.30267 (13120808)
439859.00 3765325.00 1.30259 (13120808)

```
439864.00   3765325.00        1.30234  (13120808)
        439869.00   3765325.00        1.30241  (13120808)
439874.00   3765325.00        1.30204  (13120808)
        439879.00   3765325.00        1.30223  (13120808)
439884.00   3765325.00        1.30165  (13120808)
        439674.00   3765330.00        1.31522  (13120808)
439679.00   3765330.00        1.31515  (13120808)
        439684.00   3765330.00        1.31537  (13120808)
439689.00   3765330.00        1.31538  (13120808)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: FREEEXH ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439694.00	3765330.00	1.31519	(13120808)
439699.00	3765330.00	1.31541	(13120808)
439704.00	3765330.00	1.31527	(13120808)
439709.00	3765330.00	1.31569	(13120808)
439714.00	3765330.00	1.31530	(13120808)
439719.00	3765330.00	1.31559	(13120808)
439729.00	3765330.00	1.31562	(13120808)
439734.00	3765330.00	1.31540	(13120808)
439739.00	3765330.00	1.31532	(13120808)
439744.00	3765330.00	1.31544	(13120808)
439749.00	3765330.00	1.31537	(13120808)
439754.00	3765330.00	1.31544	(13120808)
439774.00	3765330.00	1.31549	(13120808)
439779.00	3765330.00	1.31504	(13120808)
439784.00	3765330.00	1.31561	(13120808)
439789.00	3765330.00	1.31511	(13120808)
439794.00	3765330.00	1.31540	(13120808)
439799.00	3765330.00	1.31501	(13120808)
439804.00	3765330.00	1.31527	(13120808)

439809.00 3765330.00 1.31499 (13120808)
439814.00 3765330.00 1.31503 (13120808)
439819.00 3765330.00 1.31494 (13120808)
439824.00 3765330.00 1.31497 (13120808)
439829.00 3765330.00 1.31494 (13120808)
439839.00 3765330.00 1.31487 (13120808)
439844.00 3765330.00 1.31461 (13120808)
439849.00 3765330.00 1.31483 (13120808)
439854.00 3765330.00 1.31437 (13120808)
439859.00 3765330.00 1.31452 (13120808)
439864.00 3765330.00 1.31429 (13120808)
439869.00 3765330.00 1.31404 (13120808)
439874.00 3765330.00 1.31402 (13120808)
439879.00 3765330.00 1.31384 (13120808)
439884.00 3765330.00 1.31365 (13120808)
439674.00 3765335.00 1.32717 (13120808)
439679.00 3765335.00 1.32710 (13120808)
439684.00 3765335.00 1.32705 (13120808)
439689.00 3765335.00 1.32731 (13120808)
439694.00 3765335.00 1.32720 (13120808)
439699.00 3765335.00 1.32722 (13120808)
439704.00 3765335.00 1.32705 (13120808)
439709.00 3765335.00 1.32731 (13120808)
439714.00 3765335.00 1.32725 (13120808)
439719.00 3765335.00 1.32727 (13120808)
439729.00 3765335.00 1.32730 (13120808)
439734.00 3765335.00 1.32745 (13120808)
439739.00 3765335.00 1.32722 (13120808)
439744.00 3765335.00 1.32720 (13120808)
439749.00 3765335.00 1.32724 (13120808)
439774.00 3765335.00 1.32721 (13120808)
439779.00 3765335.00 1.32713 (13120808)
439784.00 3765335.00 1.32703 (13120808)
439789.00 3765335.00 1.32719 (13120808)
439794.00 3765335.00 1.32710 (13120808)
439839.00 3765335.00 1.32675 (13120808)
439844.00 3765335.00 1.32658 (13120808)
439849.00 3765335.00 1.32666 (13120808)
439854.00 3765335.00 1.32649 (13120808)
439859.00 3765335.00 1.32632 (13120808)
439864.00 3765335.00 1.32638 (13120808)
439869.00 3765335.00 1.32599 (13120808)
439874.00 3765335.00 1.32617 (13120808)
439879.00 3765335.00 1.32575 (13120808)
439884.00 3765335.00 1.32608 (13120808)
439674.00 3765340.00 1.33918 (13120808)
439679.00 3765340.00 1.33932 (13120808)
439684.00 3765340.00 1.33922 (13120808)
439689.00 3765340.00 1.33911 (13120808)
439694.00 3765340.00 1.33940 (13120808)
439699.00 3765340.00 1.33917 (13120808)
439704.00 3765340.00 1.33945 (13120808)

```
439709.00   3765340.00        1.33913  (13120808)
        439714.00   3765340.00        1.33952  (13120808)
439719.00   3765340.00        1.33939  (13120808)
        439729.00   3765340.00        1.33932  (13120808)
439734.00   3765340.00        1.33954  (13120808)
        439739.00   3765340.00        1.33954  (13120808)
439744.00   3765340.00        1.33936  (13120808)
        439749.00   3765340.00        1.33934  (13120808)
439774.00   3765340.00        1.33915  (13120808)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: FREEEXH ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439779.00	3765340.00	1.33963	(13120808)
439784.00	3765340.00	1.33916	(13120808)
439789.00	3765340.00	1.33930	(13120808)
439794.00	3765340.00	1.33914	(13120808)
439839.00	3765340.00	1.33889	(13120808)
439844.00	3765340.00	1.33907	(13120808)
439849.00	3765340.00	1.33883	(13120808)
439854.00	3765340.00	1.33896	(13120808)
439859.00	3765340.00	1.33866	(13120808)
439864.00	3765340.00	1.33873	(13120808)
439869.00	3765340.00	1.33851	(13120808)
439874.00	3765340.00	1.33849	(13120808)
439879.00	3765340.00	1.33808	(13120808)
439884.00	3765340.00	1.33819	(13120808)
439674.00	3765345.00	1.35163	(13120808)
439679.00	3765345.00	1.35156	(13120808)
439684.00	3765345.00	1.35180	(13120808)
439689.00	3765345.00	1.35164	(13120808)
439694.00	3765345.00	1.35184	(13120808)

439699.00 3765345.00 1.35147 (13120808)
439704.00 3765345.00 1.35191 (13120808)
439709.00 3765345.00 1.35147 (13120808)
439714.00 3765345.00 1.35183 (13120808)
439719.00 3765345.00 1.35177 (13120808)
439729.00 3765345.00 1.35172 (13120808)
439734.00 3765345.00 1.35182 (13120808)
439739.00 3765345.00 1.35173 (13120808)
439744.00 3765345.00 1.35193 (13120808)
439749.00 3765345.00 1.35189 (13120808)
439774.00 3765345.00 1.35162 (13120808)
439779.00 3765345.00 1.35179 (13120808)
439784.00 3765345.00 1.35192 (13120808)
439789.00 3765345.00 1.35166 (13120808)
439794.00 3765345.00 1.35164 (13120808)
439839.00 3765345.00 1.35137 (13120808)
439844.00 3765345.00 1.35151 (13120808)
439849.00 3765345.00 1.35147 (13120808)
439854.00 3765345.00 1.35131 (13120808)
439859.00 3765345.00 1.35137 (13120808)
439864.00 3765345.00 1.35106 (13120808)
439869.00 3765345.00 1.35125 (13120808)
439874.00 3765345.00 1.35089 (13120808)
439879.00 3765345.00 1.35113 (13120808)
439884.00 3765345.00 1.35073 (13120808)
439674.00 3765350.00 1.36445 (13120808)
439679.00 3765350.00 1.36440 (13120808)
439684.00 3765350.00 1.36411 (13120808)
439689.00 3765350.00 1.36431 (13120808)
439694.00 3765350.00 1.36435 (13120808)
439699.00 3765350.00 1.36447 (13120808)
439704.00 3765350.00 1.36426 (13120808)
439709.00 3765350.00 1.36442 (13120808)
439714.00 3765350.00 1.36439 (13120808)
439719.00 3765350.00 1.36450 (13120808)
439729.00 3765350.00 1.36456 (13120808)
439734.00 3765350.00 1.36451 (13120808)
439739.00 3765350.00 1.36455 (13120808)
439744.00 3765350.00 1.36452 (13120808)
439749.00 3765350.00 1.36453 (13120808)
439774.00 3765350.00 1.36450 (13120808)
439779.00 3765350.00 1.36444 (13120808)
439784.00 3765350.00 1.36451 (13120808)
439789.00 3765350.00 1.36455 (13120808)
439794.00 3765350.00 1.36453 (13120808)
439839.00 3765350.00 1.36424 (13120808)
439844.00 3765350.00 1.36416 (13120808)
439849.00 3765350.00 1.36439 (13120808)
439854.00 3765350.00 1.36415 (13120808)
439859.00 3765350.00 1.36416 (13120808)
439864.00 3765350.00 1.36402 (13120808)
439869.00 3765350.00 1.36419 (13120808)

```
439874.00   3765350.00        1.36366  (13120808)
        439879.00   3765350.00        1.36384  (13120808)
439884.00   3765350.00        1.36364  (13120808)
        439674.00   3765355.00        1.37717  (13120808)
439679.00   3765355.00        1.37754  (13120808)
        439684.00   3765355.00        1.37735  (13120808)
439689.00   3765355.00        1.37735  (13120808)
        439694.00   3765355.00        1.37707  (13120808)
439699.00   3765355.00        1.37769  (13120808)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: FREEEXH ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439704.00	3765355.00	1.37716	(13120808)
439709.00	3765355.00	1.37728	(13120808)
439714.00	3765355.00	1.37736	(13120808)
439719.00	3765355.00	1.37753	(13120808)
439729.00	3765355.00	1.37732	(13120808)
439734.00	3765355.00	1.37734	(13120808)
439739.00	3765355.00	1.37751	(13120808)
439744.00	3765355.00	1.37763	(13120808)
439749.00	3765355.00	1.37744	(13120808)
439774.00	3765355.00	1.37763	(13120808)
439779.00	3765355.00	1.37754	(13120808)
439784.00	3765355.00	1.37759	(13120808)
439789.00	3765355.00	1.37755	(13120808)
439794.00	3765355.00	1.37768	(13120808)
439839.00	3765355.00	1.37731	(13120808)
439844.00	3765355.00	1.37721	(13120808)
439849.00	3765355.00	1.37733	(13120808)
439854.00	3765355.00	1.37745	(13120808)
439859.00	3765355.00	1.37708	(13120808)

439864.00 3765355.00 1.37707 (13120808)
439869.00 3765355.00 1.37715 (13120808)
439874.00 3765355.00 1.37718 (13120808)
439879.00 3765355.00 1.37697 (13120808)
439884.00 3765355.00 1.37674 (13120808)
439674.00 3765360.00 1.39051 (13120808)
439679.00 3765360.00 1.39049 (13120808)
439684.00 3765360.00 1.39073 (13120808)
439689.00 3765360.00 1.39061 (13120808)
439694.00 3765360.00 1.39049 (13120808)
439699.00 3765360.00 1.39064 (13120808)
439704.00 3765360.00 1.39080 (13120808)
439709.00 3765360.00 1.39069 (13120808)
439714.00 3765360.00 1.39047 (13120808)
439719.00 3765360.00 1.39060 (13120808)
439729.00 3765360.00 1.39067 (13120808)
439734.00 3765360.00 1.39068 (13120808)
439739.00 3765360.00 1.39073 (13120808)
439744.00 3765360.00 1.39094 (13120808)
439749.00 3765360.00 1.39071 (13120808)
439774.00 3765360.00 1.39083 (13120808)
439779.00 3765360.00 1.39077 (13120808)
439784.00 3765360.00 1.39090 (13120808)
439789.00 3765360.00 1.39108 (13120808)
439794.00 3765360.00 1.39087 (13120808)
439799.00 3765360.00 1.39084 (13120808)
439804.00 3765360.00 1.39089 (13120808)
439809.00 3765360.00 1.39092 (13120808)
439814.00 3765360.00 1.39080 (13120808)
439839.00 3765360.00 1.39078 (13120808)
439844.00 3765360.00 1.39060 (13120808)
439849.00 3765360.00 1.39062 (13120808)
439854.00 3765360.00 1.39088 (13120808)
439859.00 3765360.00 1.39069 (13120808)
439864.00 3765360.00 1.39062 (13120808)
439869.00 3765360.00 1.39026 (13120808)
439874.00 3765360.00 1.39064 (13120808)
439879.00 3765360.00 1.39044 (13120808)
439884.00 3765360.00 1.39022 (13120808)
439674.00 3765365.00 1.40410 (13120808)
439679.00 3765365.00 1.40419 (13120808)
439684.00 3765365.00 1.40441 (13120808)
439689.00 3765365.00 1.40421 (13120808)
439694.00 3765365.00 1.40438 (13120808)
439699.00 3765365.00 1.40400 (13120808)
439704.00 3765365.00 1.40427 (13120808)
439709.00 3765365.00 1.40450 (13120808)
439714.00 3765365.00 1.40433 (13120808)
439719.00 3765365.00 1.40421 (13120808)
439729.00 3765365.00 1.40443 (13120808)
439734.00 3765365.00 1.40430 (13120808)
439739.00 3765365.00 1.40433 (13120808)

```
439744.00   3765365.00        1.40427  (13120808)
        439749.00   3765365.00        1.40471  (13120808)
439774.00   3765365.00        1.40457  (13120808)
        439779.00   3765365.00        1.40455  (13120808)
439784.00   3765365.00        1.40445  (13120808)
        439789.00   3765365.00        1.40481  (13120808)
439794.00   3765365.00        1.40445  (13120808)
        439799.00   3765365.00        1.40457  (13120808)
439804.00   3765365.00        1.40451  (13120808)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: FREEEXH ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439809.00	3765365.00	1.40457	(13120808)	439814.00	3765365.00	1.40461	(13120808)
439839.00	3765365.00	1.40446	(13120808)	439844.00	3765365.00	1.40443	(13120808)
439849.00	3765365.00	1.40433	(13120808)	439854.00	3765365.00	1.40436	(13120808)
439859.00	3765365.00	1.40433	(13120808)	439864.00	3765365.00	1.40441	(13120808)
439869.00	3765365.00	1.40413	(13120808)	439874.00	3765365.00	1.40427	(13120808)
439879.00	3765365.00	1.40413	(13120808)	439884.00	3765365.00	1.40423	(13120808)
439674.00	3765370.00	1.41804	(13120808)	439679.00	3765370.00	1.41803	(13120808)
439684.00	3765370.00	1.41824	(13120808)	439689.00	3765370.00	1.41815	(13120808)
439694.00	3765370.00	1.41828	(13120808)	439699.00	3765370.00	1.41812	(13120808)
439704.00	3765370.00	1.41827	(13120808)				

439709.00 3765370.00 1.41822 (13120808)
439714.00 3765370.00 1.41819 (13120808)
439719.00 3765370.00 1.41846 (13120808)
439729.00 3765370.00 1.41839 (13120808)
439734.00 3765370.00 1.41848 (13120808)
439739.00 3765370.00 1.41839 (13120808)
439744.00 3765370.00 1.41813 (13120808)
439749.00 3765370.00 1.41845 (13120808)
439774.00 3765370.00 1.41862 (13120808)
439779.00 3765370.00 1.41844 (13120808)
439784.00 3765370.00 1.41862 (13120808)
439789.00 3765370.00 1.41843 (13120808)
439794.00 3765370.00 1.41881 (13120808)
439799.00 3765370.00 1.41856 (13120808)
439804.00 3765370.00 1.41862 (13120808)
439809.00 3765370.00 1.41835 (13120808)
439814.00 3765370.00 1.41874 (13120808)
439839.00 3765370.00 1.41855 (13120808)
439844.00 3765370.00 1.41835 (13120808)
439849.00 3765370.00 1.41845 (13120808)
439854.00 3765370.00 1.41846 (13120808)
439859.00 3765370.00 1.41858 (13120808)
439864.00 3765370.00 1.41820 (13120808)
439869.00 3765370.00 1.41838 (13120808)
439874.00 3765370.00 1.41819 (13120808)
439879.00 3765370.00 1.41817 (13120808)
439884.00 3765370.00 1.41825 (13120808)
439674.00 3765375.00 1.43247 (13120808)
439679.00 3765375.00 1.43247 (13120808)
439684.00 3765375.00 1.43246 (13120808)
439689.00 3765375.00 1.43273 (13120808)
439694.00 3765375.00 1.43236 (13120808)
439699.00 3765375.00 1.43236 (13120808)
439704.00 3765375.00 1.43261 (13120808)
439709.00 3765375.00 1.43267 (13120808)
439714.00 3765375.00 1.43250 (13120808)
439719.00 3765375.00 1.43261 (13120808)
439729.00 3765375.00 1.43257 (13120808)
439734.00 3765375.00 1.43265 (13120808)
439739.00 3765375.00 1.43264 (13120808)
439744.00 3765375.00 1.43282 (13120808)
439749.00 3765375.00 1.43272 (13120808)
439754.00 3765375.00 1.43276 (13120808)
439774.00 3765375.00 1.43299 (13120808)
439779.00 3765375.00 1.43285 (13120808)
439784.00 3765375.00 1.43305 (13120808)
439789.00 3765375.00 1.43260 (13120808)
439794.00 3765375.00 1.43294 (13120808)
439799.00 3765375.00 1.43298 (13120808)
439804.00 3765375.00 1.43293 (13120808)
439809.00 3765375.00 1.43292 (13120808)
439814.00 3765375.00 1.43297 (13120808)

```
439839.00   3765375.00        1.43311  (13120808)
        439844.00   3765375.00        1.43284  (13120808)
439849.00   3765375.00        1.43269  (13120808)
        439854.00   3765375.00        1.43261  (13120808)
439859.00   3765375.00        1.43299  (13120808)
        439864.00   3765375.00        1.43275  (13120808)
439869.00   3765375.00        1.43270  (13120808)
        439874.00   3765375.00        1.43258  (13120808)
439879.00   3765375.00        1.43280  (13120808)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: FREEEXH ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439884.00	3765375.00	1.43271	(13120808)
439774.00	3765380.00	1.44738	(13120808)
439779.00	3765380.00	1.44767	(13120808)
439784.00	3765380.00	1.44752	(13120808)
439789.00	3765380.00	1.44772	(13120808)
439794.00	3765380.00	1.44758	(13120808)
439799.00	3765380.00	1.44761	(13120808)
439804.00	3765380.00	1.44752	(13120808)
439809.00	3765380.00	1.44774	(13120808)
439814.00	3765380.00	1.44756	(13120808)
439769.00	3765385.00	1.46255	(13120808)
439819.00	3765385.00	1.46269	(13120808)
439769.00	3765400.00	1.51022	(13120808)
439844.00	3765400.00	1.51040	(13120808)
439849.00	3765400.00	1.51051	(13120808)
439674.00	3765405.00	1.53776	(12011417)
439714.00	3765405.00	1.52661	(13120808)
439719.00	3765405.00	1.52665	(13120808)
439734.00	3765405.00	1.52664	(13120808)

439749.00 3765405.00 1.52678 (13120808)
439754.00 3765405.00 1.52681 (13120808)
439774.00 3765405.00 1.52702 (13120808)
439779.00 3765405.00 1.52698 (13120808)
439784.00 3765405.00 1.52692 (13120808)
439789.00 3765405.00 1.52695 (13120808)
439794.00 3765405.00 1.52709 (13120808)
439799.00 3765405.00 1.52699 (13120808)
439804.00 3765405.00 1.52704 (13120808)
439809.00 3765405.00 1.52717 (13120808)
439814.00 3765405.00 1.52712 (13120808)
439819.00 3765405.00 1.52717 (13120808)
439824.00 3765405.00 1.52718 (13120808)
439829.00 3765405.00 1.52731 (13120808)
439834.00 3765405.00 1.52723 (13120808)
439839.00 3765405.00 1.52734 (13120808)
439844.00 3765405.00 1.52719 (13120808)
439849.00 3765405.00 1.52721 (13120808)
439854.00 3765405.00 1.52728 (13120808)
439859.00 3765405.00 1.52735 (13120808)
439674.00 3765410.00 1.56145 (12011417)
439679.00 3765410.00 1.55928 (12011417)
439684.00 3765410.00 1.55579 (12011417)
439689.00 3765410.00 1.55419 (12011417)
439694.00 3765410.00 1.55079 (12011417)
439699.00 3765410.00 1.54803 (12011417)
439704.00 3765410.00 1.54483 (12011417)
439709.00 3765410.00 1.54384 (13120808)
439714.00 3765410.00 1.54397 (13120808)
439719.00 3765410.00 1.54380 (13120808)
439729.00 3765410.00 1.54405 (13120808)
439734.00 3765410.00 1.54398 (13120808)
439739.00 3765410.00 1.54390 (13120808)
439744.00 3765410.00 1.54415 (13120808)
439749.00 3765410.00 1.54403 (13120808)
439774.00 3765410.00 1.54423 (13120808)
439779.00 3765410.00 1.54422 (13120808)
439784.00 3765410.00 1.54401 (13120808)
439789.00 3765410.00 1.54430 (13120808)
439794.00 3765410.00 1.54426 (13120808)
439799.00 3765410.00 1.54429 (13120808)
439804.00 3765410.00 1.54416 (13120808)
439809.00 3765410.00 1.54449 (13120808)
439814.00 3765410.00 1.54432 (13120808)
439819.00 3765410.00 1.54437 (13120808)
439824.00 3765410.00 1.54429 (13120808)
439829.00 3765410.00 1.54447 (13120808)
439834.00 3765410.00 1.54450 (13120808)
439839.00 3765410.00 1.54460 (13120808)
439844.00 3765410.00 1.54451 (13120808)
439849.00 3765410.00 1.54457 (13120808)
439854.00 3765410.00 1.54445 (13120808)

```
439859.00   3765410.00        1.54450  (13120808)
        439674.00   3765415.00        1.58675  (12011417)
439679.00   3765415.00        1.58330  (12011417)
        439684.00   3765415.00        1.58151  (12011417)
439689.00   3765415.00        1.57771  (12011417)
        439694.00   3765415.00        1.57617  (12011417)
439699.00   3765415.00        1.57272  (12011417)
        439704.00   3765415.00        1.57043  (12011417)
439709.00   3765415.00        1.56685  (12011417)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: FREEEXH ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439714.00	3765415.00	1.56426	(12011417)
439719.00	3765415.00	1.56176	(13120808)
439729.00	3765415.00	1.56172	(13120808)
439734.00	3765415.00	1.56165	(13120808)
439739.00	3765415.00	1.56195	(13120808)
439744.00	3765415.00	1.56154	(13120808)
439749.00	3765415.00	1.56183	(13120808)
439774.00	3765415.00	1.56190	(13120808)
439779.00	3765415.00	1.56188	(13120808)
439784.00	3765415.00	1.56192	(13120808)
439789.00	3765415.00	1.56203	(13120808)
439794.00	3765415.00	1.56198	(13120808)
439799.00	3765415.00	1.56200	(13120808)
439804.00	3765415.00	1.56224	(13120808)
439809.00	3765415.00	1.56183	(13120808)
439814.00	3765415.00	1.56215	(13120808)
439819.00	3765415.00	1.56221	(13120808)
439824.00	3765415.00	1.56203	(13120808)
439829.00	3765415.00	1.56223	(13120808)

439834.00 3765415.00 1.56213 (13120808)
439839.00 3765415.00 1.56227 (13120808)
439844.00 3765415.00 1.56216 (13120808)
439849.00 3765415.00 1.56231 (13120808)
439854.00 3765415.00 1.56243 (13120808)
439859.00 3765415.00 1.56224 (13120808)
439674.00 3765420.00 1.61088 (12011417)
439679.00 3765420.00 1.60882 (12011417)
439684.00 3765420.00 1.60571 (12011417)
439689.00 3765420.00 1.60409 (12011417)
439694.00 3765420.00 1.60040 (12011417)
439699.00 3765420.00 1.59870 (12011417)
439704.00 3765420.00 1.59533 (12011417)
439709.00 3765420.00 1.59341 (12011417)
439714.00 3765420.00 1.58957 (12011417)
439719.00 3765420.00 1.58705 (12011417)
439729.00 3765420.00 1.58111 (12011417)
439734.00 3765420.00 1.58012 (13120808)
439739.00 3765420.00 1.57977 (13120808)
439744.00 3765420.00 1.58009 (13120808)
439749.00 3765420.00 1.58005 (13120808)
439774.00 3765420.00 1.58002 (13120808)
439779.00 3765420.00 1.58010 (13120808)
439784.00 3765420.00 1.58026 (13120808)
439789.00 3765420.00 1.58019 (13120808)
439794.00 3765420.00 1.58015 (13120808)
439799.00 3765420.00 1.58039 (13120808)
439804.00 3765420.00 1.58017 (13120808)
439809.00 3765420.00 1.58045 (13120808)
439814.00 3765420.00 1.58022 (13120808)
439819.00 3765420.00 1.58049 (13120808)
439824.00 3765420.00 1.58029 (13120808)
439829.00 3765420.00 1.58033 (13120808)
439834.00 3765420.00 1.58041 (13120808)
439839.00 3765420.00 1.58032 (13120808)
439844.00 3765420.00 1.58057 (13120808)
439849.00 3765420.00 1.58040 (13120808)
439854.00 3765420.00 1.58051 (13120808)
439859.00 3765420.00 1.58060 (13120808)
439674.00 3765425.00 1.63656 (12011417)
439679.00 3765425.00 1.63412 (12011417)
439684.00 3765425.00 1.63171 (12011417)
439689.00 3765425.00 1.62891 (12011417)
439694.00 3765425.00 1.62727 (12011417)
439699.00 3765425.00 1.62386 (12011417)
439704.00 3765425.00 1.62209 (12011417)
439709.00 3765425.00 1.61835 (12011417)
439714.00 3765425.00 1.61677 (12011417)
439719.00 3765425.00 1.61300 (12011417)
439729.00 3765425.00 1.60737 (12011417)
439734.00 3765425.00 1.60471 (12011417)
439739.00 3765425.00 1.60150 (12011417)

```
439744.00   3765425.00        1.59861  (13120808)
        439749.00   3765425.00        1.59894  (13120808)
439774.00   3765425.00        1.59892  (13120808)
        439779.00   3765425.00        1.59917  (13120808)
439784.00   3765425.00        1.59871  (13120808)
        439789.00   3765425.00        1.59890  (13120808)
439794.00   3765425.00        1.59908  (13120808)
        439799.00   3765425.00        1.59903  (13120808)
439804.00   3765425.00        1.59907  (13120808)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: FREEEXH ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439809.00	3765425.00	1.59888	(13120808)
439814.00	3765425.00	1.59939	(13120808)
439819.00	3765425.00	1.59897	(13120808)
439824.00	3765425.00	1.59955	(13120808)
439829.00	3765425.00	1.59904	(13120808)
439834.00	3765425.00	1.59956	(13120808)
439839.00	3765425.00	1.59920	(13120808)
439844.00	3765425.00	1.59932	(13120808)
439849.00	3765425.00	1.59922	(13120808)
439854.00	3765425.00	1.59934	(13120808)
439859.00	3765425.00	1.59933	(13120808)
439674.00	3765430.00	1.66271	(12011417)
439679.00	3765430.00	1.66013	(12011417)
439684.00	3765430.00	1.65797	(12011417)
439689.00	3765430.00	1.65538	(12011417)
439694.00	3765430.00	1.65272	(12011417)
439699.00	3765430.00	1.65087	(12011417)
439704.00	3765430.00	1.64767	(12011417)
439709.00	3765430.00	1.64612	(12011417)

439714.00 3765430.00 1.64195 (12011417)
439719.00 3765430.00 1.64060 (12011417)
439729.00 3765430.00 1.63474 (12011417)
439734.00 3765430.00 1.63106 (12011417)
439739.00 3765430.00 1.62900 (12011417)
439744.00 3765430.00 1.62561 (12011417)
439749.00 3765430.00 1.62250 (12011417)
439774.00 3765430.00 1.61832 (13120808)
439779.00 3765430.00 1.61825 (13120808)
439784.00 3765430.00 1.61859 (13120808)
439789.00 3765430.00 1.61819 (13120808)
439794.00 3765430.00 1.61858 (13120808)
439799.00 3765430.00 1.61813 (13120808)
439804.00 3765430.00 1.61844 (13120808)
439809.00 3765430.00 1.61837 (13120808)
439814.00 3765430.00 1.61822 (13120808)
439819.00 3765430.00 1.61858 (13120808)
439824.00 3765430.00 1.61832 (13120808)
439829.00 3765430.00 1.61868 (13120808)
439834.00 3765430.00 1.61826 (13120808)
439839.00 3765430.00 1.61885 (13120808)
439844.00 3765430.00 1.61853 (13120808)
439849.00 3765430.00 1.61877 (13120808)
439854.00 3765430.00 1.61863 (13120808)
439859.00 3765430.00 1.61893 (13120808)
439674.00 3765435.00 1.68860 (12011417)
439679.00 3765435.00 1.68691 (12011417)
439684.00 3765435.00 1.68435 (12011417)
439689.00 3765435.00 1.68222 (12011417)
439694.00 3765435.00 1.67981 (12011417)
439699.00 3765435.00 1.67690 (12011417)
439704.00 3765435.00 1.67516 (12011417)
439709.00 3765435.00 1.67187 (12011417)
439714.00 3765435.00 1.67073 (12011417)
439719.00 3765435.00 1.66636 (12011417)
439729.00 3765435.00 1.66124 (12011417)
439734.00 3765435.00 1.65972 (12011417)
439739.00 3765435.00 1.65565 (12011417)
439744.00 3765435.00 1.65386 (12011417)
439749.00 3765435.00 1.65008 (12011417)
439774.00 3765435.00 1.63818 (13120808)
439779.00 3765435.00 1.63818 (13120808)
439784.00 3765435.00 1.63816 (13120808)
439789.00 3765435.00 1.63858 (13120808)
439794.00 3765435.00 1.63794 (13120808)
439799.00 3765435.00 1.63847 (13120808)
439804.00 3765435.00 1.63809 (13120808)
439809.00 3765435.00 1.63856 (13120808)
439814.00 3765435.00 1.63820 (13120808)
439819.00 3765435.00 1.63844 (13120808)
439824.00 3765435.00 1.63832 (13120808)
439829.00 3765435.00 1.63855 (13120808)

```
439834.00   3765435.00        1.63850  (13120808)
        439839.00   3765435.00        1.63829  (13120808)
439844.00   3765435.00        1.63867  (13120808)
        439849.00   3765435.00        1.63857  (13120808)
439854.00   3765435.00        1.63866  (13120808)
        439859.00   3765435.00        1.63844  (13120808)
439674.00   3765440.00        1.71639  (12011417)
        439679.00   3765440.00        1.71329  (12011417)
439684.00   3765440.00        1.71193  (12011417)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: FREEEXH ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439689.00	3765440.00	1.70889	(12011417)
439694.00	3765440.00	1.70714	(12011417)
439699.00	3765440.00	1.70480	(12011417)
439704.00	3765440.00	1.70197	(12011417)
439709.00	3765440.00	1.70005	(12011417)
439714.00	3765440.00	1.69698	(12011417)
439719.00	3765440.00	1.69590	(12011417)
439729.00	3765440.00	1.69053	(12011417)
439734.00	3765440.00	1.68639	(12011417)
439739.00	3765440.00	1.68521	(12011417)
439744.00	3765440.00	1.68071	(12011417)
439749.00	3765440.00	1.67925	(12011417)
439774.00	3765440.00	1.66336	(12011417)
439779.00	3765440.00	1.65986	(12011417)
439784.00	3765440.00	1.65869	(13120808)
439789.00	3765440.00	1.65858	(13120808)
439794.00	3765440.00	1.65901	(13120808)
439799.00	3765440.00	1.65864	(13120808)
439804.00	3765440.00	1.65894	(13120808)

439809.00 3765440.00 1.65854 (13120808)
439814.00 3765440.00 1.65943 (13120808)
439819.00 3765440.00 1.65869 (13120808)
439824.00 3765440.00 1.65921 (13120808)
439829.00 3765440.00 1.65885 (13120808)
439834.00 3765440.00 1.65925 (13120808)
439839.00 3765440.00 1.65910 (13120808)
439844.00 3765440.00 1.65898 (13120808)
439849.00 3765440.00 1.65912 (13120808)
439854.00 3765440.00 1.65914 (13120808)
439859.00 3765440.00 1.65935 (13120808)
439674.00 3765445.00 1.74269 (12011417)
439679.00 3765445.00 1.74183 (12011417)
439684.00 3765445.00 1.73882 (12011417)
439689.00 3765445.00 1.73744 (12011417)
439694.00 3765445.00 1.73453 (12011417)
439699.00 3765445.00 1.73285 (12011417)
439704.00 3765445.00 1.73039 (12011417)
439709.00 3765445.00 1.72793 (12011417)
439714.00 3765445.00 1.72594 (12011417)
439719.00 3765445.00 1.72255 (12011417)
439729.00 3765445.00 1.71768 (12011417)
439734.00 3765445.00 1.71632 (12011417)
439739.00 3765445.00 1.71209 (12011417)
439744.00 3765445.00 1.71127 (12011417)
439749.00 3765445.00 1.70676 (12011417)
439774.00 3765445.00 1.69257 (12011417)
439779.00 3765445.00 1.68972 (12011417)
439784.00 3765445.00 1.68617 (12011417)
439789.00 3765445.00 1.68339 (12011417)
439794.00 3765445.00 1.68012 (13120808)
439799.00 3765445.00 1.68015 (13120808)
439804.00 3765445.00 1.67988 (13120808)
439809.00 3765445.00 1.68027 (13120808)
439814.00 3765445.00 1.67988 (13120808)
439819.00 3765445.00 1.68066 (13120808)
439824.00 3765445.00 1.67997 (13120808)
439829.00 3765445.00 1.68050 (13120808)
439834.00 3765445.00 1.68005 (13120808)
439839.00 3765445.00 1.68053 (13120808)
439844.00 3765445.00 1.68030 (13120808)
439849.00 3765445.00 1.68031 (13120808)
439854.00 3765445.00 1.68038 (13120808)
439859.00 3765445.00 1.68058 (13120808)
439674.00 3765450.00 1.77178 (12011417)
439679.00 3765450.00 1.76888 (12011417)
439684.00 3765450.00 1.76811 (12011417)
439689.00 3765450.00 1.76506 (12011417)
439694.00 3765450.00 1.76359 (12011417)
439699.00 3765450.00 1.76087 (12011417)
439704.00 3765450.00 1.75942 (12011417)
439709.00 3765450.00 1.75665 (12011417)

```
439714.00   3765450.00        1.75428  (12011417)
        439719.00   3765450.00        1.75235  (12011417)
439729.00   3765450.00        1.74793  (12011417)
        439734.00   3765450.00        1.74419  (12011417)
439739.00   3765450.00        1.74306  (12011417)
        439744.00   3765450.00        1.73869  (12011417)
439749.00   3765450.00        1.73794  (12011417)
        439774.00   3765450.00        1.72282  (12011417)
439844.00   3765450.00        1.70274  (13120808)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: FREEEXH ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439849.00	3765450.00	1.70212	(13120808)	439854.00	3765450.00	1.70258	(13120808)
439859.00	3765450.00	1.70205	(13120808)	439674.00	3765455.00	1.79951	(12011417)
439679.00	3765455.00	1.79879	(12011417)	439684.00	3765455.00	1.79587	(12011417)
439689.00	3765455.00	1.79494	(12011417)	439694.00	3765455.00	1.79206	(12011417)
439699.00	3765455.00	1.79059	(12011417)	439704.00	3765455.00	1.78796	(12011417)
439709.00	3765455.00	1.78625	(12011417)	439714.00	3765455.00	1.78380	(12011417)
439719.00	3765455.00	1.78133	(12011417)	439729.00	3765455.00	1.77634	(12011417)
439734.00	3765455.00	1.77528	(12011417)	439739.00	3765455.00	1.77153	(12011417)
439744.00	3765455.00	1.77040	(12011417)	439749.00	3765455.00	1.76641	(12011417)
439844.00	3765455.00	1.72468	(13120808)				

439849.00 3765455.00 1.72524 (13120808)
439854.00 3765455.00 1.72463 (13120808)
439859.00 3765455.00 1.72535 (13120808)
439674.00 3765460.00 1.82975 (12011417)
439679.00 3765460.00 1.82686 (12011417)
439684.00 3765460.00 1.82631 (12011417)
439689.00 3765460.00 1.82366 (12011417)
439694.00 3765460.00 1.82259 (12011417)
439699.00 3765460.00 1.81948 (12011417)
439704.00 3765460.00 1.81877 (12011417)
439709.00 3765460.00 1.81585 (12011417)
439714.00 3765460.00 1.81415 (12011417)
439719.00 3765460.00 1.81182 (12011417)
439729.00 3765460.00 1.80768 (12011417)
439734.00 3765460.00 1.80464 (12011417)
439739.00 3765460.00 1.80324 (12011417)
439744.00 3765460.00 1.79975 (12011417)
439749.00 3765460.00 1.79862 (12011417)
439789.00 3765460.00 1.77609 (12011417)
439794.00 3765460.00 1.77317 (12011417)
439799.00 3765460.00 1.76960 (12011417)
439804.00 3765460.00 1.76722 (12011417)
439809.00 3765460.00 1.76321 (12011417)
439814.00 3765460.00 1.76074 (12011417)
439819.00 3765460.00 1.75654 (12011417)
439824.00 3765460.00 1.75421 (12011417)
439829.00 3765460.00 1.74959 (12011417)
439844.00 3765460.00 1.74834 (13120808)
439849.00 3765460.00 1.74829 (13120808)
439854.00 3765460.00 1.74857 (13120808)
439859.00 3765460.00 1.74824 (13120808)
439674.00 3765465.00 1.85937 (12011417)
439679.00 3765465.00 1.85814 (12011417)
439684.00 3765465.00 1.85534 (12011417)
439689.00 3765465.00 1.85485 (12011417)
439694.00 3765465.00 1.85228 (12011417)
439699.00 3765465.00 1.85122 (12011417)
439704.00 3765465.00 1.84837 (12011417)
439709.00 3765465.00 1.84741 (12011417)
439714.00 3765465.00 1.84456 (12011417)
439719.00 3765465.00 1.84309 (12011417)
439729.00 3765465.00 1.83787 (12011417)
439734.00 3765465.00 1.83657 (12011417)
439739.00 3765465.00 1.83375 (12011417)
439744.00 3765465.00 1.83214 (12011417)
439749.00 3765465.00 1.82883 (12011417)
439789.00 3765465.00 1.80835 (12011417)
439794.00 3765465.00 1.80542 (12011417)
439799.00 3765465.00 1.80277 (12011417)
439804.00 3765465.00 1.79927 (12011417)
439809.00 3765465.00 1.79681 (12011417)
439814.00 3765465.00 1.79261 (12011417)

```
439819.00   3765465.00        1.79061  (12011417)
        439824.00   3765465.00        1.78637  (12011417)
439829.00   3765465.00        1.78397  (12011417)
        439844.00   3765465.00        1.77247  (13120808)
439849.00   3765465.00        1.77263  (13120808)
        439854.00   3765465.00        1.77285  (13120808)
439859.00   3765465.00        1.77249  (13120808)
        439674.00   3765470.00        1.89079  (12011417)
439679.00   3765470.00        1.88839  (12011417)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: FREEEXH ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439684.00	3765470.00	1.88727	(12011417)
439689.00	3765470.00	1.88498	(12011417)
439694.00	3765470.00	1.88419	(12011417)
439699.00	3765470.00	1.88171	(12011417)
439704.00	3765470.00	1.88066	(12011417)
439709.00	3765470.00	1.87779	(12011417)
439714.00	3765470.00	1.87698	(12011417)
439719.00	3765470.00	1.87414	(12011417)
439729.00	3765470.00	1.87040	(12011417)
439734.00	3765470.00	1.86770	(12011417)
439739.00	3765470.00	1.86625	(12011417)
439744.00	3765470.00	1.86360	(12011417)
439749.00	3765470.00	1.86208	(12011417)
439789.00	3765470.00	1.84168	(12011417)
439794.00	3765470.00	1.83872	(12011417)
439799.00	3765470.00	1.83566	(12011417)
439804.00	3765470.00	1.83336	(12011417)
439809.00	3765470.00	1.82949	(12011417)
439814.00	3765470.00	1.82719	(12011417)

439819.00 3765470.00 1.82345 (12011417)
439824.00 3765470.00 1.82116 (12011417)
439829.00 3765470.00 1.81703 (12011417)
439844.00 3765470.00 1.80770 (12011417)
439849.00 3765470.00 1.80347 (12011417)
439854.00 3765470.00 1.79979 (12011417)
439859.00 3765470.00 1.79817 (13120808)
439674.00 3765475.00 1.92187 (12011417)
439679.00 3765475.00 1.92094 (12011417)
439684.00 3765475.00 1.91846 (12011417)
439689.00 3765475.00 1.91780 (12011417)
439694.00 3765475.00 1.91531 (12011417)
439699.00 3765475.00 1.91471 (12011417)
439704.00 3765475.00 1.91201 (12011417)
439709.00 3765475.00 1.91098 (12011417)
439714.00 3765475.00 1.90843 (12011417)
439719.00 3765475.00 1.90735 (12011417)
439729.00 3765475.00 1.90311 (12011417)
439734.00 3765475.00 1.90092 (12011417)
439739.00 3765475.00 1.89850 (12011417)
439744.00 3765475.00 1.89707 (12011417)
439749.00 3765475.00 1.89437 (12011417)
439754.00 3765475.00 1.89283 (12011417)
439789.00 3765475.00 1.87544 (12011417)
439794.00 3765475.00 1.87303 (12011417)
439799.00 3765475.00 1.86995 (12011417)
439804.00 3765475.00 1.86697 (12011417)
439809.00 3765475.00 1.86481 (12011417)
439814.00 3765475.00 1.86098 (12011417)
439819.00 3765475.00 1.85860 (12011417)
439824.00 3765475.00 1.85508 (12011417)
439829.00 3765475.00 1.85293 (12011417)
439269.00 3764900.00 0.78813 (13120808)
439369.00 3764900.00 0.78646 (13120808)
439469.00 3764900.00 0.78208 (13120808)
439569.00 3764900.00 0.77259 (13120808)
439669.00 3764900.00 0.76251 (12010217)
439769.00 3764900.00 0.76045 (12010217)
439869.00 3764900.00 0.75431 (12010217)
439969.00 3764900.00 0.74042 (15010717)
440069.00 3764900.00 0.74611 (15010717)
440169.00 3764900.00 0.74873 (15010717)
440269.00 3764900.00 0.75012 (15010717)
439269.00 3765000.00 0.86208 (13120808)
439369.00 3765000.00 0.86170 (13120808)
439469.00 3765000.00 0.86017 (13120808)
439569.00 3765000.00 0.85612 (13120808)
439669.00 3765000.00 0.84593 (13120808)
439769.00 3765000.00 0.83292 (12010217)
439869.00 3765000.00 0.83019 (12010217)
439969.00 3765000.00 0.82132 (12010217)
440069.00 3765000.00 0.81870 (15010717)

```
440169.00   3765000.00        0.81959  (15010717)
        440269.00   3765000.00        0.81998  (15010717)
439269.00   3765100.00        0.95439  (13120808)
        439369.00   3765100.00        0.95497  (13120808)
439469.00   3765100.00        0.95482  (13120808)
        439569.00   3765100.00        0.95385  (13120808)
439669.00   3765100.00        0.94988  (13120808)
        439769.00   3765100.00        0.93927  (13120808)
439869.00   3765100.00        0.92313  (12010217)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: FREEEXH ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439969.00	3765100.00	0.91944	(12010217)
440069.00	3765100.00	0.90805	(15010717)
440169.00	3765100.00	0.90855	(15010717)
440269.00	3765100.00	0.90788	(15010717)
439269.00	3765200.00	1.07590	(13120808)
439369.00	3765200.00	1.07742	(13120808)
439469.00	3765200.00	1.07788	(13120808)
439569.00	3765200.00	1.07775	(13120808)
439669.00	3765200.00	1.07676	(13120808)
439769.00	3765200.00	1.07388	(13120808)
439869.00	3765200.00	1.06394	(13120808)
439969.00	3765200.00	1.04234	(12010217)
440069.00	3765200.00	1.03689	(12010217)
440169.00	3765200.00	1.02482	(15010717)
440269.00	3765200.00	1.02428	(15010717)
439269.00	3765300.00	1.30206	(12011417)
439369.00	3765300.00	1.27438	(12011417)
439469.00	3765300.00	1.24816	(13120808)
439569.00	3765300.00	1.24873	(13120808)

```
439669.00   3765300.00        1.24931  (13120808)
        439769.00   3765300.00        1.24946  (13120808)
439869.00   3765300.00        1.24665  (13120808)
        439969.00   3765300.00        1.23741  (13120808)
440069.00   3765300.00        1.20925  (12010217)
        440169.00   3765300.00        1.20108  (12010217)
440269.00   3765300.00        1.18723  (15010717)
        439269.00   3765400.00        1.62294  (12011417)
439369.00   3765400.00        1.61087  (12011417)
        439469.00   3765400.00        1.59119  (12011417)
439569.00   3765400.00        1.56135  (12011417)
        439669.00   3765400.00        1.51660  (12011417)
439769.00   3765400.00        1.51022  (13120808)
        439869.00   3765400.00        1.51047  (13120808)
439969.00   3765400.00        1.50924  (13120808)
        440069.00   3765400.00        1.50243  (13120808)
440169.00   3765400.00        1.47151  (13120808)
        440269.00   3765400.00        1.47451  (12011608)
439269.00   3765500.00        2.12851  (12011417)
        439369.00   3765500.00        2.12831  (12011417)
439469.00   3765500.00        2.12447  (12011417)
        439569.00   3765500.00        2.11418  (12011417)
439669.00   3765500.00        2.09663  (12011417)
        439769.00   3765500.00        2.06718  (12011417)
439869.00   3765500.00        2.01795  (12011417)
        439969.00   3765500.00        1.96994  (13120808)
440069.00   3765500.00        1.97016  (13120808)
        440169.00   3765500.00        1.96703  (13120808)
440269.00   3765500.00        1.97582  (12011608)
        439269.00   3765600.00        3.38216  (12101307)
439369.00   3765600.00        3.35982  (12101307)
        439469.00   3765600.00        3.32827  (12101307)
439569.00   3765600.00        3.30321  (12011417)
        439669.00   3765600.00        3.30542  (12011417)
439769.00   3765600.00        3.29868  (12011417)
        439869.00   3765600.00        3.28666  (12011417)
439969.00   3765600.00        3.29213  (14101107)
        440069.00   3765600.00        3.36797  (14101107)
440169.00   3765600.00        3.43126  (14101107)
        440269.00   3765600.00        3.48360  (14101107)
439269.00   3765700.00       14.46400  (12101307)
        439369.00   3765700.00       14.87799  (12101307)
439469.00   3765700.00       15.29784  (12101307)
        439569.00   3765700.00       15.87124  (14101107)
439669.00   3765700.00       16.25774  (14101107)
        439769.00   3765700.00       16.50261  (14101107)
439869.00   3765700.00       16.73890  (14101107)
        439969.00   3765700.00       16.78309  (14101107)
440069.00   3765700.00       17.07709  (12101207)
        440169.00   3765700.00       17.08460  (12101207)
440269.00   3765700.00       17.12930  (12101207)
        439269.00   3765800.00        4.21408  (12100707)
```

```
439369.00   3765800.00        4.16890  (12100707)
        439469.00   3765800.00        4.12125  (12100707)
439569.00   3765800.00        4.07404  (12100707)
        439669.00   3765800.00        4.02035  (12100707)
439769.00   3765800.00        3.95669  (12100707)
        439869.00   3765800.00        3.88241  (12011717)
439969.00   3765800.00        3.91066  (12011717)
        440069.00   3765800.00        3.93224  (12011717)
440169.00   3765800.00        3.94773  (12011717)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: FREEEXH ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
440269.00	3765800.00	3.95991	(12011717)
439269.00	3765900.00	2.38141	(12100707)
439369.00	3765900.00	2.33400	(12100707)
439469.00	3765900.00	2.27911	(12100707)
439569.00	3765900.00	2.25388	(13111217)
439669.00	3765900.00	2.28003	(13111217)
439769.00	3765900.00	2.29606	(13111217)
439869.00	3765900.00	2.30377	(13111217)
439969.00	3765900.00	2.31008	(13111217)
440069.00	3765900.00	2.31386	(13111217)
440169.00	3765900.00	2.31703	(13111217)
440269.00	3765900.00	2.33252	(12011717)
439649.00	3765310.00	1.27016	(13120808)
439679.00	3765310.00	1.27044	(13120808)
439709.00	3765310.00	1.27081	(13120808)
439739.00	3765310.00	1.27035	(13120808)
439769.00	3765310.00	1.27002	(13120808)
439799.00	3765310.00	1.27007	(13120808)
439829.00	3765310.00	1.26960	(13120808)

```
439859.00   3765310.00        1.26901  (13120808)
        439889.00   3765310.00        1.26713  (13120808)
439649.00   3765340.00        1.33934  (13120808)
        439679.00   3765340.00        1.33932  (13120808)
439709.00   3765340.00        1.33913  (13120808)
        439739.00   3765340.00        1.33954  (13120808)
439769.00   3765340.00        1.33938  (13120808)
        439799.00   3765340.00        1.33949  (13120808)
439829.00   3765340.00        1.33888  (13120808)
        439859.00   3765340.00        1.33866  (13120808)
439889.00   3765340.00        1.33800  (13120808)
        439649.00   3765370.00        1.41799  (13120808)
439679.00   3765370.00        1.41803  (13120808)
        439709.00   3765370.00        1.41822  (13120808)
439739.00   3765370.00        1.41839  (13120808)
        439769.00   3765370.00        1.41847  (13120808)
439799.00   3765370.00        1.41856  (13120808)
        439829.00   3765370.00        1.41842  (13120808)
439859.00   3765370.00        1.41858  (13120808)
        439889.00   3765370.00        1.41807  (13120808)
439649.00   3765400.00        1.52731  (12011417)
        439679.00   3765400.00        1.51137  (12011417)
439709.00   3765400.00        1.50984  (13120808)
        439739.00   3765400.00        1.50998  (13120808)
439769.00   3765400.00        1.51022  (13120808)
        439799.00   3765400.00        1.51040  (13120808)
439829.00   3765400.00        1.51045  (13120808)
        439859.00   3765400.00        1.51046  (13120808)
439889.00   3765400.00        1.51049  (13120808)
        439649.00   3765430.00        1.67246  (12011417)
439679.00   3765430.00        1.66013  (12011417)
        439709.00   3765430.00        1.64612  (12011417)
439739.00   3765430.00        1.62900  (12011417)
        439769.00   3765430.00        1.61798  (13120808)
439799.00   3765430.00        1.61813  (13120808)
        439829.00   3765430.00        1.61868  (13120808)
439859.00   3765430.00        1.61893  (13120808)
        439889.00   3765430.00        1.61897  (13120808)
439649.00   3765460.00        1.83786  (12011417)
        439679.00   3765460.00        1.82686  (12011417)
439709.00   3765460.00        1.81585  (12011417)
        439739.00   3765460.00        1.80324  (12011417)
439769.00   3765460.00        1.78812  (12011417)
        439799.00   3765460.00        1.76960  (12011417)
439829.00   3765460.00        1.74959  (12011417)
        439859.00   3765460.00        1.74824  (13120808)
439889.00   3765460.00        1.74855  (13120808)
        439649.00   3765490.00        2.02994  (12011417)
439679.00   3765490.00        2.02121  (12011417)
        439709.00   3765490.00        2.01295  (12011417)
439739.00   3765490.00        2.00287  (12011417)
        439769.00   3765490.00        1.99158  (12011417)
```

```
439799.00   3765490.00        1.97783  (12011417)
        439829.00   3765490.00        1.96204  (12011417)
439859.00   3765490.00        1.94396  (12011417)
        439889.00   3765490.00        1.92300  (12011417)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONOFFEXH ***
INCLUDING SOURCE(S):
A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , A0000029 , A0000030 , A0000031 , A0000032 , A0000033 , A0000034 , A0000035 ,
A0000036 , A0000037 , A0000038 , A0000039 , A0000040 , A0000041 , A0000042 , A0000043 ,
A0000044 , A0000045 , A0000046 , A0000047 , A0000048 , A0000049 , A0000050 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439674.00	3765310.00	0.05503	(13101107)
439679.00	3765310.00	0.05563	(14100607)
439684.00	3765310.00	0.05634	(14100607)
439689.00	3765310.00	0.05708	(14100607)
439694.00	3765310.00	0.05781	(14100607)
439699.00	3765310.00	0.05854	(14100607)
439704.00	3765310.00	0.05926	(14100607)
439709.00	3765310.00	0.06000	(14100607)
439714.00	3765310.00	0.06071	(14100607)
439719.00	3765310.00	0.06142	(14100607)
439729.00	3765310.00	0.06279	(14100607)
439734.00	3765310.00	0.06346	(14100607)
439739.00	3765310.00	0.06410	(14100607)
439744.00	3765310.00	0.06474	(14100607)
439749.00	3765310.00	0.06532	(14100607)
439764.00	3765310.00	0.06698	(14100607)
439769.00	3765310.00	0.06745	(14100607)

439774.00 3765310.00 0.06790 (14100607)
439779.00 3765310.00 0.06831 (14100607)
439784.00 3765310.00 0.06870 (14100607)
439789.00 3765310.00 0.06903 (14100607)
439794.00 3765310.00 0.06932 (14100607)
439799.00 3765310.00 0.06959 (14100607)
439804.00 3765310.00 0.06980 (14100607)
439809.00 3765310.00 0.07000 (14100607)
439814.00 3765310.00 0.07011 (14100607)
439819.00 3765310.00 0.07022 (14100607)
439824.00 3765310.00 0.07027 (14100607)
439829.00 3765310.00 0.07029 (14100607)
439839.00 3765310.00 0.07019 (14100607)
439844.00 3765310.00 0.07009 (14100607)
439849.00 3765310.00 0.06996 (14100607)
439854.00 3765310.00 0.06978 (14100607)
439859.00 3765310.00 0.06954 (14100607)
439864.00 3765310.00 0.06931 (14100607)
439869.00 3765310.00 0.06903 (14100607)
439874.00 3765310.00 0.06873 (14100607)
439879.00 3765310.00 0.06839 (14100607)
439884.00 3765310.00 0.06802 (14100607)
439674.00 3765315.00 0.05554 (13101107)
439679.00 3765315.00 0.05577 (13101107)
439684.00 3765315.00 0.05629 (14100607)
439689.00 3765315.00 0.05702 (14100607)
439694.00 3765315.00 0.05778 (14100607)
439699.00 3765315.00 0.05854 (14100607)
439704.00 3765315.00 0.05930 (14100607)
439709.00 3765315.00 0.06004 (14100607)
439714.00 3765315.00 0.06079 (14100607)
439719.00 3765315.00 0.06152 (14100607)
439729.00 3765315.00 0.06295 (14100607)
439734.00 3765315.00 0.06366 (14100607)
439739.00 3765315.00 0.06433 (14100607)
439744.00 3765315.00 0.06500 (14100607)
439749.00 3765315.00 0.06564 (14100607)
439764.00 3765315.00 0.06738 (14100607)
439769.00 3765315.00 0.06791 (14100607)
439774.00 3765315.00 0.06840 (14100607)
439779.00 3765315.00 0.06884 (14100607)
439784.00 3765315.00 0.06926 (14100607)
439789.00 3765315.00 0.06964 (14100607)
439794.00 3765315.00 0.06999 (14100607)
439799.00 3765315.00 0.07027 (14100607)
439804.00 3765315.00 0.07053 (14100607)
439809.00 3765315.00 0.07074 (14100607)
439814.00 3765315.00 0.07092 (14100607)
439819.00 3765315.00 0.07104 (14100607)
439824.00 3765315.00 0.07112 (14100607)
439829.00 3765315.00 0.07116 (14100607)
439839.00 3765315.00 0.07113 (14100607)

```
439844.00   3765315.00        0.07105  (14100607)
        439849.00   3765315.00        0.07093  (14100607)
439854.00   3765315.00        0.07078  (14100607)
        439859.00   3765315.00        0.07059  (14100607)
439864.00   3765315.00        0.07036  (14100607)
        439869.00   3765315.00        0.07009  (14100607)
439874.00   3765315.00        0.06981  (14100607)
        439879.00   3765315.00        0.06949  (14100607)
439884.00   3765315.00        0.06913  (14100607)
        439674.00   3765320.00        0.05604  (13101107)
439679.00   3765320.00        0.05629  (13101107)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONOFFEXH ***
INCLUDING SOURCE(S):
A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , A0000029 , A0000030 , A0000031 , A0000032 , A0000033 , A0000034 , A0000035 ,
A0000036 , A0000037 , A0000038 , A0000039 , A0000040 , A0000041 , A0000042 , A0000043 ,
A0000044 , A0000045 , A0000046 , A0000047 , A0000048 , A0000049 , A0000050 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439684.00	3765320.00	0.05654	(13101107)	439689.00	3765320.00	0.05697	(14100607)
439694.00	3765320.00	0.05774	(14100607)	439699.00	3765320.00	0.05851	(14100607)
439704.00	3765320.00	0.05929	(14100607)	439709.00	3765320.00	0.06007	(14100607)
439714.00	3765320.00	0.06084	(14100607)	439719.00	3765320.00	0.06160	(14100607)
439729.00	3765320.00	0.06312	(14100607)	439734.00	3765320.00	0.06383	(14100607)
439739.00	3765320.00	0.06456	(14100607)	439744.00	3765320.00	0.06524	(14100607)
439749.00	3765320.00	0.06593	(14100607)	439764.00	3765320.00	0.06778	(14100607)
439769.00	3765320.00	0.06835	(14100607)	439774.00	3765320.00	0.06887	(14100607)
439779.00	3765320.00	0.06939	(14100607)				

439784.00 3765320.00 0.06982 (14100607)
439789.00 3765320.00 0.07024 (14100607)
439794.00 3765320.00 0.07062 (14100607)
439799.00 3765320.00 0.07095 (14100607)
439804.00 3765320.00 0.07125 (14100607)
439809.00 3765320.00 0.07148 (14100607)
439814.00 3765320.00 0.07170 (14100607)
439819.00 3765320.00 0.07185 (14100607)
439824.00 3765320.00 0.07198 (14100607)
439829.00 3765320.00 0.07204 (14100607)
439839.00 3765320.00 0.07207 (14100607)
439844.00 3765320.00 0.07202 (14100607)
439849.00 3765320.00 0.07192 (14100607)
439854.00 3765320.00 0.07179 (14100607)
439859.00 3765320.00 0.07162 (14100607)
439864.00 3765320.00 0.07141 (14100607)
439869.00 3765320.00 0.07117 (14100607)
439874.00 3765320.00 0.07088 (14100607)
439879.00 3765320.00 0.07059 (14100607)
439884.00 3765320.00 0.07026 (14100607)
439674.00 3765325.00 0.05652 (13101107)
439679.00 3765325.00 0.05681 (13101107)
439684.00 3765325.00 0.05706 (13101107)
439689.00 3765325.00 0.05732 (13101107)
439694.00 3765325.00 0.05767 (14100607)
439699.00 3765325.00 0.05847 (14100607)
439704.00 3765325.00 0.05927 (14100607)
439709.00 3765325.00 0.06008 (14100607)
439714.00 3765325.00 0.06087 (14100607)
439719.00 3765325.00 0.06167 (14100607)
439729.00 3765325.00 0.06322 (14100607)
439734.00 3765325.00 0.06399 (14100607)
439739.00 3765325.00 0.06474 (14100607)
439744.00 3765325.00 0.06548 (14100607)
439749.00 3765325.00 0.06618 (14100607)
439754.00 3765325.00 0.06688 (14100607)
439769.00 3765325.00 0.06876 (14100607)
439774.00 3765325.00 0.06934 (14100607)
439779.00 3765325.00 0.06987 (14100607)
439784.00 3765325.00 0.07038 (14100607)
439789.00 3765325.00 0.07082 (14100607)
439794.00 3765325.00 0.07124 (14100607)
439799.00 3765325.00 0.07162 (14100607)
439804.00 3765325.00 0.07195 (14100607)
439809.00 3765325.00 0.07224 (14100607)
439814.00 3765325.00 0.07246 (14100607)
439819.00 3765325.00 0.07267 (14100607)
439824.00 3765325.00 0.07282 (14100607)
439829.00 3765325.00 0.07293 (14100607)
439839.00 3765325.00 0.07300 (14100607)
439844.00 3765325.00 0.07298 (14100607)
439849.00 3765325.00 0.07293 (14100607)

```
439854.00   3765325.00        0.07281  (14100607)
        439859.00   3765325.00        0.07266  (14100607)
439864.00   3765325.00        0.07248  (14100607)
        439869.00   3765325.00        0.07226  (14100607)
439874.00   3765325.00        0.07201  (14100607)
        439879.00   3765325.00        0.07170  (14100607)
439884.00   3765325.00        0.07139  (14100607)
        439674.00   3765330.00        0.05708  (15102007)
439679.00   3765330.00        0.05729  (13101107)
        439684.00   3765330.00        0.05760  (13101107)
439689.00   3765330.00        0.05786  (13101107)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONOFFEXH ***
INCLUDING SOURCE(S):
A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , A0000029 , A0000030 , A0000031 , A0000032 , A0000033 , A0000034 , A0000035 ,
A0000036 , A0000037 , A0000038 , A0000039 , A0000040 , A0000041 , A0000042 , A0000043 ,
A0000044 , A0000045 , A0000046 , A0000047 , A0000048 , A0000049 , A0000050 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439694.00	3765330.00	0.05813	(13101107)	439699.00	3765330.00	0.05840	(14100607)
439704.00	3765330.00	0.05923	(14100607)	439709.00	3765330.00	0.06004	(14100607)
439714.00	3765330.00	0.06089	(14100607)	439719.00	3765330.00	0.06169	(14100607)
439729.00	3765330.00	0.06331	(14100607)	439734.00	3765330.00	0.06413	(14100607)
439739.00	3765330.00	0.06490	(14100607)	439744.00	3765330.00	0.06568	(14100607)
439749.00	3765330.00	0.06642	(14100607)	439754.00	3765330.00	0.06715	(14100607)
439774.00	3765330.00	0.06979	(14100607)	439779.00	3765330.00	0.07035	(14100607)
439784.00	3765330.00	0.07090	(14100607)	439789.00	3765330.00	0.07139	(14100607)
439794.00	3765330.00	0.07186	(14100607)				

```
439799.00   3765330.00        0.07226  (14100607)
        439804.00   3765330.00        0.07264  (14100607)
439809.00   3765330.00        0.07296  (14100607)
        439814.00   3765330.00        0.07324  (14100607)
439819.00   3765330.00        0.07349  (14100607)
        439824.00   3765330.00        0.07366  (14100607)
439829.00   3765330.00        0.07380  (14100607)
        439839.00   3765330.00        0.07394  (14100607)
439844.00   3765330.00        0.07395  (14100607)
        439849.00   3765330.00        0.07391  (14100607)
439854.00   3765330.00        0.07384  (14100607)
        439859.00   3765330.00        0.07372  (14100607)
439864.00   3765330.00        0.07355  (14100607)
        439869.00   3765330.00        0.07333  (14100607)
439874.00   3765330.00        0.07311  (14100607)
        439879.00   3765330.00        0.07285  (14100607)
439884.00   3765330.00        0.07253  (14100607)
        439674.00   3765335.00        0.05787  (15102007)
439679.00   3765335.00        0.05795  (15102007)
        439684.00   3765335.00        0.05807  (13101107)
439689.00   3765335.00        0.05840  (13101107)
        439694.00   3765335.00        0.05868  (13101107)
439699.00   3765335.00        0.05896  (13101107)
        439704.00   3765335.00        0.05920  (13101107)
439709.00   3765335.00        0.06000  (14100607)
        439714.00   3765335.00        0.06085  (14100607)
439719.00   3765335.00        0.06171  (14100607)
        439729.00   3765335.00        0.06341  (14100607)
439734.00   3765335.00        0.06423  (14100607)
        439739.00   3765335.00        0.06505  (14100607)
439744.00   3765335.00        0.06585  (14100607)
        439749.00   3765335.00        0.06664  (14100607)
439774.00   3765335.00        0.07020  (14100607)
        439779.00   3765335.00        0.07084  (14100607)
439784.00   3765335.00        0.07139  (14100607)
        439789.00   3765335.00        0.07195  (14100607)
439794.00   3765335.00        0.07245  (14100607)
        439839.00   3765335.00        0.07489  (14100607)
439844.00   3765335.00        0.07494  (14100607)
        439849.00   3765335.00        0.07491  (14100607)
439854.00   3765335.00        0.07487  (14100607)
        439859.00   3765335.00        0.07477  (14100607)
439864.00   3765335.00        0.07463  (14100607)
        439869.00   3765335.00        0.07445  (14100607)
439874.00   3765335.00        0.07423  (14100607)
        439879.00   3765335.00        0.07398  (14100607)
439884.00   3765335.00        0.07370  (14100607)
        439674.00   3765340.00        0.05864  (15102007)
439679.00   3765340.00        0.05877  (15102007)
        439684.00   3765340.00        0.05886  (15102007)
439689.00   3765340.00        0.05894  (15102007)
        439694.00   3765340.00        0.05922  (13101107)
```

```
439699.00   3765340.00        0.05952  (13101107)
        439704.00   3765340.00        0.05982  (13101107)
439709.00   3765340.00        0.06006  (13101107)
        439714.00   3765340.00        0.06081  (14100607)
439719.00   3765340.00        0.06170  (14100607)
        439729.00   3765340.00        0.06344  (14100607)
439734.00   3765340.00        0.06430  (14100607)
        439739.00   3765340.00        0.06516  (14100607)
439744.00   3765340.00        0.06600  (14100607)
        439749.00   3765340.00        0.06682  (14100607)
439774.00   3765340.00        0.07060  (14100607)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONOFFEXH ***
INCLUDING SOURCE(S):
A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , A0000029 , A0000030 , A0000031 , A0000032 , A0000033 , A0000034 , A0000035 ,
A0000036 , A0000037 , A0000038 , A0000039 , A0000040 , A0000041 , A0000042 , A0000043 ,
A0000044 , A0000045 , A0000046 , A0000047 , A0000048 , A0000049 , A0000050 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439779.00	3765340.00	0.07127	(14100607)	439784.00	3765340.00	0.07191	(14100607)
439789.00	3765340.00	0.07249	(14100607)	439794.00	3765340.00	0.07303	(14100607)
439839.00	3765340.00	0.07583	(14100607)	439844.00	3765340.00	0.07589	(14100607)
439849.00	3765340.00	0.07594	(14100607)	439854.00	3765340.00	0.07590	(14100607)
439859.00	3765340.00	0.07583	(14100607)	439864.00	3765340.00	0.07572	(14100607)
439869.00	3765340.00	0.07557	(14100607)	439874.00	3765340.00	0.07536	(14100607)
439879.00	3765340.00	0.07513	(14100607)	439884.00	3765340.00	0.07486	(14100607)
439674.00	3765345.00	0.05939	(15102007)	439679.00	3765345.00	0.05955	(15102007)
439684.00	3765345.00	0.05969	(15102007)				

```
439689.00   3765345.00        0.05979  (15102007)
        439694.00   3765345.00        0.05988  (15102007)
439699.00   3765345.00        0.06006  (13101107)
        439704.00   3765345.00        0.06039  (13101107)
439709.00   3765345.00        0.06070  (13101107)
        439714.00   3765345.00        0.06095  (13101107)
439719.00   3765345.00        0.06165  (14100607)
        439729.00   3765345.00        0.06346  (14100607)
439734.00   3765345.00        0.06436  (14100607)
        439739.00   3765345.00        0.06524  (14100607)
439744.00   3765345.00        0.06613  (14100607)
        439749.00   3765345.00        0.06699  (14100607)
439774.00   3765345.00        0.07100  (14100607)
        439779.00   3765345.00        0.07168  (14100607)
439784.00   3765345.00        0.07238  (14100607)
        439789.00   3765345.00        0.07300  (14100607)
439794.00   3765345.00        0.07361  (14100607)
        439839.00   3765345.00        0.07678  (14100607)
439844.00   3765345.00        0.07687  (14100607)
        439849.00   3765345.00        0.07694  (14100607)
439854.00   3765345.00        0.07695  (14100607)
        439859.00   3765345.00        0.07690  (14100607)
439864.00   3765345.00        0.07682  (14100607)
        439869.00   3765345.00        0.07668  (14100607)
439874.00   3765345.00        0.07651  (14100607)
        439879.00   3765345.00        0.07630  (14100607)
439884.00   3765345.00        0.07605  (14100607)
        439674.00   3765350.00        0.06010  (15102007)
439679.00   3765350.00        0.06030  (15102007)
        439684.00   3765350.00        0.06047  (15102007)
439689.00   3765350.00        0.06064  (15102007)
        439694.00   3765350.00        0.06074  (15102007)
439699.00   3765350.00        0.06085  (15102007)
        439704.00   3765350.00        0.06093  (13101107)
439709.00   3765350.00        0.06127  (13101107)
        439714.00   3765350.00        0.06160  (13101107)
439719.00   3765350.00        0.06187  (13101107)
        439729.00   3765350.00        0.06346  (14100607)
439734.00   3765350.00        0.06438  (14100607)
        439739.00   3765350.00        0.06530  (14100607)
439744.00   3765350.00        0.06622  (14100607)
        439749.00   3765350.00        0.06713  (14100607)
439774.00   3765350.00        0.07134  (14100607)
        439779.00   3765350.00        0.07211  (14100607)
439784.00   3765350.00        0.07281  (14100607)
        439789.00   3765350.00        0.07350  (14100607)
439794.00   3765350.00        0.07414  (14100607)
        439839.00   3765350.00        0.07773  (14100607)
439844.00   3765350.00        0.07788  (14100607)
        439849.00   3765350.00        0.07794  (14100607)
439854.00   3765350.00        0.07799  (14100607)
        439859.00   3765350.00        0.07798  (14100607)
```

```
439864.00   3765350.00        0.07792  (14100607)
        439869.00   3765350.00        0.07781  (14100607)
439874.00   3765350.00        0.07767  (14100607)
        439879.00   3765350.00        0.07747  (14100607)
439884.00   3765350.00        0.07725  (14100607)
        439674.00   3765355.00        0.06079  (15102007)
439679.00   3765355.00        0.06103  (15102007)
        439684.00   3765355.00        0.06123  (15102007)
439689.00   3765355.00        0.06142  (15102007)
        439694.00   3765355.00        0.06160  (15102007)
439699.00   3765355.00        0.06173  (15102007)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONOFFEXH ***
INCLUDING SOURCE(S):
A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , A0000029 , A0000030 , A0000031 , A0000032 , A0000033 , A0000034 , A0000035 ,
A0000036 , A0000037 , A0000038 , A0000039 , A0000040 , A0000041 , A0000042 , A0000043 ,
A0000044 , A0000045 , A0000046 , A0000047 , A0000048 , A0000049 , A0000050 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439704.00	3765355.00	0.06185	(15102007)	439709.00	3765355.00	0.06192	(15102007)
439714.00	3765355.00	0.06218	(13101107)	439719.00	3765355.00	0.06252	(13101107)
439729.00	3765355.00	0.06340	(14100607)	439734.00	3765355.00	0.06438	(14100607)
439739.00	3765355.00	0.06533	(14100607)	439744.00	3765355.00	0.06629	(14100607)
439749.00	3765355.00	0.06723	(14100607)	439774.00	3765355.00	0.07166	(14100607)
439779.00	3765355.00	0.07247	(14100607)	439784.00	3765355.00	0.07324	(14100607)
439789.00	3765355.00	0.07398	(14100607)	439794.00	3765355.00	0.07465	(14100607)
439839.00	3765355.00	0.07867	(14100607)	439844.00	3765355.00	0.07884	(14100607)
439849.00	3765355.00	0.07898	(14100607)				

439854.00 3765355.00 0.07905 (14100607)
439859.00 3765355.00 0.07906 (14100607)
439864.00 3765355.00 0.07904 (14100607)
439869.00 3765355.00 0.07897 (14100607)
439874.00 3765355.00 0.07883 (14100607)
439879.00 3765355.00 0.07867 (14100607)
439884.00 3765355.00 0.07845 (14100607)
439674.00 3765360.00 0.06148 (15102007)
439679.00 3765360.00 0.06173 (15102007)
439684.00 3765360.00 0.06198 (15102007)
439689.00 3765360.00 0.06220 (15102007)
439694.00 3765360.00 0.06240 (15102007)
439699.00 3765360.00 0.06259 (15102007)
439704.00 3765360.00 0.06274 (15102007)
439709.00 3765360.00 0.06288 (15102007)
439714.00 3765360.00 0.06296 (15102007)
439719.00 3765360.00 0.06313 (13101107)
439729.00 3765360.00 0.06378 (13101107)
439734.00 3765360.00 0.06434 (14100607)
439739.00 3765360.00 0.06533 (14100607)
439744.00 3765360.00 0.06632 (14100607)
439749.00 3765360.00 0.06731 (14100607)
439774.00 3765360.00 0.07197 (14100607)
439779.00 3765360.00 0.07282 (14100607)
439784.00 3765360.00 0.07365 (14100607)
439789.00 3765360.00 0.07442 (14100607)
439794.00 3765360.00 0.07518 (14100607)
439799.00 3765360.00 0.07586 (14100607)
439804.00 3765360.00 0.07652 (14100607)
439809.00 3765360.00 0.07712 (14100607)
439814.00 3765360.00 0.07768 (14100607)
439839.00 3765360.00 0.07962 (14100607)
439844.00 3765360.00 0.07982 (14100607)
439849.00 3765360.00 0.08000 (14100607)
439854.00 3765360.00 0.08010 (14100607)
439859.00 3765360.00 0.08016 (14100607)
439864.00 3765360.00 0.08016 (14100607)
439869.00 3765360.00 0.08012 (14100607)
439874.00 3765360.00 0.08001 (14100607)
439879.00 3765360.00 0.07987 (14100607)
439884.00 3765360.00 0.07968 (14100607)
439674.00 3765365.00 0.06209 (15102007)
439679.00 3765365.00 0.06242 (15102007)
439684.00 3765365.00 0.06270 (15102007)
439689.00 3765365.00 0.06296 (15102007)
439694.00 3765365.00 0.06320 (15102007)
439699.00 3765365.00 0.06340 (15102007)
439704.00 3765365.00 0.06361 (15102007)
439709.00 3765365.00 0.06377 (15102007)
439714.00 3765365.00 0.06392 (15102007)
439719.00 3765365.00 0.06403 (15102007)
439729.00 3765365.00 0.06444 (13101107)

```
439734.00   3765365.00        0.06479  (13101107)
        439739.00   3765365.00        0.06531  (14100607)
439744.00   3765365.00        0.06632  (14100607)
        439749.00   3765365.00        0.06736  (14100607)
439774.00   3765365.00        0.07224  (14100607)
        439779.00   3765365.00        0.07315  (14100607)
439784.00   3765365.00        0.07401  (14100607)
        439789.00   3765365.00        0.07486  (14100607)
439794.00   3765365.00        0.07565  (14100607)
        439799.00   3765365.00        0.07640  (14100607)
439804.00   3765365.00        0.07711  (14100607)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONOFFEXH ***
INCLUDING SOURCE(S):
A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , A0000029 , A0000030 , A0000031 , A0000032 , A0000033 , A0000034 , A0000035 ,
A0000036 , A0000037 , A0000038 , A0000039 , A0000040 , A0000041 , A0000042 , A0000043 ,
A0000044 , A0000045 , A0000046 , A0000047 , A0000048 , A0000049 , A0000050 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439809.00	3765365.00	0.07776	(14100607)	439814.00	3765365.00	0.07838	(14100607)
439839.00	3765365.00	0.08056	(14100607)	439844.00	3765365.00	0.08082	(14100607)
439849.00	3765365.00	0.08101	(14100607)	439854.00	3765365.00	0.08116	(14100607)
439859.00	3765365.00	0.08126	(14100607)	439864.00	3765365.00	0.08130	(14100607)
439869.00	3765365.00	0.08127	(14100607)	439874.00	3765365.00	0.08121	(14100607)
439879.00	3765365.00	0.08108	(14100607)	439884.00	3765365.00	0.08093	(14100607)
439674.00	3765370.00	0.06270	(15102007)	439679.00	3765370.00	0.06304	(15102007)
439684.00	3765370.00	0.06338	(15102007)	439689.00	3765370.00	0.06368	(15102007)
439694.00	3765370.00	0.06397	(15102007)				

```
439699.00   3765370.00        0.06422  (15102007)
        439704.00   3765370.00        0.06445  (15102007)
439709.00   3765370.00        0.06466  (15102007)
        439714.00   3765370.00        0.06483  (15102007)
439719.00   3765370.00        0.06500  (15102007)
        439729.00   3765370.00        0.06521  (15102007)
439734.00   3765370.00        0.06545  (13101107)
        439739.00   3765370.00        0.06581  (13101107)
439744.00   3765370.00        0.06631  (14100607)
        439749.00   3765370.00        0.06734  (14100607)
439774.00   3765370.00        0.07249  (14100607)
        439779.00   3765370.00        0.07344  (14100607)
439784.00   3765370.00        0.07436  (14100607)
        439789.00   3765370.00        0.07526  (14100607)
439794.00   3765370.00        0.07610  (14100607)
        439799.00   3765370.00        0.07692  (14100607)
439804.00   3765370.00        0.07767  (14100607)
        439809.00   3765370.00        0.07840  (14100607)
439814.00   3765370.00        0.07905  (14100607)
        439839.00   3765370.00        0.08150  (14100607)
439844.00   3765370.00        0.08180  (14100607)
        439849.00   3765370.00        0.08204  (14100607)
439854.00   3765370.00        0.08224  (14100607)
        439859.00   3765370.00        0.08236  (14100607)
439864.00   3765370.00        0.08244  (14100607)
        439869.00   3765370.00        0.08245  (14100607)
439874.00   3765370.00        0.08243  (14100607)
        439879.00   3765370.00        0.08232  (14100607)
439884.00   3765370.00        0.08218  (14100607)
        439674.00   3765375.00        0.06328  (15102007)
439679.00   3765375.00        0.06366  (15102007)
        439684.00   3765375.00        0.06402  (15102007)
439689.00   3765375.00        0.06437  (15102007)
        439694.00   3765375.00        0.06469  (15102007)
439699.00   3765375.00        0.06500  (15102007)
        439704.00   3765375.00        0.06528  (15102007)
439709.00   3765375.00        0.06552  (15102007)
        439714.00   3765375.00        0.06575  (15102007)
439719.00   3765375.00        0.06592  (15102007)
        439729.00   3765375.00        0.06623  (15102007)
439734.00   3765375.00        0.06635  (15102007)
        439739.00   3765375.00        0.06651  (13101107)
439744.00   3765375.00        0.06687  (13101107)
        439749.00   3765375.00        0.06734  (14100607)
439754.00   3765375.00        0.06842  (14100607)
        439774.00   3765375.00        0.07268  (14100607)
439779.00   3765375.00        0.07369  (14100607)
        439784.00   3765375.00        0.07469  (14100607)
439789.00   3765375.00        0.07562  (14100607)
        439794.00   3765375.00        0.07654  (14100607)
439799.00   3765375.00        0.07740  (14100607)
        439804.00   3765375.00        0.07823  (14100607)
```

```
439809.00   3765375.00        0.07899  (14100607)
        439814.00   3765375.00        0.07970  (14100607)
439839.00   3765375.00        0.08242  (14100607)
        439844.00   3765375.00        0.08278  (14100607)
439849.00   3765375.00        0.08308  (14100607)
        439854.00   3765375.00        0.08330  (14100607)
439859.00   3765375.00        0.08347  (14100607)
        439864.00   3765375.00        0.08359  (14100607)
439869.00   3765375.00        0.08364  (14100607)
        439874.00   3765375.00        0.08363  (14100607)
439879.00   3765375.00        0.08358  (14100607)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONOFFEXH ***
INCLUDING SOURCE(S):
A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , A0000029 , A0000030 , A0000031 , A0000032 , A0000033 , A0000034 , A0000035 ,
A0000036 , A0000037 , A0000038 , A0000039 , A0000040 , A0000041 , A0000042 , A0000043 ,
A0000044 , A0000045 , A0000046 , A0000047 , A0000048 , A0000049 , A0000050 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439884.00	3765375.00	0.08345	(14100607)	439774.00	3765380.00	0.07286	(14100607)
439779.00	3765380.00	0.07394	(14100607)	439784.00	3765380.00	0.07496	(14100607)
439789.00	3765380.00	0.07597	(14100607)	439794.00	3765380.00	0.07694	(14100607)
439799.00	3765380.00	0.07785	(14100607)	439804.00	3765380.00	0.07875	(14100607)
439809.00	3765380.00	0.07956	(14100607)	439814.00	3765380.00	0.08037	(14100607)
439769.00	3765385.00	0.07185	(14100607)	439819.00	3765385.00	0.08175	(14100607)
439769.00	3765400.00	0.07277	(15102007)	439844.00	3765400.00	0.08761	(14100607)
439849.00	3765400.00	0.08819	(14100607)	439674.00	3765405.00	0.06587	(15102007)
439714.00	3765405.00	0.07048	(15102007)				

439719.00 3765405.00 0.07097 (15102007)
439734.00 3765405.00 0.07229 (15102007)
439749.00 3765405.00 0.07328 (15102007)
439754.00 3765405.00 0.07355 (15102007)
439774.00 3765405.00 0.07415 (15102007)
439779.00 3765405.00 0.07450 (14100607)
439784.00 3765405.00 0.07582 (14100607)
439789.00 3765405.00 0.07716 (14100607)
439794.00 3765405.00 0.07842 (14100607)
439799.00 3765405.00 0.07968 (14100607)
439804.00 3765405.00 0.08089 (14100607)
439809.00 3765405.00 0.08206 (14100607)
439814.00 3765405.00 0.08319 (14100607)
439819.00 3765405.00 0.08425 (14100607)
439824.00 3765405.00 0.08524 (14100607)
439829.00 3765405.00 0.08619 (14100607)
439834.00 3765405.00 0.08706 (14100607)
439839.00 3765405.00 0.08784 (14100607)
439844.00 3765405.00 0.08858 (14100607)
439849.00 3765405.00 0.08921 (14100607)
439854.00 3765405.00 0.08977 (14100607)
439859.00 3765405.00 0.09024 (14100607)
439674.00 3765410.00 0.06614 (15102007)
439679.00 3765410.00 0.06681 (15102007)
439684.00 3765410.00 0.06746 (15102007)
439689.00 3765410.00 0.06811 (15102007)
439694.00 3765410.00 0.06874 (15102007)
439699.00 3765410.00 0.06936 (15102007)
439704.00 3765410.00 0.06998 (15102007)
439709.00 3765410.00 0.07056 (15102007)
439714.00 3765410.00 0.07114 (15102007)
439719.00 3765410.00 0.07167 (15102007)
439729.00 3765410.00 0.07268 (15102007)
439734.00 3765410.00 0.07315 (15102007)
439739.00 3765410.00 0.07359 (15102007)
439744.00 3765410.00 0.07399 (15102007)
439749.00 3765410.00 0.07434 (15102007)
439774.00 3765410.00 0.07552 (15102007)
439779.00 3765410.00 0.07561 (15102007)
439784.00 3765410.00 0.07588 (14100607)
439789.00 3765410.00 0.07725 (14100607)
439794.00 3765410.00 0.07861 (14100607)
439799.00 3765410.00 0.07994 (14100607)
439804.00 3765410.00 0.08120 (14100607)
439809.00 3765410.00 0.08246 (14100607)
439814.00 3765410.00 0.08366 (14100607)
439819.00 3765410.00 0.08479 (14100607)
439824.00 3765410.00 0.08589 (14100607)
439829.00 3765410.00 0.08689 (14100607)
439834.00 3765410.00 0.08784 (14100607)
439839.00 3765410.00 0.08871 (14100607)
439844.00 3765410.00 0.08951 (14100607)

```
439849.00   3765410.00        0.09021  (14100607)
        439854.00   3765410.00        0.09084  (14100607)
439859.00   3765410.00        0.09140  (14100607)
        439674.00   3765415.00        0.06694  (13032007)
439679.00   3765415.00        0.06707  (15102007)
        439684.00   3765415.00        0.06778  (15102007)
439689.00   3765415.00        0.06846  (15102007)
        439694.00   3765415.00        0.06914  (15102007)
439699.00   3765415.00        0.06981  (15102007)
        439704.00   3765415.00        0.07046  (15102007)
439709.00   3765415.00        0.07111  (15102007)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONOFFEXH ***
INCLUDING SOURCE(S):
A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , A0000029 , A0000030 , A0000031 , A0000032 , A0000033 , A0000034 , A0000035 ,
A0000036 , A0000037 , A0000038 , A0000039 , A0000040 , A0000041 , A0000042 , A0000043 ,
A0000044 , A0000045 , A0000046 , A0000047 , A0000048 , A0000049 , A0000050 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439714.00	3765415.00	0.07172	(15102007)	439719.00	3765415.00	0.07234	(15102007)
439729.00	3765415.00	0.07346	(15102007)	439734.00	3765415.00	0.07398	(15102007)
439739.00	3765415.00	0.07446	(15102007)	439744.00	3765415.00	0.07493	(15102007)
439749.00	3765415.00	0.07535	(15102007)	439774.00	3765415.00	0.07683	(15102007)
439779.00	3765415.00	0.07700	(15102007)	439784.00	3765415.00	0.07711	(15102007)
439789.00	3765415.00	0.07732	(14100607)	439794.00	3765415.00	0.07876	(14100607)
439799.00	3765415.00	0.08012	(14100607)	439804.00	3765415.00	0.08150	(14100607)
439809.00	3765415.00	0.08282	(14100607)	439814.00	3765415.00	0.08409	(14100607)
439819.00	3765415.00	0.08532	(14100607)				

439824.00 3765415.00 0.08648 (14100607)
439829.00 3765415.00 0.08758 (14100607)
439834.00 3765415.00 0.08861 (14100607)
439839.00 3765415.00 0.08955 (14100607)
439844.00 3765415.00 0.09041 (14100607)
439849.00 3765415.00 0.09123 (14100607)
439854.00 3765415.00 0.09192 (14100607)
439859.00 3765415.00 0.09253 (14100607)
439674.00 3765420.00 0.06828 (13032007)
439679.00 3765420.00 0.06840 (13032007)
439684.00 3765420.00 0.06851 (13032007)
439689.00 3765420.00 0.06877 (15102007)
439694.00 3765420.00 0.06949 (15102007)
439699.00 3765420.00 0.07021 (15102007)
439704.00 3765420.00 0.07092 (15102007)
439709.00 3765420.00 0.07159 (15102007)
439714.00 3765420.00 0.07228 (15102007)
439719.00 3765420.00 0.07292 (15102007)
439729.00 3765420.00 0.07418 (15102007)
439734.00 3765420.00 0.07477 (15102007)
439739.00 3765420.00 0.07532 (15102007)
439744.00 3765420.00 0.07583 (15102007)
439749.00 3765420.00 0.07632 (15102007)
439774.00 3765420.00 0.07813 (15102007)
439779.00 3765420.00 0.07834 (15102007)
439784.00 3765420.00 0.07853 (15102007)
439789.00 3765420.00 0.07865 (15102007)
439794.00 3765420.00 0.07882 (14100607)
439799.00 3765420.00 0.08032 (14100607)
439804.00 3765420.00 0.08172 (14100607)
439809.00 3765420.00 0.08313 (14100607)
439814.00 3765420.00 0.08449 (14100607)
439819.00 3765420.00 0.08580 (14100607)
439824.00 3765420.00 0.08705 (14100607)
439829.00 3765420.00 0.08824 (14100607)
439834.00 3765420.00 0.08933 (14100607)
439839.00 3765420.00 0.09038 (14100607)
439844.00 3765420.00 0.09134 (14100607)
439849.00 3765420.00 0.09220 (14100607)
439854.00 3765420.00 0.09298 (14100607)
439859.00 3765420.00 0.09367 (14100607)
439674.00 3765425.00 0.06957 (13032007)
439679.00 3765425.00 0.06976 (13032007)
439684.00 3765425.00 0.06990 (13032007)
439689.00 3765425.00 0.07004 (13032007)
439694.00 3765425.00 0.07013 (13032007)
439699.00 3765425.00 0.07054 (15102007)
439704.00 3765425.00 0.07130 (15102007)
439709.00 3765425.00 0.07205 (15102007)
439714.00 3765425.00 0.07276 (15102007)
439719.00 3765425.00 0.07349 (15102007)
439729.00 3765425.00 0.07485 (15102007)

```
439734.00   3765425.00        0.07549  (15102007)
        439739.00   3765425.00        0.07612  (15102007)
439744.00   3765425.00        0.07671  (15102007)
        439749.00   3765425.00        0.07725  (15102007)
439774.00   3765425.00        0.07941  (15102007)
        439779.00   3765425.00        0.07970  (15102007)
439784.00   3765425.00        0.07992  (15102007)
        439789.00   3765425.00        0.08012  (15102007)
439794.00   3765425.00        0.08025  (15102007)
        439799.00   3765425.00        0.08040  (14100607)
439804.00   3765425.00        0.08192  (14100607)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONOFFEXH ***
INCLUDING SOURCE(S):
A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , A0000029 , A0000030 , A0000031 , A0000032 , A0000033 , A0000034 , A0000035 ,
A0000036 , A0000037 , A0000038 , A0000039 , A0000040 , A0000041 , A0000042 , A0000043 ,
A0000044 , A0000045 , A0000046 , A0000047 , A0000048 , A0000049 ,
A0000050 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439809.00	3765425.00	0.08340	(14100607)	439814.00	3765425.00	0.08483	(14100607)
439819.00	3765425.00	0.08624	(14100607)	439824.00	3765425.00	0.08757	(14100607)
439829.00	3765425.00	0.08884	(14100607)	439834.00	3765425.00	0.09006	(14100607)
439839.00	3765425.00	0.09118	(14100607)	439844.00	3765425.00	0.09221	(14100607)
439849.00	3765425.00	0.09317	(14100607)	439854.00	3765425.00	0.09405	(14100607)
439859.00	3765425.00	0.09481	(14100607)	439674.00	3765430.00	0.07082	(13032007)
439679.00	3765430.00	0.07104	(13032007)	439684.00	3765430.00	0.07127	(13032007)
439689.00	3765430.00	0.07143	(13032007)	439694.00	3765430.00	0.07160	(13032007)
439699.00	3765430.00	0.07174	(13032007)				

439704.00 3765430.00 0.07182 (13032007)
439709.00 3765430.00 0.07242 (15102007)
439714.00 3765430.00 0.07322 (15102007)
439719.00 3765430.00 0.07397 (15102007)
439729.00 3765430.00 0.07545 (15102007)
439734.00 3765430.00 0.07616 (15102007)
439739.00 3765430.00 0.07684 (15102007)
439744.00 3765430.00 0.07750 (15102007)
439749.00 3765430.00 0.07814 (15102007)
439774.00 3765430.00 0.08064 (15102007)
439779.00 3765430.00 0.08100 (15102007)
439784.00 3765430.00 0.08133 (15102007)
439789.00 3765430.00 0.08157 (15102007)
439794.00 3765430.00 0.08177 (15102007)
439799.00 3765430.00 0.08191 (15102007)
439804.00 3765430.00 0.08206 (14100607)
439809.00 3765430.00 0.08361 (14100607)
439814.00 3765430.00 0.08516 (14100607)
439819.00 3765430.00 0.08662 (14100607)
439824.00 3765430.00 0.08805 (14100607)
439829.00 3765430.00 0.08944 (14100607)
439834.00 3765430.00 0.09072 (14100607)
439839.00 3765430.00 0.09194 (14100607)
439844.00 3765430.00 0.09308 (14100607)
439849.00 3765430.00 0.09414 (14100607)
439854.00 3765430.00 0.09508 (14100607)
439859.00 3765430.00 0.09594 (14100607)
439674.00 3765435.00 0.07205 (13032007)
439679.00 3765435.00 0.07233 (13032007)
439684.00 3765435.00 0.07256 (13032007)
439689.00 3765435.00 0.07281 (13032007)
439694.00 3765435.00 0.07302 (13032007)
439699.00 3765435.00 0.07320 (13032007)
439704.00 3765435.00 0.07338 (13032007)
439709.00 3765435.00 0.07350 (13032007)
439714.00 3765435.00 0.07361 (13032007)
439719.00 3765435.00 0.07441 (15102007)
439729.00 3765435.00 0.07602 (15102007)
439734.00 3765435.00 0.07678 (15102007)
439739.00 3765435.00 0.07753 (15102007)
439744.00 3765435.00 0.07825 (15102007)
439749.00 3765435.00 0.07894 (15102007)
439774.00 3765435.00 0.08182 (15102007)
439779.00 3765435.00 0.08227 (15102007)
439784.00 3765435.00 0.08265 (15102007)
439789.00 3765435.00 0.08300 (15102007)
439794.00 3765435.00 0.08328 (15102007)
439799.00 3765435.00 0.08350 (15102007)
439804.00 3765435.00 0.08364 (15102007)
439809.00 3765435.00 0.08379 (14100607)
439814.00 3765435.00 0.08539 (14100607)
439819.00 3765435.00 0.08698 (14100607)

```
439824.00   3765435.00        0.08851  (14100607)
        439829.00   3765435.00        0.08996  (14100607)
439834.00   3765435.00        0.09135  (14100607)
        439839.00   3765435.00        0.09269  (14100607)
439844.00   3765435.00        0.09393  (14100607)
        439849.00   3765435.00        0.09506  (14100607)
439854.00   3765435.00        0.09611  (14100607)
        439859.00   3765435.00        0.09707  (14100607)
439674.00   3765440.00        0.07322  (13032007)
        439679.00   3765440.00        0.07355  (13032007)
439684.00   3765440.00        0.07387  (13032007)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONOFFEXH ***
INCLUDING SOURCE(S):
A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , A0000029 , A0000030 , A0000031 , A0000032 , A0000033 , A0000034 , A0000035 ,
A0000036 , A0000037 , A0000038 , A0000039 , A0000040 , A0000041 , A0000042 , A0000043 ,
A0000044 , A0000045 , A0000046 , A0000047 , A0000048 , A0000049 , A0000050 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439689.00	3765440.00	0.07414	(13032007)	439694.00	3765440.00	0.07440	(13032007)
439699.00	3765440.00	0.07466	(13032007)	439704.00	3765440.00	0.07486	(13032007)
439709.00	3765440.00	0.07507	(13032007)	439714.00	3765440.00	0.07522	(13032007)
439719.00	3765440.00	0.07536	(13032007)	439729.00	3765440.00	0.07649	(15102007)
439734.00	3765440.00	0.07733	(15102007)	439739.00	3765440.00	0.07815	(15102007)
439744.00	3765440.00	0.07895	(15102007)	439749.00	3765440.00	0.07971	(15102007)
439774.00	3765440.00	0.08300	(15102007)	439779.00	3765440.00	0.08350	(15102007)
439784.00	3765440.00	0.08397	(15102007)	439789.00	3765440.00	0.08438	(15102007)
439794.00	3765440.00	0.08474	(15102007)				

439799.00 3765440.00 0.08504 (15102007)
439804.00 3765440.00 0.08528 (15102007)
439809.00 3765440.00 0.08545 (15102007)
439814.00 3765440.00 0.08560 (14100607)
439819.00 3765440.00 0.08727 (14100607)
439824.00 3765440.00 0.08889 (14100607)
439829.00 3765440.00 0.09046 (14100607)
439834.00 3765440.00 0.09198 (14100607)
439839.00 3765440.00 0.09338 (14100607)
439844.00 3765440.00 0.09472 (14100607)
439849.00 3765440.00 0.09598 (14100607)
439854.00 3765440.00 0.09714 (14100607)
439859.00 3765440.00 0.09817 (14100607)
439674.00 3765445.00 0.07433 (13032007)
439679.00 3765445.00 0.07473 (13032007)
439684.00 3765445.00 0.07508 (13032007)
439689.00 3765445.00 0.07545 (13032007)
439694.00 3765445.00 0.07577 (13032007)
439699.00 3765445.00 0.07606 (13032007)
439704.00 3765445.00 0.07634 (13032007)
439709.00 3765445.00 0.07658 (13032007)
439714.00 3765445.00 0.07680 (13032007)
439719.00 3765445.00 0.07700 (13032007)
439729.00 3765445.00 0.07731 (13032007)
439734.00 3765445.00 0.07782 (15102007)
439739.00 3765445.00 0.07870 (15102007)
439744.00 3765445.00 0.07957 (15102007)
439749.00 3765445.00 0.08041 (15102007)
439774.00 3765445.00 0.08408 (15102007)
439779.00 3765445.00 0.08470 (15102007)
439784.00 3765445.00 0.08525 (15102007)
439789.00 3765445.00 0.08575 (15102007)
439794.00 3765445.00 0.08618 (15102007)
439799.00 3765445.00 0.08656 (15102007)
439804.00 3765445.00 0.08687 (15102007)
439809.00 3765445.00 0.08712 (15102007)
439814.00 3765445.00 0.08732 (15102007)
439819.00 3765445.00 0.08750 (14100607)
439824.00 3765445.00 0.08923 (14100607)
439829.00 3765445.00 0.09090 (14100607)
439834.00 3765445.00 0.09250 (14100607)
439839.00 3765445.00 0.09405 (14100607)
439844.00 3765445.00 0.09551 (14100607)
439849.00 3765445.00 0.09687 (14100607)
439854.00 3765445.00 0.09811 (14100607)
439859.00 3765445.00 0.09928 (14100607)
439674.00 3765450.00 0.07541 (13032007)
439679.00 3765450.00 0.07583 (13032007)
439684.00 3765450.00 0.07627 (13032007)
439689.00 3765450.00 0.07666 (13032007)
439694.00 3765450.00 0.07705 (13032007)
439699.00 3765450.00 0.07744 (13032007)

```
439704.00   3765450.00        0.07776  (13032007)
        439709.00   3765450.00        0.07809  (13032007)
439714.00   3765450.00        0.07837  (13032007)
        439719.00   3765450.00        0.07861  (13032007)
439729.00   3765450.00        0.07902  (13032007)
        439734.00   3765450.00        0.07920  (13032007)
439739.00   3765450.00        0.07932  (13032007)
        439744.00   3765450.00        0.08012  (15102007)
439749.00   3765450.00        0.08104  (15102007)
        439774.00   3765450.00        0.08513  (15102007)
439844.00   3765450.00        0.09623  (14100607)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONOFFEXH ***
INCLUDING SOURCE(S):
A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , A0000029 , A0000030 , A0000031 , A0000032 , A0000033 , A0000034 , A0000035 ,
A0000036 , A0000037 , A0000038 , A0000039 , A0000040 , A0000041 , A0000042 , A0000043 ,
A0000044 , A0000045 , A0000046 , A0000047 , A0000048 , A0000049 , A0000050 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439849.00	3765450.00	0.09771	(14100607)	439854.00	3765450.00	0.09909	(14100607)
439859.00	3765450.00	0.10035	(14100607)	439674.00	3765455.00	0.07644	(13032007)
439679.00	3765455.00	0.07694	(13032007)	439684.00	3765455.00	0.07740	(13032007)
439689.00	3765455.00	0.07786	(13032007)	439694.00	3765455.00	0.07831	(13032007)
439699.00	3765455.00	0.07871	(13032007)	439704.00	3765455.00	0.07914	(13032007)
439709.00	3765455.00	0.07951	(13032007)	439714.00	3765455.00	0.07987	(13032007)
439719.00	3765455.00	0.08021	(13032007)	439729.00	3765455.00	0.08076	(13032007)
439734.00	3765455.00	0.08097	(13032007)	439739.00	3765455.00	0.08118	(13032007)
439744.00	3765455.00	0.08133	(13032007)				

439749.00 3765455.00 0.08159 (15102007)
439844.00 3765455.00 0.09694 (14100607)
439849.00 3765455.00 0.09853 (14100607)
439854.00 3765455.00 0.10003 (14100607)
439859.00 3765455.00 0.10141 (14100607)
439674.00 3765460.00 0.07739 (13032007)
439679.00 3765460.00 0.07792 (13032007)
439684.00 3765460.00 0.07848 (13032007)
439689.00 3765460.00 0.07901 (13032007)
439694.00 3765460.00 0.07950 (13032007)
439699.00 3765460.00 0.08000 (13032007)
439704.00 3765460.00 0.08044 (13032007)
439709.00 3765460.00 0.08089 (13032007)
439714.00 3765460.00 0.08132 (13032007)
439719.00 3765460.00 0.08171 (13032007)
439729.00 3765460.00 0.08242 (13032007)
439734.00 3765460.00 0.08274 (13032007)
439739.00 3765460.00 0.08301 (13032007)
439744.00 3765460.00 0.08322 (13032007)
439749.00 3765460.00 0.08342 (13032007)
439789.00 3765460.00 0.08952 (15102007)
439794.00 3765460.00 0.09025 (15102007)
439799.00 3765460.00 0.09089 (15102007)
439804.00 3765460.00 0.09149 (15102007)
439809.00 3765460.00 0.09203 (15102007)
439814.00 3765460.00 0.09248 (15102007)
439819.00 3765460.00 0.09288 (15102007)
439824.00 3765460.00 0.09316 (15102007)
439829.00 3765460.00 0.09337 (15102007)
439844.00 3765460.00 0.09756 (14100607)
439849.00 3765460.00 0.09930 (14100607)
439854.00 3765460.00 0.10093 (14100607)
439859.00 3765460.00 0.10246 (14100607)
439674.00 3765465.00 0.07827 (13032007)
439679.00 3765465.00 0.07888 (13032007)
439684.00 3765465.00 0.07946 (13032007)
439689.00 3765465.00 0.08004 (13032007)
439694.00 3765465.00 0.08063 (13032007)
439699.00 3765465.00 0.08117 (13032007)
439704.00 3765465.00 0.08172 (13032007)
439709.00 3765465.00 0.08224 (13032007)
439714.00 3765465.00 0.08271 (13032007)
439719.00 3765465.00 0.08319 (13032007)
439729.00 3765465.00 0.08404 (13032007)
439734.00 3765465.00 0.08442 (13032007)
439739.00 3765465.00 0.08477 (13032007)
439744.00 3765465.00 0.08510 (13032007)
439749.00 3765465.00 0.08536 (13032007)
439789.00 3765465.00 0.09065 (15102007)
439794.00 3765465.00 0.09148 (15102007)
439799.00 3765465.00 0.09227 (15102007)
439804.00 3765465.00 0.09295 (15102007)

```
439809.00   3765465.00        0.09359  (15102007)
        439814.00   3765465.00        0.09415  (15102007)
439819.00   3765465.00        0.09461  (15102007)
        439824.00   3765465.00        0.09504  (15102007)
439829.00   3765465.00        0.09536  (15102007)
        439844.00   3765465.00        0.09816  (14100607)
439849.00   3765465.00        0.10003  (14100607)
        439854.00   3765465.00        0.10180  (14100607)
439859.00   3765465.00        0.10345  (14100607)
        439674.00   3765470.00        0.07927  (12093007)
439679.00   3765470.00        0.07978  (12093007)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONOFFEXH ***
INCLUDING SOURCE(S):
A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , A0000029 , A0000030 , A0000031 , A0000032 , A0000033 , A0000034 , A0000035 ,
A0000036 , A0000037 , A0000038 , A0000039 , A0000040 , A0000041 , A0000042 , A0000043 ,
A0000044 , A0000045 , A0000046 , A0000047 , A0000048 , A0000049 , A0000050 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439684.00	3765470.00	0.08041	(13032007)	439689.00	3765470.00	0.08105	(13032007)
439694.00	3765470.00	0.08166	(13032007)	439699.00	3765470.00	0.08229	(13032007)
439704.00	3765470.00	0.08289	(13032007)	439709.00	3765470.00	0.08348	(13032007)
439714.00	3765470.00	0.08407	(13032007)	439719.00	3765470.00	0.08460	(13032007)
439729.00	3765470.00	0.08561	(13032007)	439734.00	3765470.00	0.08605	(13032007)
439739.00	3765470.00	0.08649	(13032007)	439744.00	3765470.00	0.08688	(13032007)
439749.00	3765470.00	0.08725	(13032007)	439789.00	3765470.00	0.09172	(15102007)
439794.00	3765470.00	0.09265	(15102007)	439799.00	3765470.00	0.09352	(15102007)
439804.00	3765470.00	0.09437	(15102007)				

439809.00 3765470.00 0.09511 (15102007)
439814.00 3765470.00 0.09578 (15102007)
439819.00 3765470.00 0.09637 (15102007)
439824.00 3765470.00 0.09686 (15102007)
439829.00 3765470.00 0.09730 (15102007)
439844.00 3765470.00 0.09866 (14100607)
439849.00 3765470.00 0.10069 (14100607)
439854.00 3765470.00 0.10261 (14100607)
439859.00 3765470.00 0.10442 (14100607)
439674.00 3765475.00 0.08038 (12093007)
439679.00 3765475.00 0.08094 (12093007)
439684.00 3765475.00 0.08151 (12093007)
439689.00 3765475.00 0.08204 (12093007)
439694.00 3765475.00 0.08268 (13032007)
439699.00 3765475.00 0.08334 (13032007)
439704.00 3765475.00 0.08400 (13032007)
439709.00 3765475.00 0.08467 (13032007)
439714.00 3765475.00 0.08529 (13032007)
439719.00 3765475.00 0.08593 (13032007)
439729.00 3765475.00 0.08710 (13032007)
439734.00 3765475.00 0.08767 (13032007)
439739.00 3765475.00 0.08815 (13032007)
439744.00 3765475.00 0.08865 (13032007)
439749.00 3765475.00 0.08908 (13032007)
439754.00 3765475.00 0.08949 (13032007)
439789.00 3765475.00 0.09271 (15102007)
439794.00 3765475.00 0.09377 (15102007)
439799.00 3765475.00 0.09474 (15102007)
439804.00 3765475.00 0.09568 (15102007)
439809.00 3765475.00 0.09656 (15102007)
439814.00 3765475.00 0.09736 (15102007)
439819.00 3765475.00 0.09808 (15102007)
439824.00 3765475.00 0.09870 (15102007)
439829.00 3765475.00 0.09922 (15102007)
439269.00 3764900.00 0.03146 (14100607)
439369.00 3764900.00 0.03301 (14100607)
439469.00 3764900.00 0.03382 (14100607)
439569.00 3764900.00 0.03321 (13120808)
439669.00 3764900.00 0.03222 (13120808)
439769.00 3764900.00 0.03135 (13102607)
439869.00 3764900.00 0.03325 (13101207)
439969.00 3764900.00 0.03552 (13101207)
440069.00 3764900.00 0.03508 (12032207)
440169.00 3764900.00 0.03293 (13102707)
440269.00 3764900.00 0.03378 (14102507)
439269.00 3765000.00 0.03313 (13120808)
439369.00 3765000.00 0.03469 (14100607)
439469.00 3765000.00 0.03734 (14100607)
439569.00 3765000.00 0.03875 (14100607)
439669.00 3765000.00 0.03783 (13120808)
439769.00 3765000.00 0.03571 (13032507)
439869.00 3765000.00 0.03625 (13102607)

```
439969.00   3765000.00        0.03961  (13101207)
        440069.00   3765000.00        0.03988  (12032207)
440169.00   3765000.00        0.03699  (13102707)
        440269.00   3765000.00        0.03789  (14102507)
439269.00   3765100.00        0.03697  (13120808)
        439369.00   3765100.00        0.03610  (13120808)
439469.00   3765100.00        0.03891  (14100607)
        439569.00   3765100.00        0.04339  (14100607)
439669.00   3765100.00        0.04543  (14100607)
        439769.00   3765100.00        0.04388  (13120808)
439869.00   3765100.00        0.04104  (13102607)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONOFFEXH ***
INCLUDING SOURCE(S):
A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , A0000029 , A0000030 , A0000031 , A0000032 , A0000033 , A0000034 , A0000035 ,
A0000036 , A0000037 , A0000038 , A0000039 , A0000040 , A0000041 , A0000042 , A0000043 ,
A0000044 , A0000045 , A0000046 , A0000047 , A0000048 , A0000049 , A0000050 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439969.00	3765100.00	0.04453	(13101207)	440069.00	3765100.00	0.04572	(12032207)
440169.00	3765100.00	0.04211	(13102707)	440269.00	3765100.00	0.04302	(14102507)
439269.00	3765200.00	0.04193	(13120808)	439369.00	3765200.00	0.04163	(13120808)
439469.00	3765200.00	0.04052	(12011808)	439569.00	3765200.00	0.04490	(14100607)
439669.00	3765200.00	0.05236	(14100607)	439769.00	3765200.00	0.05456	(14100607)
439869.00	3765200.00	0.05132	(13120808)	439969.00	3765200.00	0.05083	(13101207)
440069.00	3765200.00	0.05338	(13101207)	440169.00	3765200.00	0.04989	(12032207)
440269.00	3765200.00	0.04954	(14102507)	439269.00	3765300.00	0.04692	(13120808)
439369.00	3765300.00	0.05023	(13120808)				

```
439469.00   3765300.00        0.04642  (13120808)
        439569.00   3765300.00        0.05031  (15102007)
439669.00   3765300.00        0.05436  (14100607)
        439769.00   3765300.00        0.06648  (14100607)
439869.00   3765300.00        0.06693  (14100607)
        439969.00   3765300.00        0.06015  (13120808)
440069.00   3765300.00        0.06393  (13101207)
        440169.00   3765300.00        0.06060  (12032207)
440269.00   3765300.00        0.05822  (14102507)
        439269.00   3765400.00        0.05650  (12011808)
439369.00   3765400.00        0.06175  (13120808)
        439469.00   3765400.00        0.06005  (13120808)
439569.00   3765400.00        0.05996  (13032007)
        439669.00   3765400.00        0.06494  (15102007)
439769.00   3765400.00        0.07277  (15102007)
        439869.00   3765400.00        0.08972  (14100607)
439969.00   3765400.00        0.08425  (14100607)
        440069.00   3765400.00        0.07999  (13101207)
440169.00   3765400.00        0.07678  (13101207)
        440269.00   3765400.00        0.07111  (14102507)
439269.00   3765500.00        0.07304  (12112508)
        439369.00   3765500.00        0.07668  (12011808)
439469.00   3765500.00        0.08196  (13120808)
        439569.00   3765500.00        0.07458  (13120808)
439669.00   3765500.00        0.08631  (13092507)
        439769.00   3765500.00        0.10069  (13032007)
439869.00   3765500.00        0.11446  (14100607)
        439969.00   3765500.00        0.12770  (14100607)
440069.00   3765500.00        0.11493  (14100607)
        440169.00   3765500.00        0.10491  (13101207)
440269.00   3765500.00        0.09865  (14012707)
        439269.00   3765600.00        0.10053  (12101307)
439369.00   3765600.00        0.11445  (12112508)
        439469.00   3765600.00        0.12197  (13120808)
439569.00   3765600.00        0.12010  (13120808)
        439669.00   3765600.00        0.10585  (13120808)
439769.00   3765600.00        0.13404  (12101307)
        439869.00   3765600.00        0.21237  (13092507)
439969.00   3765600.00        0.26503  (14100607)
        440069.00   3765600.00        0.22845  (14100607)
440169.00   3765600.00        0.19644  (14100607)
        440269.00   3765600.00        0.18235  (14101107)
439269.00   3765700.00        0.15311  (14012908)
        439369.00   3765700.00        0.22285  (14012908)
439469.00   3765700.00        0.36489  (12101307)
        439569.00   3765700.00        0.22139  (12101307)
439669.00   3765700.00        0.18334  (13120808)
        439769.00   3765700.00        0.15224  (14101107)
439869.00   3765700.00        0.17982  (14101007)
        439969.00   3765700.00        0.25248  (12100707)
440069.00   3765700.00        0.30579  (12100707)
        440169.00   3765700.00        0.39705  (12100707)
```

```
440269.00   3765700.00        0.56725  (12100707)
        439269.00   3765800.00        0.14001  (13021408)
439369.00   3765800.00        0.20031  (12100707)
        439469.00   3765800.00        0.22437  (12100707)
439569.00   3765800.00        0.24192  (12100707)
        439669.00   3765800.00        0.28816  (12100707)
439769.00   3765800.00        0.35635  (12100707)
        439869.00   3765800.00        0.51964  (13111217)
439969.00   3765800.00        0.23629  (12100707)
        440069.00   3765800.00        0.17804  (12092507)
440169.00   3765800.00        0.17697  (15033007)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONOFFEXH ***
INCLUDING SOURCE(S):
A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , A0000029 , A0000030 , A0000031 , A0000032 , A0000033 , A0000034 , A0000035 ,
A0000036 , A0000037 , A0000038 , A0000039 , A0000040 , A0000041 , A0000042 , A0000043 ,
A0000044 , A0000045 , A0000046 , A0000047 , A0000048 , A0000049 , A0000050 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
440269.00	3765800.00	0.18035	(15033007)	439269.00	3765900.00	0.10907	(12100707)
439369.00	3765900.00	0.11457	(12100707)	439469.00	3765900.00	0.11579	(12100707)
439569.00	3765900.00	0.11814	(12011908)	439669.00	3765900.00	0.11436	(12011908)
439769.00	3765900.00	0.10787	(15110207)	439869.00	3765900.00	0.11934	(13111217)
439969.00	3765900.00	0.11572	(13111217)	440069.00	3765900.00	0.09870	(12092507)
440169.00	3765900.00	0.09981	(12092507)	440269.00	3765900.00	0.10581	(15033007)
439649.00	3765310.00	0.05378	(13101107)	439679.00	3765310.00	0.05563	(14100607)
439709.00	3765310.00	0.06000	(14100607)	439739.00	3765310.00	0.06410	(14100607)
439769.00	3765310.00	0.06745	(14100607)				

```
439799.00   3765310.00        0.06959  (14100607)
        439829.00   3765310.00        0.07029  (14100607)
439859.00   3765310.00        0.06954  (14100607)
        439889.00   3765310.00        0.06763  (14100607)
439649.00   3765340.00        0.05771  (15102007)
        439679.00   3765340.00        0.05877  (15102007)
439709.00   3765340.00        0.06006  (13101107)
        439739.00   3765340.00        0.06516  (14100607)
439769.00   3765340.00        0.06991  (14100607)
        439799.00   3765340.00        0.07354  (14100607)
439829.00   3765340.00        0.07556  (14100607)
        439859.00   3765340.00        0.07583  (14100607)
439889.00   3765340.00        0.07457  (14100607)
        439649.00   3765370.00        0.06074  (15102007)
439679.00   3765370.00        0.06304  (15102007)
        439709.00   3765370.00        0.06466  (15102007)
439739.00   3765370.00        0.06581  (13101107)
        439769.00   3765370.00        0.07148  (14100607)
439799.00   3765370.00        0.07692  (14100607)
        439829.00   3765370.00        0.08069  (14100607)
439859.00   3765370.00        0.08236  (14100607)
        439889.00   3765370.00        0.08201  (14100607)
439649.00   3765400.00        0.06272  (13032007)
        439679.00   3765400.00        0.06613  (15102007)
439709.00   3765400.00        0.06932  (15102007)
        439739.00   3765400.00        0.07168  (15102007)
439769.00   3765400.00        0.07277  (15102007)
        439799.00   3765400.00        0.07938  (14100607)
439829.00   3765400.00        0.08545  (14100607)
        439859.00   3765400.00        0.08910  (14100607)
439889.00   3765400.00        0.09009  (14100607)
        439649.00   3765430.00        0.06943  (13032007)
439679.00   3765430.00        0.07104  (13032007)
        439709.00   3765430.00        0.07242  (15102007)
439739.00   3765430.00        0.07684  (15102007)
        439769.00   3765430.00        0.08022  (15102007)
439799.00   3765430.00        0.08191  (15102007)
        439829.00   3765430.00        0.08944  (14100607)
439859.00   3765430.00        0.09594  (14100607)
        439889.00   3765430.00        0.09896  (14100607)
439649.00   3765460.00        0.07469  (12093007)
        439679.00   3765460.00        0.07792  (13032007)
439709.00   3765460.00        0.08089  (13032007)
        439739.00   3765460.00        0.08301  (13032007)
439769.00   3765460.00        0.08610  (15102007)
        439799.00   3765460.00        0.09089  (15102007)
439829.00   3765460.00        0.09337  (15102007)
        439859.00   3765460.00        0.10246  (14100607)
439889.00   3765460.00        0.10880  (14100607)
        439649.00   3765490.00        0.08148  (13092507)
439679.00   3765490.00        0.08482  (13092507)
        439709.00   3765490.00        0.08835  (12093007)
```

```
439739.00   3765490.00        0.09271  (13032007)
        439769.00   3765490.00        0.09680  (13032007)
439799.00   3765490.00        0.09915  (13032007)
        439829.00   3765490.00        0.10480  (15102007)
439859.00   3765490.00        0.10821  (15102007)
        439889.00   3765490.00        0.11962  (14100607)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439674.00	3765310.00	1.31612	(13120808)	439679.00	3765310.00	1.31670	(13120808)
439684.00	3765310.00	1.31705	(13120808)	439689.00	3765310.00	1.31782	(13120808)
439694.00	3765310.00	1.31803	(13120808)	439699.00	3765310.00	1.31894	(13120808)
439704.00	3765310.00	1.31920	(13120808)	439709.00	3765310.00	1.32027	(13120808)
439714.00	3765310.00	1.32024	(13120808)	439719.00	3765310.00	1.32148	(13120808)
439729.00	3765310.00	1.32258	(13120808)	439734.00	3765310.00	1.32296	(13120808)
439739.00	3765310.00	1.32370	(13120808)	439744.00	3765310.00	1.32434	(13120808)
439749.00	3765310.00	1.32490	(13120808)	439764.00	3765310.00	1.32726	(13120808)
439769.00	3765310.00	1.32752	(13120808)				

439774.00 3765310.00 1.32859 (13120808)
439779.00 3765310.00 1.32889 (13120808)
439784.00 3765310.00 1.32992 (13120808)
439789.00 3765310.00 1.33004 (13120808)
439794.00 3765310.00 1.33092 (13120808)
439799.00 3765310.00 1.33138 (13120808)
439804.00 3765310.00 1.33171 (13120808)
439809.00 3765310.00 1.33224 (13120808)
439814.00 3765310.00 1.33253 (13120808)
439819.00 3765310.00 1.33326 (13120808)
439824.00 3765310.00 1.33321 (13120808)
439829.00 3765310.00 1.33388 (13120808)
439839.00 3765310.00 1.33458 (13120808)
439844.00 3765310.00 1.33421 (13120808)
439849.00 3765310.00 1.33489 (13120808)
439854.00 3765310.00 1.33438 (13120808)
439859.00 3765310.00 1.33500 (13120808)
439864.00 3765310.00 1.33445 (13120808)
439869.00 3765310.00 1.33451 (13120808)
439874.00 3765310.00 1.33440 (13120808)
439879.00 3765310.00 1.33413 (13120808)
439884.00 3765310.00 1.33419 (13120808)
439674.00 3765315.00 1.32690 (13120808)
439679.00 3765315.00 1.32790 (13120808)
439684.00 3765315.00 1.32777 (13120808)
439689.00 3765315.00 1.32893 (13120808)
439694.00 3765315.00 1.32893 (13120808)
439699.00 3765315.00 1.32961 (13120808)
439704.00 3765315.00 1.33012 (13120808)
439709.00 3765315.00 1.33071 (13120808)
439714.00 3765315.00 1.33148 (13120808)
439719.00 3765315.00 1.33173 (13120808)
439729.00 3765315.00 1.33318 (13120808)
439734.00 3765315.00 1.33411 (13120808)
439739.00 3765315.00 1.33443 (13120808)
439744.00 3765315.00 1.33565 (13120808)
439749.00 3765315.00 1.33592 (13120808)
439764.00 3765315.00 1.33823 (13120808)
439769.00 3765315.00 1.33881 (13120808)
439774.00 3765315.00 1.33935 (13120808)
439779.00 3765315.00 1.34020 (13120808)
439784.00 3765315.00 1.34061 (13120808)
439789.00 3765315.00 1.34153 (13120808)
439794.00 3765315.00 1.34174 (13120808)
439799.00 3765315.00 1.34274 (13120808)
439804.00 3765315.00 1.34295 (13120808)
439809.00 3765315.00 1.34398 (13120808)
439814.00 3765315.00 1.34391 (13120808)
439819.00 3765315.00 1.34486 (13120808)
439824.00 3765315.00 1.34489 (13120808)
439829.00 3765315.00 1.34540 (13120808)
439839.00 3765315.00 1.34572 (13120808)

```
439844.00   3765315.00        1.34618  (13120808)
        439849.00   3765315.00        1.34603  (13120808)
439854.00   3765315.00        1.34633  (13120808)
        439859.00   3765315.00        1.34623  (13120808)
439864.00   3765315.00        1.34661  (13120808)
        439869.00   3765315.00        1.34627  (13120808)
439874.00   3765315.00        1.34651  (13120808)
        439879.00   3765315.00        1.34605  (13120808)
439884.00   3765315.00        1.34646  (13120808)
        439674.00   3765320.00        1.33823  (13120808)
439679.00   3765320.00        1.33856  (13120808)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439684.00	3765320.00	1.33904	(13120808)	439689.00	3765320.00	1.33944	(13120808)
439694.00	3765320.00	1.34029	(13120808)	439699.00	3765320.00	1.34055	(13120808)
439704.00	3765320.00	1.34142	(13120808)	439709.00	3765320.00	1.34158	(13120808)
439714.00	3765320.00	1.34294	(13120808)	439719.00	3765320.00	1.34292	(13120808)
439729.00	3765320.00	1.34427	(13120808)	439734.00	3765320.00	1.34523	(13120808)
439739.00	3765320.00	1.34572	(13120808)	439744.00	3765320.00	1.34643	(13120808)
439749.00	3765320.00	1.34715	(13120808)	439764.00	3765320.00	1.34917	(13120808)
439769.00	3765320.00	1.35023	(13120808)	439774.00	3765320.00	1.35066	(13120808)
439779.00	3765320.00	1.35174	(13120808)				

```
439784.00   3765320.00        1.35197  (13120808)
        439789.00   3765320.00        1.35316  (13120808)
439794.00   3765320.00        1.35331  (13120808)
        439799.00   3765320.00        1.35415  (13120808)
439804.00   3765320.00        1.35449  (13120808)
        439809.00   3765320.00        1.35519  (13120808)
439814.00   3765320.00        1.35568  (13120808)
        439819.00   3765320.00        1.35610  (13120808)
439824.00   3765320.00        1.35667  (13120808)
        439829.00   3765320.00        1.35692  (13120808)
439839.00   3765320.00        1.35748  (13120808)
        439844.00   3765320.00        1.35817  (13120808)
439849.00   3765320.00        1.35800  (13120808)
        439854.00   3765320.00        1.35861  (13120808)
439859.00   3765320.00        1.35823  (13120808)
        439864.00   3765320.00        1.35853  (13120808)
439869.00   3765320.00        1.35847  (13120808)
        439874.00   3765320.00        1.35833  (13120808)
439879.00   3765320.00        1.35833  (13120808)
        439884.00   3765320.00        1.35809  (13120808)
439674.00   3765325.00        1.34958  (13120808)
        439679.00   3765325.00        1.34997  (13120808)
439684.00   3765325.00        1.35058  (13120808)
        439689.00   3765325.00        1.35082  (13120808)
439694.00   3765325.00        1.35145  (13120808)
        439699.00   3765325.00        1.35212  (13120808)
439704.00   3765325.00        1.35248  (13120808)
        439709.00   3765325.00        1.35321  (13120808)
439714.00   3765325.00        1.35367  (13120808)
        439719.00   3765325.00        1.35448  (13120808)
439729.00   3765325.00        1.35586  (13120808)
        439734.00   3765325.00        1.35627  (13120808)
439739.00   3765325.00        1.35747  (13120808)
        439744.00   3765325.00        1.35785  (13120808)
439749.00   3765325.00        1.35883  (13120808)
        439754.00   3765325.00        1.35925  (13120808)
439769.00   3765325.00        1.36165  (13120808)
        439774.00   3765325.00        1.36226  (13120808)
439779.00   3765325.00        1.36296  (13120808)
        439784.00   3765325.00        1.36375  (13120808)
439789.00   3765325.00        1.36430  (13120808)
        439794.00   3765325.00        1.36514  (13120808)
439799.00   3765325.00        1.36562  (13120808)
        439804.00   3765325.00        1.36653  (13120808)
439809.00   3765325.00        1.36680  (13120808)
        439814.00   3765325.00        1.36769  (13120808)
439819.00   3765325.00        1.36800  (13120808)
        439824.00   3765325.00        1.36876  (13120808)
439829.00   3765325.00        1.36889  (13120808)
        439839.00   3765325.00        1.36970  (13120808)
439844.00   3765325.00        1.36997  (13120808)
        439849.00   3765325.00        1.37023  (13120808)
```

```
439854.00   3765325.00        1.37042  (13120808)
        439859.00   3765325.00        1.37062  (13120808)
439864.00   3765325.00        1.37059  (13120808)
        439869.00   3765325.00        1.37086  (13120808)
439874.00   3765325.00        1.37063  (13120808)
        439879.00   3765325.00        1.37093  (13120808)
439884.00   3765325.00        1.37041  (13120808)
        439674.00   3765330.00        1.36097  (13120808)
439679.00   3765330.00        1.36130  (13120808)
        439684.00   3765330.00        1.36198  (13120808)
439689.00   3765330.00        1.36246  (13120808)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439694.00	3765330.00	1.36278	(13120808)	439699.00	3765330.00	1.36353	(13120808)
439704.00	3765330.00	1.36396	(13120808)	439709.00	3765330.00	1.36499	(13120808)
439714.00	3765330.00	1.36520	(13120808)	439719.00	3765330.00	1.36616	(13120808)
439729.00	3765330.00	1.36754	(13120808)	439734.00	3765330.00	1.36805	(13120808)
439739.00	3765330.00	1.36870	(13120808)	439744.00	3765330.00	1.36958	(13120808)
439749.00	3765330.00	1.37026	(13120808)	439754.00	3765330.00	1.37112	(13120808)
439774.00	3765330.00	1.37429	(13120808)	439779.00	3765330.00	1.37461	(13120808)
439784.00	3765330.00	1.37595	(13120808)	439789.00	3765330.00	1.37618	(13120808)
439794.00	3765330.00	1.37722	(13120808)				

439799.00 3765330.00 1.37753 (13120808)
439804.00 3765330.00 1.37849 (13120808)
439809.00 3765330.00 1.37888 (13120808)
439814.00 3765330.00 1.37957 (13120808)
439819.00 3765330.00 1.38010 (13120808)
439824.00 3765330.00 1.38069 (13120808)
439829.00 3765330.00 1.38122 (13120808)
439839.00 3765330.00 1.38211 (13120808)
439844.00 3765330.00 1.38229 (13120808)
439849.00 3765330.00 1.38288 (13120808)
439854.00 3765330.00 1.38277 (13120808)
439859.00 3765330.00 1.38323 (13120808)
439864.00 3765330.00 1.38324 (13120808)
439869.00 3765330.00 1.38323 (13120808)
439874.00 3765330.00 1.38337 (13120808)
439879.00 3765330.00 1.38333 (13120808)
439884.00 3765330.00 1.38324 (13120808)
439674.00 3765335.00 1.37292 (13120808)
439679.00 3765335.00 1.37324 (13120808)
439684.00 3765335.00 1.37362 (13120808)
439689.00 3765335.00 1.37434 (13120808)
439694.00 3765335.00 1.37473 (13120808)
439699.00 3765335.00 1.37529 (13120808)
439704.00 3765335.00 1.37567 (13120808)
439709.00 3765335.00 1.37655 (13120808)
439714.00 3765335.00 1.37711 (13120808)
439719.00 3765335.00 1.37777 (13120808)
439729.00 3765335.00 1.37918 (13120808)
439734.00 3765335.00 1.38007 (13120808)
439739.00 3765335.00 1.38058 (13120808)
439744.00 3765335.00 1.38132 (13120808)
439749.00 3765335.00 1.38213 (13120808)
439774.00 3765335.00 1.38613 (13120808)
439779.00 3765335.00 1.38685 (13120808)
439784.00 3765335.00 1.38754 (13120808)
439789.00 3765335.00 1.38848 (13120808)
439794.00 3765335.00 1.38916 (13120808)
439839.00 3765335.00 1.39456 (13120808)
439844.00 3765335.00 1.39484 (13120808)
439849.00 3765335.00 1.39534 (13120808)
439854.00 3765335.00 1.39555 (13120808)
439859.00 3765335.00 1.39570 (13120808)
439864.00 3765335.00 1.39607 (13120808)
439869.00 3765335.00 1.39591 (13120808)
439874.00 3765335.00 1.39628 (13120808)
439879.00 3765335.00 1.39603 (13120808)
439884.00 3765335.00 1.39648 (13120808)
439674.00 3765340.00 1.38492 (13120808)
439679.00 3765340.00 1.38545 (13120808)
439684.00 3765340.00 1.38575 (13120808)
439689.00 3765340.00 1.38612 (13120808)
439694.00 3765340.00 1.38688 (13120808)

```
439699.00   3765340.00        1.38718  (13120808)
        439704.00   3765340.00        1.38802  (13120808)
439709.00   3765340.00        1.38828  (13120808)
        439714.00   3765340.00        1.38932  (13120808)
439719.00   3765340.00        1.38983  (13120808)
        439729.00   3765340.00        1.39116  (13120808)
439734.00   3765340.00        1.39211  (13120808)
        439739.00   3765340.00        1.39287  (13120808)
439744.00   3765340.00        1.39346  (13120808)
        439749.00   3765340.00        1.39425  (13120808)
439774.00   3765340.00        1.39816  (13120808)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439779.00	3765340.00	1.39948	(13120808)	439784.00	3765340.00	1.39982	(13120808)
439789.00	3765340.00	1.40080	(13120808)	439794.00	3765340.00	1.40141	(13120808)
439839.00	3765340.00	1.40723	(13120808)	439844.00	3765340.00	1.40792	(13120808)
439849.00	3765340.00	1.40814	(13120808)	439854.00	3765340.00	1.40867	(13120808)
439859.00	3765340.00	1.40874	(13120808)	439864.00	3765340.00	1.40913	(13120808)
439869.00	3765340.00	1.40916	(13120808)	439874.00	3765340.00	1.40939	(13120808)
439879.00	3765340.00	1.40915	(13120808)	439884.00	3765340.00	1.40940	(13120808)
439674.00	3765345.00	1.39736	(13120808)	439679.00	3765345.00	1.39767	(13120808)
439684.00	3765345.00	1.39832	(13120808)				

439689.00 3765345.00 1.39860 (13120808)
439694.00 3765345.00 1.39929 (13120808)
439699.00 3765345.00 1.39942 (13120808)
439704.00 3765345.00 1.40043 (13120808)
439709.00 3765345.00 1.40056 (13120808)
439714.00 3765345.00 1.40155 (13120808)
439719.00 3765345.00 1.40214 (13120808)
439729.00 3765345.00 1.40350 (13120808)
439734.00 3765345.00 1.40432 (13120808)
439739.00 3765345.00 1.40501 (13120808)
439744.00 3765345.00 1.40599 (13120808)
439749.00 3765345.00 1.40677 (13120808)
439774.00 3765345.00 1.41072 (13120808)
439779.00 3765345.00 1.41175 (13120808)
439784.00 3765345.00 1.41273 (13120808)
439789.00 3765345.00 1.41332 (13120808)
439794.00 3765345.00 1.41414 (13120808)
439839.00 3765345.00 1.42026 (13120808)
439844.00 3765345.00 1.42095 (13120808)
439849.00 3765345.00 1.42138 (13120808)
439854.00 3765345.00 1.42167 (13120808)
439859.00 3765345.00 1.42214 (13120808)
439864.00 3765345.00 1.42217 (13120808)
439869.00 3765345.00 1.42267 (13120808)
439874.00 3765345.00 1.42256 (13120808)
439879.00 3765345.00 1.42302 (13120808)
439884.00 3765345.00 1.42277 (13120808)
439674.00 3765350.00 1.41020 (13120808)
439679.00 3765350.00 1.41050 (13120808)
439684.00 3765350.00 1.41061 (13120808)
439689.00 3765350.00 1.41121 (13120808)
439694.00 3765350.00 1.41175 (13120808)
439699.00 3765350.00 1.41237 (13120808)
439704.00 3765350.00 1.41270 (13120808)
439709.00 3765350.00 1.41346 (13120808)
439714.00 3765350.00 1.41403 (13120808)
439719.00 3765350.00 1.41480 (13120808)
439729.00 3765350.00 1.41626 (13120808)
439734.00 3765350.00 1.41695 (13120808)
439739.00 3765350.00 1.41777 (13120808)
439744.00 3765350.00 1.41853 (13120808)
439749.00 3765350.00 1.41937 (13120808)
439774.00 3765350.00 1.42368 (13120808)
439779.00 3765350.00 1.42449 (13120808)
439784.00 3765350.00 1.42546 (13120808)
439789.00 3765350.00 1.42636 (13120808)
439794.00 3765350.00 1.42723 (13120808)
439839.00 3765350.00 1.43369 (13120808)
439844.00 3765350.00 1.43417 (13120808)
439849.00 3765350.00 1.43492 (13120808)
439854.00 3765350.00 1.43518 (13120808)
439859.00 3765350.00 1.43562 (13120808)

```
439864.00   3765350.00        1.43586  (13120808)
        439869.00   3765350.00        1.43637  (13120808)
439874.00   3765350.00        1.43611  (13120808)
        439879.00   3765350.00        1.43654  (13120808)
439884.00   3765350.00        1.43653  (13120808)
        439674.00   3765355.00        1.42294  (13120808)
439679.00   3765355.00        1.42365  (13120808)
        439684.00   3765355.00        1.42382  (13120808)
439689.00   3765355.00        1.42425  (13120808)
        439694.00   3765355.00        1.42441  (13120808)
439699.00   3765355.00        1.42554  (13120808)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439704.00	3765355.00	1.42553	(13120808)	439709.00	3765355.00	1.42624	(13120808)
439714.00	3765355.00	1.42691	(13120808)	439719.00	3765355.00	1.42775	(13120808)
439729.00	3765355.00	1.42894	(13120808)	439734.00	3765355.00	1.42972	(13120808)
439739.00	3765355.00	1.43066	(13120808)	439744.00	3765355.00	1.43159	(13120808)
439749.00	3765355.00	1.43222	(13120808)	439774.00	3765355.00	1.43686	(13120808)
439779.00	3765355.00	1.43768	(13120808)	439784.00	3765355.00	1.43864	(13120808)
439789.00	3765355.00	1.43951	(13120808)	439794.00	3765355.00	1.44054	(13120808)
439839.00	3765355.00	1.44730	(13120808)	439844.00	3765355.00	1.44779	(13120808)
439849.00	3765355.00	1.44849	(13120808)				

439854.00 3765355.00 1.44913 (13120808)
439859.00 3765355.00 1.44922 (13120808)
439864.00 3765355.00 1.44963 (13120808)
439869.00 3765355.00 1.45009 (13120808)
439874.00 3765355.00 1.45044 (13120808)
439879.00 3765355.00 1.45049 (13120808)
439884.00 3765355.00 1.45048 (13120808)
439674.00 3765360.00 1.43629 (13120808)
439679.00 3765360.00 1.43659 (13120808)
439684.00 3765360.00 1.43719 (13120808)
439689.00 3765360.00 1.43748 (13120808)
439694.00 3765360.00 1.43779 (13120808)
439699.00 3765360.00 1.43844 (13120808)
439704.00 3765360.00 1.43912 (13120808)
439709.00 3765360.00 1.43957 (13120808)
439714.00 3765360.00 1.43996 (13120808)
439719.00 3765360.00 1.44072 (13120808)
439729.00 3765360.00 1.44219 (13120808)
439734.00 3765360.00 1.44296 (13120808)
439739.00 3765360.00 1.44379 (13120808)
439744.00 3765360.00 1.44483 (13120808)
439749.00 3765360.00 1.44544 (13120808)
439774.00 3765360.00 1.45009 (13120808)
439779.00 3765360.00 1.45097 (13120808)
439784.00 3765360.00 1.45205 (13120808)
439789.00 3765360.00 1.45317 (13120808)
439794.00 3765360.00 1.45390 (13120808)
439799.00 3765360.00 1.45480 (13120808)
439804.00 3765360.00 1.45575 (13120808)
439809.00 3765360.00 1.45668 (13120808)
439814.00 3765360.00 1.45742 (13120808)
439839.00 3765360.00 1.46128 (13120808)
439844.00 3765360.00 1.46175 (13120808)
439849.00 3765360.00 1.46239 (13120808)
439854.00 3765360.00 1.46320 (13120808)
439859.00 3765360.00 1.46353 (13120808)
439864.00 3765360.00 1.46392 (13120808)
439869.00 3765360.00 1.46395 (13120808)
439874.00 3765360.00 1.46469 (13120808)
439879.00 3765360.00 1.46480 (13120808)
439884.00 3765360.00 1.46482 (13120808)
439674.00 3765365.00 1.44994 (13120808)
439679.00 3765365.00 1.45032 (13120808)
439684.00 3765365.00 1.45087 (13120808)
439689.00 3765365.00 1.45105 (13120808)
439694.00 3765365.00 1.45165 (13120808)
439699.00 3765365.00 1.45173 (13120808)
439704.00 3765365.00 1.45252 (13120808)
439709.00 3765365.00 1.45331 (13120808)
439714.00 3765365.00 1.45373 (13120808)
439719.00 3765365.00 1.45425 (13120808)
439729.00 3765365.00 1.45586 (13120808)

```
439734.00   3765365.00        1.45648  (13120808)
        439739.00   3765365.00        1.45730  (13120808)
439744.00   3765365.00        1.45806  (13120808)
        439749.00   3765365.00        1.45950  (14100607)
439774.00   3765365.00        1.46384  (13120808)
        439779.00   3765365.00        1.46480  (13120808)
439784.00   3765365.00        1.46567  (13120808)
        439789.00   3765365.00        1.46701  (13120808)
439794.00   3765365.00        1.46761  (13120808)
        439799.00   3765365.00        1.46870  (13120808)
439804.00   3765365.00        1.46959  (13120808)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439809.00	3765365.00	1.47059	(13120808)	439814.00	3765365.00	1.47152	(13120808)
439839.00	3765365.00	1.47547	(13120808)	439844.00	3765365.00	1.47616	(13120808)
439849.00	3765365.00	1.47669	(13120808)	439854.00	3765365.00	1.47734	(13120808)
439859.00	3765365.00	1.47785	(13120808)	439864.00	3765365.00	1.47843	(13120808)
439869.00	3765365.00	1.47859	(13120808)	439874.00	3765365.00	1.47913	(13120808)
439879.00	3765365.00	1.47931	(13120808)	439884.00	3765365.00	1.47971	(13120808)
439674.00	3765370.00	1.46394	(13120808)	439679.00	3765370.00	1.46419	(13120808)
439684.00	3765370.00	1.46471	(13120808)	439689.00	3765370.00	1.46498	(13120808)
439694.00	3765370.00	1.46552	(13120808)				

439699.00 3765370.00 1.46579 (13120808)
439704.00 3765370.00 1.46644 (13120808)
439709.00 3765370.00 1.46693 (13120808)
439714.00 3765370.00 1.46749 (13120808)
439719.00 3765370.00 1.46841 (13120808)
439729.00 3765370.00 1.46972 (13120808)
439734.00 3765370.00 1.47055 (13120808)
439739.00 3765370.00 1.47127 (13120808)
439744.00 3765370.00 1.47183 (13120808)
439749.00 3765370.00 1.47302 (13120808)
439774.00 3765370.00 1.47807 (14100607)
439779.00 3765370.00 1.47872 (13120808)
439784.00 3765370.00 1.47989 (13120808)
439789.00 3765370.00 1.48072 (13120808)
439794.00 3765370.00 1.48210 (13120808)
439799.00 3765370.00 1.48285 (13120808)
439804.00 3765370.00 1.48390 (13120808)
439809.00 3765370.00 1.48460 (13120808)
439814.00 3765370.00 1.48595 (13120808)
439839.00 3765370.00 1.49008 (13120808)
439844.00 3765370.00 1.49062 (13120808)
439849.00 3765370.00 1.49141 (13120808)
439854.00 3765370.00 1.49209 (13120808)
439859.00 3765370.00 1.49280 (13120808)
439864.00 3765370.00 1.49295 (13120808)
439869.00 3765370.00 1.49362 (13120808)
439874.00 3765370.00 1.49386 (13120808)
439879.00 3765370.00 1.49421 (13120808)
439884.00 3765370.00 1.49459 (13120808)
439674.00 3765375.00 1.47842 (13120808)
439679.00 3765375.00 1.47866 (13120808)
439684.00 3765375.00 1.47895 (13120808)
439689.00 3765375.00 1.47955 (13120808)
439694.00 3765375.00 1.47958 (13120808)
439699.00 3765375.00 1.48000 (13120808)
439704.00 3765375.00 1.48073 (13120808)
439709.00 3765375.00 1.48131 (13120808)
439714.00 3765375.00 1.48172 (13120808)
439719.00 3765375.00 1.48244 (13120808)
439729.00 3765375.00 1.48378 (13120808)
439734.00 3765375.00 1.48461 (13120808)
439739.00 3765375.00 1.48540 (13120808)
439744.00 3765375.00 1.48668 (14100607)
439749.00 3765375.00 1.48719 (13120808)
439754.00 3765375.00 1.48820 (14100607)
439774.00 3765375.00 1.49224 (13120808)
439779.00 3765375.00 1.49312 (13120808)
439784.00 3765375.00 1.49436 (13120808)
439789.00 3765375.00 1.49494 (13120808)
439794.00 3765375.00 1.49633 (13120808)
439799.00 3765375.00 1.49742 (13120808)
439804.00 3765375.00 1.49839 (13120808)

```
439809.00   3765375.00        1.49940  (13120808)
        439814.00   3765375.00        1.50043  (13120808)
439839.00   3765375.00        1.50515  (13120808)
        439844.00   3765375.00        1.50566  (13120808)
439849.00   3765375.00        1.50627  (13120808)
        439854.00   3765375.00        1.50687  (13120808)
439859.00   3765375.00        1.50789  (13120808)
        439864.00   3765375.00        1.50824  (13120808)
439869.00   3765375.00        1.50871  (13120808)
        439874.00   3765375.00        1.50905  (13120808)
439879.00   3765375.00        1.50969  (13120808)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439884.00	3765375.00	1.50995	(13120808)	439774.00	3765380.00	1.50673	(14100607)
439779.00	3765380.00	1.50818	(14100607)	439784.00	3765380.00	1.50884	(13120808)
439789.00	3765380.00	1.51031	(14100607)	439794.00	3765380.00	1.51106	(13120808)
439799.00	3765380.00	1.51214	(13120808)	439804.00	3765380.00	1.51314	(13120808)
439809.00	3765380.00	1.51442	(13120808)	439814.00	3765380.00	1.51528	(13120808)
439769.00	3765385.00	1.52073	(14100607)	439819.00	3765385.00	1.53170	(13120808)
439769.00	3765400.00	1.56826	(14100607)	439844.00	3765400.00	1.58582	(13120808)
439849.00	3765400.00	1.58694	(13120808)	439674.00	3765405.00	1.58403	(12011417)
439714.00	3765405.00	1.57955	(12011808)				

439719.00 3765405.00 1.57922 (12011808)
439734.00 3765405.00 1.57966 (12011808)
439749.00 3765405.00 1.58035 (13120808)
439754.00 3765405.00 1.58132 (13120808)
439774.00 3765405.00 1.58630 (14100607)
439779.00 3765405.00 1.58746 (14100607)
439784.00 3765405.00 1.58901 (14100607)
439789.00 3765405.00 1.59057 (14100607)
439794.00 3765405.00 1.59135 (14100607)
439799.00 3765405.00 1.59277 (14100607)
439804.00 3765405.00 1.59390 (14100607)
439809.00 3765405.00 1.59508 (14100607)
439814.00 3765405.00 1.59574 (13120808)
439819.00 3765405.00 1.59706 (13120808)
439824.00 3765405.00 1.59833 (13120808)
439829.00 3765405.00 1.59969 (13120808)
439834.00 3765405.00 1.60082 (13120808)
439839.00 3765405.00 1.60212 (13120808)
439844.00 3765405.00 1.60308 (13120808)
439849.00 3765405.00 1.60417 (13120808)
439854.00 3765405.00 1.60529 (13120808)
439859.00 3765405.00 1.60631 (13120808)
439674.00 3765410.00 1.60830 (12011417)
439679.00 3765410.00 1.60634 (12011417)
439684.00 3765410.00 1.60303 (12011417)
439689.00 3765410.00 1.60160 (12011417)
439694.00 3765410.00 1.59839 (12011417)
439699.00 3765410.00 1.59717 (12011808)
439704.00 3765410.00 1.59773 (12011808)
439709.00 3765410.00 1.59782 (12011808)
439714.00 3765410.00 1.59797 (12011808)
439719.00 3765410.00 1.59819 (12011808)
439729.00 3765410.00 1.59861 (12011808)
439734.00 3765410.00 1.59804 (12011808)
439739.00 3765410.00 1.59867 (12011808)
439744.00 3765410.00 1.59809 (12011808)
439749.00 3765410.00 1.59895 (12011808)
439774.00 3765410.00 1.60330 (14100607)
439779.00 3765410.00 1.60494 (14100607)
439784.00 3765410.00 1.60562 (14100607)
439789.00 3765410.00 1.60774 (14100607)
439794.00 3765410.00 1.60905 (14100607)
439799.00 3765410.00 1.61003 (14100607)
439804.00 3765410.00 1.61119 (14100607)
439809.00 3765410.00 1.61246 (14100607)
439814.00 3765410.00 1.61416 (14100607)
439819.00 3765410.00 1.61457 (14100607)
439824.00 3765410.00 1.61585 (14100607)
439829.00 3765410.00 1.61712 (13120808)
439834.00 3765410.00 1.61843 (13120808)
439839.00 3765410.00 1.61975 (13120808)
439844.00 3765410.00 1.62087 (13120808)

439849.00 3765410.00 1.62206 (13120808)
439854.00 3765410.00 1.62304 (13120808)
439859.00 3765410.00 1.62411 (13120808)
439674.00 3765415.00 1.63418 (12011417)
439679.00 3765415.00 1.63095 (12011417)
439684.00 3765415.00 1.62937 (12011417)
439689.00 3765415.00 1.62579 (12011417)
439694.00 3765415.00 1.62443 (12011417)
439699.00 3765415.00 1.62118 (12011417)
439704.00 3765415.00 1.61906 (12011417)
439709.00 3765415.00 1.61685 (12011808)

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439714.00	3765415.00	1.61659	(12011808)	439719.00	3765415.00	1.61727	(12011808)
439729.00	3765415.00	1.61737	(12011808)	439734.00	3765415.00	1.61765	(12011808)
439739.00	3765415.00	1.61771	(12011808)	439744.00	3765415.00	1.61800	(12011808)
439749.00	3765415.00	1.61777	(12011808)	439774.00	3765415.00	1.62103	(14100607)
439779.00	3765415.00	1.62219	(14100607)	439784.00	3765415.00	1.62400	(14100607)
439789.00	3765415.00	1.62461	(14100607)	439794.00	3765415.00	1.62651	(14100607)
439799.00	3765415.00	1.62796	(14100607)	439804.00	3765415.00	1.62938	(14100607)
439809.00	3765415.00	1.63035	(14100607)	439814.00	3765415.00	1.63155	(14100607)
439819.00	3765415.00	1.63324	(14100607)				

439824.00 3765415.00 1.63388 (14100607)
439829.00 3765415.00 1.63514 (13120808)
439834.00 3765415.00 1.63636 (13120808)
439839.00 3765415.00 1.63781 (13120808)
439844.00 3765415.00 1.63896 (13120808)
439849.00 3765415.00 1.64032 (13120808)
439854.00 3765415.00 1.64159 (13120808)
439859.00 3765415.00 1.64252 (13120808)
439674.00 3765420.00 1.65883 (12011417)
439679.00 3765420.00 1.65702 (12011417)
439684.00 3765420.00 1.65416 (12011417)
439689.00 3765420.00 1.65278 (12011417)
439694.00 3765420.00 1.64933 (12011417)
439699.00 3765420.00 1.64783 (12011417)
439704.00 3765420.00 1.64468 (12011417)
439709.00 3765420.00 1.64294 (12011417)
439714.00 3765420.00 1.63928 (12011417)
439719.00 3765420.00 1.63693 (12011417)
439729.00 3765420.00 1.63639 (12011808)
439734.00 3765420.00 1.63717 (12011808)
439739.00 3765420.00 1.63701 (12011808)
439744.00 3765420.00 1.63785 (12011808)
439749.00 3765420.00 1.63734 (12011808)
439774.00 3765420.00 1.63858 (14100607)
439779.00 3765420.00 1.64015 (14100607)
439784.00 3765420.00 1.64166 (14100607)
439789.00 3765420.00 1.64347 (14100607)
439794.00 3765420.00 1.64448 (14100607)
439799.00 3765420.00 1.64619 (14100607)
439804.00 3765420.00 1.64749 (14100607)
439809.00 3765420.00 1.64892 (14100607)
439814.00 3765420.00 1.64992 (14100607)
439819.00 3765420.00 1.65139 (14100607)
439824.00 3765420.00 1.65274 (14100607)
439829.00 3765420.00 1.65404 (14100607)
439834.00 3765420.00 1.65497 (14100607)
439839.00 3765420.00 1.65621 (13120808)
439844.00 3765420.00 1.65778 (13120808)
439849.00 3765420.00 1.65890 (13120808)
439854.00 3765420.00 1.66025 (13120808)
439859.00 3765420.00 1.66150 (13120808)
439674.00 3765425.00 1.68504 (12011417)
439679.00 3765425.00 1.68286 (12011417)
439684.00 3765425.00 1.68072 (12011417)
439689.00 3765425.00 1.67819 (12011417)
439694.00 3765425.00 1.67681 (12011417)
439699.00 3765425.00 1.67365 (12011417)
439704.00 3765425.00 1.67212 (12011417)
439709.00 3765425.00 1.66861 (12011417)
439714.00 3765425.00 1.66724 (12011417)
439719.00 3765425.00 1.66366 (12011417)
439729.00 3765425.00 1.65837 (12011417)

```
439734.00   3765425.00        1.65690  (12011808)
        439739.00   3765425.00        1.65766  (12011808)
439744.00   3765425.00        1.65728  (12011808)
        439749.00   3765425.00        1.65863  (12011808)
439774.00   3765425.00        1.65841  (12011808)
        439779.00   3765425.00        1.65888  (12011808)
439784.00   3765425.00        1.66011  (14100607)
        439789.00   3765425.00        1.66180  (14100607)
439794.00   3765425.00        1.66359  (14100607)
        439799.00   3765425.00        1.66482  (14100607)
439804.00   3765425.00        1.66634  (14100607)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439809.00	3765425.00	1.66760	(14100607)	439814.00	3765425.00	1.66956	(14100607)
439819.00	3765425.00	1.67041	(14100607)	439824.00	3765425.00	1.67198	(14100607)
439829.00	3765425.00	1.67291	(14100607)	439834.00	3765425.00	1.67452	(14100607)
439839.00	3765425.00	1.67540	(13120808)	439844.00	3765425.00	1.67694	(13120808)
439849.00	3765425.00	1.67820	(13120808)	439854.00	3765425.00	1.67962	(13120808)
439859.00	3765425.00	1.68086	(13120808)	439674.00	3765430.00	1.71166	(12011417)
439679.00	3765430.00	1.70940	(12011417)	439684.00	3765430.00	1.70752	(12011417)
439689.00	3765430.00	1.70522	(12011417)	439694.00	3765430.00	1.70285	(12011417)
439699.00	3765430.00	1.70128	(12011417)				

439704.00 3765430.00 1.69835 (12011417)
439709.00 3765430.00 1.69707 (12011417)
439714.00 3765430.00 1.69314 (12011417)
439719.00 3765430.00 1.69204 (12011417)
439729.00 3765430.00 1.68659 (12011417)
439734.00 3765430.00 1.68308 (12011417)
439739.00 3765430.00 1.68119 (12011417)
439744.00 3765430.00 1.67867 (12011808)
439749.00 3765430.00 1.67841 (12011808)
439774.00 3765430.00 1.68072 (12011808)
439779.00 3765430.00 1.67941 (12011808)
439784.00 3765430.00 1.68045 (12011808)
439789.00 3765430.00 1.68068 (14100607)
439794.00 3765430.00 1.68227 (14100607)
439799.00 3765430.00 1.68418 (14100607)
439804.00 3765430.00 1.68582 (14100607)
439809.00 3765430.00 1.68731 (14100607)
439814.00 3765430.00 1.68842 (14100607)
439819.00 3765430.00 1.69041 (14100607)
439824.00 3765430.00 1.69156 (14100607)
439829.00 3765430.00 1.69291 (14100607)
439834.00 3765430.00 1.69385 (14100607)
439839.00 3765430.00 1.69572 (14100607)
439844.00 3765430.00 1.69653 (13120808)
439849.00 3765430.00 1.69819 (13120808)
439854.00 3765430.00 1.69944 (13120808)
439859.00 3765430.00 1.70109 (13120808)
439674.00 3765435.00 1.73801 (12011417)
439679.00 3765435.00 1.73663 (12011417)
439684.00 3765435.00 1.73442 (12011417)
439689.00 3765435.00 1.73262 (12011417)
439694.00 3765435.00 1.73051 (12011417)
439699.00 3765435.00 1.72792 (12011417)
439704.00 3765435.00 1.72647 (12011417)
439709.00 3765435.00 1.72347 (12011417)
439714.00 3765435.00 1.72262 (12011417)
439719.00 3765435.00 1.71852 (12011417)
439729.00 3765435.00 1.71390 (12011417)
439734.00 3765435.00 1.71260 (12011417)
439739.00 3765435.00 1.70873 (12011417)
439744.00 3765435.00 1.70712 (12011417)
439749.00 3765435.00 1.70350 (12011417)
439774.00 3765435.00 1.70117 (12011808)
439779.00 3765435.00 1.70258 (12011808)
439784.00 3765435.00 1.70167 (12011808)
439789.00 3765435.00 1.70253 (12011808)
439794.00 3765435.00 1.70215 (14100607)
439799.00 3765435.00 1.70377 (14100607)
439804.00 3765435.00 1.70563 (14100607)
439809.00 3765435.00 1.70727 (14100607)
439814.00 3765435.00 1.70878 (14100607)
439819.00 3765435.00 1.71017 (14100607)

```
439824.00   3765435.00        1.71181  (14100607)
        439829.00   3765435.00        1.71352  (14100607)
439834.00   3765435.00        1.71479  (14100607)
        439839.00   3765435.00        1.71559  (14100607)
439844.00   3765435.00        1.71745  (14100607)
        439849.00   3765435.00        1.71842  (13120808)
439854.00   3765435.00        1.72000  (13120808)
        439859.00   3765435.00        1.72117  (13120808)
439674.00   3765440.00        1.76621  (12011417)
        439679.00   3765440.00        1.76348  (12011417)
439684.00   3765440.00        1.76245  (12011417)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439689.00	3765440.00	1.75977	(12011417)	439694.00	3765440.00	1.75838	(12011417)
439699.00	3765440.00	1.75638	(12011417)	439704.00	3765440.00	1.75389	(12011417)
439709.00	3765440.00	1.75229	(12011417)	439714.00	3765440.00	1.74953	(12011417)
439719.00	3765440.00	1.74876	(12011417)	439729.00	3765440.00	1.74398	(12011417)
439734.00	3765440.00	1.74010	(12011417)	439739.00	3765440.00	1.73916	(12011417)
439744.00	3765440.00	1.73489	(12011417)	439749.00	3765440.00	1.73362	(12011417)
439774.00	3765440.00	1.72363	(12011808)	439779.00	3765440.00	1.72400	(12011808)
439784.00	3765440.00	1.72475	(12011808)	439789.00	3765440.00	1.72472	(12011808)
439794.00	3765440.00	1.72524	(12011808)				

439799.00 3765440.00 1.72453 (12011808)
439804.00 3765440.00 1.72587 (12011808)
439809.00 3765440.00 1.72756 (14100607)
439814.00 3765440.00 1.72946 (14100607)
439819.00 3765440.00 1.73106 (14100607)
439824.00 3765440.00 1.73269 (14100607)
439829.00 3765440.00 1.73402 (14100607)
439834.00 3765440.00 1.73569 (14100607)
439839.00 3765440.00 1.73716 (14100607)
439844.00 3765440.00 1.73833 (14100607)
439849.00 3765440.00 1.73947 (14100607)
439854.00 3765440.00 1.74096 (13120808)
439859.00 3765440.00 1.74266 (13120808)
439674.00 3765445.00 1.79292 (12011417)
439679.00 3765445.00 1.79243 (12011417)
439684.00 3765445.00 1.78980 (12011417)
439689.00 3765445.00 1.78880 (12011417)
439694.00 3765445.00 1.78626 (12011417)
439699.00 3765445.00 1.78496 (12011417)
439704.00 3765445.00 1.78286 (12011417)
439709.00 3765445.00 1.78076 (12011417)
439714.00 3765445.00 1.77915 (12011417)
439719.00 3765445.00 1.77608 (12011417)
439729.00 3765445.00 1.77187 (12011417)
439734.00 3765445.00 1.77081 (12011417)
439739.00 3765445.00 1.76687 (12011417)
439744.00 3765445.00 1.76632 (12011417)
439749.00 3765445.00 1.76206 (12011417)
439774.00 3765445.00 1.74872 (12011417)
439779.00 3765445.00 1.74647 (12011808)
439784.00 3765445.00 1.74756 (12011808)
439789.00 3765445.00 1.74740 (12011808)
439794.00 3765445.00 1.74847 (12011808)
439799.00 3765445.00 1.74854 (12011808)
439804.00 3765445.00 1.74830 (12011808)
439809.00 3765445.00 1.74919 (12011808)
439814.00 3765445.00 1.75040 (14100607)
439819.00 3765445.00 1.75224 (14100607)
439824.00 3765445.00 1.75402 (14100607)
439829.00 3765445.00 1.75563 (14100607)
439834.00 3765445.00 1.75700 (14100607)
439839.00 3765445.00 1.75874 (14100607)
439844.00 3765445.00 1.76005 (14100607)
439849.00 3765445.00 1.76184 (14100607)
439854.00 3765445.00 1.76265 (13120808)
439859.00 3765445.00 1.76445 (13120808)
439674.00 3765450.00 1.82235 (12011417)
439679.00 3765450.00 1.81987 (12011417)
439684.00 3765450.00 1.81950 (12011417)
439689.00 3765450.00 1.81686 (12011417)
439694.00 3765450.00 1.81579 (12011417)
439699.00 3765450.00 1.81346 (12011417)

439704.00   3765450.00   1.81242 (12011417)
        439709.00   3765450.00   1.81005 (12011417)
439714.00   3765450.00   1.80806 (12011417)
        439719.00   3765450.00   1.80653 (12011417)
439729.00   3765450.00   1.80285 (12011417)
        439734.00   3765450.00   1.79944 (12011417)
439739.00   3765450.00   1.79865 (12011417)
        439744.00   3765450.00   1.79459 (12011417)
439749.00   3765450.00   1.79413 (12011417)
        439774.00   3765450.00   1.78012 (12011417)
439844.00   3765450.00   1.78274 (14100607)

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439849.00	3765450.00	1.78406	(14100607)	439854.00	3765450.00	1.78545	(14100607)
439859.00	3765450.00	1.78648	(14100607)	439674.00	3765455.00	1.85042	(12011417)
439679.00	3765455.00	1.85012	(12011417)	439684.00	3765455.00	1.84763	(12011417)
439689.00	3765455.00	1.84713	(12011417)	439694.00	3765455.00	1.84468	(12011417)
439699.00	3765455.00	1.84366	(12011417)	439704.00	3765455.00	1.84145	(12011417)
439709.00	3765455.00	1.84017	(12011417)	439714.00	3765455.00	1.83815	(12011417)
439719.00	3765455.00	1.83610	(12011417)	439729.00	3765455.00	1.83192	(12011417)
439734.00	3765455.00	1.83127	(12011417)	439739.00	3765455.00	1.82790	(12011417)
439744.00	3765455.00	1.82713	(12011417)				

439749.00 3765455.00 1.82347 (12011417)
439844.00 3765455.00 1.80561 (14100607)
439849.00 3765455.00 1.80707 (14100607)
439854.00 3765455.00 1.80889 (14100607)
439859.00 3765455.00 1.81036 (14100607)
439674.00 3765460.00 1.88097 (12011417)
439679.00 3765460.00 1.87852 (12011417)
439684.00 3765460.00 1.87840 (12011417)
439689.00 3765460.00 1.87621 (12011417)
439694.00 3765460.00 1.87561 (12011417)
439699.00 3765460.00 1.87294 (12011417)
439704.00 3765460.00 1.87271 (12011417)
439709.00 3765460.00 1.87026 (12011417)
439714.00 3765460.00 1.86903 (12011417)
439719.00 3765460.00 1.86716 (12011417)
439729.00 3765460.00 1.86390 (12011417)
439734.00 3765460.00 1.86129 (12011417)
439739.00 3765460.00 1.86032 (12011417)
439744.00 3765460.00 1.85725 (12011417)
439749.00 3765460.00 1.85651 (12011417)
439789.00 3765460.00 1.83622 (12011417)
439794.00 3765460.00 1.83344 (12011417)
439799.00 3765460.00 1.82996 (12011417)
439804.00 3765460.00 1.82763 (12011417)
439809.00 3765460.00 1.82364 (12011417)
439814.00 3765460.00 1.82310 (12011808)
439819.00 3765460.00 1.82443 (12011808)
439824.00 3765460.00 1.82320 (12011808)
439829.00 3765460.00 1.82431 (12011808)
439844.00 3765460.00 1.82912 (14100607)
439849.00 3765460.00 1.83164 (14100607)
439854.00 3765460.00 1.83310 (14100607)
439859.00 3765460.00 1.83409 (14100607)
439674.00 3765465.00 1.91085 (12011417)
439679.00 3765465.00 1.91008 (12011417)
439684.00 3765465.00 1.90774 (12011417)
439689.00 3765465.00 1.90774 (12011417)
439694.00 3765465.00 1.90564 (12011417)
439699.00 3765465.00 1.90508 (12011417)
439704.00 3765465.00 1.90272 (12011417)
439709.00 3765465.00 1.90226 (12011417)
439714.00 3765465.00 1.89991 (12011417)
439719.00 3765465.00 1.89894 (12011417)
439729.00 3765465.00 1.89471 (12011417)
439734.00 3765465.00 1.89387 (12011417)
439739.00 3765465.00 1.89152 (12011417)
439744.00 3765465.00 1.89037 (12011417)
439749.00 3765465.00 1.88750 (12011417)
439789.00 3765465.00 1.86972 (12011417)
439794.00 3765465.00 1.86698 (12011417)
439799.00 3765465.00 1.86449 (12011417)
439804.00 3765465.00 1.86110 (12011417)

```
439809.00   3765465.00        1.85871  (12011417)
        439814.00   3765465.00        1.85455  (12011417)
439819.00   3765465.00        1.85252  (12011417)
        439824.00   3765465.00        1.85125  (12011808)
439829.00   3765465.00        1.85036  (12011808)
        439844.00   3765465.00        1.85435  (14100607)
439849.00   3765465.00        1.85569  (14100607)
        439854.00   3765465.00        1.85761  (14100607)
439859.00   3765465.00        1.85972  (14100607)
        439674.00   3765470.00        1.94250  (12011417)
439679.00   3765470.00        1.94058  (12011417)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439684.00	3765470.00	1.93994	(12011417)	439689.00	3765470.00	1.93815	(12011417)
439694.00	3765470.00	1.93787	(12011417)	439699.00	3765470.00	1.93591	(12011417)
439704.00	3765470.00	1.93538	(12011417)	439709.00	3765470.00	1.93304	(12011417)
439714.00	3765470.00	1.93276	(12011417)	439719.00	3765470.00	1.93045	(12011417)
439729.00	3765470.00	1.92778	(12011417)	439734.00	3765470.00	1.92561	(12011417)
439739.00	3765470.00	1.92467	(12011417)	439744.00	3765470.00	1.92253	(12011417)
439749.00	3765470.00	1.92150	(12011417)	439789.00	3765470.00	1.90425	(12011417)
439794.00	3765470.00	1.90157	(12011417)	439799.00	3765470.00	1.89872	(12011417)
439804.00	3765470.00	1.89660	(12011417)				

```
439809.00   3765470.00        1.89286  (12011417)
        439814.00   3765470.00        1.89066  (12011417)
439819.00   3765470.00        1.88695  (12011417)
        439824.00   3765470.00        1.88465  (12011417)
439829.00   3765470.00        1.88045  (12011417)
        439844.00   3765470.00        1.87916  (14100607)
439849.00   3765470.00        1.88121  (14100607)
        439854.00   3765470.00        1.88322  (14100607)
439859.00   3765470.00        1.88545  (14100607)
        439674.00   3765475.00        1.97380  (12011417)
439679.00   3765475.00        1.97335  (12011417)
        439684.00   3765475.00        1.97137  (12011417)
439689.00   3765475.00        1.97123  (12011417)
        439694.00   3765475.00        1.96926  (12011417)
439699.00   3765475.00        1.96920  (12011417)
        439704.00   3765475.00        1.96705  (12011417)
439709.00   3765475.00        1.96659  (12011417)
        439714.00   3765475.00        1.96460  (12011417)
439719.00   3765475.00        1.96409  (12011417)
        439729.00   3765475.00        1.96099  (12011417)
439734.00   3765475.00        1.95936  (12011417)
        439739.00   3765475.00        1.95751  (12011417)
439744.00   3765475.00        1.95664  (12011417)
        439749.00   3765475.00        1.95449  (12011417)
439754.00   3765475.00        1.95348  (12011417)
        439789.00   3765475.00        1.93922  (12011417)
439794.00   3765475.00        1.93712  (12011417)
        439799.00   3765475.00        1.93433  (12011417)
439804.00   3765475.00        1.93159  (12011417)
        439809.00   3765475.00        1.92962  (12011417)
439814.00   3765475.00        1.92596  (12011417)
        439819.00   3765475.00        1.92369  (12011417)
439824.00   3765475.00        1.92022  (12011417)
        439829.00   3765475.00        1.91807  (12011417)
439269.00   3764900.00        0.81860  (13120808)
        439369.00   3764900.00        0.81738  (13120808)
439469.00   3764900.00        0.81421  (13120808)
        439569.00   3764900.00        0.80580  (13120808)
439669.00   3764900.00        0.78696  (12010217)
        439769.00   3764900.00        0.78488  (12010217)
439869.00   3764900.00        0.77825  (12010217)
        439969.00   3764900.00        0.75971  (12010217)
440069.00   3764900.00        0.76638  (15010717)
        440169.00   3764900.00        0.77186  (15010717)
440269.00   3764900.00        0.77514  (15010717)
        439269.00   3765000.00        0.89521  (13120808)
439369.00   3765000.00        0.89461  (13120808)
        439469.00   3765000.00        0.89407  (13120808)
439569.00   3765000.00        0.89240  (13120808)
        439669.00   3765000.00        0.88376  (13120808)
439769.00   3765000.00        0.85967  (12010217)
        439869.00   3765000.00        0.85734  (12010217)
```

```
439969.00   3765000.00        0.84706  (12010217)
        440069.00   3765000.00        0.84339  (15010717)
440169.00   3765000.00        0.84664  (15010717)
        440269.00   3765000.00        0.84848  (15010717)
439269.00   3765100.00        0.99136  (13120808)
        439369.00   3765100.00        0.99107  (13120808)
439469.00   3765100.00        0.99051  (13120808)
        439569.00   3765100.00        0.99203  (13120808)
439669.00   3765100.00        0.99228  (13120808)
        439769.00   3765100.00        0.98315  (13120808)
439869.00   3765100.00        0.95380  (13120808)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439969.00	3765100.00	0.94992	(12010217)	440069.00	3765100.00	0.93766	(15010717)
440169.00	3765100.00	0.93990	(15010717)	440269.00	3765100.00	0.94031	(15010717)
439269.00	3765200.00	1.11783	(13120808)	439369.00	3765200.00	1.11904	(13120808)
439469.00	3765200.00	1.11696	(13120808)	439569.00	3765200.00	1.11716	(13120808)
439669.00	3765200.00	1.12179	(13120808)	439769.00	3765200.00	1.12546	(13120808)
439869.00	3765200.00	1.11526	(13120808)	439969.00	3765200.00	1.07910	(13120808)
440069.00	3765200.00	1.07036	(12010217)	440169.00	3765200.00	1.06123	(15010717)
440269.00	3765200.00	1.06152	(15010717)	439269.00	3765300.00	1.33818	(12011417)
439369.00	3765300.00	1.30845	(12011417)				

439469.00 3765300.00 1.29458 (13120808)
439569.00 3765300.00 1.29112 (13120808)
439669.00 3765300.00 1.29474 (13120808)
439769.00 3765300.00 1.30661 (13120808)
439869.00 3765300.00 1.31146 (13120808)
439969.00 3765300.00 1.29756 (13120808)
440069.00 3765300.00 1.25571 (13120808)
440169.00 3765300.00 1.23672 (12010217)
440269.00 3765300.00 1.23086 (15010717)
439269.00 3765400.00 1.67154 (12011417)
439369.00 3765400.00 1.65476 (12011417)
439469.00 3765400.00 1.63212 (12011417)
439569.00 3765400.00 1.60324 (12011417)
439669.00 3765400.00 1.56211 (12011417)
439769.00 3765400.00 1.56826 (14100607)
439869.00 3765400.00 1.59038 (13120808)
439969.00 3765400.00 1.59150 (13120808)
440069.00 3765400.00 1.57499 (13120808)
440169.00 3765400.00 1.52549 (13120808)
440269.00 3765400.00 1.52387 (12011608)
439269.00 3765500.00 2.19780 (12011417)
439369.00 3765500.00 2.19361 (12011417)
439469.00 3765500.00 2.18060 (12011417)
439569.00 3765500.00 2.16371 (12011417)
439669.00 3765500.00 2.14880 (12011417)
439769.00 3765500.00 2.13312 (12011417)
439869.00 3765500.00 2.09228 (12011417)
439969.00 3765500.00 2.08853 (13120808)
440069.00 3765500.00 2.08038 (13120808)
440169.00 3765500.00 2.06199 (13120808)
440269.00 3765500.00 2.06692 (12011608)
439269.00 3765600.00 3.48269 (12101307)
439369.00 3765600.00 3.46847 (12101307)
439469.00 3765600.00 3.43151 (12101307)
439569.00 3765600.00 3.38714 (12011417)
439669.00 3765600.00 3.37011 (12011417)
439769.00 3765600.00 3.36283 (12011417)
439869.00 3765600.00 3.39883 (12011417)
439969.00 3765600.00 3.42312 (12011417)
440069.00 3765600.00 3.53049 (14101107)
440169.00 3765600.00 3.61368 (14101107)
440269.00 3765600.00 3.66595 (14101107)
439269.00 3765700.00 14.56472 (12101307)
439369.00 3765700.00 15.07590 (12101307)
439469.00 3765700.00 15.66274 (12101307)
439569.00 3765700.00 16.04418 (14101107)
439669.00 3765700.00 16.42742 (14101107)
439769.00 3765700.00 16.65484 (14101107)
439869.00 3765700.00 16.87478 (14101107)
439969.00 3765700.00 16.90265 (14101107)
440069.00 3765700.00 17.19848 (12101207)
440169.00 3765700.00 17.28501 (12101207)

```
440269.00   3765700.00       17.52593  (12101207)
        439269.00   3765800.00        4.32810  (12100707)
439369.00   3765800.00        4.36921  (12100707)
        439469.00   3765800.00        4.34561  (12100707)
439569.00   3765800.00        4.31596  (12100707)
        439669.00   3765800.00        4.30851  (12100707)
439769.00   3765800.00        4.31304  (12100707)
        439869.00   3765800.00        4.38199  (13111217)
439969.00   3765800.00        4.12393  (12011717)
        440069.00   3765800.00        4.06776  (12011717)
440169.00   3765800.00        4.06044  (12011717)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
440269.00	3765800.00	4.07663	(12011717)	439269.00	3765900.00	2.49048	(12100707)
439369.00	3765900.00	2.44857	(12100707)	439469.00	3765900.00	2.39490	(12100707)
439569.00	3765900.00	2.32766	(12100707)	439669.00	3765900.00	2.34570	(13111217)
439769.00	3765900.00	2.39147	(13111217)	439869.00	3765900.00	2.42311	(13111217)
439969.00	3765900.00	2.42579	(13111217)	440069.00	3765900.00	2.39105	(13111217)
440169.00	3765900.00	2.38063	(13111217)	440269.00	3765900.00	2.39922	(12011717)
439649.00	3765310.00	1.31420	(13120808)	439679.00	3765310.00	1.31670	(13120808)
439709.00	3765310.00	1.32027	(13120808)	439739.00	3765310.00	1.32370	(13120808)
439769.00	3765310.00	1.32752	(13120808)				

```
439799.00   3765310.00        1.33138  (13120808)
        439829.00   3765310.00        1.33388  (13120808)
439859.00   3765310.00        1.33500  (13120808)
        439889.00   3765310.00        1.33348  (13120808)
439649.00   3765340.00        1.38371  (13120808)
        439679.00   3765340.00        1.38545  (13120808)
439709.00   3765340.00        1.38828  (13120808)
        439739.00   3765340.00        1.39287  (13120808)
439769.00   3765340.00        1.39757  (13120808)
        439799.00   3765340.00        1.40256  (13120808)
439829.00   3765340.00        1.40612  (13120808)
        439859.00   3765340.00        1.40874  (13120808)
439889.00   3765340.00        1.40931  (13120808)
        439649.00   3765370.00        1.46317  (13120808)
439679.00   3765370.00        1.46419  (13120808)
        439709.00   3765370.00        1.46693  (13120808)
439739.00   3765370.00        1.47127  (13120808)
        439769.00   3765370.00        1.47678  (13120808)
439799.00   3765370.00        1.48285  (13120808)
        439829.00   3765370.00        1.48834  (13120808)
439859.00   3765370.00        1.49280  (13120808)
        439889.00   3765370.00        1.49469  (13120808)
439649.00   3765400.00        1.57213  (12011417)
        439679.00   3765400.00        1.56119  (12011808)
439709.00   3765400.00        1.56142  (12011808)
        439739.00   3765400.00        1.56204  (13120808)
439769.00   3765400.00        1.56826  (14100607)
        439799.00   3765400.00        1.57546  (14100607)
439829.00   3765400.00        1.58255  (13120808)
        439859.00   3765400.00        1.58877  (13120808)
439889.00   3765400.00        1.59279  (13120808)
        439649.00   3765430.00        1.71989  (12011417)
439679.00   3765430.00        1.70940  (12011417)
        439709.00   3765430.00        1.69707  (12011417)
439739.00   3765430.00        1.68119  (12011417)
        439769.00   3765430.00        1.67905  (12011808)
439799.00   3765430.00        1.68418  (14100607)
        439829.00   3765430.00        1.69291  (14100607)
439859.00   3765430.00        1.70109  (13120808)
        439889.00   3765430.00        1.70744  (13120808)
439649.00   3765460.00        1.88705  (12011417)
        439679.00   3765460.00        1.87852  (12011417)
439709.00   3765460.00        1.87026  (12011417)
        439739.00   3765460.00        1.86032  (12011417)
439769.00   3765460.00        1.84734  (12011417)
        439799.00   3765460.00        1.82996  (12011417)
439829.00   3765460.00        1.82431  (12011808)
        439859.00   3765460.00        1.83409  (14100607)
439889.00   3765460.00        1.84365  (13120808)
        439649.00   3765490.00        2.08024  (12011417)
439679.00   3765490.00        2.07413  (12011417)
        439709.00   3765490.00        2.06936  (12011417)
```

```
439739.00   3765490.00        2.06333  (12011417)
        439769.00   3765490.00        2.05619  (12011417)
439799.00   3765490.00        2.04596  (12011417)
        439829.00   3765490.00        2.03231  (12011417)
439859.00   3765490.00        2.01424  (12011417)
        439889.00   3765490.00        2.01037  (13120808)
```

*** THE SUMMARY OF MAXIMUM PERIOD (43848 HRS) RESULTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

NETWORK GROUP ID	AVERAGE CONC	RECEPTOR (XR, YR, ZELEV, ZHILL, ZFLAG)	OF TYPE	GRID-ID
EXH	1ST HIGHEST VALUE IS	2.18082 AT (440269.00, 3765700.00, 289.00, 289.00, 0.00)	DC	
	2ND HIGHEST VALUE IS	2.14786 AT (440169.00, 3765700.00, 289.00, 289.00, 0.00)	DC	
	3RD HIGHEST VALUE IS	2.11887 AT (440069.00, 3765700.00, 289.00, 289.00, 0.00)	DC	
	4TH HIGHEST VALUE IS	2.07937 AT (439969.00, 3765700.00, 289.00, 289.00, 0.00)	DC	
	5TH HIGHEST VALUE IS	2.05444 AT (439869.00, 3765700.00, 289.00, 289.00, 0.00)	DC	
	6TH HIGHEST VALUE IS	2.03560 AT (439769.00, 3765700.00, 289.00, 289.00, 0.00)	DC	
	7TH HIGHEST VALUE IS	1.99410 AT (439669.00, 3765700.00, 289.00, 289.00, 0.00)	DC	
	8TH HIGHEST VALUE IS	1.93748 AT (439569.00, 3765700.00, 289.00, 289.00, 0.00)	DC	
	9TH HIGHEST VALUE IS	1.85402 AT (439469.00, 3765700.00, 289.00, 289.00, 0.00)	DC	
	10TH HIGHEST VALUE IS	1.75481 AT (439369.00, 3765700.00, 289.00, 289.00, 0.00)	DC	
FREEEXH	1ST HIGHEST VALUE IS	2.08198 AT (440169.00, 3765700.00, 289.00, 289.00, 0.00)	DC	
	2ND HIGHEST VALUE IS	2.08072 AT (440269.00, 3765700.00, 289.00, 289.00, 0.00)	DC	
	3RD HIGHEST VALUE IS	2.07627 AT (440069.00, 3765700.00, 289.00, 289.00, 0.00)	DC	
	4TH HIGHEST VALUE IS	2.05764 AT (439969.00, 3765700.00, 289.00, 289.00, 0.00)	DC	

```
          5TH HIGHEST VALUE IS       2.03652 AT (  439869.00,
3765700.00,   289.00,   289.00,    0.00)  DC
          6TH HIGHEST VALUE IS       2.01278 AT (  439769.00,
3765700.00,   289.00,   289.00,    0.00)  DC
          7TH HIGHEST VALUE IS       1.96641 AT (  439669.00,
3765700.00,   289.00,   289.00,    0.00)  DC
          8TH HIGHEST VALUE IS       1.90454 AT (  439569.00,
3765700.00,   289.00,   289.00,    0.00)  DC
          9TH HIGHEST VALUE IS       1.82739 AT (  439469.00,
3765700.00,   289.00,   289.00,    0.00)  DC
         10TH HIGHEST VALUE IS       1.74831 AT (  439369.00,
3765700.00,   289.00,   289.00,    0.00)  DC

ONOFFEXH  1ST HIGHEST VALUE IS       0.10010 AT (  440269.00,
3765700.00,   289.00,   289.00,    0.00)  DC
          2ND HIGHEST VALUE IS       0.07144 AT (  439869.00,
3765800.00,   289.00,   289.00,    0.00)  DC
          3RD HIGHEST VALUE IS       0.06589 AT (  440169.00,
3765700.00,   289.00,   289.00,    0.00)  DC
          4TH HIGHEST VALUE IS       0.04688 AT (  439769.00,
3765800.00,   289.00,   289.00,    0.00)  DC
          5TH HIGHEST VALUE IS       0.04260 AT (  440069.00,
3765700.00,   289.00,   289.00,    0.00)  DC
          6TH HIGHEST VALUE IS       0.03377 AT (  439969.00,
3765800.00,   289.00,   289.00,    0.00)  DC
          7TH HIGHEST VALUE IS       0.03295 AT (  439569.00,
3765700.00,   289.00,   289.00,    0.00)  DC
          8TH HIGHEST VALUE IS       0.03178 AT (  439669.00,
3765800.00,   289.00,   289.00,    0.00)  DC
          9TH HIGHEST VALUE IS       0.02769 AT (  439669.00,
3765700.00,   289.00,   289.00,    0.00)  DC
         10TH HIGHEST VALUE IS       0.02663 AT (  439469.00,
3765700.00,   289.00,   289.00,    0.00)  DC

ALL       1ST HIGHEST VALUE IS       2.18082 AT (  440269.00,
3765700.00,   289.00,   289.00,    0.00)  DC
          2ND HIGHEST VALUE IS       2.14786 AT (  440169.00,
3765700.00,   289.00,   289.00,    0.00)  DC
          3RD HIGHEST VALUE IS       2.11887 AT (  440069.00,
3765700.00,   289.00,   289.00,    0.00)  DC
          4TH HIGHEST VALUE IS       2.07937 AT (  439969.00,
3765700.00,   289.00,   289.00,    0.00)  DC
          5TH HIGHEST VALUE IS       2.05444 AT (  439869.00,
3765700.00,   289.00,   289.00,    0.00)  DC
          6TH HIGHEST VALUE IS       2.03560 AT (  439769.00,
3765700.00,   289.00,   289.00,    0.00)  DC
          7TH HIGHEST VALUE IS       1.99410 AT (  439669.00,
3765700.00,   289.00,   289.00,    0.00)  DC
          8TH HIGHEST VALUE IS       1.93748 AT (  439569.00,
3765700.00,   289.00,   289.00,    0.00)  DC
          9TH HIGHEST VALUE IS       1.85402 AT (  439469.00,
3765700.00,   289.00,   289.00,    0.00)  DC
```

```
         10TH HIGHEST VALUE IS       1.75481 AT (  439369.00,
3765700.00,   289.00,   289.00,    0.00)  DC


 *** RECEPTOR TYPES:  GC = GRIDCART
                      GP = GRIDPOLR
                      DC = DISCCART
                      DP = DISCPOLR
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE SUMMARY OF HIGHEST 1-HR RESULTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

NETWORK GROUP ID	AVERAGE CONC	DATE (YYMMDDHH)	RECEPTOR (XR, YR, ZELEV, ZHILL, ZFLAG)	OF TYPE	GRID-ID
EXH HIGH 1ST HIGH VALUE IS	17.52593	ON 12101207:	AT (440269.00, 3765700.00, 289.00, 289.00, 0.00)	DC	
FREEEXH HIGH 1ST HIGH VALUE IS	17.12930	ON 12101207:	AT (440269.00, 3765700.00, 289.00, 289.00, 0.00)	DC	
ONOFFEXH HIGH 1ST HIGH VALUE IS	0.56725	ON 12100707:	AT (440269.00, 3765700.00, 289.00, 289.00, 0.00)	DC	
ALL HIGH 1ST HIGH VALUE IS	17.52593	ON 12101207:	AT (440269.00, 3765700.00, 289.00, 289.00, 0.00)	DC	

*** RECEPTOR TYPES: GC = GRIDCART
GP = GRIDPOLR
DC = DISCCART
DP = DISCPOLR

```
 *** AERMOD - VERSION 21112  ***   *** C:\Lakes\Ontario_PUD-
Legacy_Ops-HRA_20221004\Ontario_PUD-Legacy_Ops- ***
10/05/22
 *** AERMET - VERSION  16216 ***   ***
***        12:31:02

PAGE 150
 *** MODELOPTs:    NonDFAULT  CONC  FLAT  URBAN  ADJ_U*

 *** Message Summary : AERMOD Model Execution ***

  --------- Summary of Total Messages --------

 A Total of            0 Fatal Error Message(s)
 A Total of            2 Warning Message(s)
 A Total of         1628 Informational Message(s)

 A Total of        43848 Hours Were Processed

 A Total of         1278 Calm Hours Identified

 A Total of          350 Missing Hours Identified (  0.80
Percent)


    ******** FATAL ERROR MESSAGES ********
               ***  NONE  ***


    ********   WARNING MESSAGES   ********
 ME W186    1734       MEOPEN: THRESH_1MIN 1-min ASOS wind speed
threshold used           0.50
 ME W187    1734       MEOPEN: ADJ_U* Option for Stable Low Winds
used in AERMET

    ************************************
    *** AERMOD Finishes Successfully ***
    ************************************
```

RESOLUTION NO. PC23-075

A RESOLUTION OF THE PLANNING COMMISSION OF THE CITY OF ONTARIO, CALIFORNIA, RECOMMENDING THAT THE CITY COUNCIL APPROVE FILE NO. PUD22-004, THE EUCLID WALNUT PLANNED UNIT DEVELOPMENT, ESTABLISHING DEVELOPMENT STANDARDS AND DESIGN GUIDELINES FOR A 10.6-ACRE PROJECT SITE GENERALLY LOCATED AT THE NORTHWEST CORNER OF EUCLID AVENUE AND WALNUT STREET, AND MAKING FINDINGS IN SUPPORT THEREOF—APNS: 1051-271-67, 1051-271-06, AND 1051-271-66

WHEREAS, LEGACY/COLLIER RESIDENTIAL LLC (hereinafter referred to as "Applicant") has filed an Application for the approval of the Euclid Walnut Planned Unit Development (“PUD”), File No. PUD22-004, as described in the title of this Resolution (hereinafter referred to as "Application" or "Project"); and

WHEREAS, the Application applies to 10.6 acres of land generally located at the northwest corner of Euclid Avenue and Walnut Street, within the Mixed Use – Neighborhood Hub 8e – Euclid and Walnut (MU-NH 8e) zoning district, as well as the Euclid Avenue (EA) Overlay district, and is presently improved with commercial development; and

WHEREAS, the properties to the north of the Project site are within the Medium-Density Residential (MDR-18) and the MU-NH 8e zoning districts, and the EA Overlay district, and are developed with multi-family residential units, single-family dwellings, and commercial land uses. The properties to the east are within the Neighborhood Commercial (CN) zoning and EA Overlay districts and are developed with commercial land uses. The properties to the south are within the Low-Density Residential (LDR-5) zoning district and the EA Overlay district and are developed with single-family dwellings. The properties to the west are within the MDR-18 zoning district, and are developed with multi-family residential units; and

WHEREAS, the Project was submitted in conjunction with a Development Plan (File No. PDEV22-027) to construct the first phase of development, and a Certificate of Appropriateness (File No. PHP22-015) to determine whether the Project site is an historic resource and facilitate said development; and

WHEREAS, the PUD establishes the development standards and design guidelines for the Project site to facilitate the two phases of development. Phase 1 is comprised of 9.4 acres of the PUD site (everything except for the existing Carl’s Jr. drive-thru restaurant site) and will require the demolition of a combined 100,950 square feet of commercial/retail buildings and related site improvements. Phase 1 will be redeveloped with two four-story and six three-story buildings, providing a combined total of 346 dwelling units, 5,400 square feet of ground floor commercial space, associated on-site

parking for both land uses, recreational amenities for the residential land use and landscaping. Phase 2 will encompass demolition of the Carl's Jr. restaurant building and related site improvements and construction of one vertical mixed-use building providing an additional 23 dwelling units, 6,600 square feet of ground-floor commercial space and the associated site improvements. Overall, the PUD will facilitate development of a maximum of 369 dwelling units and up to 12,000 square feet of commercial land uses; and

WHEREAS, the PUD outlines the Project's (a) objectives, including its consistency with The Ontario Plan 2050 and the EA Overlay district; (b) land use plan, including zoning, phasing and build-out, and permitted land uses; (c) development regulations, including intensity and density, building envelope, vehicle access and parking facilities, parking supply and design, residential open space and common amenities, service facilities, signs, landscape and hardscape, fences and walls, public right-of-way improvements, infrastructure, and overall development standards; (d) design criteria, including those for building orientation, access and parking facilities, service facilities, pedestrian linkages, architectural character, massing and scale, articulation and fenestration, architectural details, storefronts, materials and colors, roofs and rooftop equipment, non-residential outdoor dining areas, residential outdoor space and common recreation amenities, and landscape/hardscape elements; and (e) administration, including items not addressed in the PUD, requirements for Development Plans and other applications, and administrative exceptions; and

WHEREAS, Project approval is contingent on Planning Commission approval of the related Certificate of Appropriateness and Development Plan applications, and City Council approval of the Addendum. Issuance of the Project's Building Permits is contingent upon approval of the related Lot Line Adjustment/Lot Merger application, pursuant to Engineering Department requirements and requests; and

WHEREAS, The Ontario Plan 2050 Supplemental Environmental Impact Report (State Clearinghouse No. 2021070364) was certified on August 16, 2022, (hereinafter referred to as "Certified SEIR"), in which development and use of the Project site was discussed; and

WHEREAS, the Planning Director of the City of Ontario prepared and approved for attachment to the Certified SEIR, an Addendum to the Certified SEIR (hereinafter referred to as "SEIR Addendum") in accordance with the requirements of the California Environmental Quality Act of 1970, together with State and local guidelines implementing said Act, all as amended to date (collectively referred to as "CEQA"); and

WHEREAS, the environmental impacts of this project were thoroughly analyzed in the SEIR Addendum, which concluded that implementation of the Project could result in a number of significant effects on the environment that were previously analyzed in the

Certified SEIR, and that the Certified SEIR identified mitigation measures that would reduce each of those significant effects to a less-than-significant level; and

WHEREAS, the City's "Local Guidelines for the Implementation of the California Environmental Quality Act (CEQA)" provide for the use of a single environmental assessment in situations where the impacts of subsequent projects are adequately analyzed; and

WHEREAS, the Application is a project pursuant to the California Environmental Quality Act — Public Resources Code Section 21000 et seq. — (hereinafter referred to as "CEQA") and an SEIR Addendum has been prepared to determine possible environmental impacts; and

WHEREAS, Ontario Development Code Table 2.02-1 (Review Matrix) grants the Planning Commission the responsibility and authority to review and make recommendation to the City Council on the subject Application; and

WHEREAS, the Project has been reviewed for consistency with the Housing Element of the Policy Plan component of The Ontario Plan 2050, as State Housing Element law (as prescribed in Government Code Sections 65580 through 65589.8) requires that development projects must be consistent with the Housing Element, if upon consideration of all its aspects, it is found to further the purposes, principals, goals, and policies of the Housing Element; and

WHEREAS, the Project is located within the Airport Influence Area of Ontario International Airport, which encompasses lands within parts of San Bernardino, Riverside, and Los Angeles Counties, and is subject to, and must be consistent with, the policies and criteria set forth in the Ontario International Airport Land Use Compatibility Plan (hereinafter referred to as "ALUCP"), which applies only to jurisdictions within San Bernardino County, and addresses the noise, safety, airspace protection, and overflight impacts of current and future airport activity; and

WHEREAS, City of Ontario Development Code Division 2.03 (Public Hearings) prescribes the manner in which public notification shall be provided and hearing procedures to be followed, and all such notifications and procedures have been completed; and

WHEREAS, on August 22, 2023, the Planning Commission voted to continue the Project to the September 26, 2023, public hearing, to allow for the applicant and staff to address a comment letter received on August 22, 2023; and

WHEREAS, as the first action on the Project, on September 26, 2023, the Planning Commission voted to issue a Resolution recommending the City Council adopt the SEIR

Addendum, finding that the proposed Project introduces no new significant environmental impacts and applying all previously adopted mitigation measures to the Project, which were incorporated by reference; and

WHEREAS, on September 26, 2023, the Planning Commission of the City of Ontario conducted a hearing to consider the Project, voting to issue a Resolution recommending the City Council approve the Application and concluded said hearing on that date; and

WHEREAS, all legal prerequisites to the adoption of this Resolution have occurred.

NOW, THEREFORE, IT IS HEREBY FOUND, DETERMINED, AND RESOLVED by the Planning Commission of the City of Ontario, as follows:

SECTION 1: ***Environmental Determination and Findings.*** As the recommending body for the Project, the Planning Commission has reviewed and considered the information contained in the Addendum, the initial study, and the administrative record for the Project, including all written and oral evidence provided during the comment period. Based upon the facts and information contained in the Addendum, the initial study, and the administrative record, including all written and oral evidence presented to the Planning Commission, the Planning Commission finds as follows:

(1) The environmental impacts of the Project were reviewed in conjunction with an Addendum to The Ontario Plan 2050 Supplemental Environmental Impact Report (State Clearinghouse No. 2021070364), certified by the Ontario City Council on August 16, 2022, in conjunction with File No. PGPA20-002; and

(2) The SEIR Addendum and administrative record have been completed in compliance with CEQA, the State CEQA Guidelines, and the City of Ontario Local CEQA Guidelines; and

(3) The City's "Guidelines for the Implementation of the California Environmental Quality Act (CEQA)" provide for the use of a single environmental assessment in situations where the impacts of subsequent projects are adequately analyzed. This Application introduces no new significant environmental impacts; and

(4) All previously adopted mitigation measures shall be a condition of project approval, as they are applicable to the Project, and are incorporated herein by this reference; and

(5) The SEIR Addendum contains a complete and accurate reporting of the environmental impacts associated with the Project, and reflects the independent judgment of the Planning Commission; and

(6) There is no substantial evidence in the administrative record supporting a fair argument that the project may result in significant environmental impacts.

SECTION 2: ***Subsequent or Supplemental Environmental Review Not Required.*** Based on the SEIR Addendum, all related information presented to the Planning Commission, and the specific findings set forth in Section 1, above, the Planning Commission finds that the preparation of a subsequent or supplemental Certified SEIR is not required for the Project, as the Project:

(1) Does not constitute substantial changes to the Certified SEIR that will require major revisions to the Certified SEIR due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects; and

(2) Does not constitute substantial changes with respect to the circumstances under which the Certified SEIR was prepared, that will require major revisions to the Certified SEIR due to the involvement of new significant environmental effects or a substantial increase in the severity of the previously identified significant effects; and

(3) Does not contain new information of substantial importance that was not known and could not have been known with the exercise of reasonable diligence at the time the Certified SEIR was certified/adopted, that shows any of the following:

(a) The Project will have one or more significant effects not discussed in the Certified SEIR; or

(b) Significant effects previously examined will be substantially more severe than shown in the Certified SEIR; or

(c) Mitigation measures or alternatives previously found not to be feasible would in fact be feasible and would substantially reduce one or more significant effects of the Project, but the City declined to adopt such measures; or

(d) Mitigation measures or alternatives considerably different from those analyzed in the Certified SEIR would substantially reduce one or more significant effects on the environment, but which the City declined to adopt.

SECTION 3: ***Housing Element Compliance.*** Pursuant to the requirements of California Government Code Chapter 3, Article 10.6, commencing with Section 65580, as

the recommending body for the Project, the Planning Commission finds that based upon the facts and information contained in the Application and supporting documentation, at the time of Project implementation, the project is consistent with the Housing Element of the Policy Plan (General Plan) component of The Ontario Plan, as the project site is not one of the properties in the Housing Element Sites Inventory contained in Tables B-1 and B-2 of the Housing Element Technical Report.

SECTION 4: ***Airport Land Use Compatibility Plan ("ALUCP") Compliance.*** The California State Aeronautics Act (Public Utilities Code Section 21670 et seq.) requires that an Airport Land Use Compatibility Plan be prepared for all public use airports in the State; and requires that local land use plans and individual development proposals must be consistent with the policies set forth in the adopted Airport Land Use Compatibility Plan.

On April 19, 2011, the City Council of the City of Ontario approved and adopted the Ontario International Airport Land use Compatibility Plan, establishing the Airport Influence Area for Ontario International Airport, which encompasses lands within parts of San Bernardino, Riverside, and Los Angeles Counties, and limits future land uses and development within the Airport Influence Area, as they relate to noise, safety, airspace protection, and overflight impacts of current and future airport activity. As the decision-making body for the Project, the Planning Commission has reviewed and considered the facts and information contained in the Application and supporting documentation against the ONT ALUCP compatibility factors, including [1] Safety Criteria (ONT ALUCP Table 2-2) and Safety Zones (ONT ALUCP Map 2-2), [2] Noise Criteria (ONT ALUCP Table 2-3) and Noise Impact Zones (ONT ALUCP Map 2-3), [3] Airspace protection Zones (ONT ALUCP Map 2-4), and [4] Overflight Notification Zones (ONT ALUCP Map 2-5). As a result, the Planning Commission finds and determines that the Project, when implemented in conjunction with the conditions of approval, will be consistent with the policies and criteria set forth within the ONT ALUCP; and

SECTION 5: ***Concluding Facts and Reasons.*** Based upon the substantial evidence presented to the Planning Commission during the above-referenced hearing, and upon the specific findings set forth in Sections 1 through 4, above, the Planning Commission hereby concludes as follows:

(1) ***The proposed PUD, or amendment thereto, is consistent with the goals, policies, plans and exhibits of the Vision, Policy Plan (General Plan), and City Council Priorities components of The Ontario Plan.*** The Project is consistent with the Vision, Policy Plan (General Plan), and City Council Priorities components of The Ontario Plan in that the mixed-use standards and guidelines specified in the PUD align with The Ontario Plan 2050. Section 2.1 of the Euclid Walnut Planned Unit Development (“PUD”), titled “Consistency with The Ontario Plan”, describes how the PUD complies with the Policy Plan goals, policies, and plans.

(2) ***The proposed PUD, or amendment thereto, would not be detrimental to the public interest, health, safety, convenience, or general welfare of the City.*** The Planning Commission has required certain safeguards through conditions of approval, which have been established to ensure that: [i] the purposes of the Planned Unit Development are maintained; [ii] the project will not endanger the public health, safety or general welfare; [iii] the project will not result in any significant environmental impacts; [iv] the project will be in harmony with the area in which it is located; and [v] the project will be in full conformity with the Vision, City Council Priorities and Policy Plan components of The Ontario Plan 2050.

(3) ***In the case of an application affecting specific property(ies), the proposed PUD, or amendment thereto, will not adversely affect the harmonious relationship with adjacent properties and land uses.*** While the PUD Project area is situated on the Euclid Avenue (EA) Overlay district, it is located 0.4-mile south of the locally- and nationally-recognized landmark and historic cultural landscape corridor, and 3 miles south of the City's Downtown Historic District; therefore, the Project is outside of and does not contain any historic resources. The adjacent neighborhood consists of existing single- and multiple-family dwellings and commercial development, which also do not qualify as historic resources. The PUD has ensured that on-site development is sensitive to and complementary of the surrounding development, and the surrounding development is compatible with the proposed residential and commercial mixed-use development. Therefore, the Project does not affect the harmonious relationship with adjacent properties and land uses.

(4) ***In the case of an application affecting specific property(ies), the subject site is physically suitable, including, but not limited to, parcel size, shape, access, and availability of utilities, for the request and anticipated development.*** In preparing the PUD, a thorough review and analysis of the proposed Project and the subject site's physical suitability for the Project was completed, including analysis of the Project size and shape, intensity of development, building height and setbacks, site access, site landscaping and drainage, fences and walls, vehicle and pedestrian circulation, availability of mass transit, necessary street dedication and easements, public right-of-way improvements, availability of utilities and other infrastructure needs, off-street parking, building orientation and streetscapes, architectural character, building materials and character, and site signage. Based upon this review and analysis, the subject site has been deemed physically suitable, including but not limited to parcel size, shape, access, and availability of utilities for the proposed PUD and proposed development.

(5) ***The proposed PUD is superior to that which could be obtained through the application of the Development Code or a specific plan.*** The PUD will establish minimum building setbacks, parking and open space requirements, private storage provisions, a planting palette, allowable land uses preferable to support the proposed development and the surrounding community, and more. These standards will facilitate

the development of up to 369 dwelling units and 12,000 square feet of commercial space and accompanying improvements. The proposed PUD will allow for subsequent development that is superior to that which could be obtained through the application of the Development Code by itself, by means of facilitating the development of high-density apartments, restaurants, retail shops, and other commercial services that will serve to achieve the City's goals of economic revitalization and aesthetic enhancements along an underutilized portion of the Euclid Avenue corridor. Lastly, the PUD will further serve to implement the vision of the EA Overlay district, the Mixed Use – Neighborhood Hub 8e – Euclid and Walnut (MU-NH 8e) zoning district, and the Mixed Use - Neighborhood Activity Hub: 20.0 to 75.0 du/ac; 1.0 FAR office/retail (MU-NH) land use district of the Policy Plan by allowing for this vibrant and well-designed mixed-use development.

SECTION 6: ***Planning Commission Action.*** Based upon the findings and conclusions set forth in Sections 1 through 5, above, the Planning Commission hereby RECOMMENDS THE CITY COUNCIL APPROVES the herein described Euclid Walnut Planned Unit Development, attached hereto as "Attachment A", subject to each and every condition set forth in the Department reports attached hereto as "Attachment B," and incorporated herein by this reference.

SECTION 7: ***Indemnification.*** The Applicant shall agree to defend, indemnify and hold harmless, the City of Ontario or its agents, officers, and employees from any claim, action or proceeding against the City of Ontario or its agents, officers or employees to attack, set aside, void, or annul this approval. The City of Ontario shall promptly notify the applicant of any such claim, action, or proceeding, and the City of Ontario shall cooperate fully in the defense.

SECTION 8: ***Custodian of Records.*** The documents and materials that constitute the record of proceedings on which these findings have been based are located at the City of Ontario City Hall, 303 East "B" Street, Ontario, California 91764. The custodian for these records is the City Clerk of the City of Ontario.

SECTION 9: ***Certification to Adoption.*** The Secretary shall certify to the adoption of the Resolution.

- - - - - - - - - - - - - -

The Secretary Pro Tempore for the Planning Commission of the City of Ontario shall certify as to the adoption of this Resolution.

I hereby certify that the foregoing Resolution was duly and regularly introduced, passed and adopted by the Planning Commission of the City of Ontario at a regular meeting thereof held on the 26th day of September 2023, and the foregoing is a full, true and correct copy of said Resolution, and has not been amended or repealed.

Nancy DeDiemar
Planning Commission Chairperson

ATTEST:

Rudy Zeledon
Community Development Assistant Director and Secretary to the Planning Commission

STATE OF CALIFORNIA)
COUNTY OF SAN BERNARDINO)
CITY OF ONTARIO)

I, Gwen Berendsen, Secretary Pro Tempore of the Planning Commission of the City of Ontario, DO HEREBY CERTIFY that foregoing Resolution No. PC23-075 was duly passed and adopted by the Planning Commission of the City of Ontario at their regular meeting held on September 26, 2023, by the following roll call vote, to wit:

AYES: Anderson, DeDiemar, Del Turco, Ricci

NOES: None

ABSENT: Dean, Gage, Lampkin

ABSTAIN: None

Gwen Berendsen
Secretary Pro Tempore

ATTACHMENT A:

File No. PUD22-004
Euclid Walnut Planned Unit Development

(Document to follow this page)



City of Ontario
PUD 22-004

Euclid Walnut

Planned Unit Development

A Project by Legacy Partners

CITY OF ONTARIO SOUTHERN CALIFORNIA

2928

Euclid/Walnut

Planned Unit Development

City of Ontario
PUD 22-004
City Council Approval Date - TBD
City Council Ordinance No. TBD

CITY OF ONTARIO
SOUTHERN CALIFORNIA

303 E. B Street
Ontario, CA 91764
(909) 395-2000
ontarioca.gov

Applicant:

Legacy Partners
5141 California Avenue
Suite 100
Irvine, CA 92617

Table of Contents

Chapter 1: Introduction 7

Chapter 2: Objectives 11
- 2.1 Consistency with The Ontario Plan 11
- 2.2 Euclid Avenue (EA) Overlay District and Historic Resources 18
- 2.3 Euclid/Walnut PUD Objectives 19

Chapter 3: Land Use Plan 21
- 3.1 Land Use and Zoning 21
- 3.2 Phasing and Build-Out 22
- 3.3 Permitted Uses 24

Chapter 4: Development Regulations 27
- 4.1 Intensity 28
- 4.2 Density 28
- 4.3 Building Envelope 28
- 4.4 Vehicle Access 28
- 4.5 Parking Facilities, Supply and Design 29
- 4.6 Residential Open Space and Common Amenities 29
- 4.7 Service Facilities 30
- 4.8 Signs 30
- 4.9 Landscape/Hardscape 30
- 4.10 Fences and Walls 31
- 4.11 Public Right-of-Way Improvements 31
- 4.12 Infrastructure 31
- 4.13 Summary of Development Standards 32

Chapter 5: Design Criteria 35
- 5.1 Building Orientation 36
- 5.2 Access and Parking Facilities 36
- 5.3 Service Facilities 36
- 5.4 Pedestrian Linkages 37
- 5.5 Architectural Character 37
- 5.6 Massing & Scale 37
- 5.7 Articulation & Fenestration 37
- 5.8 Architectural Details 37
- 5.9 Storefronts 41
- 5.10 Material & Colors 41
- 5.11 Roofs/Rooftop Equipment 41
- 5.12 Non-Residential Outdoor Dining Areas 41
- 5.13 Residential Outdoor Space, Common Recreational Amenities 41
- 5.14 Landscape/Hardscape Elements 42

Chapter 6: Administration 47
- 6.1 Items Not Addressed in PUD 47
- 6.2 Development Plan and Other Applications 48
- 6.3 Administrative Exceptions 48

Exhibits

Exhibit 1-1: PUD Location Map 8

Exhibit 3-1: Land Use/Zoning Map 22

Exhibit 3-2: Phase 1 Conceptual Site Plan 23

Exhibit 5-1: Architectural Character — Vertical Mixed-Use 38

Exhibit 5-2: Architectural Character — Three-Story Residential 39

Exhibit 5-3: Architectural Character — Four-Story Residential 40

Exhibit 5-4: Typical Common Recreational Amenity 41

Exhibit 5-5: Typical Courtyard 41

Exhibit 5-6: Fence/Wall Concepts 44

Tables

Table 3-1: Permitted Uses 24

Table 4-1: Summary of Development Standards 32

Table 5-1: Master Plant Palette 42

1 Introduction

The Euclid/Walnut Planned Unit Development (PUD) functions as a set of planning and design principles, development regulations, and performance standards to guide and govern the redevelopment of a commercial shopping center into a mixed-use development. The project site comprises three parcels located on the northwest corner of Euclid Avenue and Walnut Street, as shown on Exhibit 1-1: PUD Location Map. This PUD will facilitate development of high-density apartments, restaurants, retail shops, and other commercial services that will achieve the City's goals to economically revitalize and aesthetically enhance an underutilized parcel on the Euclid Avenue corridor.

Exhibit 1-1: PUD Location Map



This document is organized to fulfill the requirements for a PUD, as set forth in the Ontario Development Code (ODC). The Euclid/Walnut PUD replaces the existing zoning district designation and ODC regulations applicable to the affected properties. The properties also lie within the "EA – Euclid Avenue Overlay" district. Any applicable requirements of the overlay district shall remain in full force and effect. Unless otherwise defined or stated herein, definitions and interpretations contained in the ODC shall apply. City staff and private developers will rely on this PUD to determine whether precise plans for development ("Development Plans") adequately meet the City's land use and design objectives of The Ontario Plan (TOP) 2050.

This page was intentionally left blank.

2 Objectives

2.1 Consistency with The Ontario Plan

The Ontario Plan (TOP), the City's comprehensive plan, has undergone a significant update to shape the Ontario community through 2050. TOP 2050 has three policy level components: the Vision, a Governance Manual, and the Policy Plan (General Plan).

The Ontario Vision – adopted by the City Council envisioning "A sustained, community-wide prosperity which continuously adds value and yields benefits." Value is comprehensive in this regard and is expressed in land, revenues, infrastructure, businesses, education, employment, health, community services, recreation, etc. In particular, Ontario is committed to being "A Premier Community by Design." One of the foundations to accomplish this is described in the Vision as ensuring that development is "distinctive." The Euclid/Walnut PUD helps the City realize specific "Points of Vision" as outlined for "Distinctive Development" as follows:

- A system of vibrant retail, town, and neighborhood centers responsive to market demands and woven into the fabric of the community.
- A demonstrated ability to attract housing in pursuit of our acknowledged responsibility to balance housing with the job growth that drives our quality of life.
- Superior quality and design of the built environment and open spaces through careful attention to detail at every scale, including public and private spaces and structures.

The Governance Manual – institutionalizes Ontario's approach to governance and provides a business plan for the City. Ontario believes the City has the obligation to create, maintain, and grow economic value. The Manual guides the City's leadership and ensures that TOP 2050 is integrated into daily operations and provides for effective administration. The Euclid/Walnut PUD is established in conformance with the City's requirements and includes an administrative section consistent with provisions contained in the ODC for consideration of "Development Plans."

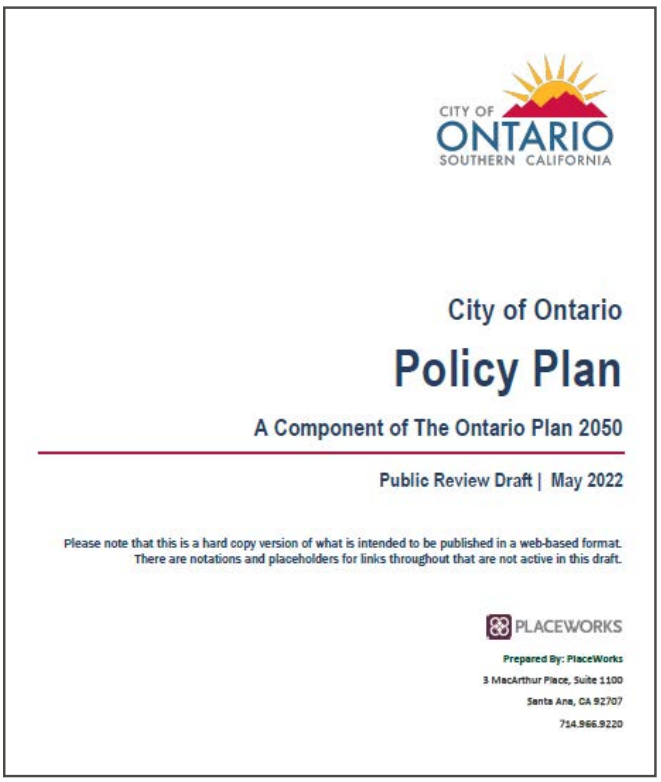
The Policy Plan (General Plan) – includes the Land Use Element, which designates the subject parcels within the Euclid/Walnut PUD as "MU - Mixed Use." Generally, these properties are developed with a mix of uses that, when concentrated, create focal points for community activity and facilitate walking, biking, and transit use The MU – Mixed Use land use category accommodates a horizontal and/or vertical mix of retail, service, office, restaurant, entertainment, cultural, and residential uses. The densities and intensities of the MU – Mixed Use designation represent the intended level of anticipated development; however, individual projects may vary depending upon an approved master plan, such as a specific plan or planned unit development.

Within the Land Use Element, the MU – Mixed Use designation is broken down into unique sub-categories to further refine the type of mixed-use development desired by the City. The parcels comprising the Euclid/Walnut PUD are part of a sub-area categorized as MU-NH – Mixed Use Neighborhood Activity Hub. This specific designation envisions low-rise (three to five stories) buildings, with a mix of retail and residential uses that will create identity and place, and serve surrounding residents. This category allows for residential densities ranging from 20 to 75 dwelling units per acre and non-residential intensity of 1.00 floor area ratio (FAR). Five locations within the City have the MU-NH land use designation. The Future Build-out Projections Table of the Land Use Element provides details for each of these five MU-NH sub-areas. The build-out of the 16-acre "MU-NH (Euclid & Walnut)" sub-area is projected to be 369 dwelling units and 142,840 square feet of non-residential development.

This PUD regulates the redevelopment of 10.6 acres of this sub-area to create a mixed-use project providing a total of 369 dwelling units and 12,000 non-residential square feet. The other 5.4 acres of the sub-area is located north of the PUD boundary and currently developed with 15 single family dwelling units, and approximately 28,000 square feet of non-residential development. There is a nominal increase to the total build-out projection for the number of residential dwelling units within this sub-area resulting from the combination of existing to remain and construction of new within the boundaries of this PUD. However,

it is offset by a significant reduction in the build-out of non-residential square footage should the existing uses/buildings remain unchanged on the 5.4-acre portion. Implementation of this PUD would still allow for redevelopment of the 5.4 acre portion of the sub-area of up to 130,000 of non-residential square footage, consistent with the TOP 2050 build-out projections for this sub-area.

In addition to the requirements of the Land Use Element, all mixed-use development is subject to specific "Place Types" as defined in the Community Design Element, which represent the intended outcome and character for each area. The Euclid/Walnut PUD falls within Place Type 8 (a-e). Properties with this Place Type are considered "Neighborhood Center – Infill" development where commercial and residential parcels were largely developed in an incremental manner prior to 2020. The Community Design Element acknowledges that many properties in this Place Type range in size, complexity, and relationships with surrounding streets and neighborhoods, and that redevelopment could result in horizontal or vertical mixed use. However, all of these centers are envisioned to incorporate site design that prioritizes safe, attractive, and well-shaded pedestrian access on site, from the public rights-of-way, and from the adjacent neighborhoods.


CITY OF ONTARIO
SOUTHERN CALIFORNIA

City of Ontario

Policy Plan

A Component of The Ontario Plan 2050

Public Review Draft | May 2022

Please note that this is a hard copy version of what is intended to be published in a web-based format. There are notations and placeholders for links throughout that are not active in this draft.

PLACEWORKS

Prepared By: PlaceWorks
3 MacArthur Place, Suite 1100
Santa Ana, CA 92707
714.966.9220

Implementation of the Euclid/Walnut PUD will achieve many City goals and policies outlined in The Policy Plan (General Plan). Those specific goals and polices are as follows.

Land Use Element

Goal LU-1 Balance

A community that has a spectrum of housing types and price ranges that match the jobs in the City and that make it possible for people to live and work in Ontario and maintain a quality of life.

- LU-1.1 Strategic Growth. We concentrate growth in strategic locations that help create place and identity, maximize available and planned infrastructure, foster the development of transit, and support the expansion of the active and multimodal transportation networks throughout the City.
- LU-1.5 Jobs-Housing Balance. We coordinate land use, infrastructure, and transportation planning and analysis with regional, county, and other local agencies to further regional and subregional goals for jobs-housing balance.
- LU-1.6 Complete Community. We incorporate a variety of land uses and building types in our land use planning efforts that result in a complete community where residents at all stages of life, employers, workers, and visitors have a wide spectrum of choices of where they can live, work, shop and recreate within Ontario.

Goal LU-2 Compatibility

Compatibility between a wide range of uses and resultant urban patterns and forms.

- LU-2.1 Land Use Decisions. We minimize adverse impacts on adjacent properties when considering land use and zoning requests.
- LU-2.2 Buffers. We require new uses to provide mitigation or buffers between existing uses where potential adverse impacts could occur. Additional mitigation is required when new uses could negatively impact environmental justice areas.

Goal LU-4 Phased Growth

Development that provides short-term value only when the opportunity to achieve our Vision can be preserved.

- LU-4.2 Interim Development. We allow development in urban, mixed use, and transit-oriented Place Types that is not immediately reflective of our ultimate Vision for the Place Type, provided it can be modified or replaced when circumstances are right to support development aligned with the Place Type Vision. We will not allow development that impedes, precludes, or compromises our ability to achieve our Vision.
- LU-4.3 Infrastructure Timing. We require that the necessary infrastructure and services be in place prior to or concurrently with development.
- LU-4.4 Shared Infrastructure. We encourage and facilitate the use of shared infrastructure (including shared or managed parking) in urban, mixed use, and transit-oriented Place Types.

Housing Element

Goal H-2 Housing Supply & Diversity

Diversity of types of quality housing that are affordable to a range of household income levels, accommodate changing demographics, and support and reinforce the economic sustainability of Ontario.

- H-2.1 Corridor Housing. We revitalize transportation corridors by encouraging the production of higher density residential and mixed-uses that are architecturally, functionally, and aesthetically suited to corridors.
- H-2.5 Housing Design. We require architectural excellence through adherence to City design guidelines, thoughtful site planning, environmentally sustainable practices, and other best practices.
- H-2.6 Infill Development. We support the revitalization of neighborhoods through the construction of higher-density residential developments on underutilized residential and commercial sites.

Goal H-3 Governmental Regulations

A City regulatory environment that balances the need for creativity and excellence in residential design, flexibility and predictability in the project approval process, and the provision of an adequate supply and prices of housing.

- H-3.2 Flexible Standards. We allow flexibility in the application of residential and mixed-use development standards in order to gain benefits such as exceptional design quality, economic advantages, sustainability, or other benefits that would otherwise be unrealized.

Environmental Resources Element

Goal ER-1 Water & Wastewater

A reliable and cost-effective system that permits the City to manage its diverse water resources and needs.

- ER-1.4 Supply-Demand Balance. We require that available water supply and demands be balanced.
- ER-1.6 Urban Run-off Quantity. We encourage the use of low impact development strategies, including green infrastructure, to intercept run-off, slow the discharge rate, increase infiltration, and ultimately reduce discharge volumes to traditional storm drain systems.
- ER-1.7 Urban Run-off Quality. We require the control and management of urban run-off, consistent with Regional Water Quality Control Board regulations.
- ER-1.8 Wastewater Management. We require the management of wastewater discharge and collection consistent with waste discharge requirements adopted by the Regional Water

Quality Control Board.

Goal ER-3 Energy

Cost-effective and reliable energy system sustained through a combination of low impact buildings, site and neighborhood energy conservation, and diverse sources of energy generation that collectively helps to minimize the region's carbon footprint.

- ER-3.3 Building and Site Design. We require new construction to incorporate energy efficient building and site design strategies, which could include appropriate solar orientation, maximum use of natural daylight, passive solar, and natural ventilation.

Goal ER-4 Air Quality

Improved indoor and outdoor air quality and reduced locally generated pollutant emissions.

- ER-4.1 Land Use. We reduce GHG and other local pollutant emissions through compact, mixed use, and transit-oriented development and development that improves the regional jobs-housing balance.

Community Economics Element

Goal CE-1 Complete Community

A complete community that provides for all incomes and stages of life.

- CE-1.6 Diversity of Housing. We collaborate with residents, housing providers, and the development community to provide housing opportunities for every stage of life; we plan for a variety of housing types and price points to encourage the development of housing supportive of our efforts to attract business in growing sectors of the community while being respectful of existing viable uses.
- CE-1.7 Retail Goods and Services. We seek to ensure a mix of retail businesses that provide the full continuum of goods and services for the community.

Goal CE-2 Placemaking

A City of distinctive neighborhoods, districts, corridors, and centers where people choose to be.

- CE-2.1 Development Projects. We require new development and redevelopment to create unique, high-quality places that add value to the community.
- CE-2.2 Development Review. We require those proposing new development and redevelopment to demonstrate how their projects will create appropriately unique, functional, and sustainable places that will compete well with their competition within the region.

Safety Element

Goal S-1 Seismic & Geologic Hazards

Minimized risk of injury, loss of life, property damage, and economic and social disruption caused by earthquake-induced and other geologic hazards.

- S-1.1 Implementation of Regulations and Standards. We require that all new habitable structures be designed in accordance with the most recent California Building Code adopted by the City, including provisions regarding lateral forces and grading.
- S-1.2 Entitlement and Permitting Process. We follow state guidelines and the California Building Code to determine when development proposals must conduct geotechnical and geological investigations.

Goal S-2 Flood Hazards

Minimized risk of injury, loss of life, property damage and economic and social disruption caused by flooding and inundation hazards.

- S-2.5 Stormwater Management. We maintain the storm drain system to convey a 100-year storm, when feasible, and encourage environmental site design practices to minimize flooding and increase groundwater recharge, including natural drainage, green infrastructure, and permeable ground surfaces.

Goal S-3 Fire & Rescue Hazards

Reduced risk of death, injury, property damage and economic loss due to fires, accidents and normal everyday occurrences through prompt

and capable emergency response.

- S-3.1 Prevention Services. We proactively mitigate or reduce the negative effects of fire, hazardous materials release, and structural collapse by implementing the regularly adopted California Fire Code and California Building Code.
- S-3.8 Fire Prevention through Environmental Design. We require new development to incorporate fire prevention consideration in the design of streetscapes, sites, open spaces, and buildings.

Goal S-4 Noise Hazards

An environment where noise does not adversely affect the public's health, safety, and welfare.

- S-4.1 Noise Mitigation. We utilize the City's Noise Ordinance, building codes, and subdivision and development codes to mitigate noise impacts.

Goal S-5 Wind-Related Hazards

Minimize the risk of injury, property damage, and economic loss resulting from windstorms and wind-related hazards.

- S-5.1 Dust Control Measures. We require the implementation of Best Management Practices for dust control at all excavation and grading projects.

Goal S-7 Law Enforcement

Residential neighborhoods, commercial areas, and industrial districts that are kept safe through a multi-faceted approach of prevention, suppression, and community involvement in public safety.

- S-7.4 Crime Prevention through Environmental Design (CPTED). We require new development to incorporate CPTED in the design of streetscapes, sites, open spaces, and buildings.

Community Design Element

Goal CD-1 Image & Identity

A dynamic, progressive city containing distinct and complete places that foster a positive sense of identity and belonging among residents, visitors, and businesses.

- CD-1.2 Place Types. We establish Place Types in urban, mixed use, and transit-oriented areas to foster the City's identity as a premier community and require new development within each Place Type to incorporate prescribed urban patterns, forms, and placemaking priorities.

Goal CD-2 Design Quality

A high level of design quality resulting in neighborhoods, commercial areas, public spaces, parks, and streetscapes that are attractive, safe, functional, human- scale, and distinct.

- CD-2.1 Quality Building Design and Architecture. We encourage all development projects to convey visual interest and character through:
  1. Building volume, massing, and height to provide context-appropriate scale and proportion;
  2. A true architectural style which is carried out in plan, section, and elevation through all aspects of the building and site design and appropriate for its setting; and
  3. Exterior building materials that are articulated, high quality, durable, and appropriate for the architectural style.
- CD-2.4 Urban, Mixed Use, and Transit-oriented Areas. We establish Place Types to require mixed use, urban, and transit-oriented areas to be designed and developed as pedestrian oriented areas that are integrated with adjacent neighborhoods and promote a vibrant, comfortable, and functional environment, as defined for each Place Type.
- CD-2.7 Sustainability. We collaborate with the development community to design and build neighborhoods, streetscapes, sites, outdoor spaces, landscaping, and buildings to reduce energy demand through solar orientation, maximum use of natural daylight, passive solar and natural ventilation, building form, mechanical and structural systems, building materials, and construction techniques.

- CD-2.8 Safe Design. We incorporate defensible space design into new and existing developments to ensure the maximum safe travel and visibility on pathways, corridors, and open space and at building entrances and parking areas by avoiding physically and visually isolated spaces, maintaining visibility and accessibility, and using lighting.
- CD-2.9 Landscape Design. We encourage durable, sustainable, and drought-tolerant landscaping materials and designs that enhance the aesthetics of structures, create and define public and private spaces, and provide shade and environmental benefits.
- CD-2.13 Entitlement Process. We work collaboratively with all stakeholders to ensure a high degree of certainty in the efficient review and timely processing of all development plans and permits.

Goal CD-3 Urban, Mixed Use, and Transit-Oriented Place Types

Vibrant urban environments that are organized around intense buildings, pedestrian and transit areas, public plazas, and linkages between and within developments that are conveniently located, visually appealing and safe during all hours.

- CD-3.1 Unique Identity. We promote development that heightens the unique character and identity of each Place Type by requiring compatible land uses and land planning, site design, and building design that promotes an active public realm.
- CD-3.4 Context-Aware and Appropriate Design. We require appropriate building and site design that complements existing development, respects the intent and identity of the Place Type, and provides appropriate transitions and connections between adjacent uses to ensure compatibility of scale, maintain an appropriate level of privacy for each use, and minimize potential conflicts.
- CD-3.5 Active Frontages. We create lively pedestrian streetscapes by requiring primary building, business, and residential entrances, outdoor dining, and storefronts be located on ground floors adjacent to sidewalks or public spaces and designed to maximize

CD-3.1 Unique Identity



CD-3.4 Context Aware and Appropriate Building Design



CD-3.5 Active Frontages



CD-3.6 Managed Infrastructure



2.2 Euclid Avenue (EA) Overlay District and Historic Resources

The EA Overlay zoning district was established to recognize, protect, and enhance the visual character and quality of Euclid Avenue as a major scenic and historic resource in Ontario as well as its position on the National Register of Historic Places. Properties located within the EA require approval of a Certificate of Appropriateness to ensure no adverse impacts to designated historic resources occur as a result of new development and buildings. This PUD includes design criteria within Chapter 5 for site and building design that strengthen the overall character of Euclid Avenue.

The public right-of-way of Euclid Avenue from Philadelphia Street northward to the Interstate 10 was designated as Local Landmark No. 67 on January 16, 2001 by the Ontario City Council. On August 10, 2005, the public right-of-way of Euclid Avenue from Philadelphia Street in Ontario northward to 24th Street in Upland was listed on the National Register of Historic Places as a significant cultural landscape. One contributing character defining-feature of the right-of way is the 60-foot-wide median separating the north/southbound vehicular lanes of Euclid Avenue. This PUD does not propose to alter or affect this character-defining feature.

Although the parcels within this PUD have Euclid Avenue frontage, the location of this PUD is separated from the southern boundary (Philadelphia Street) of this Local Landmark/National Register of Historic Places designation by a distance of approximately 0.4 miles. The extended view of the Euclid Avenue corridor, when viewed northward from the parcels or southward towards the parcels of this PUD, is also visually disrupted within the immediate foreground view as a result of the Pomona Freeway (SR-60), which is elevated above Euclid Avenue. Additionally, this PUD is separated from the closest boundary of an historic district, the Downtown Historic District, by a distance of approximately three miles. Based upon the City's Historic Preservation records, there are no potential or proposed historic resources within the immediate surrounding area of the parcels within this PUD.



Historic Euclid Avenue

2.3 Euclid / Walnut PUD Objectives

The Euclid/Walnut PUD establishes a set of planning and design principles, development regulations, and performance standards to guide and govern the development of a defined project site. This PUD will facilitate redevelopment of the project site with structures and related improvements that support residential and non-residential land uses within the same project site. In addition to facilitating achievement of many City goals and policies as outlined herein, this PUD has the following objectives:

- Develop and provide new, high-quality rental housing combined with a mixed-use component.
- Provide transition between new mixed-use development and surrounding residential neighborhoods and commercial properties.
- Provide areas of private and passive open space for each residential unit, as well as community gathering and active open spaces.
- Promote development that is consistent with the MU-NH – Mixed Use Neighborhood Activity Hub land use designation.
- Promote revitalization of commercial uses on the project site by establishing new ground-floor retail and similar uses that serve on-site residents and those in surrounding neighborhoods.
- Provide outdoor gathering places adjacent to commercial storefronts, such as outdoor patio or bench seating with inviting/attractive landscape elements.
- Orient non-residential, ground-floor uses towards Euclid Avenue.
- Incorporate site design solutions to allow for phased development.
- Satisfy the build-out projections for residential dwelling units within the MU-NH (Euclid-Walnut) sub-area, as defined in TOP 2050.

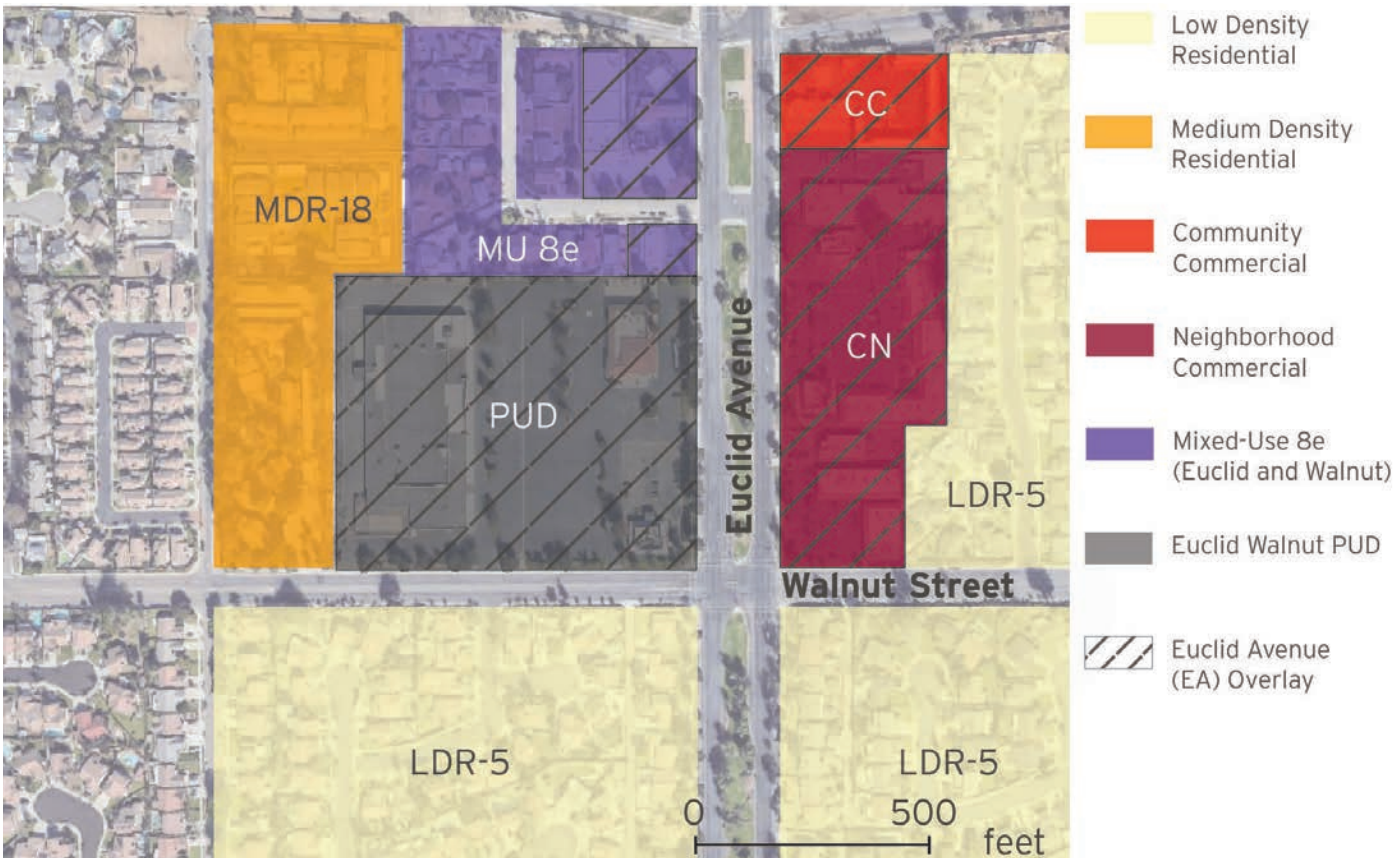


3 Land Use Plan

3.1 Land Use and Zoning

The Euclid/Walnut PUD applies to the parcels shown on Exhibit 3-1: Land Use/Zoning Map. The map establishes a single zoning district of PUD - Planned Unit Development providing for a mix of commercial and residential uses consistent with TOP 2050 MU-NH land use designation. This PUD allows both horizontal and vertical mixed-use development in buildings of three and four stories. Buildings with direct Euclid Avenue frontage will contain ground-floor commercial uses and residential units directly above. All other buildings will contain residential units on all floor levels. A combination of garages, tandem spaces, carports, and surface parking spaces will be provided, with gated access limited to residents and residents' guests. Unrestricted access to surface-level parking will serve the commercial uses and provide additional resident guest parking spaces. Residents will enjoy a low-maintenance, urban lifestyle with conveniently located shopping, dining, and personal service businesses in combination with convenient access to established transportation routes and employment hubs.

Exhibit 3-1: Land Use/Zoning Map



3.2 Phasing and Building Out

Implementation of the land use plan and the build-out allowable under this PUD will be achieved through two redevelopment phases. Exhibit 3-2: Phase 1 Conceptual Site Plan illustrates the development plan for the initial phase.

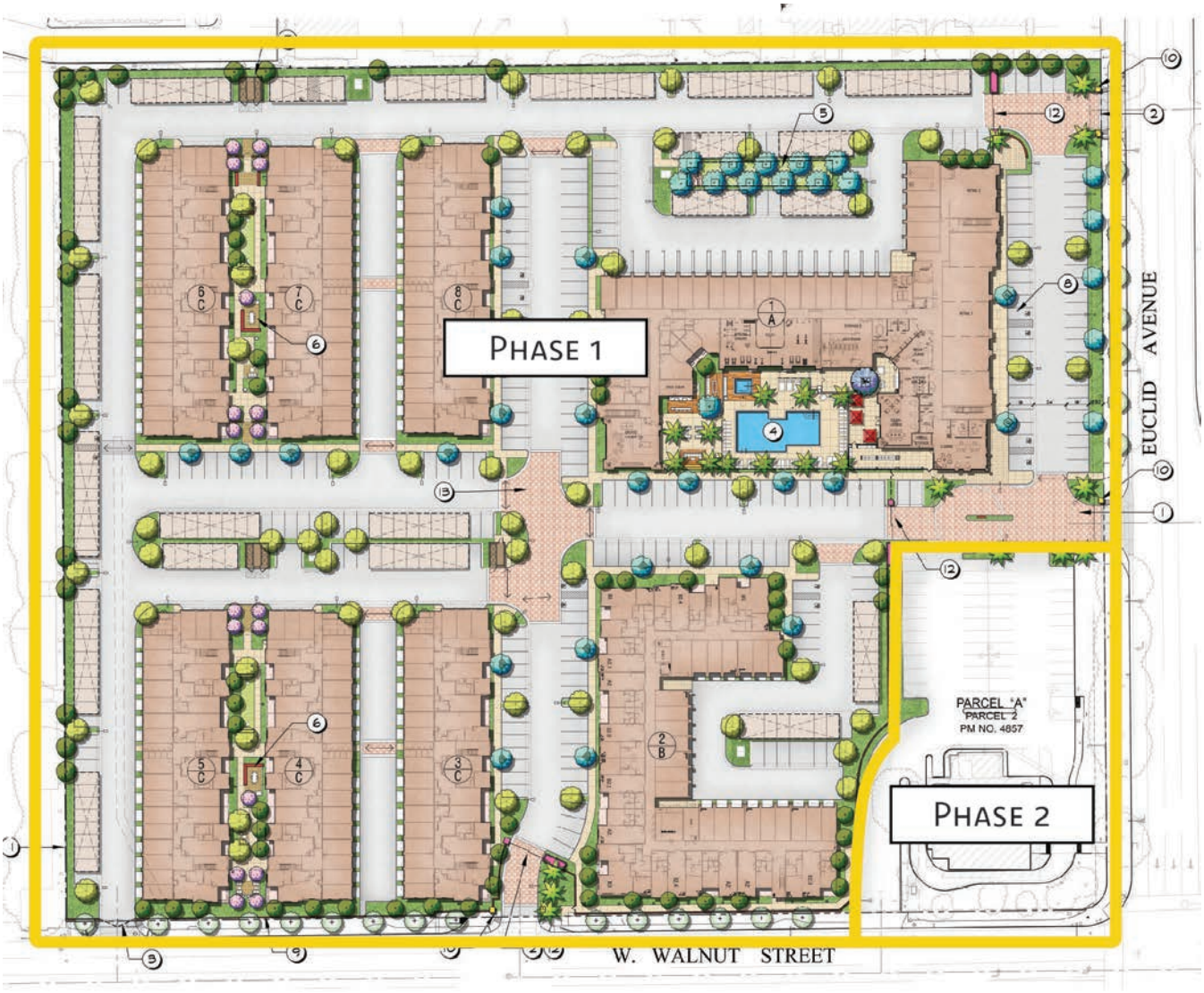
The first phase will retain the fast-food, drive-through restaurant use, occupying an approximately 4,100-square-foot building and its related site improvements. The remaining area within the boundaries of this PUD will be developed with two four-story buildings and six three-story buildings, providing a combined total of 346 dwelling units, 5,400 square feet of ground-floor commercial space, associated on-site parking areas for both residential and non-residential land uses, and landscaping and recreational amenities for residents[1].

The second phase will implement the full build-out of the PUD area with demolition of the restaurant and related site improvements; replacing them with an additional mixed-use, four-story building. Completion of the second phase will provide up to an additional 23 dwelling units and up to an additional 6,600 square feet of ground-floor commercial space, plus associated site improvements.

This PUD, inclusive of all development standards and requirements, applies to both phases. Ultimate build-out will result in a maximum of 369 dwelling units and approximately 12,000 square feet of commercial land uses.

1. Demolition of approximately 100,950 square feet of older commercial buildings will occur before project construction proceeds.

Exhibit 3-2: Phase 1 Conceptual Site Plan



3.3 Permitted Uses

Table 3-1: Permitted Uses lists the allowable land use, activity, or facility permitted within this PUD. A land use that is not listed shall be considered a prohibited land use unless otherwise allowed by the Zoning Administrator in accordance with the requirements and procedures outlined in the ODC. The land uses established in this table are consistent with those listed uses and land use definitions of the ODC. The ODC relies upon the North American Industry Classification System (NAICS) for non-residential land uses, utilizing the NAICS website definitions for each business establishment classification. The "Notes or ODC Regulations" column provides reference to the location of any specific regulations, operating conditions, and/or development standards applicable to the corresponding land use, activity, or facility; as well as exception to any standards or requirement as modified within this PUD. The "Permit Type" column symbols shall have the same meaning and utilize the same permit type, process, and approvals as contained in the ODC.

Table 3-1: Permitted Uses		
Land Uses, Activities, and Facilities	Permit Type "P" – Permitted by Right "C" – Conditional Use Permit "A" – Administrative Use Permit	Notes or ODC Regulations
Residential		
Accessory Dwelling Units	P	ODC Section 5.03.010
Animal Keeping (accessory) Household Pets - 4 or fewer pets	P	
Community Gardens (accessory)	A	ODC Section 5.03.410
Home Occupation (accessory)	A	ODC Section 5.03.240
Multiple-Family Dwellings	P	
Mixed Uses		
Residential Mixed-Use Developments	P	ODC Section 5.03.285
Non-Residential Uses – Limited to Ground Floor and Euclid Avenue Frontage		
Alcoholic Beverage Sales (off-premise)	C	ODC Section 5.03.025
Art Dealer	P	
Clothing, Shoes and Jewelry Store	P	
Consignment Shop	P	
Convenience Store	P	
Document Preparation Services	P	
Drycleaning and Laundry Services - Limited to Drop-off and Pick-up	P	Drive-thru prohibited
Electronics and Appliance Store	P	ODC Section 5.03.175
Finance and Insurance Services	P	Check Cashing, Advanced Payday, and Pawnshops prohibited

Table 3-1: Permitted Uses		
Land Uses, Activities, and Facilities	Permit Type "P" – Permitted by Right "C" – Conditional Use Permit "A" – Administrative Use Permit	Notes or ODC Regulations
Florist	P	
Furniture and Home Furnishings Store	P	ODC Section 5.03.210
General Merchandise Store	P	
Health and Personal Care Store	P	
Investigative and Security Services	P	
Office Administrative Support Services	P	
Office Supplies, Stationary and Gift Store	P	
Personal and Household Goods Repair	P	
Personal Care Services With Massage Services	P A	 ODC Section 5.03.270
Personal Fitness Training Studio	P	Limited to 10,000 sq. ft.
Pet Supply Store	P	Animal Sales prohibited
Pharmacies and Drug Store	P	Drive-thru prohibited
Police Storefront/Community Services	P	
Private Mail Centers and Postal Supply	P	
Professional and Technical Services	P	Limited to non-medical
Real Estate, Rental, and Leasing Services	P	
Restaurants, Fast Food With Drive-Thru	P P	 ODC Section 5.03.150
Restaurants, Limited Service With Alcoholic Beverage Sales With Live Entertainment	P C C	 ODC Section 5.03.025 ODC Section 5.03.257
Restaurants, Snack and Nonalcoholic Beverage Bar	P	
Specialty Food and/or Beverage Store With Alcoholic Beverage Sales	P C	 ODC Section 5.03.025
Sporting Goods, Hobby, Book, and Music Store	P	
Supermarket and Grocery Store	P	
Travel Arrangement Services	P	

4 Development Regulations

This section sets forth standards that govern the placement, height, and bulk of permitted buildings and other structures; establishes locational criteria for vehicular access to development sites; establishes parking and loading requirements; and specifies minimum requirements for recreational amenities for residential uses. Unless otherwise modified herein, development within this PUD shall comply with the ODC standards and requirements as may apply generally to Multiple-Family Dwellings and Commercial development, as determined appropriate by the Director. Table 4-1: Summary of Development Standards provides an at-a-glance reference to the regulations for the various standards, and is to be used in combination with the descriptions and specific criteria listed for each of the standards.

4.1 Intensity

The intensity of non-residential development shall not exceed a maximum 0.5 floor area ratio (FAR) based upon the net site area. The calculation shall be derived by dividing the gross square footage of the commercial space of the vertical mixed use buildings by the net site area. In determining FAR, this square footage should not include indoor common amenity space or other interior square footage serving the residential land uses.

4.2 Density

The density of residential development shall not exceed a maximum 40 dwelling units per acre based upon the net site area. In no case shall the total number of residential units exceed 369 units upon build-out of Phase 2.

4.3 Building Envelope

a. Non-residential land uses shall be on the ground-floor level of vertical mixed-use buildings.

b. Residential dwelling units may be located on any floor level.

c. The height of four-story buildings shall not exceed 60 feet. The height of three-story buildings shall not exceed 50 feet. Height shall be measured as specified in the ODC and is inclusive of architectural projections.

d. Any rooftop mechanical venting or communications equipment shall be built within or otherwise screened by the roof structure so that they do not project above parapets and are not visible from any public right of way, or neighboring building.

e. The location of vertical mixed-use buildings shall be limited to buildings with frontage along Euclid Avenue.

f. The building edge along Euclid Avenue may vary. It may occur a minimum of 10 feet behind the public right-of-way line or at a point that allows for up to two parking bays served by a drive aisle, up to a maximum building setback of 80 feet.

g. The building edge along Walnut Street shall provide a minimum setback of 10 feet.

h. Building setbacks shall be measured from the ultimate property lines or ultimate right-of-way width, whichever is greater.

i. Placement of buildings and structures shall conform with other specifications of Table 4-1: Summary of Development Standards.

j. Any yard areas provided between the buildings and the right-of-way may be finished with hardscape, including walls/ fences, or landscape.

4.4 Vehicle Access

Vehicular access from any public right-of-way shall be limited to two locations along Euclid Avenue and a maximum of three locations along Walnut Street, as approved by the City Engineer.



4.5 Parking Facilities, Supply, and Design

On-street parking on Euclid Avenue and Walnut Street adjacent to this PUD shall not be allowed.

a. Non-residential uses shall be provided with parking at a minimum ratio of one parking space per 250 gross square feet of building area. Such parking shall be located on site, and shall be accessible during operating hours of the businesses being served.

b. Residential uses shall be provided with parking at a minimum ratio of 1.2 parking spaces per bedroom in each dwelling unit, inclusive of providing guest or unassigned parking spaces. Resident parking shall be located on site, and may have access restricted by gated entrance. Resident parking for each dwelling unit or guests of that dwelling unit may be provided within a garage space, as a tandem space, within a carport, as surface level parking, or in combination. Tandem spaces are restricted to those directly in front of a garage door and shall be assigned to the same dwelling unit as the garage space.

c. A parking management plan shall be submitted for the Planning Director approval prior to the issuance of building permits. The plan shall address the assignment, distribution, and functionality of all parking spaces among the various uses, including the use of non-residential spaces providing overflow resident guest spaces when businesses are closed.

d. Parking spaces shall not obstruct access to building entrances, pedestrian paths, trash storage areas, or loading areas.

e. Parking space dimensions, drive aisles, etc. shall generally conform to the standards set forth in the ODC unless modified herein.

4.6 Residential Open Space and Common Amenities

Open space for the residential component shall be provided at a minimum ratio of 250 square feet per dwelling unit. Such space can be a combination of residential private open space and common amenities, subject to the following:

a. A minimum of 50 square feet of individual private open space, in the form of balcony or patio area directly accessible from the interior of each dwelling unit, shall be provided. Individual balcony or patio areas shall have a minimum dimension for length and width of five feet.

b. Common amenities shall be provided at the minimum ratio of 175 square feet per dwelling unit. This may include a combination of passive and active, indoor and outdoor spaces, roof-top or upper floor decks, as well as landscaped and hardscaped ground surfaces providing paseos between or adjacent to buildings. Up to 15 percent of the overall common amenity square footage may consist of indoor area and be grouped into a single building that is accessible to all residents. Such indoor area shall provide opportunities for fitness, lounge/gathering space, business/mail center, and similar amenities. The remaining common amenities provided shall be in the form of outdoor common areas consisting of both programmed and unprogrammed spaces. Programmed space may provide specific amenities: such as a dog park, seating/conversational areas, outdoor cooking facilities with table seating areas, etc. Unprogrammed space may provide passive use such as landscaped paseos.

4.7 Service Facilities

Service areas and facilities shall comply with the following:

a. Loading and unloading in proximity to both the residential and non-residential uses shall be addressed as part of the parking management plan submitted to the Planning Director to ensure coordination of operational hours and occupancy/vacancy of parking areas.

b. Trash receptacles/recyclable container storage areas shall be provided for all residential and non-residential uses. Such receptacle/storage area may receive trash from commercial and residential sources. Locations, sizes, and design of such areas shall be readily accessible by trash disposal company equipment and work crews, as approved by the Planning and Public Works Directors, in consultation with the trash disposal vendor.

c. Individual storage units shall be provided for the occupants of each dwelling unit, exclusive of any closets in the units. The total amount of cubic feet provided shall average 150 cubic feet per dwelling unit.

4.8 Signs

A Master Sign Program shall be submitted for approval by the Planning Director prior to issuance of a building permit to provide design and standards applicable to both residential and non-residential land uses within this PUD. The program will include specific sign criteria for gated access points. All signs shall comply with standards in the ODC. Any signage within the Euclid Avenue Caltrans right-of-way will require Caltrans review and approval.

4.9 Landscape/Hardscape

a. A detailed plan shall be submitted with the Development Plan specifying all landscape and hardscape elements of the residential open space and common amenities, as well as the perimeter yards abutting the street rights-of-way and all street trees.

b. Water conservation shall be provided through low water using plant materials, hydro zones, water efficient irrigation and weather-based controllers as required by City codes. Landscaped areas may be used for storm water infiltration through vegetated swales, retention basins, or dry wells as needed with the use of appropriate planting materials.

c. The landscape design shall generally satisfy the requirements of the Landscape Development Standards outlined in the ODC and shall create well-functioning spaces within a sustainable design utilizing materials as provided in Table 5-1: Master Plant Palette.

d. Within parking areas, the following landscape areas and standards apply:

1. For each row of parking spaces located within the restricted access (gated) parking areas, planter islands of at least six feet in width that extend the full length of the abutting parking space shall be located at a minimum rate of every 15 spaces. This rate shall be increased to every 10 spaces for parking areas with unrestricted access and/or adjacent to Euclid Avenue.

2. Tree wells, tree diamonds, or center planter strips shall be provided to allow for the planting of shade trees at a minimum ratio of one tree for each five parking spaces. Tree wells shall not have a minimum dimension less than five feet.

3. All landscape planters within parking areas shall be delineated with a six-inch-wide curb regardless of parking space configuration. The use of a 12-inch-wide curb may be provided to allow for a "step area" in circumstances where there is increased frequency of passengers exiting or entering a vehicle.



4. Bordering the Euclid Avenue frontage, a minimum 10 foot in depth planter area shall be provided between the public right-of-way and a parking space oriented perpendicular to the right-of-way.
5. A minimum 20-foot deep planter area shall be provided at a driveway between any public right-of-way to the first parking space to allow for a minimum 20-foot drive aisle throat.

f. Street trees shall comply with the variety, size, and spacing as directed by the City of Ontario Master Street Tree Plan.

4.10 Fences and Walls

a. Fences and walls shall be an integral design or compatible with the building architecture and shall comply with the height and materials shown in Exhibit 5-6: Fence/Wall Concepts.

b. Fences and walls may be setback zero feet from property lines except where such fence or wall is required to comply with Engineering Corner Sight Distance Standards and other applicable standards.

c. Decorative walls, monuments, and/or other similar features shall not encroach into the public right-of-way.

4.11 Public Right-of-Way Improvements

As determined by the City Engineer, design and construction of any street improvements adjacent to the property frontage of Euclid Avenue and Walnut Street shall be conditioned and may include, but not be limited to, concrete curb and gutter, sidewalk, LED street lights, signing and striping, and parkway landscaping. Any improvements within the Euclid Avenue Caltrans right-of-way will require Caltrans review and approval.

4.12 Infrastructure

The parcels within the boundary of this PUD shall be served by existing water lines and wastewater flows and/or upgraded to satisfy the required capacities as determined by the City and its service purveyors/agencies, including the Fire Department.

On-site stormwater drainage facilities shall be provided consistent with the San Bernardino County Stormwater Program's Water Quality Management Plan (WQMP) requirements for new development projects. Stormwater capture and infiltration facilities may include the utilization of vegetated swales, depressed landscaped basins, pervious concrete pavement, and/or underground stormwater retention/infiltration vaults.

The parcels within the boundary of this PUD are considered a Priority Land Use (PLU). A PLU shall comply with the statewide Trash Provisions adopted by the State Water Resources Control Board (SWRCB) and trash requirements in the most current San Bernardino County Area-Wide MS4 Permit. Drainage from the PLU shall be designed with conveyance tributary to a Full Trash Capture System which has been approved by the SWRCB.

4.13 Summary of Development Standards

Table 4-1: Summary of Development Standards provides the quantitative development standards set forth in previous Sections 4.1 through 4.12 and any additional requirements for development within this PUD.

Table 4-1: Summary of Development Standards		
Development Standard	**Requirement**	**Notes**
Maximum Intensity - Floor Area Ratio	0.50 FAR	Gross building square footage of commercial space
Density Range - Minimum and Maximum	20.1 - 40	Up to a maximum of 369 dwelling units
Maximum Building Height by Number of Stories Four Stories Three Stories	 60 ft. 50 ft.	Inclusive of architectural projections and equipment screening
Building Setbacks - From Right-of-Way	10 ft. minimum	
Setbacks - Interior Property Line Buildings Adjacent to Residential Buildings Adjacent to Non-Residential Carport or Trash Enclosure	 50 ft. minimum 5 ft. minimum 5 ft. minimum	
Building Separation Building to Building Building to Drive Aisle or Parking Areas Building to Carport Patio to Patio	 25 ft. minimum 5 ft. minimum 25 ft. minimum 15 ft. minimum	 Individual driveway depth limited to 5 ft. or less, or 18 ft. or more
Minimum Number of Parking Spaces Ratio for Residential Uses Ratio for Non-Residential Uses	 1.2 spaces/bedroom 1 space/250 sq. ft.	 Inclusive of guest spaces
Residential Open Space and Common Amenities - Combined Minimum Ratio Minimum Private Open Space Ratio Minimum Common Amenity Ratio	 250 sq. ft./du 50 sq. ft./du 175 sq. ft./du	 5 ft. minimum width and length 15% maximum indoor
Residential Storage Units	150 cubic feet/du minimum	Does not include closets or cabinets interior to the unit

This page was intentionally left blank.

5 Design Criteria

New development implemented under this PUD will generate new uses and design aesthetics in a way that fulfills many of the design goals and policies discussed previously in Chapter 2. The Community Design Element in TOP 2050 outlines specific "Place Types"; this PUD is categorized under Place Type 8e, which is considered "Neighborhood Center – Infill" type development, where the commercial and residential parcels were largely developed in an incremental manner prior to 2020. Redevelopment could result in either horizontal or vertical mixed use and are envisioned to incorporate site design that prioritizes safe, attractive, and well-shaded pedestrian access from the public rights-of-way and adjacent neighborhoods.

The parcels within this PUD site do not contain significant buildings, structures, or locations subject to historic preservation. While the first phase of development retains an existing fast-food restaurant structure, this building is not considered historic. The new infill development will include architecture that creates a dynamic visual environment and increases the pedestrian experience. The design criteria for the buildings provide articulation, dynamic materials and colors, and avoid bulky and monotonous elevations. Street trees and landscaped street-facing setback areas will provide opportunities to frame the street, create a pleasant pedestrian pathway, and minimize the building bulk from the public right-of-way.

The following sections provide guidance to City staff and private developers in the design of buildings, yards, and streets. Variations from strict interpretation of the standards are permitted, provided that the integrity of the urban design is not compromised. The following criteria shall be incorporated into the Development Plan for each phase of this PUD, subject to final interpretation by the Planning Commission.

5.1 Building Orientation

a. Buildings along Euclid Avenue shall provide storefronts that invite pedestrian activity.

b. Architectural focal treatments such as taller elements, textured surfaces, and unique fenestration shall be provided on frontage facing public streets.

c. Buildings located at the street corner shall be designed to incorporate architectural features that respond to the corner location by having directed entries and/or tower elements.

d. Multiple shop entrances and display windows with clear glazing, shall be provided along Euclid Avenue facades.

5.2 Access and Parking Facilities

a. Vehicular access and on-site parking shall be designed to reduce visual impact along Euclid Avenue and Walnut Street.

b. On-site parking facilities serving non-residential uses shall be readily accessible, screened, and separated from the public right-of-way views with landscaping, including shade trees.

c. On-site parking facilities serving residential uses may be located behind gated ingress/egress points. Gate access points from Euclid Avenue shall be set back to allow stacking of at least two vehicles, with sufficient space configured to allow a vehicle to turn around without backing into the street. The primary entry gate serving residential uses shall be designed to be easily recognizable to visitors.

d. Carports and individual garage entries shall be designed to be compatible with the building architecture and use similar colors, materials, and details.

5.3 Service Facilities

a. Service, loading and, storage facilities shall be located away from public streets, outdoor spaces, and adjacent residential uses.

b. Electrical equipment shall be located on the interior of a building. When interior locations are not practical, electrical equipment shall be enclosed and screened from public streets with walls, fencing, and/or landscaping that allows for sufficient ventilation, or buried in vaults.

c. Service areas shall be screened and gated.

d. All types of loading doors within view of public streets shall be screened with walls, berms, or plant materials.

5.4 Pedestrian Linkages

a. Pedestrian pathways shall be designed and located for clear and comfortable on-site pedestrian circulation. Sidewalks and pedestrian paths shall provide convenient connections between storefronts, outdoor spaces, and parking, as well as portals to adjacent residential uses.

b. Landscape paseos shall be used to reinforce pedestrian connections. For instance, attractive paving and planting design may identify and highlight these connections by establishing a visual separation between vehicular and pedestrian routes and provide passive open space opportunities for residents.

5.5 Architectural Character

a. The architectural character shall reflect the various styles within the City and along Euclid Avenue and shall fit in contextually without matching. The use of complementing proportions, building details, and building materials shall be employed.

b. Compatibility between the vertical and horizontal mixed-use architecture shall be achieved through the use of unifying elements such as similar materials and colors.

c. A schematic illustration of acceptable architectural character is shown in Exhibit 5.1: Architectural Character – Vertical Mixed-Use, Exhibit 5-2: Architectural Character – Three Story Residential, and Exhibit 5-3: – Four Story Residential.

5.6 Massing & Scale

a. Simple, yet varied massing shall be used, with wall openings that create shadow line and provide visual relief.

b. Massing and height of corner elements shall be emphasized by using strong and identifiable building forms such as taller building mass, tower element, or cupola.

c. Building increments shall employ various architectural devices such as changes in colors/finish material, horizontal breaks and offsets, upper building portion reflecting the same increment of articulation as the ground level, and use of trim and moldings at the top of facades that reflect the vertical massing of the building.

d. Where buildings will be of varying heights, they shall be designed to promote transition in massing and avoid abrupt changes in scale within the development.

5.7 Articulation & Fenestration

a. Buildings shall have three-dimensional qualities.

b. The base and upper levels of a vertical mixed use building shall be differentiated with features for storefronts such as a bulkhead, display windows, and/or transom and detailed trim.

c. Buildings shall be articulated on all sides. Fenestration, changes in wall plane, material, texture, color, etc. shall be used to create shadow lines and articulate building walls.

d. Highly visible public entrances shall be provided where buildings are oriented towards Euclid Avenue to provide individual shop entrances featuring recesses, overhangs, special materials, and/or detailing.

Exhibit 5-1: Architectural Character — Vertical Mixed-Use









Exhibit 5-2: Architectural Character — Three-Story Residential



Exhibit 5-3: Architectural Character — Four-Story Residential



5.8 Architectural Details

a. Architectural details shall be used to enhance a building's appearance at the base, eaves, parapets, and around entries and windows.

b. Human-scaled details such as canopies and awnings, transparent windows and window displays shall be provided facing Euclid Avenue.

c. Architectural features and details shall be an integral part of the building without an appearance of being "tacked on."

5.9 Storefronts

a. Storefronts for each commercial establishment shall have a unifying architectural aesthetic, but may include alteration of exterior treatments on the individual frontage of the space where such modifications compliment the overall design quality of the development.

b. Storefronts shall incorporate desirable building materials such as brick, stone, tile, exterior cement plaster, or fiber cement siding.

c. Storefront glazing shall be clear glass to permit clear views into the interior space. The amount of such glass shall provide a balance between high visibility into the store interior and architectural quality.

d. Entrance doors shall be of a traditional style and as transparent as possible.

5.10 Material & Colors

a. Materials shall be those of permanence and quality and that unify a building's appearance on all sides.

b. Materials and colors shall accentuate the architectural details of the building and promote visual harmony.

c. To create visual interest, at least three different building materials shall be used.

5.11 Roof/Rooftop Equipment

a. At least one break in roof plane shall be provided on each building

b. Rooftop equipment, including ladders and antenna devices, shall be screened so as not to be visible from streets and adjacent buildings. Methods of rooftop screening should be integral to the building's form.

5.12 Non-Residential Outdoor Dining Areas

Outdoor dining areas adjacent to a ground-level eating or drinking establishment shall be oriented toward Euclid Avenue.

5.13 Residential Outdoor Space, Common Recreational Amenities

a. Private balcony and/or patio enclosures shall consist of materials that are complementary to materials and colors used on the building elevations. Each balcony shall be oriented or enclosed sufficiently to increase privacy between balconies of adjacent units.

b. Common outdoor spaces providing passive recreation shall include either shade elements and/or trees providing shade canopy.

c. Indoor recreation/fitness/community facilities shall be of the same architectural style and materials that match or complement the primary building architecture with a layout as shown in Exhibit 5-4: Typical Common Recreational Amenity.

d. Outdoor seating, tables and umbrellas, gazebos, barbecues, natural or artificial lawn area, and/or other place-making features that are provided shall be compatible with the architectural style of the buildings with a layout as shown in Exhibit 5-5: Typical Courtyard.

Exhibit 5-4: Typical Common Recreational Amenity



Exhibit 5-5: Typical Courtyard



5.14 Landscape / Hardscape Elements

a. Landscaping elements shall contribute and complement the aesthetic quality and character of the public and private spaces.

b. Table 5-1: Master Plant Palette shall guide the selection of materials for street trees, perimeter trees and shrubs, courtyard and common area trees, vines, screening and hedge plants, and groundcover.

c. Landscaping shall be provided to define and enrich courtyards and walkways and shall include specimen trees of minimum size 24 inch box.

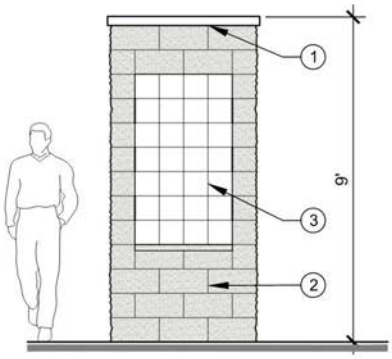
d. Hardscaping shall be composed of decorative paving materials and patterns, rather than a single, continuous surface.

e. Fences/walls shall complement the building materials similar to those depicted in Exhibit 5-6: Fence/Wall Concepts.

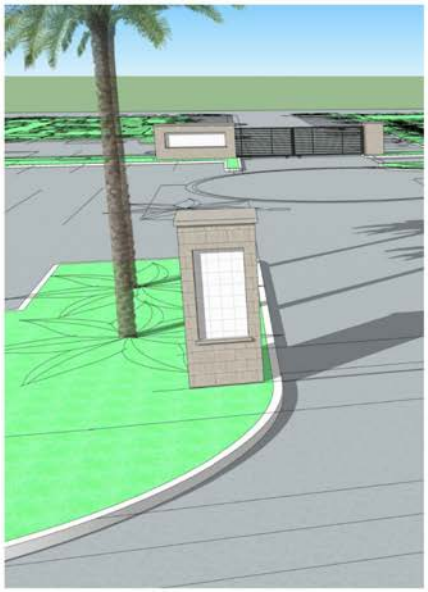
Table 5-1: Master Plant Palette		
Botanical Name	Common Name	Minimum Size
Street Trees		
Grevillea robusta	Silk Oak (Euclid)	24" Box
Platanus wrightii	Arizona Sycamore	
Site Trees and Palms		
Quercus agrifolia	Coast Live Oak	48" Box
Platanus racemosa	California Sycamore	
Ulmus parvifolia 'True Green'	Evergreen Elm	
Koelreuteria paniculata	Golden Rain Tree	36" Box
Lagerstroemia hybrids 'Muskogee'	Crape Myrtle (Lavender)	
Chilopsis linearis	Desert Willow	
Aloe bainesii	Tree Aloe	24" Box
Arbutus 'Marina'	Strawberry Tree	
Cercis occidentalis	Western Redbud	
Platanus acerifolia 'Bloodgood'	London Plane Tree (anthracnose res.)	
Podocarpus gracilior	Fern Pine	
Quercus wislizeni	Interior Live Oak	
Tristania conferta	Brisbane Box	
Phoenix dactylifera	Date Palm	16' Brown Trunk Height

Table 5-1: Master Plant Palette		
Botanical Name	Common Name	Minimum Size
Shrubs		
Agave 'Blue Flame'	Blue Flame Agave	5 Gallon
Agave desmettiana ' Variegata'	Variegated Dwarf Century Plant	
Alyogne huegelii 'MONleon'	Leon's Purple Delight Lilac Hibiscus	
Arbutus unedo 'Elfin King'	Elfin King Strawberry King	
Buxus microphylla japonica	Japanese Boxwood	1 Gallon
Calandrinia spectabilis	Rock Purslane	
Carex tumulicola	Foothill Sedge	
Carissa grandiflora 'Green Carpet'	Natal Plum	
Dianella revoluta 'DR5000'	Little Rev Flax Lily	
Dianella tasmanica 'Silver Streak'	Silver Streak Flax Lily	
Ilex crenata 'Sky Pencil'	Sky Pencil Ilex	5 Gallon
Juniperus scopulorum 'Skyrocket'	Skyrocket Juniper	
Lantana montevedensis 'Monma'	White Lightin' Lantana	1 Gallon
Ligustrum japonicum 'Texanum'	Wax Leaf Privet	5 Gallon
Lomandra longifolia 'LM300'	Breeze Dwarf Mat Rush	
Muhlenbergia capillaris 'Regal Mist'	Regal Mist Muhly	
Myoporum parvifolium	No Common Name	1 Gallon
Philodendron x 'Xanadu'	Dwarf Philodendron	5 Gallon
Pittosporum tobira	Tobira	
Podocarpus elongatus 'Monmal'	Icee Blue Yellow-Wood	
Prunus caroliniana 'Bright n' Tight'	Carolina Cherry	
Rhaphiolepis indica 'Clara'	Dwarf Indian Hawthorne	
Rhaphiolepis x. 'Montic'	Majestic Beauty Indian Hawthorne	
Rosa 'Flower Carpet var. Noatraum'	Pink Carpet Rose	2 Gallon
Rosa f. 'Ice Berg'	White Shrub Rose	5 Gallon
Trachelospermum asiaticum	Asian Jasmine	1 Gallon
Vines and Espaliers		
Clytostoma callistegioides	Violet Trumpet Vine	5 Gallon
Distictus buccinatoria	Blood Red Trumpet Vine	
Ficus pumila (repens)	Creeping Fig	1 Gallon
Parthenocissus tricuspidata	Boston Ivy	

Exhibit 5-6: Fence/Wall Concepts

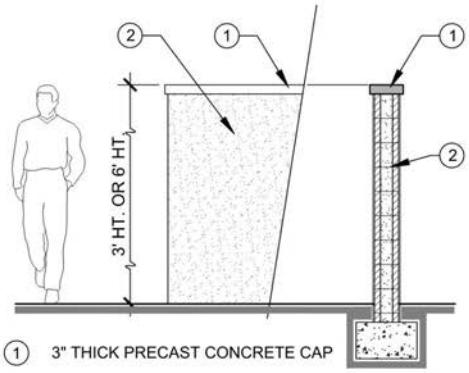


1. 3" THICK PRECAST CONCRETE CAP
2. 8x8x16 BURNISHED CMU WALL
   COLOR: TAN
3. PROJECT SIGN TILE INSET



4' SQ. PILASTER

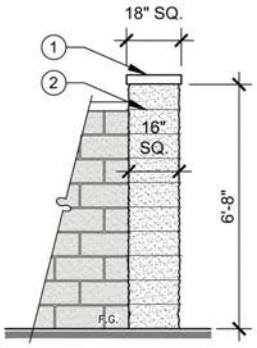
SCALE: N.T.S.



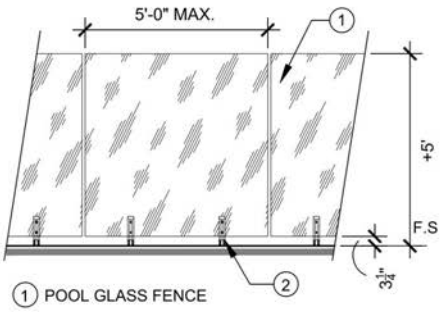
1. 3" THICK PRECAST CONCRETE CAP
2. 8" CMU BLOCK WALL W/ STUCCO FINISH
   COLOR: WHITE

3' HT. OR 6' HT. STUCCO WALL

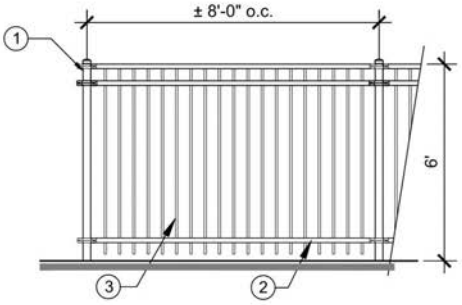
SCALE: N.T.S.



1. 3" THICK PRECAST
   CONCRETE CAP
2. 6x16x16 SPLIT FACE COLUMN BLOCK
   COLOR: TAN



1. POOL GLASS FENCE
2. DAYTON RICHMOND DOWEL SPLICER SYSTEM



1. 2" SQ. FENCE POST
2. 2" SQ. TOP AND BOTTOM RAIL
3. 5/8" SQ. PICKETS @ 4" O.C. MAX.
   FENCE COLOR: BLACK

16" SQ. PILASTER

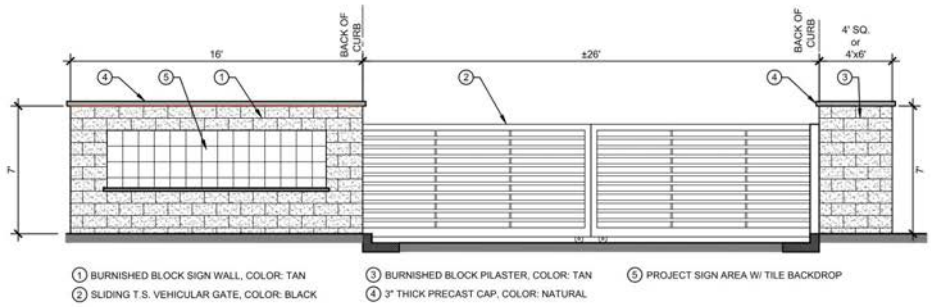
SCALE: N.T.S.

GLASS FENCE

SCALE: N.T.S.

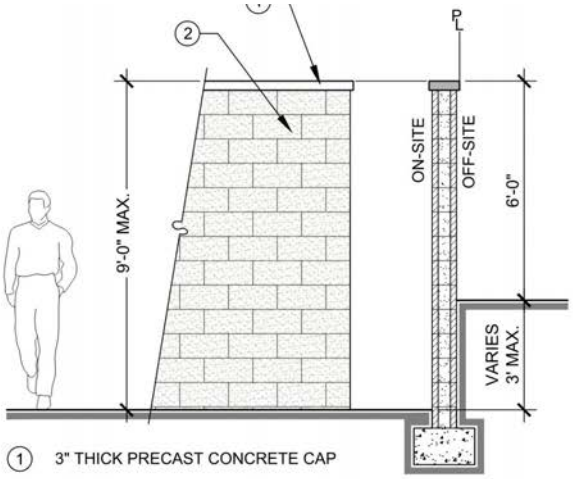
TUBULAR STEEL FENCE

SCALE: N.T.S.





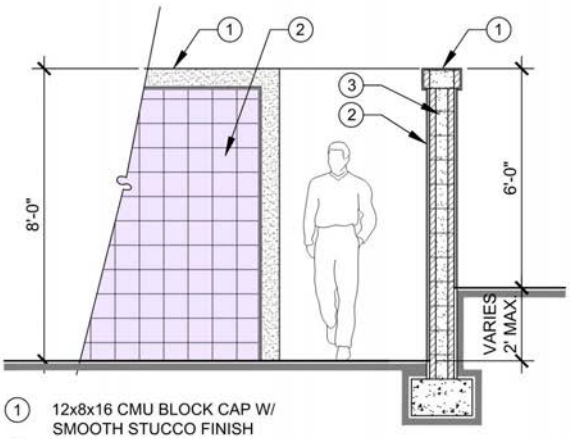
ENTRY GATE



1. 3" THICK PRECAST CONCRETE CAP
2. 8x8x16 SPLIT FACE (2-SIDES) CMU WALL
   COLOR: TAN

PERIMTER WALL

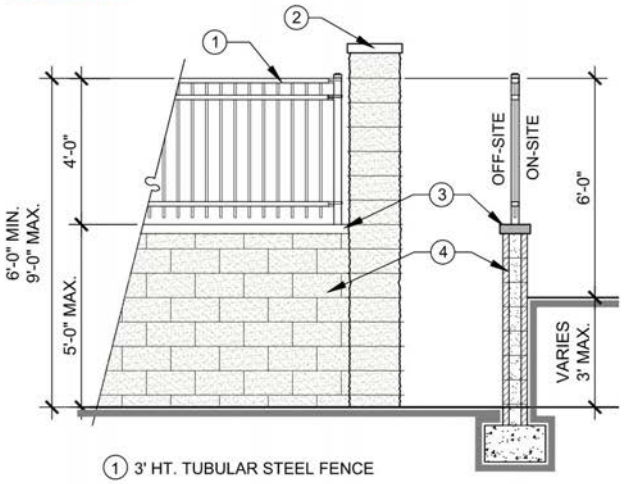
SCALE: N.T.S.



1. 12x8x16 CMU BLOCK CAP W/
   SMOOTH STUCCO FINISH
2. DECORATIVE TILE VENEER
   8" SQ. CEMENTINE TILE
3. 8x8x16 CMU BLOCK WALL W/
   SMOOTH STUCCO FINISH
   COLOR: WHITE

DECORATIVE STUCCO WALL

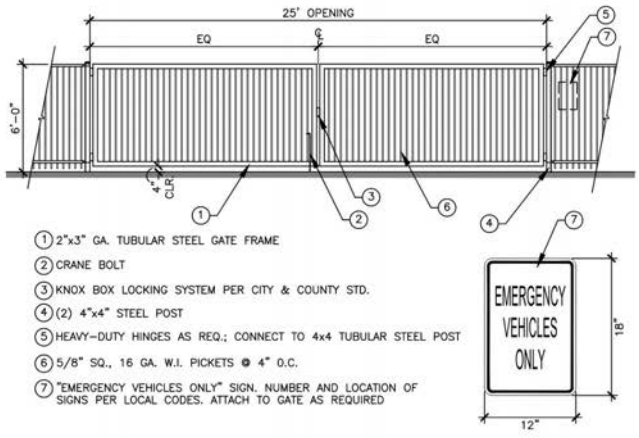
SCALE: N.T.S.



1. 3' HT. TUBULAR STEEL FENCE
2. 8X8X16 SPLIT FACE PILASTER
   COLOR: TAN
3. 3" THICK PRECAST CONCRETE CAP
4. 6X8X16 SPLIT FACE CMU WALL
   COLOR: TAN

SPLIT FACE COMBO WALL

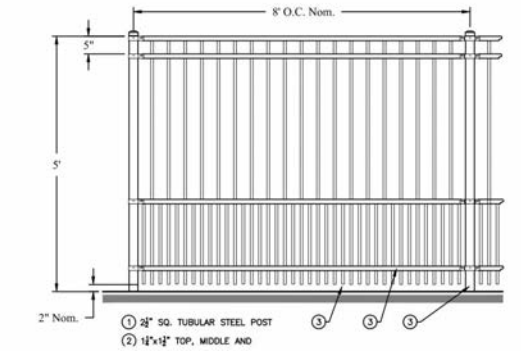
SCALE: N.T.S.



1. 2"x3" GA. TUBULAR STEEL GATE FRAME
2. CRANE BOLT
3. KNOX BOX LOCKING SYSTEM PER CITY & COUNTY STD.
4. (2) 4"x4" STEEL POST
5. HEAVY-DUTY HINGES AS REQ.; CONNECT TO 4x4 TUBULAR STEEL POST
6. 5/8" SQ., 16 GA. W.I. PICKETS @ 4" O.C.
7. "EMERGENCY VEHICLES ONLY" SIGN. NUMBER AND LOCATION OF SIGNS PER LOCAL CODES. ATTACH TO GATE AS REQUIRED

EVA GATE

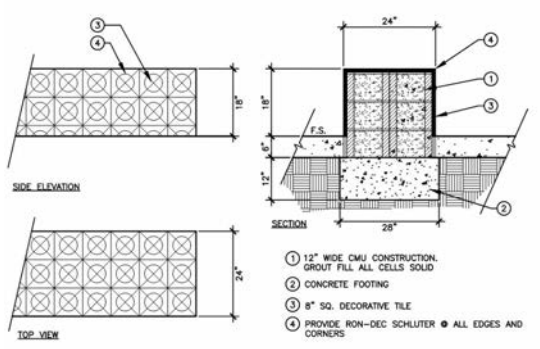
SCALE: N.T.S.



1. 2½" SQ. TUBULAR STEEL POST
2. 1½"x½" TOP, MIDDLE AND

DOG PARK FENCE

SCALE: N.T.S.



1. 12" WIDE CMU CONSTRUCTION. GROUT FILL ALL CELLS SOLID
2. CONCRETE FOOTING
3. 8" SQ. DECORATIVE TILE
4. PROVIDE RON-DEC SCHLUTER @ ALL EDGES AND CORNERS

18" HT. DECORATIVE SEAT WALL

SCALE: N.T.S.

6 Administration

6.1 Items Not Addressed in PUD

Any terms not defined herein and any issues affecting the design and development of the subject project area not specifically addressed in this PUD shall be governed by the provisions of the ODC.

6.2 Development Plan and Other Applications

A Development Plan shall be submitted for each phase of this PUD for approval by the Development Advisory Board and the Ontario Planning Commission, pursuant to the requirements and procedures outlined in the ODC.

To ensure proper implementation of the EA Overlay district, an application for a Certificate of Appropriateness shall be submitted in conjunction with the Development Plan required for each phase of this PUD, pursuant to all requirements and procedures outlined in the ODC.

Lot line adjustments or the combining of parcels within this PUD shall comply with all requirements and procedures outlined in the ODC. Such actions may be conditioned for compliance as part of the Development Plan approval process.

6.3 Administrative Exceptions

Deviation from the development standards set forth in this PUD may be granted up to a maximum of 10 percent by the Zoning Administrator. Any deviation that is greater than 10 percent shall require Variance approval pursuant to the requirements and procedures outlined in the ODC.

This page was intentionally left blank.

ATTACHMENT B:

File No. PUD22-004
Conditions of Approval

(Document to follow this page)

LAND DEVELOPMENT DIVISION
CONDITIONS OF APPROVAL

303 East B Street, Ontario, California 91764 Phone: 909.395.2036 / Fax: 909.395.2420

Date Prepared: 7/11/2023 Revised: 8/21/2023

File No: PUD22-004

Related Files: PDEV22-027 and PHP22-015

Project Description: A Planned Unit Development (File No. PUD22-004) to establish development standards and design guidelines for the overall 10.6-acre Project site, in conjunction with a Development Plan (File No. PDEV22-027) to construct 346 apartment units and 5,400 square feet of commercial space on 9.4 acres of the Project site and a Certificate of Appropriateness (File No. PHP22-015) to determine whether the Project site is an historic resource. The Project site is located at the northwest corner of Euclid Avenue and Walnut Avenue, within the Mixed Use – Neighborhood Hub 8e – Euclid and Walnut (MU-NH 8e) zoning district**;** (APNs: 1051-271-67, 1051-271-06, and 1051-271-66); **submitted by Legacy/Collier Residential LLC.**

Prepared By: Alexis Vaughn, Associate Planner
Phone: 909.395.2416 (direct)
Email: avaughn@ontarioca.gov

The Planning Department, Land Development Section, conditions of approval applicable to the above-described Project are listed below. The Project shall comply with each condition of approval:

1.0 Standard Conditions of Approval. The Project shall comply with the *Standard Conditions for New Development*, adopted by City Council Resolution No. 2017-027 on April 18, 2017. A copy of the *Standard Conditions for New Development* may be obtained from the Planning Department or City Clerk/Records Management Department.

2.0 Special Conditions of Approval. In addition to the *Standard Conditions for New Development* identified in condition no. 1.0, above, the Project shall comply with the following special conditions of approval:

2.1 Planned Unit Development. The final City Council approval date and ordinance number shall be added to the title page (the October and May dates shall be removed) and the following items submitted to the Planning Department within 30 days following City Council approval of the Planned Unit Development:

(a) Two copies of the final Euclid Walnut Planned Unit Development document – color, double-sided, and bound; and

(b) One CD or flash drive containing a complete copy of the final Planned Unit Development document in Microsoft Word and/or its original and accessible file format, such as InDesign, and a complete PDF copy of the final document, optimized for the web.

2.2 Signs.

(a) All Project signage shall comply with the requirements of Ontario Development Code Division 8.1 (Sign Regulations).

(b) On-site posting of large public notification signs was required for this Project, pursuant to Code Section 2.03.010.C.4, which consists of one or more large, 6-foot-tall, freestanding public notification signs. The signs, which were posted no later than ten calendar days prior to the Planning Commission hearing date, shall be removed no later than fourteen calendar days following the City Council hearing date, unless an extension is required by the Planning Director.

(c) Per the provisions of the Planned Unit Development, a Sign Program shall be submitted for review and approval prior to issuance of building permits for the Project site.

2.3 Sound Attenuation. The Project shall be constructed and operated in a manner so as not to exceed the maximum interior and exterior noise levels set forth in Ontario Municipal Code Title 5 (Public Welfare, Morals, and Conduct), Chapter 29 (Noise).

2.4 Covenants and Lease Agreement Terms~~, Conditions and Restrictions (CC&Rs)/Mutual Access and Maintenance Agreements~~.

(a) A current covenant shall be recorded for the properties (generally, Phase 1 and Phase 2 of the Project site, as described in the Euclid Walnut Planned Unit Development) that provides for reciprocal access between the two properties. ~~CC&Rs shall be updated for the Project site (including, but not limited to, amendment of maps/exhibits to reflect the proposed Project and removal of any items no longer applicable to the site such as leases for K-Mart) and shall be recorded prior to the issuance of a building permit. The CC&Rs shall be in effect until such time that the remaining piece of land included as part of the Planned Unit Development but not Development Plan File No. PDEV22-027 is developed (phase 2).~~

(b) A parking management plan and any lease agreement/terms shall be submitted to the City for review and approval, prior to issuance of a building permit for the Project. The lease agreement/terms shall include, but not be limited to, the following:

(i) ~~The CC&Rs shall be in a form and contain provisions satisfactory to the City. The articles of incorporation for the property owners association and the CC&Rs shall be reviewed and approved by the City~~Clauses prohibiting public nuisances, including but not limited to, excessive noise, parking of vehicles on driveways to garages that are less than 18 feet in length, excessive storage of personal items on balconies, and the hanging of personal items over balcony railings (such as clothes lines, towels, etc.); and~~.~~

~~(.)~~**(ii)** Personal property storage shall not preclude the intended number of vehicles from being parked within the garage. Carports shall not be used for personal property storage but solely vehicle parking.

~~**(c)** CC&Rs shall ensure reciprocal parking and access between land uses (residential pass-thru of commercial lease areas) and parcels (phase 1 and 2 parcels), and common maintenance of:~~

~~**(i)** Landscaping and irrigation systems within common areas;~~
~~**(ii)** Landscaping and irrigation systems within parkways adjacent to the Project site, including that portion of any public highway right-of-way between the property line or right-of-way boundary line and the curb line and also the area enclosed within the curb lines of a median divider (Ontario Municipal Code Section 7-3.03), pursuant to Ontario Municipal Code Section 5-22-02;~~
~~**(iii)** Shared parking facilities and access drives; and~~
~~**(iv)** Utility and drainage easements.~~

~~**(d)** CC&Rs shall include authorization for the City's local law enforcement officers to enforce City and State traffic and penal codes within the Project area.~~

~~**(e)** The CC&Rs shall grant the City of Ontario the right of enforcement of the CC&R provisions.~~

~~**(f)** A specific methodology/procedure shall be established within the CC&Rs for enforcement of its provisions by the City of Ontario, if adequate maintenance of the development does not occur, such as, but not limited to, provisions that would grant the City the right of access to correct maintenance issues and assess the property owners association for all costs incurred.~~

~~**(g)** The CC&Rs application and filing fees are available on the City's website. CC&Rs shall be approved prior to issuance of a Building permit.~~

2.5 Disclosure Statements.

(a) ~~A copy of the Public Report from the Department of Real Estate, prepared for the subdivision pursuant to Business and Professions Code Section 11000 et seq., shall be provided to each prospective buyer or renter of the residential units and shall include a statement to the effect that~~The following information shall be provided to each prospective renter of the residential units:

(i) This site is subject to noise from the Ontario International Airport and may be more severely impacted in the future.
(ii) Some of the property adjacent to this site is zoned for agricultural uses and there could be fly, odor, or related problems due to the proximity of animals.
(iii) The area south of Riverside Drive lies within the San Bernardino County Agricultural Preserve. Dairies currently existing in that area are likely to remain for the foreseeable future.

2.6 Indemnification. The applicant shall agree to defend, indemnify and hold harmless, the City of Ontario or its agents, officers, and employees from any claim, action or proceeding against the City of Ontario or its agents, officers or employees to attack, set aside, void or annul any approval of the City of Ontario, whether by its City Council, Planning Commission or other authorized board or officer. The City of Ontario shall promptly notify the applicant of any such claim, action or proceeding, and the City of Ontario shall cooperate fully in the defense.

2.7 Additional Fees.

(a) Within 5 days following final application approval, the Notice of Determination (“NOD”) filing fee shall be provided to the Planning Department. The fee shall be paid by check, made payable to the "Clerk of the Board of Supervisors", which shall be forwarded to the San Bernardino County Clerk of the Board of Supervisors, along with all applicable environmental forms/notices, pursuant to the requirements of the California Environmental Quality Act (“CEQA”). Failure to provide said fee within the time specified will result in the extension of the statute of limitations for the filing of a CEQA lawsuit from 30 days to 180 days.

2.8 Related Applications. Planned Unit Development (File No. PUD22-004) approval shall not be final and complete until such time that related File Nos. PHP22-015 and PDEV22-027 have been approved by the Planning Commission. A Lot Line Adjustment/Lot Merger is also required to be approved prior to issuance of Building Permits, pursuant to Engineering Department conditions of approval.

2.9 Additional Requirements.

(a) In-line tenant spaces shall contain a high-quality food service establishment.

ENGINEERING DEPARTMENT
CONDITIONS OF APPROVAL

(Land Development Division, Environmental Section, Traffic & Transportation Division, Ontario Municipal Utilities Company and Broadband Operations & Investment and Revenue Resources Department Conditions incorporated)

☒ DEVELOPMENT PLAN ☐ OTHER	☐ PARCEL MAP ☐ TRACT MAP ☐ FOR CONDOMINIUM PURPOSES
PROJECT FILE NO. PDEV22-027 **RELATED FILE NO(S). PUD-22-004**	
☐ ORIGINAL ☒ **REVISED: 8/7/2023**	

CITY PROJECT ENGINEER & PHONE NO:	**Angela Truong**	**(909) 395-2134**
CITY PROJECT PLANNER & PHONE NO:	**Alexis Vaughn**	**(909) 395-2416**
DAB MEETING DATE:	**August 7th, 2023**	
PROJECT NAME / DESCRIPTION:	**PDEV22-027, a Development Plan to construct a mixed use development consisting of 346 multiple-family dwellings with 6,000 square feet of commercial retail space on approximately 10.63 acres of land within the CC zoning district.**	
LOCATION:	**Northwest Corner of Euclid Avenue and Walnut Street**	
APPLICANT:	**Legacy/Collier Residential LLC**	
REVIEWED BY:	Raymond Lee **Raymond Lee, P.E.** **Assistant City Engineer**	8/7/23. **Date**
APPROVED BY:	**Khoi Do, P.E.** **City Engineer**	8-7-23 **Date**

Last Revised: 8/7/2023

THIS PROJECT SHALL COMPLY WITH THE REQUIREMENTS SET FORTH IN THE GENERAL STANDARD CONDITIONS OF APPROVAL ADOPTED BY THE CITY COUNCIL (RESOLUTION NO. 2017-027) AND THE PROJECT SPECIFIC CONDITIONS OF APPROVAL SPECIFIED HEREIN. ONLY APPLICABLE CONDITIONS OF APPROVAL ARE CHECKED. THE APPLICANT SHALL BE RESPONSIBLE FOR THE COMPLETION OF ALL APPLICABLE CONDITIONS OF APPROVAL PRIOR TO FINAL MAP OR PARCEL MAP APPROVAL, ISSUANCE OF PERMITS AND/OR OCCUPANCY CLEARANCE, AS SPECIFIED IN THIS REPORT.

1. PRIOR TO FINAL MAP OR PARCEL MAP APPROVAL, APPLICANT SHALL:

			Check When Complete
☐	1.01	Dedicate to the City of Ontario, the right-of-way, described below: _____ feet on _____ Property line corner 'cut-back' required at the intersection of _____ and _____.	☐
☐	1.02	Dedicate to the City of Ontario, the following easement(s): _____ _____	☐
☐	1.03	Restrict vehicular access to the site as follows: _____	☐
☐	1.04	Vacate the following street(s) and/or easement(s): A. All interfering on-site easements shall be quitclaimed, vacated, and/or submit non-interference letter from affected owner/utility company.	☐
☐	1.05	Submit a copy of a recorded private reciprocal use agreement or easement. The agreement or easement shall ensure, at a minimum, common ingress and egress and joint maintenance of all common access areas and drive aisles.	☐
☐	1.06	Provide (original document) Covenants, Conditions and Restrictions (CC&Rs) as applicable to the project and as approved by the City Attorney and the Engineering and Planning Departments, ready for recordation with the County of San Bernardino. The CC&Rs shall provide for, but not be limited to, common ingress and egress, joint maintenance responsibility for all common access improvements, common facilities, parking areas, utilities, median and landscaping improvements and drive approaches, in addition to maintenance requirements established in the Water Quality Management Plan (WQMP), as applicable to the project. The CC&Rs shall also address the maintenance and repair responsibility for public improvements/utilities (sewer, water, storm drain, recycled water, etc.) located within open space/easements. In the event of any maintenance or repair of these facilities, the City shall only restore disturbed areas to current City Standards.	☐
☐	1.07	For all development occurring south of the Pomona Freeway (60-Freeway) and within the specified boundary limits (per Boundary Map found at http://tceplumeclfeanup.com/), the property developer/owner is made aware of the South Archibald Trichloroethylene (TCE) Plume "Disclosure Letter". Property owner may wish to provide this Letter as part of the Real Estate Transfer Disclosure requirements under California Civil Code Section 1102 et seq. This may include notifications in the Covenants, Conditions and Restrictions (CC&Rs) or other documents related to property transfer and disclosures. Additional information on the plume is available from the Santa Ana Regional Water Quality Control Board at http://geotracker.waterboards.ca.gov/profile_report?global_id=T10000004658.	☐
☐	1.08	File an application for Reapportionment of Assessment, together with payment of a reapportionment processing fee, for each existing assessment district listed below. Contact the Financial Services Department at (909) 395-2124 regarding this requirement. (1) _____ (2) _____	☐
☐	1.09	Prepare a fully executed Subdivision Agreement (on City approved format and forms) with accompanying security as required, or complete all public improvements.	☐

☐ 1.10 Provide a monument bond (i.e. cash deposit) in an amount calculated by the City's approved cost estimate spreadsheet (available for download on the City's website: www.ontarioca.gov) or as specified in writing by the applicant's Registered Engineer or Licensed Land Surveyor of Record and approved by the City Engineer, whichever is greater. ☐

☐ 1.11 Provide a preliminary title report current to within 30 days. ☐

☐ 1.12 File an application, together with an initial deposit (if required), to establish a Community Facilities District (CFD) pursuant to the Mello-Roos Community Facilities District Act of 1982. The application and fee shall be submitted a minimum of four (4) months prior to final subdivision map approval, and the CFD shall be established prior to final subdivision map approval or issuance of building permits, whichever occurs first. The CFD shall be established upon the subject property to provide funding for various City services. An annual special tax shall be levied upon each parcel or lot in an amount to be determined. The special tax will be collected along with annual property taxes. The City shall be the sole lead agency in the formation of any CFD. Contact Investment and Revenue Resources at (909) 395-2341 to initiate the CFD application process. ☐

☐ 1.13 Ontario Ranch Developments: ☐

☐ 1) Provide evidence of final cancellation of Williamson Act contracts associated with this tract, prior to approval of any final subdivision map. Cancellation of contracts shall have been approved by the City Council.

☐ 2) Provide evidence of sufficient storm water capacity availability equivalents (Certificate of Storm Water Treatment Equivalents).

☐ 3) Provide evidence of sufficient water availability equivalents (Certificate of Net MDD Availability).

☐ 1.14 Other conditions: _____ ☐

2. PRIOR TO ISSUANCE OF ANY PERMITS, APPLICANT SHALL:

A. GENERAL
(Permits includes Grading, Building, Demolition and Encroachment)

☐ 2.01 Record Parcel Map/Tract Map No. _____ pursuant to the Subdivision Map Act and in accordance with the City of Ontario Municipal Code. ☐

☐ 2.02 Submit a PDF of the recorded map to the City Engineer's office. ☐

☐ 2.03 Note that the subject parcel is a recognized parcel in the City of Ontario per _____. ☐

☐ 2.04 Note that the subject parcel is an 'unrecognized' parcel in the City of Ontario and shall require a Certificate of Compliance to be processed unless a deed is provided confirming the existence of the parcel prior to the date of March 4, 1972. ☐

☒ **2.05 Apply for a:** ☐

☐ Certificate of Compliance with a Record of Survey;

☒ **Lot Line Adjustment (Record a Conforming Deed with the County of San Bernardino within six months of the recordation of the Lot Line Adjustment to conform the new LLA legal description. Submit a copy of the recorded Conforming Deed to the Engineering Department.);**

☐ Make a Dedication of Easement.

☒ ~~2.06~~ ~~Provide (original document) Covenants, Conditions and Restrictions (CC&R's), as applicable to the project, and as approved by the City Attorney and the Engineering and Planning Departments, ready for recordation with the County of San Bernardino. The CC&R's shall provide for, but not be limited to, common ingress and egress, joint maintenance of all common access improvements, common facilities, parking areas, utilities and drive approaches in addition to maintenance requirements established in the Water Quality Management Plan (WQMP), as applicable to the project.~~ ☐

☐ 2.07 For all development occurring south of the Pomona Freeway (60-Freeway) and within the specified boundary limits (per Boundary Map found at *http://tceplumecleanup.com/*), the property developer/owner is made aware of the South Archibald Trichloroethylene (TCE) Plume "Disclosure Letter". Property owner may wish to provide this Letter as part of the Real Estate Transfer Disclosure requirements under California Civil Code Section 1102 et seq. This may include notifications in the Covenants, Conditions and Restrictions (CC&Rs) or other documents related to property transfer and disclosures. Additional information on the plume is available from the Santa Ana Regional Water Quality Control Board at *http://geotracker.waterboards.ca.gov/profile_report?global_id=T10000004658*. ☐

☒ **2.08 Submit a soils/geology report.** ☐

☒ **2.09 Other Agency Permit/Approval: Submit a copy of the approved permit and/or other form of approval of the project from the following agency or agencies:** ☐

- ☒ **State of California Department of Transportation (Caltrans) (for improvements on Euclid Avenue)**
- ☐ San Bernardino County Road Department (SBCRD)
- ☐ San Bernardino County Flood Control District (SBCFCD)
- ☐ Federal Emergency Management Agency (FEMA)
- ☐ Cucamonga Valley Water District (CVWD) for sewer/water service
- ☐ United States Army Corps of Engineers (USACE)
- ☐ California Department of Fish & Game
- ☐ Inland Empire Utilities Agency (IEUA)
- ☐ Other: _____

☐ 2.10 Dedicate to the City of Ontario the right-of-way described below: ☐

_____ feet on _____

Property line corner 'cut-back' required at the intersection of _____ and _____.

☒ **2.11 Dedicate to the City of Ontario the following easement(s):** ☐

A. For water purposes from the eastern property boundary to 10 feet west of the existing public potable water main (W11492).

☒ **2.12 Vacate the following street(s) and/or easement(s):** ☐

A. 6-foot SCE easement along western property boundary.
B. 10-foot Chino Water District utility easement along northern property boundary.
C. All interfering on-site easements shall be quitclaimed, vacated, and/or submit non-interference letter from affected owner/utility company.

☐ 2.13 Ontario Ranch Developments: ☐

☐ 1) Submit a copy of the permit from the San Bernardino County Health Department to the Engineering Department and the Ontario Municipal Utilities Company (OMUC) for the destruction/abandonment of the on-site water well. The well shall be destroyed/abandoned in accordance with the San Bernardino County Health Department guidelines.

☐ 2) Make a formal request to the City of Ontario Engineering Department for the proposed temporary use of an existing agricultural water well for purposes other than agriculture, such as grading, dust control, etc. Upon approval, the Applicant shall enter into an agreement with the City of Ontario and pay

any applicable fees as set forth by said agreement.

☐ 3) Design proposed retaining walls to retain up to a maximum of three (3) feet of earth. In no case shall a wall exceed an overall height of nine (9) feet (i.e. maximum 6-foot high wall on top of a maximum 3-foot high retaining wall.

☒ **2.14** **Submit a security deposit to the Engineering Department to guarantee construction of the public improvements required herein valued at 100% of the approved construction cost estimate. Security deposit shall be in accordance with the City of Ontario Municipal Code. Security deposit will be eligible for release, in accordance with City procedure, upon completion and acceptance of said public improvements.** ☐

☒ **2.15** **The applicant/developer shall submit all necessary survey documents prepared by a Licensed Surveyor registered in the State of California detailing all existing survey monuments in and around the project site. These documents are to be reviewed and approved by the City Survey Office.** ☐

☒ **2.16** **Pay all Development Impact Fees (DIF) to the Building Department. Storm Drain Development Impact Fee for the proposed retail space, approximately $17,949.36, shall be paid to the Building Department. Remaining DIF shall be calculated by the Building Department. Final fee shall be determined based on the approved site plan and the DIF rate at the time of payment.** ☐

☒ **2.17** **Other conditions:** ☐

a. **Submit a copy of a recorded private reciprocal use agreement or easement. The agreement or easement shall ensure, at a minimum, common ingress and egress and joint maintenance of all common access areas and drive aisles.**

B. PUBLIC IMPROVEMENTS
(See attached Exhibit 'A' for plan check submittal requirements.)

☒ 2.18 **Design and construct full public improvements in accordance with the City of Ontario Municipal Code, current City standards and specifications, master plans and the adopted specific plan for the area, if any. These public improvements shall include, but not be limited to, the following (checked boxes):**

Improvement	Euclid Avenue	Walnut Street	Street 3	Street 4
Curb and Gutter	☐ New; ___ ft. from C/L ☒ **Replace damaged** ☐ Remove and replace	☐ New; ___ ft. from C/L ☒ **Replace damaged** ☐ Remove and replace	☐ New; ___ ft. from C/L ☐ Replace damaged ☐ Remove and replace	☐ New; ___ ft. from C/L ☐ Replace damaged ☐ Remove and replace
AC Pavement	☐ Replacement ☐ Widen ____ additional feet along frontage, including pavm't transitions	☐ Replacement ☐ Widen ____ additional feet along frontage, including pavm't transitions	☐ Replacement ☐ Widen ____ additional feet along frontage, including pavm't transitions	☐ Replacement ☐ Widen ____ additional feet along frontage, including pavm't transitions
PCC Pavement (Truck Route Only)	☐ New ☐ Modify existing	☐ New ☐ Modify existing	☐ New ☐ Modify existing	☐ New ☐ Modify existing
Drive Approach	☒ **New** ☐ Remove and replace	☒ **New** ☐ Remove and replace	☐ New ☐ Remove and replace	☐ New ☐ Remove and replace
Sidewalk	☐ New ☒ **Replace damaged**	☒ **Widen (a)** ☒ **Replace damaged**	☐ New ☐ Remove and replace	☐ New ☐ Remove and replace
ADA Access Ramp	☐ New ☐ Remove and replace	☐ New ☐ Remove and replace	☐ New ☐ Remove and replace	☐ New ☐ Remove and replace
Parkway	☒ **Trees** ☒ **Landscaping (w/irrigation)**	☒ **Trees** ☒ **Landscaping (w/irrigation)**	☐ Trees ☐ Landscaping (w/irrigation)	☐ Trees ☐ Landscaping (w/irrigation)
Raised Landscaped Median	☐ New ☐ Remove and replace	☐ New ☐ Remove and replace	☐ New ☐ Remove and replace	☐ New ☐ Remove and replace
Fire Hydrant	☒ **New / Upgrade** ☐ Relocation	☒ **New / Upgrade** ☐ Relocation	☐ New / Upgrade ☐ Relocation	☐ New / Upgrade ☐ Relocation

Sewer (see Sec. 2.C)	☐ Main ☒ **Lateral**	☐ Main ☒ **Lateral**	☐ Main ☐ Lateral	☐ Main ☐ Lateral
Water (see Sec. 2.D)	☐ Main ☒ **Service**	☐ Main ☒ **Service**	☐ Main ☐ Service	☐ Main ☐ Service
Recycled Water (see Sec. 2.E)	☐ Main ☐ Service	☐ Main ☐ Service	☐ Main ☐ Service	☐ Main ☐ Service
Traffic Signal System (see Sec. 2.F)	☐ New ☒ **Modify existing**	☐ New ☒ **Modify existing**	☐ New ☐ Modify existing	☐ New ☐ Modify existing
Traffic Signing and Striping (see Sec. 2.F)	☒ **New** ☐ Modify existing	☒ **New** ☐ Modify existing	☐ New ☐ Modify existing	☐ New ☐ Modify existing
Street Light (see Sec. 2.F)	☒ **New / Upgrade** ☐ Relocation	☒ **New / Upgrade** ☐ Relocation	☐ New / Upgrade ☐ Relocation	☐ New / Upgrade ☐ Relocation
Bus Stop Pad or Turn-out (see Sec. 2.F)	☐ New ☐ Modify existing	☐ New ☐ Modify existing	☐ New ☐ Modify existing	☐ New ☐ Modify existing
Storm Drain (see Sec. 2G)	☒ **Main** ☒ **Lateral**	☐ Main ☐ Lateral	☐ Main ☐ Lateral	☐ Main ☐ Lateral
Fiber Optics (see Sec. 2K)	☒ **Conduit / Appurtenances**	☒ **Conduit / Appurtenances**	☐ Conduit / Appurtenances	☐ Conduit / Appurtenances
Overhead Utilities	☐ Underground ☐ Relocate	☒ **Underground, see Sec. 2.22** ☐ Relocate	☐ Underground ☐ Relocate	☐ Underground ☐ Relocate
Removal of Improvements	_____ _____ _____	_____ _____ _____	_____ _____ _____	_____ _____ _____
Other Improvements	_____ _____ _____	_____ _____ _____	_____ _____ _____	_____ _____ _____

Specific notes for improvements listed in item no. 2.18, above:
a. Widen sidewalk to allow ADA clearance around proposed fire hydrants.

☒ **2.19 Construct a 2" asphalt concrete (AC) grind and overlay on the following street(s):** ☐
a. From curb to centerline along project frontage on Walnut Street.

☐ 2.20 Reconstruction of the full pavement structural section, per City of Ontario Standard Drawing number 1011, may be required based on the existing pavement condition and final street design. Minimum limits of reconstruction shall be along property frontage, from street centerline to curb/gutter. ☐

☐ 2.21 Make arrangements with the Cucamonga Valley Water District (CVWD) to provide ☐ water service ☐ sewer service to the site. This property is within the area served by the CVWD and Applicant shall provide documentation to the City verifying that all required CVWD fees have been paid. ☐

☒ **2.22 Overhead utilities shall be under-grounded, in accordance with Title 7 of the City's Municipal Code (Ordinance No. 2804 and 2892). Developer may pay in-lieu fee, approximately $208,792.50 ($350/LF for 596.55 LF on Walnut Street), for undergrounding of utilities in accordance with Section 7-7.302.e of the City's Municipal Code.** ☐

☐ 2.23 Other conditions: _____ ☐

C. SEWER

☒ **2.24 An 8-inch sewer main is available for connection by this project in Euclid Avenue (Ref: Sewer Drawing Number: S11617). An 8-inch sewer main is available for connection by this project in Laurel Avenue (Ref: Sewer Drawing Number: S10550).** ☐

☐ 2.25 Design and construct a sewer main extension. A sewer main is not available for direct connection. The closest main is approximately _____ feet away. ☐

☐ 2.26 Submit documentation that shows expected peak loading values for modeling the impact of the subject project to the existing sewer system. The project site is within a deficient public sewer system area. Applicant shall be responsible for all costs associated with the preparation of the model. Based on the results of the analysis, Applicant may be required to mitigate the project impact to the deficient public sewer system, including, but not limited to, upgrading of existing sewer main(s), construction of new sewer main(s) or diversion of sewer discharge to another sewer. ☐

☒ **2.27 Other conditions:** ☐
a. See Exhibit B for additional Sewer Conditions of Approval from OMUC.

D. WATER

☒ **2.28 A 6-inch water main is available for connection by this project in Euclid Avenue (Ref: Water Drawing Number: W11065). An 8-inch water main is available for connection by this project in Euclid Avenue (Ref: Water Drawing Number: W11492).** ☐

☐ 2.29 Design and construct a water main extension. A water main is not available for direct connection. The closest main is approximately _____ feet away. ☐

☒ **2.30 Other conditions:** ☐
a. See Exhibit B for additional Water Conditions of Approval from OMUC.

E. RECYCLED WATER

☐ 2.31 A _____inch recycled water main is available for connection by this project in _____. (Ref: Recycled Water Drawing Number:_____) ☐

☐ 2.32 Design and construct an on-site recycled water system for this project. A recycled water main does exist in the vicinity of this project. ☐

☐ 2.33 Design and construct an on-site recycled water ready system for this project. A recycled water main does not currently exist in the vicinity of this project but is planned for the near future. If Applicant would like to connect to this recycled water main when it becomes available, the cost for the connection shall be borne solely by the Applicant. ☐

☐ 2.34 Submit one (1) electronic copy, in PDF format, of the Engineering Report (ER), for the use of recycled water to OMUC's Water Quality Programs at OMUCWQPlanCheck@ontarioca.gov for review and subsequent submittal to the California State Water Board (Division of Drinking Water) for final approval. ☐

Note: Review and approval process may take up to three (3) months. Contact the OMUC's Water Quality Programs at (909) 395-2678 or email OMUCWQPlanCheck@ontarioca.gov regarding this requirement.

☐ 2.35 Submit one (1) electronic copy, in PDF format, of the Landscape Plans (on-site & off-site) to OMUC's Water Quality Programs at OMUCWQPlanCheck@ontarioca.gov for review and approval.

☐ 2.36 Other conditions: _____ ☐

F. TRAFFIC / TRANSPORTATION

☐ 2.37 Submit a focused traffic impact study, prepared and signed by a Traffic/Civil Engineer registered in the State of California. The study shall address, but not be limited to, the following issues as required by the City Engineer: ☐
1. On-site and off-site circulation
2. Traffic level of service (LOS) at 'build-out' and future years
3. Impact at specific intersections as selected by the City Engineer

☐ 2.38 New traffic signal installations shall be added to Southern California Edison (SCE) customer account number # 2-20-044-3877. ☐

☒ **2.39 Other conditions:** ☐

1. **The applicant/developer shall be responsible to perform all traffic signal modifications and operational improvements as required by the level of service and eastbound/westbound left turn phasing analysis for the intersection of Euclid Avenue and Walnut Avenue, and to the satisfaction of the City Engineer.**

2. **The applicant/developer shall coordinate any work and improvements on Euclid Avenue (State Route 83) with Caltrans via their encroachment permit process. Staff recommends that the Applicant/developer coordinate the proposed improvements along Euclid Avenue with Caltrans during the entitlement phase.**

3. **The applicant/developer shall be responsible to design and construct street improvements along property frontage of Euclid Avenue and Walnut Street in accordance with conditions issued by City's Land Development Division. These, and all other street improvements required herein, shall include, but not be limited to, concrete curb and gutter, sidewalk, LED street lights, signing and striping, and parkway landscaping.**

4. **Euclid Avenue and Walnut Street shall be signed "No Stopping Anytime" along the property frontage.**

5. **The proposed driveways onto Euclid Avenue shall be restricted to right-in/right-out ingress/egress due to the existing raised median.**

6. **Design and construct proposed driveways in accordance with City of Ontario Standard Drawing No. 1204 for Commercial Driveway.**

7. **The applicant/developer shall be responsible to design and construct 1 in-fill public street light along its project frontage on Walnut Street at the T-intersection with Laurel Avenue. Street lighting shall be LED-type and in accordance with City's Traffic and Transportation Design Guidelines. The applicant/developer shall also install smart nodes on all new street light fixtures along project frontage.**

8. **The applicant/developer shall be responsible to replace any existing street light fixtures along its project frontage of Euclid Avenue and Walnut Avenue with the current City approved LED equivalent fixture per the Traffic and Transportation Design Guidelines. The applicant/developer shall also install smart nodes on all existing street light**

fixtures along project frontage.

9. **All landscaping, block walls, and other obstructions shall be compatible with the stopping sight distance requirements per City of Ontario Standard Drawing No. 1309.**

10. **The applicant/developer's engineer-of-record shall meet with City Engineering staff prior to starting signing/striping and street lighting design plans.**

G. DRAINAGE / HYDROLOGY

☒ **2.40** **A 24-inch storm drain main is available to accept flows from this project in Euclid Avenue (Ref: Storm Drain Drawing Number: unknown)** ☐

☐ 2.41 Submit a hydrology study and drainage analysis, prepared and signed by a Civil Engineer registered in the State of California. The study shall be prepared in accordance with the San Bernardino County Hydrology Manual and City of Ontario standards and guidelines. Additional drainage facilities, including, but not limited to, improvements beyond the project frontage, may be required to be designed and constructed, by Applicant, as a result of the findings of this study. ☐

☐ 2.42 An adequate drainage facility to accept additional runoff from the site does not currently exist downstream of the project. Design and construct a storm water detention facility on the project site. 100-year post-development peak flow shall be attenuated such that it does not exceed 80% of pre-development peak flows, in accordance with the approved hydrology study and improvement plans. ☐

☐ 2.43 Submit a copy of a recorded private drainage easement or drainage acceptance agreement to the Engineering Department for the acceptance of any increase to volume and/or concentration of historical drainage flows onto adjacent property, prior to approval of the grading plan for the project. ☐

☐ 2.44 Comply with the City of Ontario Flood Damage Prevention Ordinance (Ordinance No. 2409). The project site or a portion of the project site is within the Special Flood Hazard Area (SFHA) as indicated on the Flood Insurance Rate Map (FIRM) and is subject to flooding during a 100-year frequency storm. The site plan shall be subject to the provisions of the National Flood Insurance Program. ☐

☒ **2.45** **Other conditions:** ☐

a. **Developer shall construct the proposed 24" storm drain line (EULD-VII-1) in Euclid Avenue along the project frontage.**

H. STORM WATER QUALITY / NATIONAL POLLUTANT DISCHARGE AND ELIMINATION SYSTEM (NPDES)

☐ 2.46 401 Water Quality Certification/404 Permit – Submit a copy of any applicable 401 Certification or 404 Permit for the subject project to the City project engineer. Development that will affect any body of surface water (i.e. lake, creek, open drainage channel, etc.) may require a 401 Water Quality Certification from the California Regional Water Quality Control Board, Santa Ana Region (RWQCB) and a 404 Permit from the United States Army Corps of Engineers (USACE). The groups of water bodies classified in these requirements are perennial (flow year round) and ephemeral (flow during rain conditions, only) and include, but are not limited to, direct connections into San Bernardino County Flood Control District (SBCFCD) channels. ☐
If a 401 Certification and/or a 404 Permit are not required, a letter confirming this from Applicant's engineer shall be submitted.
Contact information: USACE (Los Angeles District) (213) 452-3414; RWQCB (951) 782-4130.

☒ **2.47** **Submit a Water Quality Management Plan (WQMP). This plan shall be approved by the Engineering Department prior to approval of any grading plan. The WQMP shall be submitted, utilizing the current San Bernardino County Stormwater Program template, available at: http://www.sbcounty.gov/dpw/land/npdes.asp.** ☐

☒ **2.48** **Design and construct a Connector Pipe Trash Screen or equivalent Trash Treatment Control Device, per catch basin located within or accepting flows tributary of a Priority Land Use (PLU) area that meets the Full Capture System definition and specifications, and is on the Certified List of the State Water Resources Control Board. The device shall be adequately sized per catch basin and include a deflector screen with vector control access for abatement application, vertical support bars, and removable component to facilitate maintenance and cleaning.** ☐

☐ 2.49 Other conditions: _____ ☐

J. SPECIAL DISTRICTS

☐ 2.50 File an application, together with an initial deposit (if required), to establish a Community Facilities District (CFD) pursuant to the Mello-Roos Community Facilities District Act of 1982. The application and fee shall be submitted a minimum of four (4) months prior to final subdivision map approval, and the CFD shall be established prior to final subdivision map approval or issuance of building permits, whichever occurs first. The CFD shall be established upon the subject property to provide funding for various City services. An annual special tax shall be levied upon each parcel or lot in an amount to be determined. The special tax will be collected along with annual property taxes. The City shall be the sole lead agency in the formation of any CFD. Contact Investment and Revenue Resources at (909) 395-2341 to initiate the CFD application process. ☐

☐ 2.51 Other conditions: _____ ☐

K. FIBER OPTIC

☐ 2.52 A _____ fiber optic line is available for connection by this project in _____. (Ref: Fiber Optic Drawing Number: _____) ☐

☒ **2.53 Design and construct fiber optic system to provide access to the City's conduit and fiber optic system per the City's Fiber Optic Master Plan. Building entrance conduits shall start from the closest OntarioNet hand hole constructed along the project frontage in the ROW and shall terminate in the main telecommunications room for each building. Conduit infrastructure shall interconnect with the primary and/or secondary backbone fiber optic conduit system at the nearest OntarioNet hand hole, to be constructed in the ROW at the extreme NEC and SWC of the property.** ☐

☒ **2.54 Refer to the City's Fiber Optic Master Plan for design and layout guidelines. Contact the Broadband Operations Department at (909) 395-2000, regarding this requirement.** ☐

3. PRIOR TO ISSUANCE OF A CERTIFICATE OF OCCUPANCY, APPLICANT SHALL:

☒ **3.01 Set new monuments in place of any monuments that have been damaged or destroyed as a result of construction of the subject project. Monuments shall be set in accordance with City of Ontario standards and to the satisfaction of the City Engineer.** ☐

☐ 3.02 Complete all requirements for recycled water usage. ☐

☐ 1) Procure from the OMUC a copy of the letter of confirmation from the California Department of Public Health (CDPH) that the Engineering Report (ER) has been reviewed and the subject site is approved for the use of recycled water.

☐ 2) Obtain clearance from the OMUC confirming completion of recycled water improvements and passing of shutdown tests and cross connection inspection, upon availability/usage of recycled water.

☐ 3) Complete education training of on-site personnel in the use of recycled water, in accordance with the ER, upon availability/usage of recycled water.

☒ **3.03 The applicant/developer shall submit all final survey documents prepared by a Licensed Surveyor registered in the State of California detailing all survey monuments that have been preserved, revised, adjusted or set along with any maps, corner records or Records of Survey needed to comply with these Conditions of Approvals and the latest edition of the California Professional Land Survey Act. These documents are to be reviewed and approved by the City Survey Office.** ☐

☐ 3.04 Ontario Ranch Projects: For developments located at an intersection of any two collector or arterial streets, the applicant/developer shall set a monument if one does not already exist at that intersection. Contact the City Survey office for information on reference benchmarks, acceptable methodology and required submittals. ☐

☒	3.05	**Confirm payment of all Development Impact Fees (DIF) to the Building Department.**	☐
☒	3.06	**Submit electronic copies (PDF and Auto CAD format) of all approved improvement plans, studies and reports (i.e. hydrology, traffic, WQMP, etc.).**	☐

4. PRIOR TO FINAL ACCEPTANCE, APPLICANT SHALL:

☒	4.01	**Complete all Conditions of Approval listed under Sections 1-3 above.**	☐
☒	4.02	**Pay all outstanding fees pursuant to the City of Ontario Municipal Code, including but not limited to, plan check fees, inspection fees and Development Impact Fees.**	☐
☒	4.03	**The applicant/developer shall submit a written request for the City's final acceptance of the project addressed to the City Project Engineer. The request shall include a completed Acceptance and Bond Release Checklist, state that all Conditions of Approval have been completed and shall be signed by the applicant/developer. Upon receipt of the request, review of the request shall be a minimum of 10 business days. Conditions of Approval that are deemed incomplete by the City will cause delays in the acceptance process.**	☐
☒	4.04	**Submit record drawings (PDF) for all public improvements identified within Section 2 of these Conditions of Approval.**	☐

EXHIBIT 'A'

ENGINEERING DEPARTMENT
First Plan Check Submittal Checklist

Project Number: PDEV22-027, PUD-22-004

The following items are required to be included with the first plan check submittal:

1. ☒ **A copy of this check list**
2. ☒ **Payment of fee for Plan Checking**
3. ☒ **One (1) copy of Engineering Cost Estimate (on City form) with engineer's wet signature and stamp.**
4. ☒ **One (1) copy of project Conditions of Approval**
5. ☒ **Include a PDF (electronic submittal) of each required improvement plan at every submittal.**
6. ☒ **Two (2) sets of Potable Water demand calculations (include water demand calculations showing low, average and peak water demand in GPM for the proposed development and proposed water meter size).**
7. ☐ Three (3) sets of Public Street improvement plan with street cross-sections
8. ☐ Four (4) sets of Public Water improvement plan (include water demand calculations showing low, average and peak water demand in GPM for the proposed development and proposed water meter size)
9. ☐ Four (4) sets of Recycled Water improvement plan (include recycled water demand calculations showing low, average and peak water demand in GPM for the proposed development and proposed water meter size and an exhibit showing the limits of areas being irrigated by each recycled water meter)
10. ☐ Four (4) sets of Public Sewer improvement plan
11. ☒ **Five (5) sets of Public Storm Drain improvement plan**
12. ☒ **Three (3) sets of Public Street Light improvement plan**
13. ☒ **Three (3) sets of Signing and Striping improvement plan**
14. ☒ **Three (3) sets of Fiber Optic plan (include Auto CAD electronic submittal)**
15. ☐ Three (3) sets of HOA Landscape improvement plans. Show corner sight line distance per engineering standard drawing 1309.
16. ☐ Five (5) sets of CFD Landscape improvement plans. Show corner sight line distance per engineering standard drawing 1309.
17. ☒ **Three (3) sets of Dry Utility plans within public right-of-way (at a minimum the plans must show existing and ultimate right-of-way, curb and gutter, proposed utility location including centerline dimensions, wall to wall clearances between proposed utility and adjacent public line, street work repaired per Standard Drawing No. 1306. Include Auto CAD electronic submittal)**
18. ☒ **Three (3) sets of Traffic Signal improvement plan and One (1) copy of Traffic Signal Specifications with modified Special Provisions. Please contact the Traffic Division at (909) 395-2154 to obtain Traffic Signal Specifications.**
19. ☒ **Two (2) copies of Water Quality Management Plan (WQMP), including one (1) copy of the approved Preliminary WQMP (PWQMP).**

20. ☒ **One (1) copy of Hydrology/Drainage study**

21. ☒ **One (1) copy of Soils/Geology report**

22. ☐ Payment for Final Map/Parcel Map processing fee

23. ☐ Three (3) copies of Final Map/Parcel Map

24. ☐ One (1) copy of approved Tentative Map

25. ☒ **One (1) copy of Preliminary Title Report (current within 30 days)**

26. ☐ One (1) copy of Traverse Closure Calculations

27. ☒ **One (1) set of supporting documents and maps (legible copies): referenced improvement plans (full size), referenced record final maps/parcel maps (full size, 18"x26"), Assessor's Parcel map (full size, 11"x17"), recorded documents such as deeds, lot line adjustments, easements, etc.**

28. ☐ Two (2) copies of Engineering Report and an electronic file (include PDF format electronic submittal) for recycled water use

29. ☒ **Other:**
    a. **Submit a copy of a recorded private reciprocal use agreement or easement. The agreement or easement shall ensure, at a minimum, common ingress and egress and joint maintenance of all common access areas and drive aisles.**

CITY OF ONTARIO
MEMORANDUM

ONTARIO MUNICIPAL UTILITIES COMPANY

DATE: July 13, 2023
TO: Angela Truong, Engineering Department
CC: Alexis Vaughn, Planning Department

FROM: Jeff Krizek, Utilities Engineering Division (QCR: HAY)

SUBJECT: DPR5 & Utilities Engineering Conditions of Approval (COAs) **(#9284c)**
PROJECT NO.: PDEV22-027

BRIEF DESCRIPTION:

PDEV22-027: *A Development Plan to construct a mixed-use development consisting of 346 multiple-family dwellings and 6,000 square feet of commercial retail space on approximately 10.63 acres of land generally located at the Northwest corner of Euclid Avenue and Walnut Street, within the CC (Community Commercial) zoning district (APNs: 1051-271-67, 1051-271-06, and 1051-271-66). Related File: PUD-22-004.*

OMUC UTILITIES ENGINEERING DIVISION
CONDITIONS OF APPROVAL

CONDITIONS OF APPROVAL: *The Ontario Municipal Utilities Company (OMUC) Utilities Engineering Division recommends this application for approval subject to the Conditions of Approval outlined below and compliance with the City's Design Development Guidelines, Specifications Design Criteria, and City Standards. The Applicant shall be responsible for the compliance with and the completion of all the following applicable Conditions of Approval prior to the following milestones and subject to compliance with City's Design Development Guidelines, Specifications Design Criteria, and City Standards:*

General Conditions:

1. Standard Conditions of Approval: Project shall comply with the requirements set forth in the Amendment to the Standard Conditions of Approval for New Development Projects adopted by the City Council (Resolution No. 2017-027) on April 18, 2017, or as amended or superseded by Council Resolution; as well as project-specific conditions/requirements as outlined below.

Prior to Issuance of Any Permits (Grading, Building, Demolition and Encroachment), unless other timeline milestones are specified by individual conditions below, the Applicant Shall:

General Conditions (Section 2.A, Other conditions): The Applicant shall comply with the following:

2. Inherited Requirements and Conditions of Approval: This project is subject to all the Requirements and Conditions of Approval of related entitlements: PUD-22-004. Any conflict in Conditions of Approval and requirements, the Conditions of Approval below for this Project will supersede previous Conditions of Approval.
3. Final Utilities Systems Map (USM): Submit a Final Utilities Systems Map (USM) as part of the precise grading plan submittal that meets all the City's USM requirements. These requirements include to show and label all existing and proposed utilities (including all appurtenances such as backflow devices, DCDAs, etc.), sizes, points of connection, and any easements. The final utility design shall comply with all Division of Drinking Water (CCR §64572) Separation Requirements. See Utility Systems Map (USM) Requirements document for details.
4. Note the following definitions and concepts for Public Utility Improvements and Private Utility Improvements: Public Improvements shall be designed per City Public Design Guidelines and City Standards and constructed through a City Encroachment Permit; and Private Onsite Improvements shall be designed per Building Code and Plumbing Code and constructed through a City Building Permit.

a. Public Utility Improvements include the following: water main pipelines and sewer main pipelines; sewer laterals connecting to a Public Sewer Main up to the Cleanout (or Manhole) at PL/RoW; water services and connected appurtenances (Meters/Meter Boxes, Fire Hydrants, Airvacs, Blowoffs, etc.) connecting to a Public Water Main per City Standards; and Fire Services connecting to a Public Water Main from the Main up to the DCDA. Public Water Improvements and Public Sewer Improvements are required to be designed and constructed through Public Improvement Plans with Plan View and Profile View per City Standards, Guidelines, and Requirements.

b. Private Utility Improvements include the following: onsite water plumbing lines after a Public Meter, or after the Fire DCDA and including the DCDA; Backflow Devices and other Cross-Connection Prevention; onsite sewer upstream of the Public Sewer Lateral, including the Cleanout (or Manhole) at PL/RoW/PUE Edge; Monitoring Manholes and other Wastewater Pretreatment Facilities. Private Onsite Utility Improvements are required to be designed and constructed per Building and Plumbing Plans with: the Backflows, DCDAs, Cleanout (or Manhole) at PL/RoW/PUE Edge, and Monitoring Manholes being designed and constructed through a Precise Grading Plan; and, the other Pretreatment Devices (Grease Interceptor, Sand, Oil Interceptors, etc.) and the connections to the buildings and structures through a building Plumbing Plan.

5. Public Utilities and Public Right-of-Way including Public Utility Easements (PUE): All City of Ontario Public Utilities shall be installed within a Public Right-of-Way (RoW), or within a Public Utility Easements (PUE), or within a combination of RoW and PUE. In this case, Public Utilities is referring to the mains and connected appurtenances of the following City of Ontario/OMUC Utilities: Public Potable Water; Public Recycled Water; and Public Sanitary Sewer. All Public Utilities shall be subject to the Minimum RoW/PUE Area Requirements and PUE Restrictions:

   a. Minimum RoW Area Requirements: Public Utilities shall be installed within in existing RoW/PUE in alignments/locations that meet the following minimum RoW/PUE areas surrounding the Public Utilities, and/or additional RoW/PUE shall be dedicated/granted to the City to provide the following minimum RoW/PUE areas surrounding the Public Utilities:
      i. For each main, the RoW/PUE Area shall be a minimum of 20 feet wide, centered on the utility main with a minimum of 10 feet of RoW/PUE on each side of the main and this minimum area shall extend a minimum for 10 feet past the end of a main;
      ii. For each Service/Lateral, the RoW/PUE Area shall be a minimum of 10 feet wide, centered on the service/lateral with a minimum of 5 feet of PRoW on each side of each service/lateral;
      iii. For each water meter box, the RoW/PUE Area shall be a minimum of 5 feet behind and 5 feet on each side of a water meter box;
      iv. For each water appurtenances (fire hydrants, blowoffs, airvacs, etc), the RoW/PUE Area shall be a minimum of 5 feet on each side surrounding the water appurtenances (fire hydrants, blowoffs, airvacs, etc);
      v. The RoW/PUE minimum areas for separate Public Utilities may overlap, provide that all minimum separations and PUE Restrictions are met.
   b. PUE Restrictions: The Minimum PUE Area required surrounding Public Utilities shall be subject to the following restrictions:
      i. The Minimum PUE Area required surrounding Public Utilities shall not contain:
         A. Any storm water quality improvements (infiltration, detention, retention, bioswale, etc);
         B. Landscaping with thick or intrusive root structures,
         C. Any trees;
         D. Any private utilities, plumbing lines, private fire system, or irrigation lines; or,
         E. Any permanent structures or overhangs of permanent structures.
      ii. The PUE surface shall be designed to allow vehicle access over and along the full length of the utility main by any City maintenance vehicle.
      iii. Minimum Separations: Within a PUE, all Department of Drinking Water (DDW) Water Main Separations per California Code of Regulations (CCR) §64572 shall be met for all Public Potable Water Mains and Services between: all Public City Utilities; Non-City Utilities; and Private Utilities. Additionally, the following Minimum Separations shall be met:
         A. At minimum there shall be a 4 feet horizontal separation between each utility as measured between the outside walls of the utility pipelines, or in the case of a Joint Utility Trench, between the outside edge of the Joint Utility Trench and the outside wall of the Utility Pipeline.
         B. Public Utility mains shall not be located behind curb or under curb & gutter and shall be located at minimum of 5 feet from curbface.

Sanitary Sewer Conditions (Section 2.C): The Applicant shall comply with the following:

6. Sanitary Sewer Service:
    a. Each building and its onsite private sewer system shall discharge wastewater to the Public Sanitary Sewer System through a Public Sewer Lateral per Standard #2003. The quantity of Public Sewer Laterals for each building shall be limit to the minimum necessary to meet all of the conditions of approved and as limited by the City.
    b. Public Sewer Laterals and Storm Water Quality Improvements: No storm water quality improvements (infiltration, detention, retention, bioswale, etc) shall be installed above or with 5 feet of any Public Sewer Lateral.
7. Private Onsite Sewer System and Plumbing: The Onsite Sewer System shall be privately maintained by the property owner and shall meet the following requirements:
    a. The Onsite sewer system and building plumbing shall be designed in such a way that the wastewater flows for residential uses leave the building separately from wastewater flows for non-residential uses.
    b. For wastewater flows for non-residential uses:
        i. The Onsite sewer system and building plumbing shall be designed in such a way that the sanitary domestic wastewater flows leave the building separately from non-sanitary wastewater flows (industrial, process, or kitchen, etc.) and the line for non-sanitary wastewater flows can be upgraded in the future to have pretreatment equipment and devices on it, as required by a Wastewater Discharge Permit.
        ii. Each building and each connection from the Onsite Sewer System to the Public Sewer System shall have an onsite monitoring manhole prior to the point of connection with the Public Sewer System.
    c. Private Onsite Sewer and Storm Water Quality Improvements: No storm water quality improvements (infiltration, detention, retention, bioswale, etc) shall be installed above or with 5 feet of any Private Onsite Sewer pipes.
8. Wastewater Discharge: For Non-Residential Uses: each Occupant of the building, or units, as applicable, shall apply for a Wastewater Discharge Permit for their Establishment, and shall comply with all the requirements of their Wastewater Discharge Permit. Requirements of Wastewater Discharge Permit may include, but not limited to include installing a monitoring manhole, clarifier, interceptor, or other wastewater pretreatment equipment.

Potable Water Conditions (Section 2.D): The Applicant shall comply with the following:

9. Potable Water Service:
    a. Domestic Service:
        i. Multifamily attached residential buildings shall have a domestic potable water service and public master meter connected to the Public Potable Water System with onsite private backflow prevention device and submetering.
            1. This Project requires a minimum of two (2) meters for domestic residential use with the private onsite domestic water system looped between the meters. One meter shall be located along Euclid Avenue and one shall be located along Walnut Avenue.
        ii. Any Non-Residential Uses, needing a potable water service shall have its own potable water service and meter with backflow prevention device connected to the Public Potable Water System separate from residential uses.
    b. Irrigation Service: For landscape irrigation uses that are not served by Recycled Water, the landscape irrigation uses shall have a separate irrigation water service and meter with backflow prevention device connected to the Public Potable Water System separate from the domestic water uses and the onsite plumbing systems shall be also separate from each other.
        i. Community Service District (CFD) Maintained Irrigation Areas: Any irrigated areas that are to be maintained by a Community Service District (CFD) and not by the property owner or owners association require irrigation services and meters separate from those that are maintained by the property owner or owners association.

c. Backflow Prevention: Each Meter connected to the Public Potable Water System that serves any use that is more than one (1) single family residential unit or any non-residential use requires a backflow prevention device.

d. Fire Water Service: For onsite private Fire System uses:

i. Where the domestic water service and meters connected to the Public Potable Water System that serves any use that is more than one (1) single family detached residential unit, or any non-residential use: if an onsite private fire system is required, then a separate Fire Service with Double Check Detector Assembly (DCDA) per City Standard #4208 connected to the Public Potable Water System is required, to serve the onsite private fire system. The onsite fire system and onsite domestic water plumbing system shall be separate.

1. This Project requires a minimum of two (2) fire services with DCDAs with the private onsite fire water system looped between the service/DCDAs. One Fire Service with DCDA shall be located along Euclid Avenue and one shall be located along Walnut Avenue.

e. Fire Hydrants:

i. Fire Hydrants along Public Potable Water Mains shall be installed to be spaced a maximum of 300 feet apart or per Fire Department Standards/Requirements, whichever is closer.

ii. Existing Public Fire Hydrants along the Project frontage that do not meet current City Standards shall be abandoned and replaced with new Fire Hydrants that meet current City Standards.

f. Private Onsite Water System and Plumbing: The Onsite Water Systems (Domestic, Fire, Irrigation) shall be privately maintained by the property owner.

10. Existing Public Potable Water Main: The existing Public Potable Water Main along the west side of Euclid Avenue behind curb requires additional RoW/PUE per the "Minimum RoW/PUE Area Requirements" and "PUE Restrictions" section of these Conditions of Approval.

Recycled Water Conditions (Section 2.E): The Applicant shall comply with the following:

11. City Ordinance 2689: This development shall comply with City Ordinance 2689 and make use of recycled water for all approved uses, including but not limited to landscape irrigation for HOA maintained areas and parks. Appropriately sized public and private mains shall be installed throughout the Project to meet this requirement, as approved by the City.

12. Recycled Water Service: In order to comply with City Ordinance 2689:

a. Purple Ready:

i. A recycled water main is Master Planned to be installed in the future within Walnut Street east of Euclid Avenue and in Euclid Avenue just north of Walnut Street.

ii. Design and construct all Project irrigation areas that are permissible of using recycled water to the standards and requirements to use recycled water (such as using purple pipe, preparation and approval of an Engineer's Report for Recycled Water Use, etc).

iii. Install irrigation services with meters for future recycled water use along Euclid Avenue as closest to Walnut Street that is feasible connecting to the public potable water system temporarily until recycle water becomes available to the Project.

iv. When recycled water becomes available to the Project, the Project shall connect to recycled water and convert to recycled water use and all costs and fees shall be borne solely by the Project/Applicant.

v. Community Service District (CFD) Maintained Irrigation Areas: Any irrigated areas that are to be maintained by a Community Service District (CFD) and not by the property owner or owners association require irrigation services and meters separate from those that are maintained by the property owner or owners association

13. RW Program Requirements: In order to receive RW service, the applicant shall comply with each of the following:

a. Prior to Precise Grading Plan Approval and Building Permits Issuance:

i. Provide two hard copies and the digital files (in PDF and AutoCAD format) for both on-site and off-site utility plans, including landscape and irrigation improvements.
ii. Submit an **Engineering Report (ER)** to the City detailing recycled water usage for review and approval by the City and the State. The review process for the ER is typically 3 months. City will coordinate the State's approval of the ER.
iii. For details, contact OMUCWQPlanCheck@ontarioca.gov.

b. Prior to Occupancy Release/Finalizing:
i. Pass start-up and cross-connection test successfully.
ii. Provide evidence demonstrating the training of on-site supervisor or designee as determined in the ER.

CITY OF ONTARIO

MEMORANDUM

TO: Scott Murphy, Community Development Director (Copy of memo only)
Rudy Zeledon, Planning Director (Copy of memo only)
Diane Ayala, Advanced Planning Division (Copy of memo only)
Charity Hernandez, Economic Development
James Caro, Building Department
Raymond Lee, Engineering Department
Jamie Richardson, Landscape Planning Division
Dennis Mejia, Municipal Utility Company
Heather Lugo, Police Department
Paul Erhman, Deputy Fire Chief/Fire Marshal
Jay Bautista, Traffic/Transportation Manager
Lorena Mejia, Airport Planning
Jeff Tang, Engineering/NPDES
Angela Magana, Community Improvement (Copy of memo only)
Jimmy Chang, IPA Department
Blaine Ishii, Integrated Waste

Revision #2

FROM: Alexis Vaughn, Associate Planner

DATE: May 31, 2023

SUBJECT: FILE #: PUD-22-004 Finance Acct#: PU006

The following project has been resubmitted for review. Please send one (1) copy and email one (1) copy of your DAB report to the Planning Department by .

PROJECT DESCRIPTION: A Planned Unit Development establishing land use designations, and development standards and guidelines, which will govern the development of 10.6 acres of land generally located at the northwest corner of Euclid Avenue and Walnut Street (APNs: 1051-271-67, 1051-271-06, 1051-271-66). Related Files: PDEV22-027, PHP22-015)

☑ The plan does adequately address the departmental concerns at this time.

- ☐ No comments
- ☐ See previous report for Conditions
- ☐ Report attached (1 copy and email 1 copy)
- ☑ Standard Conditions of Approval apply

☐ The plan does not adequately address the departmental concerns.

- ☐ The conditions contained in the attached report must be met prior to scheduling for Development Advisory Board.

OMUC Utilities Engineering | Jeffrey F. Krizek | Associate Engineer | 06/23/2023
Department | Signature | Title | Date

jkrizek@ontarioca.gov

CITY OF ONTARIO
MEMORANDUM

TO: **Alexis Vaughn, Associate Planner**
Planning Department

FROM: **Paul Ehrman, Sr. Deputy Fire Chief/Fire Marshal**
Fire Department

DATE: **November 7, 2022**

SUBJECT: **PUD-22-004 - A Planned Unit Development establishing land use designations, and development standards and guidelines, which will govern the development of 10.6 acres of land generally located at the northwest corner of Euclid Avenue and Walnut Street (APNs: 1051-271-67, 1051-271-06, 1051-271-66). Related Files: PDEV22-027, PHP22-015).**

☒ The plan **does** adequately address Fire Department requirements at this time.

☒ No comments.

CITY OF ONTARIO

MEMORANDUM

TO: Scott Murphy, Community Development Director (Copy of memo only)
Rudy Zeledon, Planning Director (Copy of memo only)
Diane Ayala, Advanced Planning Division (Copy of memo only)
Charity Hernandez, Economic Development
James Caro, Building Department
Raymond Lee, Engineering Department
Jamie Richardson, Landscape Planning Division
Dennis Mejia, Municipal Utility Company
Jeremy Phillips, Police Department
Paul Erhman, Deputy Fire Chief/Fire Marshal
Jay Bautista, Traffic/Transportation Manager
Lorena Mejia, Airport Planning
Tricia Espinoza, Engineering/NPDES
Angela Magana, Community Improvement (Copy of memo only)
Jimmy Chang, IPA Department
Ben Mayorga, Integrated Waste

FROM: Alexis Vaughn, Associate Planner

DATE: October 24, 2022

SUBJECT: FILE #: PUD-22-004 Finance Acct#: PU006

The following project has been submitted for review. Please send one (1) copy and email one (1) copy of your DAB report to the Planning Department by .

Note:
- ☐ Only DAB action is required
- ☐ Both DAB and Planning Commission actions are required
- ☐ Only Planning Commission action is required
- ☐ DAB, Planning Commission and City Council actions are required
- ☐ Only Zoning Administrator action is required

PROJECT DESCRIPTION: PUD associated with PDEV22-027 (description to be revised)

☑ The plan does adequately address the departmental concerns at this time.
- ☐ No comments
- ☐ Report attached (1 copy and email 1 copy)
- ☑ Standard Conditions of Approval apply

☐ The plan does not adequately address the departmental concerns.
- ☐ The conditions contained in the attached report must be met prior to scheduling for Development Advisory Board.

ONTARIO POLICE	ANTONIO GALBAN	POLICE OFFICER	11/2/22
Department	Signature	Title	Date

CITY OF ONTARIO

MEMORANDUM

TO: Scott Murphy, Community Development Director (Copy of memo only)
Rudy Zeledon, Planning Director (Copy of memo only)
Diane Ayala, Advanced Planning Division (Copy of memo only)
Charity Hernandez, Economic Development
James Caro, Building Department
Raymond Lee, Engineering Department
Jamie Richardson, Landscape Planning Division
Dennis Mejia, Municipal Utility Company
Heather Lugo, Police Department
Paul Erhman, Deputy Fire Chief/Fire Marshal
Jay Bautista, Traffic/Transportation Manager
Lorena Mejia, Airport Planning
Jeff Tang, Engineering/NPDES
Angela Magana, Community Improvement (Copy of memo only)
Jimmy Chang, IPA Department
Blaine Ishii, Integrated Waste

Revision #2

FROM: Alexis Vaughn, Associate Planner

DATE: May 31, 2023

SUBJECT: FILE #: PUD-22-004 Finance Acct#: PU006

The following project has been resubmitted for review. Please send one (1) copy and email one (1) copy of your DAB report to the Planning Department by .

PROJECT DESCRIPTION: A Planned Unit Development establishing land use designations, and development standards and guidelines, which will govern the development of 10.6 acres of land generally located at the northwest corner of Euclid Avenue and Walnut Street (APNs: 1051-271-67, 1051-271-06, 1051-271-66). Related Files: PDEV22-027, PHP22-015)

☑ The plan does adequately address the departmental concerns at this time.

- ☐ No comments
- ☐ See previous report for Conditions
- ☑ Report attached (1 copy and email 1 copy)
- ☑ Standard Conditions of Approval apply

☐ The plan does not adequately address the departmental concerns.

- ☐ The conditions contained in the attached report must be met prior to scheduling for Development Advisory Board.

Landscape Planning Division		Sr. Landscape Architect	6/14/2023
Department	Signature	Title	Date

AIRPORT LAND USE COMPATIBILITY PLANNING
CONSISTENCY DETERMINATION REPORT

ONTARIO AIRPORT PLANNING

Project File No.: PDEV22-027 & PUD22-004

Address: NWC of Euclid Ave and Walnut Street

APN: 1051-271-67, 06 & 66

Existing Land Use: Commercial shopping center with vacant/underutilized buildings

Proposed Land Use: Development Plan to construct 346 multi-family units and 6,000 SF of commercial

Site Acreage: 10.63 Proposed Structure Height: 55 FT

ONT-IAC Project Review: N/A

Airport Influence Area: ONT

Reviewed By: Lorena Mejia

Contact Info: 909-395-2276

Project Planner: Alexis Vaugn

Date: 1/30/2023

CD No.: 2022-051

PALU No.: N/A

The project is impacted by the following ONT ALUCP Compatibility Zones:

Safety

- ☐ Zone 1
- ☐ Zone 1A
- ☐ Zone 2
- ☐ Zone 3
- ☐ Zone 4
- ☐ Zone 5

Noise Impact

- ☐ 75+ dB CNEL
- ☐ 70 - 75 dB CNEL
- ☐ 65 - 70 dB CNEL
- ☐ 60 - 65 dB CNEL

Airspace Protection

- ☐ High Terrain Zone
- ☑ FAA Notification Surfaces
- ☐ Airspace Obstruction Surfaces
- ☐ Airspace Avigation Easement Area

Allowable Height: 200 FT+

Overflight Notification

- ☐ Avigation Easement Dedication
- ☐ Recorded Overflight Notification
- ☑ Real Estate Transaction Disclosure

The project is impacted by the following Chino ALUCP Safety Zones:

☐ Zone 1 ☐ Zone 2 ☐ Zone 3 ☐ Zone 4 ☐ Zone 5 ☐ Zone 6

Allowable Height: _____

CONSISTENCY DETERMINATION

This proposed Project is: ○ Exempt from the ALUCP ◉ Consistent ○ Consistent with Conditions ○ Inconsistent

The proposed project is located within the Airport Influence Area of Ontario International Airport (ONT) was evaluated and found to be consistent with the policies and criteria of the Airport Land Use Compatibility Plan (ALUCP) for ONT.

Airport Planner Signature: Lorena Mejia

RESOLUTION NO._____

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF ONTARIO, CALIFORNIA, APPROVING THE USE OF AN ADDENDUM TO THE ONTARIO PLAN 2050 SUPPLEMENTAL ENVIRONMENTAL IMPACT REPORT, PURSUANT TO THE REQUIREMENTS OF THE CALIFORNIA ENVIRONMENTAL QUALITY ACT, AS AMENDED, FOR FILE NOS. PUD22-004, PDEV22-027, AND PHP22-015.

WHEREAS, LEGACY/COLLIER RESIDENTIAL LLC (hereinafter referred to as "Applicant") has filed an Application for the approval of the Euclid Walnut Planned Unit Development, File No. PUD22-004, establishing the development standards and design guidelines for the overall 10.6-acre Project site, in conjunction with a Development Plan, File No. PDEV22-027, to construct 346 apartment units and 5,400 square feet of commercial space on 9.4 acres of the Project site and a Certificate of Appropriateness, File No. PHP22-015, to determine whether the Project site is an historic resource, on land located at the northwest corner of Euclid Avenue and Walnut Street, in the City of Ontario, California (hereinafter referred to as "Application" or "Project"); and

WHEREAS, The Ontario Plan 2050 Supplemental Environmental Impact Report (State Clearinghouse No. 2021070364) was certified on August 16, 2022, (hereinafter referred to as "Certified SEIR"), in which development and use of the Project site was discussed; and

WHEREAS, the Planning Director of the City of Ontario has prepared and approved for attachment to the certified Environmental Impact Report, an Addendum to the Certified SEIR (hereinafter referred to as "SEIR Addendum") in accordance with the requirements of the California Environmental Quality Act of 1970, together with State and local guidelines implementing said Act, all as amended to date (collectively referred to as "CEQA"); and

WHEREAS, the SEIR Addendum concluded that implementation of the Project could result in a number of significant effects on the environment that were previously analyzed in the Certified SEIR, and that the Certified SEIR identified mitigation measures that would reduce each of those significant effects to a less-than-significant level; and

WHEREAS, pursuant to State CEQA Guidelines Section 15164(a), a lead agency shall prepare an addendum to a previously certified SEIR if some changes or additions are necessary to a project, but the preparation of a subsequent or supplemental SEIR is not required; and

WHEREAS, the Application is a project pursuant to the California Environmental Quality Act — Public Resources Code Section 21000 et seq. — (hereinafter referred to as "CEQA") and an EIR Addendum has been prepared to determine possible environmental impacts; and

WHEREAS, the City determined that none of the conditions requiring preparation of a subsequent or supplemental EIR would occur from the Project, and that preparation of an Addendum to the Certified SEIR was appropriate; and

WHEREAS, the City of Ontario is the lead agency on the Project. Ontario Development Code Table 2.02-1 (Review Matrix) grants the City Council the responsibility and authority to review and act on the subject Application and the requested approval to construct and otherwise undertake the Project; and

WHEREAS, the City Council has reviewed and considered the SEIR Addendum for the Project, has concluded that none of the conditions requiring preparation of a subsequent of supplemental EIR have occurred, and intends to take actions on the Project in compliance with CEQA and state and local guidelines implementing CEQA; and

WHEREAS, the SEIR Addendum for the Project is on file in the Planning Department, located at 303 East B Street, Ontario, CA 91764, and is available for inspection by any interested person at that location and is, by this reference, incorporated into this Resolution as if fully set forth herein; and

WHEREAS, the Project has been reviewed for consistency with the Housing Element of the Policy Plan component of The Ontario Plan, as State Housing Element law (as prescribed in Government Code Sections 65580 through 65589.8) requires that development projects must be consistent with the Housing Element, if upon consideration of all its aspects, it is found to further the purposes, principals, goals, and policies of the Housing Element; and

WHEREAS, the Project is located within the Airport Influence Area of Ontario International Airport, which encompasses lands within parts of San Bernardino, Riverside, and Los Angeles Counties, and is subject to, and must be consistent with, the policies and criteria set forth in the Ontario International Airport Land Use Compatibility Plan (hereinafter referred to as "ALUCP"), which applies only to jurisdictions within San Bernardino County, and addresses the noise, safety, airspace protection, and overflight impacts of current and future airport activity; and

WHEREAS, City of Ontario Development Code Division 2.03 (Public Hearings) prescribes the manner in which public notification shall be provided and hearing procedures to be followed, and all such notifications and procedures have been completed; and

WHEREAS, on August 22, 2023, the Planning Commission of the City of Ontario voted to continue the item to the September 26, 2023, hearing date; and

WHEREAS, on September 26, 2023, the Planning Commission of the City of Ontario conducted a hearing to consider the SEIR Addendum and the Project, and concluded said hearing on that date, voting to issue Resolution No. PC23-074, recommending the City Council adopt the SEIR Addendum, and voting to issue Resolution No. PC23-075, recommending the City Council approve the Application; and

WHEREAS, as the first action on the Project, on October 17, 2023, the City Council issued a Resolution adopting the SEIR Addendum, finding that the proposed Project introduces no new significant environmental impacts and applying all previously adopted mitigation measures to the Project, which were incorporated by reference; and

WHEREAS, on October 17, 2023, the City Council of the City of Ontario conducted a hearing to consider the Project, and concluded said hearing on that date; and

WHEREAS, all legal prerequisites to the adoption of this Resolution have occurred.

NOW, THEREFORE, BE IT RESOLVED by the City Council of the City of Ontario as follows:

SECTION 1. ***Housing Element Compliance.*** Pursuant to the requirements of California Government Code Chapter 3, Article 10.6, commencing with Section 65580, as the decision-making body for the Project, the City Council finds that based upon the facts and information contained in the Application and supporting documentation, at the time of Project implementation, the project is consistent with the Housing Element of the Policy Plan (General Plan) component of The Ontario Plan, as the project site is not one of the properties in the Housing Element Sites Inventory contained in Tables B-1 and B-2 of the Housing Element Technical Report.

SECTION 2. ***Airport Land Use Compatibility Plan ("ALUCP") Compliance.*** The California State Aeronautics Act (Public Utilities Code Section 21670 et seq.) requires that an Airport Land Use Compatibility Plan be prepared for all public use airports in the State; and requires that local land use plans and individual development proposals must be consistent with the policies set forth in the adopted Airport Land Use Compatibility Plan.

On April 19, 2011, the City Council of the City of Ontario approved and adopted the Ontario International Airport Land use Compatibility Plan, establishing the Airport Influence Area for Ontario International Airport, which encompasses lands within parts of San Bernardino, Riverside, and Los Angeles Counties, and limits future land uses and development within the Airport Influence Area, as they relate to noise, safety, airspace protection, and overflight impacts of current and future airport activity. As the decision-making body for the Project, the City Council has reviewed and considered the facts and information contained in the Application and supporting documentation against the ONT ALUCP compatibility factors, including [1] Safety Criteria (ONT ALUCP Table 2-2) and Safety Zones (ONT ALUCP Map 2-2), [2] Noise Criteria (ONT ALUCP Table 2-3) and Noise Impact Zones (ONT ALUCP Map 2-3), [3] Airspace protection Zones (ONT ALUCP Map 2-4), and [4] Overflight Notification Zones (ONT ALUCP Map 2-5). As a result, the City Council, therefore, finds and determines that the Project, when implemented in conjunction with the conditions of approval, will be consistent with the policies and criteria set forth within the ONT ALUCP; and

SECTION 3. ***Environmental Determination and Findings.*** As the decision-making body for the Project, The City Council has reviewed and considered the information contained in the administrative record for the Project. Based upon the facts

and information contained in the administrative record, including all written and oral evidence presented, the City Council finds as follows:

(1) The environmental impacts of this Project were reviewed in conjunction with an Addendum to The Ontario Plan 2050 Supplemental Environmental Impact Report (State Clearinghouse No. 2021070364), certified by the Ontario City Council on August 16, 2022, in conjunction with File No. PGPA20-002; and

(2) The SEIR Addendum and administrative record have been completed in compliance with CEQA, the State CEQA Guidelines, and the City of Ontario Local CEQA Guidelines; and

(3) The City's "Guidelines for the Implementation of the California Environmental Quality Act (CEQA)" provide for the use of a single environmental assessment in situations where the impacts of subsequent projects are adequately analyzed. This Application introduces no new significant environmental impacts; and

(4) All previously adopted mitigation measures shall be a condition of Project approval, as they are applicable to the Project, and are incorporated herein by this reference; and

(5) The SEIR Addendum contains a complete and accurate reporting of the environmental impacts associated with the Project, and reflects the independent judgment of the City Council; and

(6) There is no substantial evidence in the administrative record supporting a fair argument that the Project may result in significant environmental impacts.

SECTION 4. ***Additional Environmental Review Not Required.*** Based on the Addendum, all related information presented to the City Council, and the specific findings set forth in Sections 1 through 3, above, the City Council finds that the preparation of a subsequent or supplemental Environmental Impact Report is not required for the Project, as the Project:

(1) Does not constitute substantial changes to the Certified SEIR that will require major revisions to the Certified SEIR due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects; and

(2) Does not constitute substantial changes with respect to the circumstances under which the Certified SEIR was prepared, that will require major revisions to the Certified SEIR due to the involvement of new significant environmental effects or a substantial increase in the severity of the previously identified significant effects; and

(3) Does not contain new information of substantial importance that was not known and could not have been known with the exercise of reasonable diligence at the time the Certified SEIR was certified/adopted, that shows any of the following:

(a) The Project will have one or more significant effects not discussed in the Certified SEIR; or

(b) Significant effects previously examined will be substantially more severe than shown in the Certified SEIR; or

(c) Mitigation measures or alternatives previously found not to be feasible would in fact be feasible and would substantially reduce one or more significant effects of the Project, but the City declined to adopt such measures; or

(d) Mitigation measures or alternatives considerably different from those analyzed in the Certified SEIR would substantially reduce one or more significant effects on the environment, but which the City declined to adopt.

SECTION 5. ***City Council Action.*** Based upon the findings and conclusions set forth in Sections 1 through 4, above, the City Council hereby APPROVES the herein described Addendum, attached hereto as "Attachment A," and incorporated herein by this reference.

SECTION 6. ***Indemnification.*** The Applicant shall agree to defend, indemnify and hold harmless, the City of Ontario or its agents, officers, and employees from any claim, action or proceeding against the City of Ontario or its agents, officers or employees to attack, set aside, void, or annul this approval. The City of Ontario shall promptly notify the applicant of any such claim, action, or proceeding, and the City of Ontario shall cooperate fully in the defense.

SECTION 7. ***Custodian of Records.*** The documents and materials that constitute the record of proceedings on which these findings have been based are located at the City of Ontario City Hall, 303 East "B" Street, Ontario, California 91764. The custodian for these records is the City Clerk of the City of Ontario.

The City Clerk of the City of Ontario shall certify as to the adoption of this Resolution.

PASSED, APPROVED, AND ADOPTED this 17th day of October 2023.

_____
PAUL S. LEON, MAYOR

ATTEST:

_____
SHEILA MAUTZ, CITY CLERK

APPROVED AS TO FORM:

_____
BEST, BEST & KREIGER LLP
CITY ATTORNEY

STATE OF CALIFORNIA)
COUNTY OF SAN BERNARDINO)
CITY OF ONTARIO)

I, SHEILA MAUTZ, City Clerk of the City of Ontario, DO HEREBY CERTIFY that foregoing Resolution No. 2023 was duly passed and adopted by the City Council of the City of Ontario at their regular meeting held October 17, 2023, by the following roll call vote, to wit:

AYES: COUNCIL MEMBERS:

NOES: COUNCIL MEMBERS:

ABSENT: COUNCIL MEMBERS:

_____
SHEILA MAUTZ, CITY CLERK

(SEAL)

The foregoing is the original of Resolution No. 2023 duly passed and adopted by the Ontario City Council at their regular meeting held October 17, 2023.

_____
SHEILA MAUTZ, CITY CLERK

(SEAL)

ATTACHMENT A:

Addendum to The Ontario Plan 2050 Supplemental Environmental Impact Report

(Document follows this page)

City of Ontario
Planning Department
303 East B Street
Ontario, California 91764
Phone: 909.395.2036
Fax: 909.395.2420

California Environmental Quality Act

Addendum to The Ontario Plan Environmental Impact Report

Project Title/File No.: Euclid/Walnut Planned Unit Development Mixed-Use Project (File Nos. PDEV22-027, PUD22-004, and PHP22-015)

Lead Agency: City of Ontario, 303 East "B" Street, Ontario, California 91764, (909) 395-2036

Contact Person: Alexis Vaughn, Associate Planner, 909.395.2416, Email: avaughn@ontarioca.gov

Project Sponsor: Legacy/Colliers Residential, LLC

Project Location: The 10.6-acre project site is located in southwestern San Bernardino County, within the City of Ontario (City) as shown in **Figure 1** below. The City of Ontario is located approximately 40 miles from downtown Los Angeles, 20 miles from downtown San Bernardino, and 30 miles from Orange County. As illustrated in **Figure 2** below, the project site is almost square shaped and located north of W. Walnut Street and west of Euclid Avenue in the southwest portion of the City (just south of SR-60). The project site includes Assessors' Parcel Numbers; 1051-271-67, 1051-271-06, 1051-271-66. All full rights-of-way for public streets that are required for this project have already been dedicated and granted to the City.

Figure 1: REGIONAL LOCATION MAP

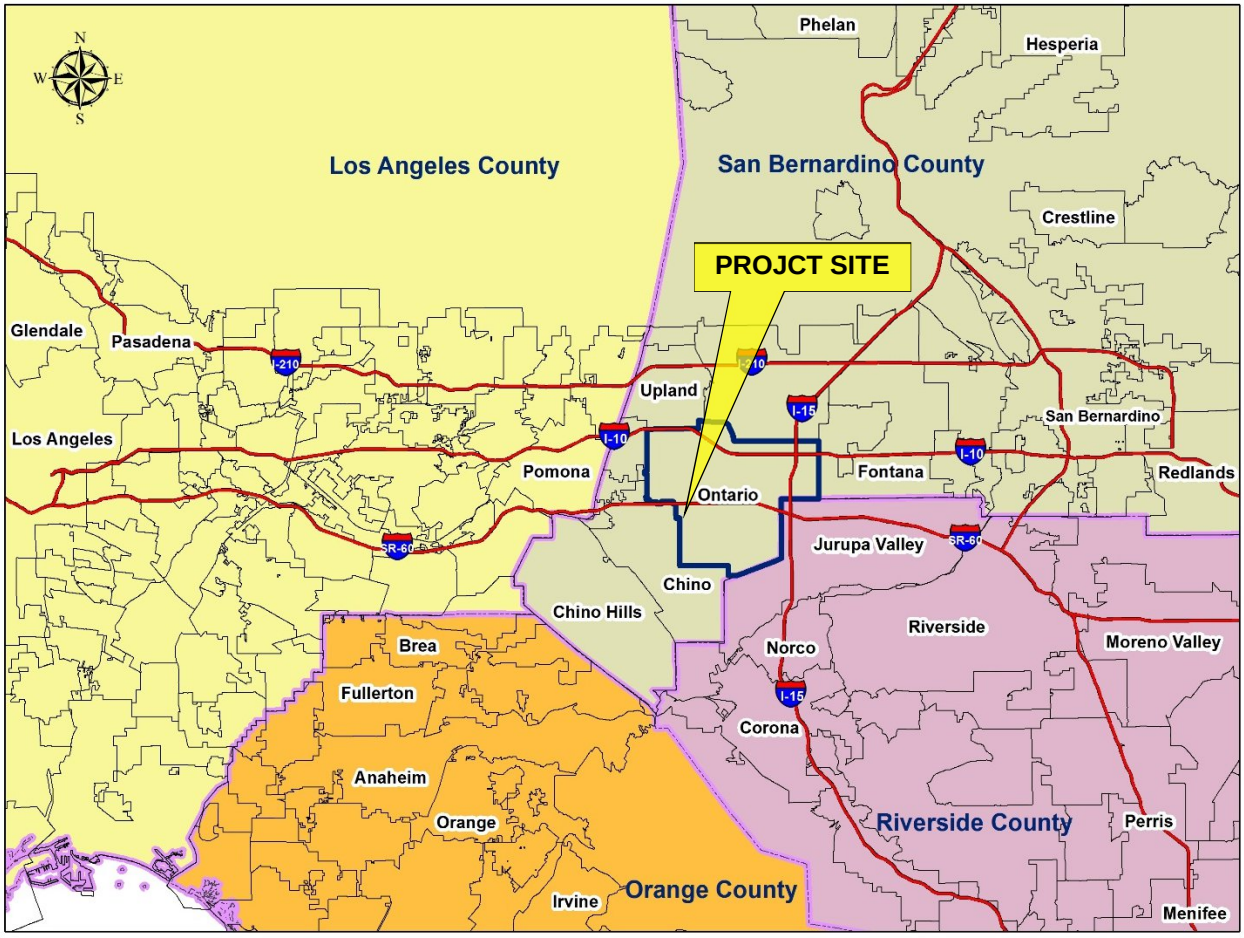


Figure 2: PUD VICINITY MAP



General Plan/Zoning. The Ontario Plan (TOP) is the City's comprehensive plan for the community over the next thirty years. TOP 2050 is the City's established framework for development and has three policy level components, the Vision, a Governance Manual and the Policy Plan. The most current version of TOP and its environmental impact report (EIR) are dated August 16, 2022 (State Clearinghouse No. 2021070364). Figure LU-01 of The Ontario Plan (TOP) 2050 is the City's current Land Use Plan which indicates the project site is designated as Mixed Use but is further classified as a Neighborhood Community Hub (NH). The site is currently zoned Mixed-Use (MU-8e) within the Euclid Avenue (EA) overlay corridor as shown below:

General Plan Designation:	Existing – Mixed Use Neighborhood Community Hub (MU-NH)
	Proposed – Mixed Use Neighborhood Community Hub (MU-NH)
Zoning:	Existing – Mixed-Use 8e (Euclid and Walnut)
	Proposed – Planned Unit Development (PUD) with Commercial/ Residential Mixed Use within Euclid Avenue Overlay Zoning District (EA)

The Mixed-Use Neighborhood Hub (MU-NH) designation allows low-rise buildings (3-5 stories) with a mixture of retail and residential uses that will create identity and place and serve the surrounding residents. This category allows for residential densities ranging from 20 - 75 dwelling units per acre and non-residential intensity of 1.00 Floor Area Ratio.

The TOP shows a total of five locations within the City with the MU-NH land use designation. The Future Buildout Projections Table of the Land Use Element provides further details for each of these five MU-NH sub-areas. The three parcels subject to this PUD make up 10.6 acres ("PUD site") of the overall 16 acres that comprise the "MU-NH" sub-area. The remaining 5.4 acres of the MU-NH area include approximately 28,000 square feet of existing businesses (gas station, pre-school, and 2 small businesses) and 15 single family homes between the PUD site and the SR-60 Freeway to the north. The PUD site currently contains a Carl's Jr. restaurant, former Kmart Shopping Center, and a strip retail building. The TOP indicates the projected buildout for the entire 16 acres of this sub-area will eventually have a total of 369 dwelling units and 142,840 square feet of non-residential development. Development of the proposed PUD would slightly exceed the total number of residential units for this area under the TOP (369 MF+15 SF=384 total units vs. 369 projected total units). However, development of the PUD would substantially reduce the amount of anticipated non-residential growth in this sub-area (12,000 SF in the PUD plus 28,000 existing = 40,000 SF vs. 142,840 SF). Therefore, development of the "PUD project" would result in a 4% increase in residential impacts but a 28% decrease in commercial impacts. While this Addendum only covers impacts of the new residential and commercial uses currently proposed under the PUD Project described below, the preceding analysis demonstrates the anticipated impacts of growth in this MU-NH sub-area with the PUD are considered to be equivalent or less than those identified in TOP EIR for this sub-area.

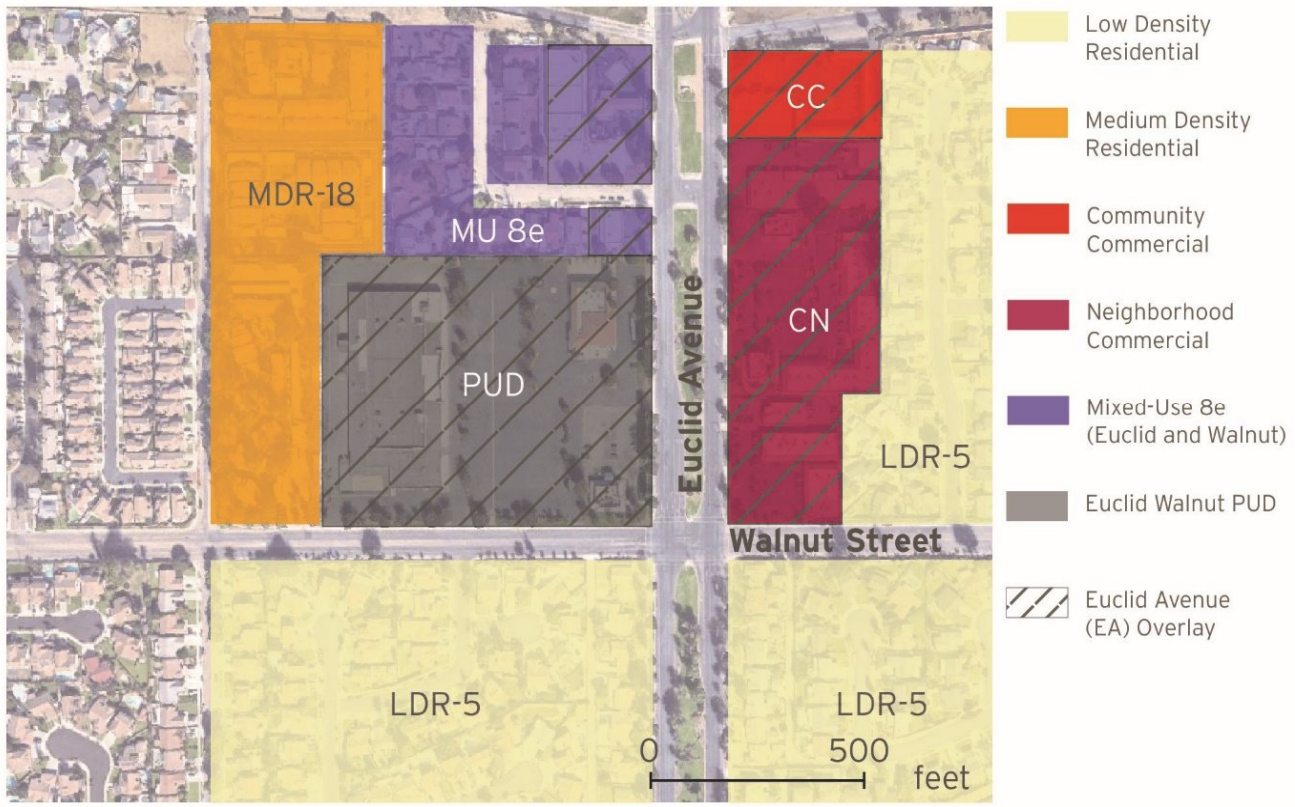
Description of PUD Project: The Euclid/Walnut Planned Unit Development (PUD) project proposes to demolish the existing commercial center and construct a total of 369 apartment units with 12,000 square feet (SF) of ground floor retail uses. The PUD project is expected to be completed in two phases. Phase 1 would leave the existing Carl's Jr. site in its current condition, demolish the other existing commercial structures, and develop 5,400 SF of ground floor retail space and 346 apartment units consisting of 18 studio units, 190 one-bedroom units, and 138 two-bedroom units. Phase 2 would consist of demolishing the existing Carl's Jr. and constructing an additional 23 apartment units and 6,600 SF of ground floor retail space. **Table 1** shows the building characteristics of the proposed project as part of the PUD while **Figure 3** shows the proposed zoning of the PUD project.

Table 1: Proposed PUD Project Land Uses

AREA/TIMING	ACRES	UNITS	SQUARE FEET
Existing Uses (to be demolished)	10.6	0	105,050
Euclid/Walnut PUD	10.6	369	12,000
Phase 1	9.4	346	5,400
Phase 2	1.2	23	6,600
Remainder of MU-NH Area	5.4	0	130,840
TOTAL	**16.0**	**369**	**142,840**

Source: PUD May 2023 NA = acres not applicable due to mixed use development

Figure 3: PROPOSED PUD ZONING



Source: PUD May 2023

Planned Unit Development (PUD). The PUD provides planning and design principles, development regulations, and performance standards to guide the redevelopment of an existing commercial shopping center. The PUD will facilitate mixed-use development of high-density apartments, restaurants, retail shops, and other commercial services. The PUD is intended to achieve the City's goals to economically revitalize and aesthetically enhance an underutilized parcel located along the Euclid Avenue corridor.

The PUD is organized to meet the requirements of the Ontario Development Code (ODC) and will replace the existing zoning district designation and ODC regulations applicable to the affected properties. The PUD site also falls within the "Euclid Avenue Overlay" Zoning District (EA) and any applicable requirements of the EA will remain in effect. City staff and private developers will rely on this PUD to determine whether future precise plans for development ("Development Plans") adequately meet the City's land use and design objectives as outlined in The Ontario Plan (TOP) 2050.

The PUD establishes a singular zoning district of Commercial/Residential Mixed Use consistent with TOP 2050 MU-NH land use designation. The PUD allows both horizontal and vertical mixed-use buildings with a combination of three- and four-story buildings. Buildings with direct Euclid Avenue frontage will contain ground-floor commercial uses and residential units directly above. All other buildings will contain residential units on all floor levels. A combination of garages, tandem spaces, carports, and surface level parking spaces will be provided onsite with gated access limited to residents and residents' guests. Unrestricted access to surface level parking will serve the commercial uses and provide additional resident guest parking spaces.

It should be noted the TOP EIR addendum is required in order for the PUD project's density to exceed the TOP 2050 land use assumptions for the site (i.e., Mixed-Use – Neighborhood Activity Hub 8e - Euclid & Walnut) which designates the site at 75% of the area at 30 du/ac and 25% of the area at 0.80 FAR retail. The proposed PUD would slightly exceed the total number of residential units for this area under the TOP (384 total units with PUD vs. 369 projected total units). However, development of the PUD would substantially reduce the amount of anticipated non-residential growth in this sub-area (40,000 SF with the PUD vs. 142,840 SF under TOP growth). Therefore, development of the "PUD project" would result in a 4% increase in residential impacts but a 28% decrease in commercial impacts compared to what was analyzed in TOP EIR.

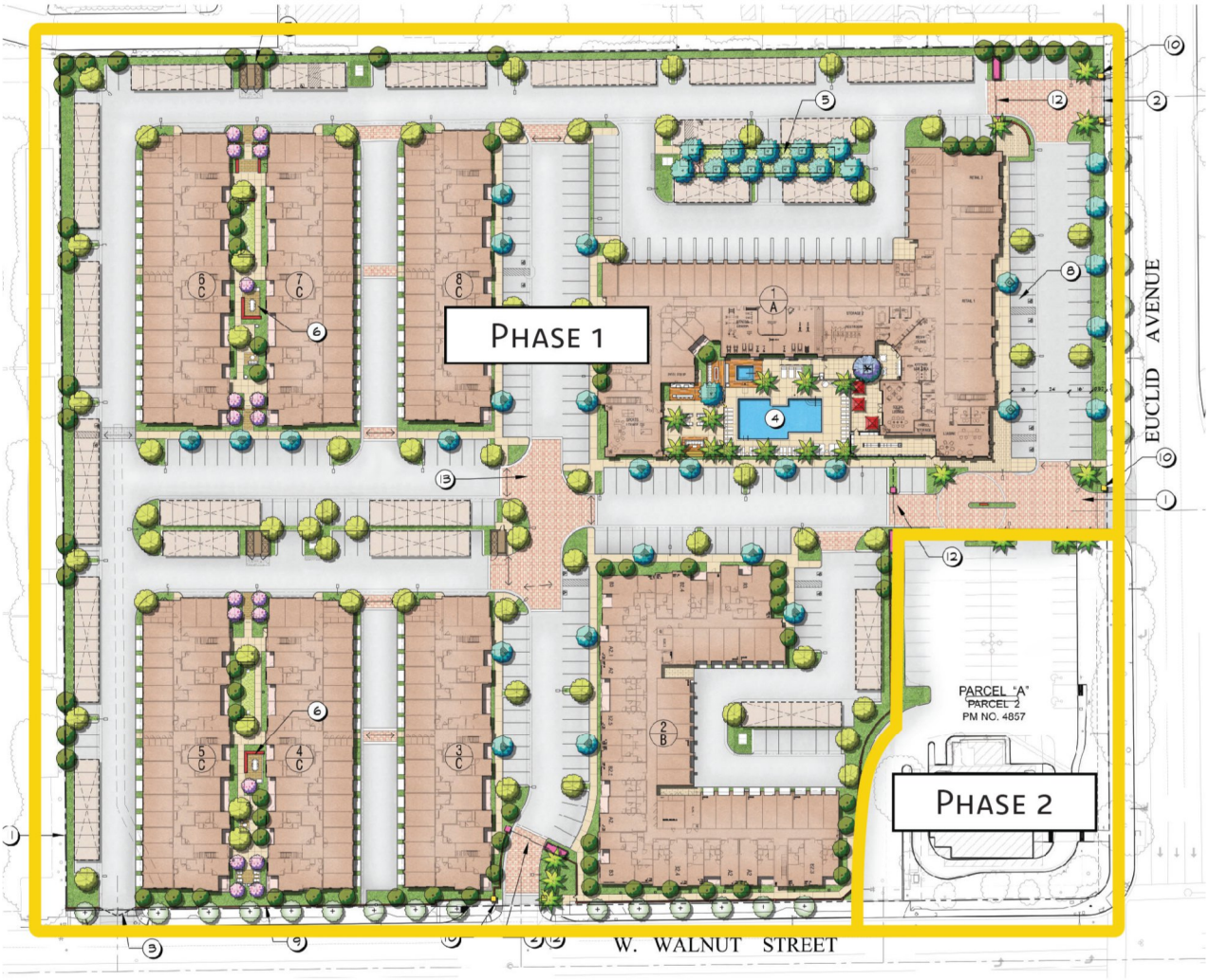
Phasing. The PUD project will be completed in two phases. Phase 1 comprises the entire PUD site except for the existing drive-thru restaurant site (Carl's Jr.) which is occupied by an approximately 4,100 square foot building and its related site improvements. Phase 1 will require the demolition of a combined 100,950 square feet of commercial/retail buildings (not including the Carl's Jr.) and related site improvements. Phase I will be redeveloped with two four-story buildings and six three-story buildings, providing a combined total of 346 dwelling units; 5,400 square feet of ground floor commercial space, associated on-site parking areas for both residential and non-residential land uses, and landscaping and recreational amenities for residents. **Figure 4** shows the Phase 1 Conceptual Site Plan.

Phase 2 will finish implementation of the total build-out of the area within the PUD project by demolishing the Carl's Jr. restaurant building and related site improvements and replacing them with additional vertical mixed-use development, constructing an additional four-story building. Completion of the second phase would provide up to an additional 23 dwelling units and up to an additional 6,600 square feet of ground-floor commercial space, and the associated site improvements.

The PUD is applicable to both phases of the project, which will construct a horizontal and vertical mixed-use development, with a maximum of 369 dwelling units and up to 12,000 square feet of commercial land uses occupying the ground floor of buildings with Euclid Avenue frontage.

Construction. All construction activities, including site demolition, regrading, building construction, paving, and the application of architectural coatings, are expected to take approximately 28 months for Phase 1. The specific timing of development of Phase 2 has not yet been determined but will include similar activities as those listed for Phase 1. The overall construction of the PUD project is consistent with the level of development outlined in TOP and its EIR and would only differ by having +4% more units but 28% less non-residential square footage with the PUD. While no additional specific information on Phase 2 construction is presented at this time, overall development and construction of the 10.6-acre MU-NH sub-area would be similar with or without the PUD in terms of land area developed.

Figure 4: PHASE 1 CONCEPTUAL SITE PLAN



Development Regulations. Development within this PUD will comply with Ontario Development Code (ODC) standards and requirements applicable to Multiple-Family Dwellings and Commercial development, as determined appropriate by the City Director of Community Development. **Table 2** provides a summary of development standards for the PUD project. The PUD project will not exceed a maximum 40 dwelling units per acre and will not exceed 369 dwelling units upon build-out of Phase 2. The overall building height of four-story buildings will not exceed 60 feet and all other buildings will not exceed 50 feet (max. 3 stories), inclusive of architectural projections. Non-residential development is subject to a maximum 0.5 floor area ratio based upon the net site area.

Access and Improvements. Vehicular access from the public right of way will be limited to two locations along Euclid Avenue and a maximum of three locations along Walnut Street as approved by the City Engineer. As determined by the City Engineer, design and construction of street improvements, adjacent to the property frontage of Euclid Avenue and Walnut Street will be conditioned and may include, but are not limited to concrete curb and gutter, sidewalk, LED streetlights, signing and striping, and parkway landscaping.

Table 2: Summary of PUD Development Standards

DEVELOPMENT STANDARD	REQUIREMENT	NOTES
Maximum Intensity – Floor Area Ratio	0.50 FAR	Gross building square footage of commercial space
Density Range – Minimum and Maximum	20.1 – 40	Up to a maximum of 369 dwelling units
Maximum Building Height by Number of Stories Four Stories Three Stories	 60 feet 50 feet	Inclusive of architectural projections and equipment screening
Building Setbacks – From Right-of-Way	10 feet minimum	
Setbacks – Interior Property Line Buildings Adjacent to Residential Buildings Adjacent to Non-Residential Carport or Trash Enclosure	 50 feet minimum 5 feet minimum 5 feet minimum	
Building Separation Building to Building Building to Drive Aisle or Parking Areas Building to Carport Patio to Patio	 25 feet minimum 5 feet minimum 25 feet minimum 15 feet minimum	Individual driveway depth limited to 5 ft. or less, or 18 ft. or more
Minimum Number Parking Spaces Ratio for Residential Uses Ratio for Non-Residential Uses	 1.2 spaces/bedroom 1 space/250 square feet	Inclusive of guest spaces
Residential Open Space and Common Amenities – Combined Minimum Ratio Minimum Private Open Space Ratio Minimum Common Amenity Ratio	250 square feet/dwelling unit 50 square feet/dwelling unit 175 square feet/dwelling unit	 5 feet min. width and length 15% maximum indoor
Residential Storage Units	150 cubic feet/dwelling unit minimum	Does not include closets or cabinets interior to the unit

Source: PUD Table 4-1, Summary of Development Standards

Grading and Drainage. The PUD site is already developed and essentially flat so its development is not expected to require substantial grading and earthwork is generally expected to be balanced onsite (i.e., no substantial import or export of soil). Under the PUD, onsite stormwater drainage facilities will be provided consistent with the San Bernardino County Stormwater Program's Water Quality Management Plan (WQMP) requirements for new development projects. Stormwater capture and infiltration facilities may include the utilization of vegetated swales, depressed landscaped basins, pervious concrete pavement or underground stormwater retention/infiltration vaults.

Landscaping. The PUD site will be fully landscaped according to a detailed Landscaping Plan that will be submitted with the Development Plan. The Landscaping Plan will specify all landscape and hardscape elements of the residential open space and common amenities, as well as the perimeter yards abutting the street rights-of-way and all street trees. The Plan will provide water conservation through low water using plant materials, hydro zones, water efficient irrigation and weather-based controllers. Landscaped areas will also be used for storm water infiltration through vegetated swales, retention basins, or dry wells as needed with appropriate planting materials. The Landscaping Plan will satisfy the requirements of the City's Landscape Development Standards outlined in the ODC. Street trees shall comply with the variety, size, and spacing as directed by the City of Ontario Master Street Tree Plan.

Open Space/Recreation. The PUD indicates each residential unit will have 50 square feet of private open space (i.e., balcony or patio) and will have 175 square feet per residential unit of common amenities. The PUD project proposes a total of 369 units so the overall development will have a minimum of 64,575 square feet of common open space amenities. This may include a combination of passive and active, indoor and

outdoor spaces, roof top or upper floor decks, as well as landscaped and hardscaped ground surfaces providing paseos between or adjacent to buildings. Up to 15 percent of the overall common amenity square footage may consist of indoor area and be grouped into a single building that is accessible to all residents; providing opportunities for fitness, various lounge/gathering space, business/mail center and similar amenities. The remaining common amenities provided shall be in the form of outdoor common areas consisting of both programmed and unprogrammed spaces. Programmed space may provide specific amenities such as a dog park, seating/conversational area, outdoor cooking facilities with table seating areas, etc. while unprogrammed space may provide passive use, such as landscaped paseos.

Fences and Walls. Exhibit 5-6 in the PUD provides a comprehensive plan for walls and fences that is compatible with the proposed building architecture and will not encroach into the public right-of-way.

Lighting. The PUD project includes security and decorative lighting for the new proposed commercial and residential buildings, parking areas, and access routes consistent with the PUD and the City's Development Code. The lighting plan shows that all lighting is shielded and directed toward the ground to the extent necessary to minimize potential impacts on neighboring residential uses.

Utilities. The PUD project site is already developed so its redevelopment will be served by existing water lines and wastewater flows and/or upgraded to satisfy the required capacities as determined by the City and its service purveyors/agencies.

Requested Approvals. The PUD project requires approval of the PUD and subsequent approval of site plans and improvement plans consistent with the PUD. The project application includes a Development Plan (File No. PDEV22-027, a Planned Unit Development (File No. PUD22-004), and an Addendum to the EIR prepared for TOP which was certified by the City Council on August 16, 2022. The EIR Addendum will allow the PUD project to comply with the requirements of the California Environmental Quality Act (CEQA).

PUD Objectives. The proposed PUD will facilitate the redevelopment of the project site with structures and related improvements that support both residential and non-residential land uses within the same project site. In addition to facilitating achievement of many City TOP goals and policies, this PUD establishes the following objectives:

- Develop and provide new, high-quality rental housing combined with a mixed-use component.
- Provide transition between new mixed-use development and surrounding residential neighborhoods and commercial properties.
- Provide areas of private and passive open space for each residential unit, as well as community gathering and active open spaces.
- Promote development that is consistent with the MU-NH – Mixed Use Neighborhood Activity Hub land use designation.
- Promote revitalization of commercial uses on the project site by establishing new ground-floor retail and similar uses that serve on-site residents and those in surrounding neighborhoods.
- Provide outdoor gathering places adjacent to commercial storefronts, such as outdoor patio or bench seating with inviting/attractive landscape elements.
- Orient non-residential, ground-floor uses towards Euclid Avenue.
- Incorporate site design solutions to allow for phased development.
- Satisfy the build-out projections for residential dwelling units within the MU-NH (Euclid- Walnut) sub-area, as defined in TOP 2050.

Project Setting: The PUD project site consists of approximately 10.6 acres of land within western Ontario. The site is almost square in shape and is located at the northwest corner of Euclid Avenue and W. Walnut Street just south of the SR-60 Freeway. The site is currently developed with a 4,100-square foot Carl's Jr. drive-through restaurant and 100,950 square feet of commercial buildings including a former Kmart building) plus a small retail building with several tenants. The site is relatively flat with elevations ranging

from 818 feet above mean sea level (amsl) in the northeast corner down to 810 feet amsl at the southeast corner with a gentle slope of less than one percent to the southwest. Runoff from the site generally flows toward the adjacent roadways (Euclid to the east and Walnut to the south).

The site is in a built-up urbanized area with existing residential uses to the west, south, and southeast, commercial uses to the east, and mixed residential and commercial uses to the north up to the freeway. The location and extent of existing land uses are shown in the previous Figure 2.

Project Background: The PUD project site was developed in the later part of the 20th Century with a variety of commercial uses, many of which are now vacant. No major planning, development, or environmental work has been done in the past 10+ years on this site. However, the City's TOP and its EIR was most recently adopted in 2022 and contain current and accurate environmental information about the project site and applicable mitigation as explained below and as summarized at the end of this document.

On August 16, 2022, the Ontario City Council adopted the latest version of TOP, which serves as the City's General Plan under state law and provides a foundation for the City to operate as a municipal corporation. The TOP consists of six (6) distinct components: 1) Vision; 2) Governance Manual; 3) Policy Plan; 4) Council Priorities; 5) Implementation; and 6) Tracking and Feedback. The Policy Plan component of TOP meets the functional and legal mandate of a municipal General Plan and contains nine elements; Land Use, Housing, Parks and Recreation, Environmental Resources, Community Economics, Safety, Mobility, Community Design and Social Resources.

The City Council certified TOP EIR (SCH # 2021070364) which analyzed the direct and physical changes in the environment that would be caused by implementation of TOP; focusing on changes to land use associated with the buildout of the proposed land use plan and impacts from population and employment growth in the City. The project proposes land uses consistent with TOP 2050. The significant unavoidable adverse impacts that were identified in TOP EIR included: agriculture resources, air quality, cultural resources, greenhouse gas (GHG) emissions, noise and transportation/traffic.

CEQA requires lead agencies to use the most current and accurate environmental information in analyzing project impacts. Therefore, consistent with the requirements of CEQA, the proposed project has been analyzed relative to current technical studies and TOP EIR. These uses will be consistent with the residential uses to the west, south, and southwest, the commercial uses to the east, and the mixed residential and commercial uses to the north.

CEQA Requirements for an Addendum: If changes to a project or its circumstances occur or new information becomes available after adoption of an EIR or negative declaration, the lead agency may: (1) prepare a subsequent EIR if the criteria of CEQA Guidelines Section 15162(a) are met, (2) prepare a subsequent negative declaration, (3) prepare an addendum, or (4) prepare no further documentation. (CEQA Guidelines Section 15162(b)). When only minor technical changes or additions to the EIR (or negative declaration) are necessary and none of the conditions described in Section 15162 calling for the preparation of a subsequent EIR or negative declaration have occurred, CEQA allows the lead agency to prepare and adopt an addendum. (CEQA Guidelines Section 15164(b).)

Under Section 15162, a subsequent EIR or negative declaration is required only when:

1) Substantial changes are proposed in the project which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects;

2) Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the EIR or negative declaration due to the involvement of any new significant environmental effects or a substantial increase in the severity of previously identified significant effects; or

3) New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the EIR or negative declaration was adopted, shows any of the following:

a) The project will have one or more significant effects not discussed in the previous EIR or negative declaration;

b) Significant effects previously examined will be substantially more severe than shown in the previous EIR;

c) Mitigation measures or alternatives previously found not to be feasible would in fact be feasible and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or

d) Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.

Thus, if the PUD project does not result in any of the circumstances listed in Section 15162 (i.e., no new or substantially greater significant impacts), the City may adopt an addendum to TOP EIR.

CEQA Analysis: According to CEQA Guidelines Section 15164, an Addendum to a previously certified EIR may be used if some changes or additions are necessary, but none of the conditions described in Section 15162 requiring the preparation of a subsequent negative declaration or EIR have occurred. The CEQA Guidelines require that a brief explanation be provided to support the findings that no subsequent EIR or negative declaration are needed for further discretionary approval. These findings are described below:

1) *Required Finding: Substantial changes are not proposed for the project that will require major revisions of the previous EIR due to the involvement of new, significant environmental effects or a substantial increase in the severity of previously identified effects*.

Substantial changes are not proposed by the project compared to what is allowed in TOP, and project implementation will not require revisions to TOP EIR. TOP EIR analyzed the direct and physical changes in the environment that would be caused by TOP; focusing on changes to land use associated with the buildout of the proposed land use plan. The site is located within the Mixed Use – Neighborhood Community Hub (MU-NH) designation of TOP. The PUD project will provide both mixed uses and be an activity hub for the surrounding neighborhoods.

Under TOP, projected buildout of the entire 16 acres of MU-NH overlay property would have a total of 369 dwelling units and 142,840 square feet of non-residential development. The PUD project proposes 369 units and approximately 12,000 square feet of the non-residential development on 10.6 acres, leaving 130,840 square feet of non-residential development to be built in the remainder of the MU-NH area adjacent to the SR-60 Freeway.

Since the anticipated buildout resulting from the PUD project will be equivalent to or less than that originally analyzed in TOP EIR, no revisions to TOP EIR are required.

In addition, all previously adopted mitigation measures of TOP EIR are conditions of project approval or mitigation measures and are incorporated herein by reference. This document provides an analysis of the project and verification that the project will not cause any new or more significant environmental impacts.

2) *Required Finding: Substantial changes have not occurred with respect to the circumstances under which the project is undertaken, that would require major revisions of the previous Environmental Impact Report due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.*

Substantial changes have not occurred with respect to the circumstances under which the project was undertaken, that would require major revisions to TOP EIR. TOP EIR evaluated the site as a mixture of land uses up to 369 residential units and 142,840 square feet of non-residential development. The PUD project proposes 369 units and approximately 12,000 square feet of the non-residential development, leaving 130,840 square feet of non-residential development to be built in the remainder of the MU-NH area adjacent to the SR-60 Freeway.

Therefore, no proposed changes or revisions to TOP EIR are required. In addition, all previously adopted TOP EIR mitigation measures are incorporated herein by reference. This document provides an analysis of the project and verification that the project will not cause any new or more significant environmental impacts.

3) *Required Finding. No new information has been provided that would indicate that the proposed project would result in one or more significant effects not discussed in the previous EIR.*

No new information has been provided that would indicate the proposed project would result in any new significant effects not previously discussed in TOP EIR. TOP EIR evaluated the site as a mixture of land uses up to 369 residential units and 142,840 square feet of non-residential development. The PUD project proposes 369 units and approximately 12,000 square feet of the non-residential development, leaving 130,840 square feet of non-residential development to be built in the remainder of the MU-NH area adjacent to the SR-60 Freeway.

TOP Figure LU-01, Land Use Plan, and TOP EIR Figure 1-3, Proposed Land Use Plan, indicate the proposed PUD project is consistent with the surrounding residential, commercial, and mixed uses. Since adoption of the 1992 General Plan, 2022 TOP, and certification of the 2010 TOP EIR, the subject site has been planned for a mixture of residential and commercial uses.

Conclusion: TOP EIR, certified by the City Council on August 16, 2022 was prepared as a Program EIR in accordance with CEQA, the CEQA Guidelines section 15121(a), and the City's Rules for the Implementation of CEQA. TOP EIR considered the direct physical changes and reasonably foreseeable indirect physical changes in the environment that would be caused by TOP. Consequently, TOP EIR focused on impacts from changes to land use associated with buildout of the City and impacts from the resulting population and employment growth in the City. The proposed project is consistent and compatible with existing and planned uses in the surrounding area and would only differ by having +4% more units but 28% less non-residential square footage with the PUD. While no additional specific information on Phase 2 construction is presented at this time, overall development and construction of the 10.6-acre MU-NH sub-area would be similar with or without the PUD in terms of land area developed. The overall construction of the PUD project is generally consistent with the level of development outlined in TOP and its EIR The amount of development anticipated at PUD project buildout as shown in the previous Table 1 and outlined in the Project Description will be equivalent to the development analyzed in TOP EIR.

The proposed PUD differs from the TOP's assumptions for this project site, so this addendum and supplemental studies are required to ensure the project introduces no new significant environmental impacts that were identified in TOP EIR. The City's "Guidelines for the Implementation of the California Environmental Quality Act (CEQA)" provide for the use of a single environmental assessment in situations where the impacts of subsequent projects are adequately analyzed. Should no new significant environmental impacts arise as a result of this project and related analyses, all previously adopted mitigation measures shall be a condition of project approval.

Accordingly, and based on the conclusions of the previously certified TOP EIR, the analysis in this document, CEQA and the CEQA Guidelines, including Sections 15164 and 15162, the PUD project will not result in any new, increased or substantially different impacts not previously considered and addressed in TOP EIR. No changes or additions to TOP EIR analyses are necessary, nor is there a need for additional mitigation with implementation of the number of conditions of approval required by the City based on the results of the site-specific technical studies for burrowing owl and airport safety.

Surrounding Land Uses: The project site is in a built-up urbanized area with existing residential uses to the west, south, and southeast, commercial uses to the east, and mixed residential and commercial uses to the north up to the freeway. See **Table 3** for onsite and surrounding land uses and zoning designations. Onsite and surrounding land uses are also shown in the previous Figure 2.

Table 3: Existing Land Uses and Zoning Designations

Location	Existing Land Uses	TOP Designation	Zoning Designation
PUD Site	Vacant older retail commercial and fast-food restaurant	Mixed Use-Neighborhood Community Hub (MU-NH)	Mixed-Use 8e (Euclid and Walnut) within Euclid Avenue Overlay (EA)
North	Mixture of residential and commercial uses	Mixed Use-Neighborhood Community Hub (MU-NH)	Mixed-Use 8e (Euclid and Walnut) within Euclid Avenue Overlay (EA)
South	Single Family Residential	Low Density Residential (2.1-5 du/ac)	Low Density Residential (LDR-5)
East	Commercial shopping center	Neighborhood Commercial (0.4 FAR)	Neighborhood Commercial (CN) within Euclid Avenue Overlay (EA)
West	Multi-Family Residential	Medium Density Residential (11.1-25 du/ac)	Medium Density Residential (MDR-18)

Source: City Website 2022 and Google Earth 2022 du/ac = dwelling units per acre

Other public agencies whose approval is required (e.g., permits, financing approval or participation agreement): None

Tribal Consultation: Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code section 21080.3.1? ☒ Yes ☐ No

If "yes", has consultation begun? ☐ Yes ☐ No ☒ Completed

NOTE: Consultation was already conducted as part of TOP EIR and no new consultation is required for this Addendum to TOP EIR

Additional Studies: The following additional studies have been or are being prepared in support of the analysis in this document regarding potential environmental impacts of the proposed project. These studies are in the Appendices to this document and include:

- Euclid/Walnut Planned Unit Development (PUD) (Appendix A)
- Health Risk Assessment (Appendix B)
- Hydrology and Water Quality (Appendix C)
- Trip Generation (Appendix D)

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

☐ Aesthetics	☐ Agriculture/Forestry Resources	☐ Air Quality
☐ Biological Resources	☐ Cultural Resources	☐ Geology / Soils
☐ Greenhouse Gas Emissions	☐ Hazards & Hazardous Materials	☐ Hydrology / Water Quality
☐ Land Use / Planning	☐ Mineral Resources	☐ Noise
☐ Population / Housing	☐ Public Services	☐ Recreation
☐ Transportation	☐ Utilities / Service Systems	☐ Mandatory Findings of Significance
☐ Tribal Cultural Resources	☐ Wildfire	☐ Energy

DETERMINATION *(To be completed by the Lead Agency)*

On the basis of this initial evaluation:

☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

☐ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

☐ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

☐ I find that the proposed project MAY have a "potentially significant" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

☒ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.



Signature

July 5, 2023
Date

Alexis Vaughn, Associate Planner
Printed Name and Title

City of Ontario
For

EVALUATION OF ENVIRONMENTAL IMPACTS

1) A brief explanation is required for all answers except “No Impact” answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A “No Impact” answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A “No Impact” answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).

2) All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.

3) Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. “Potentially Significant Impact” is appropriate if there is substantial evidence that an effect is significant. If there are one or more “Potentially Significant Impact” entries when the determination is made, an EIR is required.

4) “Negative Declaration: Less Than Significant with Mitigation Incorporated” applies where the incorporation of mitigation measures has reduced an effect from “Potentially Significant Impact” to a “Less than Significant Impact.” The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures from the “Earlier Analyses” Section may be cross-referenced).

5) Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or Negative Declaration. Section 15063l(3)(D). In this case, a brief discussion should identify the following:

   a) Earlier Analyses Used. Identify and state where they are available for review. For this project, reference will be made to TOP EIR as appropriate.

   b) Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.

   c) Mitigation Measures. For effects that are "Less than Significant with Mitigation Measures Incorporated," describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.

6) Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.

7) Supporting Information Sources. A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.

8) This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whatever format is selected.

9) The explanation of each issue should identify:

   a) The significance criteria or threshold, if any, used to evaluate each question; and

   b) The mitigation measure identified, if any, to reduce the impact to less than significance.

Issues	*Potentially Significant Impact*	*Less Than Significant with Mitigation*	*Less Than Significant Impact*	*Impacts Previously Analyzed in TOP FEIR*
1. AESTHETICS. Would the project:				
a. Have a substantial adverse effect on a scenic vista?	☐	☐	☐	☒
b. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☐	☒
c. In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	☐	☐	☐	☒
d. Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☐	☒
2. AGRICULTURE AND FOREST RESOURCES. In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest protocols adopted by the California Air Resources Board. Would the project:				
a. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☒
b. Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒
c. Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	☐	☐	☐	☒
d. Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒

Issues	*Potentially Significant Impact*	*Less Than Significant with Mitigation*	*Less Than Significant Impact*	*Impacts Previously Analyzed in TOP FEIR*
e. Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☐	☒
3. AIR QUALITY. Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:				
a. Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☐	☒
b. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?	☐	☐	☐	☒
c. Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☐	☒
d. Result in other emissions (such as those leading to odors adversely affecting a substantial number of people?	☐	☐	☐	☒
4. BIOLOGICAL RESOURCES. Would the project:				
a. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☐	☐	☒
b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☐	☐	☒
c. Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☐	☒
d. Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☐	☐	☒
e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☐	☒
f. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☒

Issues	*Potentially Significant Impact*	*Less Than Significant with Mitigation*	*Less Than Significant Impact*	*Impacts Previously Analyzed in TOP FEIR*
5. CULTURAL RESOURCES. Would the project:				
a. Cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5?	☐	☐	☐	☒
b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?	☐	☐	☐	☒
c. Disturb any human remains, including those interred outside of dedicated cemeteries?	☐	☐	☐	☒
6. ENERGY. Would the project:				
a. Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	☐	☐	☐	☒
b. Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	☐	☐	☐	☒
7. GEOLOGY AND SOILS. Would the project:				
a. Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury or death involving:	☐	☐	☐	☒
i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☐	☒
ii. Strong seismic ground shaking?	☐	☐	☐	☒
iii. Seismic-related ground failure, including liquefaction?	☐	☐	☐	☒
iv. Landslides?	☐	☐	☐	☒
b. Result in substantial soil erosion or the loss of topsoil?	☐	☐	☐	☒
c. Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☐	☐	☒
d. Be located on expansive soil, as defined in Table 18 1 B of the Uniform Building Code, creating substantial direct or indirect risks to life or property?	☐	☐	☐	☒
e. Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	☐	☐	☐	☒
f. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	☐	☒

Issues	*Potentially Significant Impact*	*Less Than Significant with Mitigation*	*Less Than Significant Impact*	*Impacts Previously Analyzed in TOP FEIR*
8. GREENHOUSE GAS EMISSIONS. Would the project:				
a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☐	☒
b. Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emission of greenhouse gases?	☐	☐	☐	☒
9. HAZARDS AND HAZARDOUS MATERIALS. Would the project:				
a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☐	☒
b. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	☐	☒
c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	☒
d. Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☐	☒
e. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	☐	☐	☐	☒
f. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒
g. Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	☐	☐	☐	☒
10. HYDROLOGY AND WATER QUALITY. Would the project:				
a. Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	☐	☐	☐	☒
b. Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	☐	☐	☐	☒

Issues	*Potentially Significant Impact*	*Less Than Significant with Mitigation*	*Less Than Significant Impact*	*Impacts Previously Analyzed in TOP FEIR*
c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:	☐	☐	☐	☒
i. result in substantial erosion or siltation on- or off-site;	☐	☐	☐	☒
ii. substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;	☐	☐	☐	☒
iii. create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	☐	☐	☐	☒
iv. impede or redirect flood flows?	☐	☐	☐	☒
d. In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	☐	☐	☐	☒
e. Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☐	☐	☒
11. LAND USE AND PLANNING. Would the project:				
a. Physically divide an established community?	☐	☐	☐	☒
b. Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☐	☒
12. MINERAL RESOURCES. Would the project:				
a. Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☒
b. Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	☐	☐	☐	☒
13. NOISE. Would the project result in:				
a. Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☐	☐	☒
b. Generation of excessive ground-borne vibration or ground-borne noise levels?	☐	☐	☐	☒
c. For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒

Issues	*Potentially Significant Impact*	*Less Than Significant with Mitigation*	*Less Than Significant Impact*	*Impacts Previously Analyzed in TOP FEIR*
14. POPULATION AND HOUSING. Would the project:				
a. Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of road or other infrastructure)?	☐	☐	☐	☒
b. Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒
15. PUBLIC SERVICES. Would the project:				
a. Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
i. Fire protection?	☐	☐	☐	☒
ii. Police protection?	☐	☐	☐	☒
iii. Schools?	☐	☐	☐	☒
iv. Parks?	☐	☐	☐	☒
v. Other public facilities?	☐	☐	☐	☒
16. RECREATION. Would the project:				
a. Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☐	☒
b. Does the project include recreational facilities or require the construction or expansion of recreational facilities which have an adverse physical effect on the environment?	☐	☐	☐	☒
17. TRANSPORTATION. Would the project:				
a. Conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	☐	☐	☐	☒
b. Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?	☐	☐	☐	☒
c. Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☐	☒
d. Result in inadequate emergency access?	☐	☐	☐	☒

Issues	*Potentially Significant Impact*	*Less Than Significant with Mitigation*	*Less Than Significant Impact*	*Impacts Previously Analyzed in TOP FEIR*
18. TRIBAL CULTURAL RESOURCES. Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is				
a. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k)?	☐	☐	☐	☒
b. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subsection(c) of Public Resources Code section 5024.1. In applying the criteria set forth in subsection (c) of Public Resources Code section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	☐	☐	☐	☒
19. UTILITIES AND SERVICE SYSTEMS. Would the project:				
a. Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	☐	☐	☐	☒
b. Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	☐	☐	☐	☒
c. Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☐	☒
d. Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	☐	☐	☐	☒
e. Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	☐	☐	☐	☒
20. WILDFIRES. If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:				
a. Substantially impair an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒

Issues	*Potentially Significant Impact*	*Less Than Significant with Mitigation*	*Less Than Significant Impact*	*Impacts Previously Analyzed in TOP FEIR*
b. Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	☐	☐	☐	☒
c. Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	☐	☐	☐	☒
d. Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	☐	☐	☐	☒
21. MANDATORY FINDINGS OF SIGNIFICANCE.				
a. Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☐	☐	☒
b. Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current project, and the effects of probable future projects.)	☐	☐	☐	☒
c. Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☐	☒

Note: Authority cited: Public Resources Code sections 21083, 21083.05, 21083.09.

Reference: Gov. Code section 65088.4; Public Resources Code sections 21073, 21074, 21080(c), 21080.1, 21080.3, 21080.3.1, 21080.3.2, 21082.3, 21083, 21083.3, 21083.5, 21084.2, 21084.3, 21093, 21094, 21095 and 21151; *Sundstrom v. County of Mendocino* (1988) 202 Cal.App.3d 296; *Leonoff v. Monterey Board of Supervisors* (1990) 222 Cal.App.3d 1337; *Eureka Citizens for Responsible Govt. v. City of Eureka* (2007) 147 Cal.App.4th 357; *Protect the Historic Amador Waterways v. Amador Water Agency* (2004) 116 Cal.App.4th 1099, 1109; *San Franciscans Upholding the Downtown Plan v. City and County of San Francisco* (2002) 102 Cal.App.4th 656.

EXPLANATION OF ISSUES

1. AESTHETICS. Would the project:

a. Have a substantial adverse effect on a scenic vista?

Discussion of Effects: TOP EIR concludes… "the scale and design of the City under TOP 2050 would not deter views of the San Gabriel Mountains which are the dominant scenic resource in the City of Ontario. Regulations such as the City's Municipal Code and policies *[of TOP]* would ensure that increased development would not impact scenic vistas" (SEIR p. 5.1-5). TOP Policy CD1-5 requires all major north-south streets be designed and redeveloped to feature views of the San Gabriel Mountains.

The project site is located at the northwest corner of Euclid Avenue and Walnut Street just south of the SR-60 Freeway. Surrounding roadways and public areas have views of the mountains to the north. The PUD project proposes 3 and 4-story buildings with the taller buildings along the west side of Euclid to accommodate commercial uses on the ground floors. The residential uses to the south are across Walnut Street from the site so the new buildings would not block public views from this area as well. The future buildings would be consistent in terms of mass and height with what is allowed in TOP and current zoning although they would be controlled by the PUD. The new uses are already allowed under TOP and do not obstruct views of the San Gabriel Mountains from onsite or surrounding north-south streets. No adverse impacts are anticipated in relation to the project.

Therefore, the project will not result in any new, increased or substantially different impacts not previously considered and addressed in TOP EIR. No changes or additions to TOP EIR analyses are necessary.

Mitigation: No project specific mitigation is required.

b. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings and historic buildings within a state scenic highway?

Discussion of Effects: TOP EIR states "…The Euclid Corridor and the Mission Boulevard Corridor are the primary scenic corridors in Ontario. These are not State-designated scenic highways, and Ontario does not have any State scenic highways through or in the vicinity of the City" (SEIR 5.1-6). The City is served by three freeways: I-10, I-15, and SR-60. I-10 and SR-60 traverse the northern and central portion of the City, respectively, in an east–west direction. I-15 traverses the northeastern portion of the City in a north–south direction. The project site is just south of SR-60 and west of the I-15 freeway. These segments of I-10, I-15, and SR-60 have not been officially designated as scenic highways by the California Department of Transportation (Caltrans) or the City.

The project site currently supports commercial buildings of various types and sizes but the largest buildings on the west side of the property (former Kmart) are vacant. The site does not contain any visual or scenic resources or historic buildings. Therefore, it will not damage any scenic resources and not result in any adverse environmental impacts.

The project will not result in any new, increased or substantially different impacts not previously considered and addressed in TOP EIR. No changes or additions to the EIR analyses are necessary.

Mitigation: No project specific mitigation is required.

c. In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?

Discussion of Effects: TOP EIR characterized this area as having existing commercial development and the area contained urban land uses including both residential and commercial development planned on and around the project site. TOP EIR concluded that future development in the City, which includes the mixed uses planned on the PUD project site, would not degrade the existing visual character or quality of the site or its surroundings and no mitigation was required (SEIR p. 5.1-7).

TOP EIR also states:

> …future development under the *[TOP 2050]* would still be required to adhere to the City's Development Code, which includes general development requirements for development density, screening and setback, signing, landscaping, lighting, height limitations, and other aspects related to the aesthetic of the City. Finally…the Development Code is enacted to assist implementation of planning, zoning, development, subdivision, and environmental laws and the TOP and to achieve the proper arrangement of land uses envisioned in TOP. Because it is the overriding planning document for the City, and because it is intended to improve consistency with existing regulations and conditions, the…TOP 2050…would not have a significant impact with respect to being inconsistent with policies or regulations governing scenic quality. (SEIR p. 5-1-7)

The project site is located in a completely urbanized area with developed uses surrounding the site. The PUD project would introduce new buildings onto the site which would have a suburban/urban appearance consistent with newer uses and buildings along the Euclid Avenue corridor to the north. Therefore, the project is consistent with TOP land uses and zoning so it would not degrade the existing visual character or quality of the site or its surroundings.

The proposed project will be required to comply with the policies of the Community Design Element of TOP Policy Plan and zoning designations on the property, as well as the design requirements of the Euclid/Walnut PUD. Therefore, no adverse visual impacts are anticipated, and the project will not result in any new, increased or substantially different impacts not previously considered and addressed in TOP EIR. No changes or additions to TOP EIR analyses are necessary.

Mitigation: No project specific mitigation is required.

d. Create a new source of substantial light or glare that would adversely affect day or nighttime views in the area?

Discussion of Effects: TOP EIR concluded that new development throughout the City would increase ambient light levels over time as development occurred, but that compliance with Development Code lighting requirements would reduce potential impacts to less than significant levels, and no mitigation was required (SEIR p. 6.1-7).

The project proposes the development of several residential and mixed-use buildings on the site, with the mixed uses (retail commercial on the ground floor and residential above) along Euclid Avenue and the residential buildings in the central and western portions of the site.

New development will have architectural and security lighting on buildings and in parking lots, and streets will have new lighting installed or existing street lighting continue in place. Pursuant to the requirements of the Euclid/Walnut PUD and the City's Development Code, onsite lighting will be shielded, diffused or indirect, to avoid glare to onsite users, pedestrians, and motorists. In addition, lighting fixtures will be selected and located to confine the area of illumination to within each building site and minimize light spillage. Site lighting plans will be subject to review by the Planning Department and Police Department prior to issuance of building permits (pursuant to the City's Building Security Ordinance). Therefore, no adverse impacts are anticipated.

The project will not result in any new, increased or substantially different impacts not previously considered and addressed in TOP EIR. No changes or additions to TOP EIR analyses are necessary.

Mitigation: No project specific mitigation is required.

2. AGRICULTURE AND FOREST RESOURCES. In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment (LESA) Model prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:

a. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program (FMMP) of the California Resources Agency, to non-agricultural use?

Discussion of Effects: TOP EIR states that the City is underlain by prime agricultural soils in a number of areas but that the City envisions a natural transition of these lands to suburban and urban uses over time based on market forces and the desires of property owners. The EIR concluded TOP "… would have no direct, indirect, and cumulative impacts relating to conversion of Farmland to non-agricultural use" (SEIR p. 5.2-12). The EIR concluded this because those changes had already been evaluated in the 2010 TOP which represents the baseline condition for the 2050 TOP. TOP EIR did not anticipate these changes to be a significant adverse impact and as a result did not recommend mitigation.

The project site is presently fully developed and does not contain any agricultural uses. Although the general area supported agriculture long ago, the site is identified as Urban and Built-up Land on the map prepared by the California Resources Agency as part of the Farmland Mapping and Monitoring Program (FMMP). Based on the information above, no adverse environmental impacts from the project related to prime farmland are anticipated.

Therefore, the project will have no significant impacts on agricultural resources and no mitigation is required. The project will not result in any new, increased or substantially different impacts other than those previously considered and addressed in TOP EIR. No changes or additions to TOP EIR analyses are necessary.

Mitigation: No project specific mitigation is required.

b. Conflict with existing zoning for agricultural use, or a Williamson Act contract?

Discussion of Effects: TOP EIR indicates that some areas of the City were used for agriculture in the past, including the general project area. However, the City currently has no agricultural land use or zoning designations. Figure 5.2-2 of TOP EIR indicates there are a number of Williamson Act contracts in the City but they are in the southern portion of the City which also is transitioning to suburban land uses. The project area long ago transitioned from agriculture to suburban and urban land uses, and no Williamson Act contracts are active in this area at present. In this regard, no significant impacts were anticipated in TOP EIR and no mitigation was recommended.

The PUD project site is not zoned for agricultural use and the site is designated for mixed residential and commercial uses which are permitted under TOP. Future development will be consistent with the development standards and land uses allowed under TOP and the proposed Euclid/Walnut PUD.

Therefore, no impacts to agricultural uses are anticipated, nor will there be any conflict with Williamson Act contracts. The project will not result in any new, increased or substantially different impacts not previously considered and addressed in TOP EIR. No changes or additions to TOP EIR analyses are necessary.

Mitigation: No project specific mitigation is required.

c. Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g)?

Discussion of Effects: TOP EIR indicated there were no forest resources in the City, so development of planned land uses in the City, including the mixed uses of the PUD project site, would not result in any impacts related to rezoning of forest or timberland to non-forest use.

The PUD project proposes residential and commercial buildings consistent with the mixed-use land use designation in TOP and the Euclid/Walnut PUD. The PUD project would not result in the rezoning of forest land, timberland, or land zoned Timberland Production because such land use designations do not exist within the City.

Therefore, no impacts to forest or timberland are anticipated and the PUD project will not result in any new, increased or substantially different impacts not previously considered and addressed in TOP EIR. No changes or additions to TOP EIR analyses are necessary.

Mitigation: No project specific mitigation is required.

d. Result in the loss of forest land or conversion of forest land to non-forest use?

Discussion of Effects: TOP EIR indicated there were no forest resources in the City, so development of planned land uses, including the mixed uses of the PUD project site, would not result in any impacts related to the conversion of forest land to non-forest use (SEIR p. 5.2-13).

There is currently no land in the City that qualifies as forest land as defined in Public Resources Code section 12220(g), including the project site. Neither TOP nor the City's Zoning Code provide designations for forest land anywhere in the City.

Therefore, the proposed project would not result in the loss or conversion of forest land. The project will not result in any new, increased or substantially different impacts not previously considered and addressed in TOP EIR. No changes or additions to TOP EIR analyses are necessary.

Mitigation: No project specific mitigation is required.

e. Involve other changes in the existing environment, which, due to their location or nature, could individually or cumulatively result in loss of farmland to non-agricultural use or conversion of forest land to non-forest use?

Discussion of Effects: TOP EIR indicated future development would not conflict with agricultural uses and would not result in conversion of farmland to non-agricultural use. It also concluded there is no forest land in Ontario, and therefore the project would not result in conversion of forest land to non-forest use (SEIR p. 5.2-14). TOP envisions a natural transition of these lands to suburban and urban uses over time based on market forces and the desires of property owners. TOP EIR indicated there were no forest resources in the City, so development of planned land uses, including the mixed uses of the PUD project site, would not result in any cumulative impacts related to loss of forest land.

Implementation of the PUD project would not result in changes to the existing environment other than those previously addressed in TOP EIR. While conversion of farmland increases the potential for adjacent areas to also be converted from farmland to urban uses, there are no agricultural uses occurring onsite or in the vicinity and the project will not directly or indirectly result in conversion of farmland. No new cumulative impacts beyond those identified in TOP EIR would result from project implementation. As a result, the project will not result in loss of farmland to non-agricultural use.

Additionally, there is currently no land in the City that qualifies as forest land as defined in Public Resources Code Section 12220(g). Neither TOP nor the City's Zoning Code provide designations for forest land.

Based on available data, the proposed PUD project would not result in changes to the existing environment that would affect forest land. There will be no impacts and no mitigation is required. The project will not result in any new, increased or substantially different impacts not previously considered and addressed in TOP EIR. No changes or additions to TOP EIR analyses are necessary.

Mitigation: No project specific mitigation is required.

3. AIR QUALITY. Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:

a. Conflict with or obstruct implementation of the applicable air quality plan?

Discussion of Effects: The project site was analyzed in the current (2022) and previous (2010) TOP EIR as a mixture of residential and commercial uses, consistent with the surrounding mixture of similar land uses. TOP EIR concluded future land uses, including the proposed project, may conflict with or obstruct implementation of the 2016 Air Quality Management Plan (AQMP) of the South Coast Air Quality Management District (SCAQMD). TOP EIR concluded that future development and the cumulative air pollutant emissions would exceed the SCAQMD daily thresholds. As noted in the previous TOP EIR (Section 5.3) from 2010, pollutant levels in the City already exceeded Federal and State standards at that time. To reduce pollutant levels, the City is actively participating in efforts to enhance air quality by implementing control measures in the AQMP for local jurisdictions within the South Coast Air Basin (SCAB).

TOP EIR in 2022 evaluated the development of a maximum of 369 residential units and approximately 142,840 square feet of non-residential development on the Overlay Planning Area. The PUD project proposes 369 units and approximately 12,000 square feet of non-residential development in Phases 1 and 2, leaving 130,840 square feet of non-residential development to be built in the remainder of the MU-NH area adjacent to the SR-60 Freeway.

The TOP indicates the projected buildout for the entire 16 acres of this sub-area will eventually have a total of 369 dwelling units and 142,840 square feet of non-residential development. Development of the proposed PUD would slightly exceed the total number of residential units for this area under the TOP (369 MF+15 SF=384 total units vs. 369 projected total units). However, development of the PUD would substantially reduce the amount of anticipated non-residential growth in this sub-area (12,000 SF in the PUD plus 28,000 existing = 40,000 SF vs. 142,840 SF). Therefore, development of the "PUD project" would result in a 4% increase in residential impacts but a 28% decrease in commercial impacts. While this Addendum only covers impacts of the new residential and commercial uses currently proposed under the PUD Project, the anticipated impacts of growth in this MU-NH sub-area with the PUD are considered to be equivalent or less than those identified in TOP EIR for this sub-area. The proposed project is therefore generally consistent with TOP land use designations upon which the AQMP is based. Furthermore, the project is consistent with the City's participation in the AQMP and will not conflict with or obstruct implementation of the plan. The project will be required to implement TOP EIR Mitigation Measures AQ 3-1, 3-2, and 3-3 which include fugitive dust control measures pursuant to SCAQMD's Rule 403, use of Tier 3 construction equipment, proper service and maintenance of construction equipment, limiting nonessential idling of construction equipment, use of Super-Compliant volatile organic compounds (VOC) paints for coating and architectural surfaces, providing non-vehicular access options, and calculate and reduce any significant health risks from future development on nearby sensitive receptors (MM 3-1 through 3-3, respectively).

At the request of City staff, a health risk assessment (HRA) was prepared for the project to determine if air pollutant emissions from the nearby freeway would result in any significant impacts to human health including cancer and non-cancer related deaths of project residents. The HRA concluded that freeway emissions would not result in any significant human health risks for project residents. Minimum Efficiency Rating Value (MERV) 13 filters, which are required for the residential buildings by the CalGreen Code, are sufficient to reduce risks below SCAQMD thresholds. (see **Appendix B**).

Therefore, the project will not result in any new, increased or substantially different impacts not previously considered and addressed in TOP EIR. No changes or additions to TOP EIR analyses are necessary.

Mitigation: No project specific mitigation is required but the following measures from TOP EIR are applicable to the proposed project:

AQ 3-1: Prior to discretionary approval by the City of Ontario for development projects subject to CEQA (California Environmental Quality Act) review (i.e., nonexempt projects), project applicants shall prepare and submit a technical assessment evaluating potential project construction-related air quality impacts to the City of Ontario Planning Department for review and approval. The evaluation shall be prepared in conformance with South Coast Air Quality Management District (South Coast AQMD) methodology for assessing air quality impacts. If construction-related criteria air pollutants are determined to have the

potential to exceed the South Coast AQMD–adopted thresholds of significance, the City of Ontario Building Department shall require feasible mitigation measures to reduce air quality emissions. Potential measures shall be incorporated as conditions of approval for a project and may include:

- Require fugitive dust control measures that exceed South Coast Air Quality Management District's Rule 403, such as:
  - Requiring use of nontoxic soil stabilizers to reduce wind erosion.
  - Applying water every four hours to active soil disturbing activities.
  - Tarping and/or maintaining a minimum of 24 inches of freeboard on trucks hauling dirt, sand, soil, or other loose materials.
- Using construction equipment rated by the United States Environmental Protection Agency as having Tier 4 interim or higher exhaust emission limits.
- Ensuring construction equipment is properly serviced and maintained to the manufacturer's standards
- Limiting nonessential idling of construction equipment to no more than five consecutive minutes.
- Using Super-Compliant VOC paints for coating of architectural surfaces whenever possible. A list of Super-Compliant architectural coating manufactures can be found on the South Coast Air Quality Management District's website at: http://www.aqmd.gov/prdas/brochures/SuperCompliant_AIM.pdf. These identified measures shall be incorporated into all appropriate construction documents (e.g., construction management plans) submitted to the City and shall be verified by the City's Planning Department.

AQ 3-2: The City of Ontario shall evaluate new development proposals within the City and require all developments to include access or linkages to alternative modes of transportation, such as transit stops, bike paths, and/or pedestrian paths (e.g., sidewalks).

AQ 3-3: Prior to discretionary approval by the City of Ontario for development projects subject to CEQA (California Environmental Quality Act) review (i.e., nonexempt projects), project applicants shall prepare and submit a technical assessment evaluating potential project operation-phase-related air quality impacts to the City of Ontario Planning Department for review and approval. The evaluation shall be prepared in conformance with South Coast Air Quality Management District (South Coast AQMD) methodology in assessing air quality impacts. If operation-related air pollutants are determined to have the potential to exceed the South Coast AQMD–adopted thresholds of significance, the City of Ontario Planning Department shall require that applicants for new development projects incorporate mitigation measures to reduce air pollutant emissions during operational activities. The identified measures shall be included as part of the conditions of approval. Possible mitigation measures to reduce long-term emissions could include but are not limited to the following:

- For site-specific development that requires refrigerated vehicles, the construction documents shall demonstrate an adequate number of electrical service connections at loading docks for plug-in of the anticipated number of refrigerated trailers to reduce idling time and emissions.
- Applicants for manufacturing and light industrial uses shall consider energy storage and combined heat and power in appropriate applications to optimize renewable energy generation systems and avoid peak energy use.
- Site-specific developments with truck delivery and loading areas and truck parking spaces shall include signage as a reminder to limit idling of vehicles while parked for loading/unloading in accordance with California Air Resources Board Rule 2845 (13 CCR Chapter 10 sec. 2485).
- Provide changing/shower facilities as specified in Section A5.106.4.3 of CALGreen (Nonresidential Voluntary Measures).
- Provide bicycle parking facilities per Section A4.106.9 of CALGreen (Residential Voluntary Measures).
- Provide preferential parking spaces for low-emitting, fuel-efficient, and carpool/van vehicles per Section A5.106.5.1 of CALGreen (Nonresidential Voluntary Measures).
- Provide facilities to support electric charging stations per Section A5.106.5.3 and Section A5.106.8.2 of CALGreen (Nonresidential Voluntary Measures; Residential Voluntary Measures).

- Applicant-provided appliances shall be Energy Star–certified appliances or appliances of equivalent energy efficiency (e.g., dishwashers, refrigerators, clothes washers, and dryers). Installation of Energy Star–certified or equivalent appliances shall be verified by the City during plan check.

b. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?

Discussion of Effects: TOP EIR in 2022 evaluated the development of a maximum of 369 residential units and approximately 142,840 square feet of non-residential development on the Overlay Planning Area. The PUD project proposes 369 units and approximately 12,000 square feet of non-residential development in Phases 1 and 2, leaving 130,840 square feet of non-residential development to be built in the remainder of the MU-NH area adjacent to the SR-60 Freeway. The remainder of the MU-NH area is currently built out with 15 single-family dwellings and approximately 28,000 square feet of commercial uses.

TOP EIR concluded that air pollutant emissions from future development within the City consistent with TOP land uses, including the proposed project, would exceed established SCAQMD thresholds. The proposed PUD project is within the amount of growth planned for the project site under TOP and would make an incremental contribution to the significant air pollutant emissions and impacts identified for TOP.

As outlined in Section 3.a above, development of the "PUD project" would result in a 4% increase in residential impacts but a 28% decrease in commercial impacts from what was analyzed in TOP EIR. While this Addendum only covers impacts of the new residential and commercial uses currently proposed under the PUD Project, the anticipated impacts of growth in this MU-NH sub-area with the addition of the PUD are considered to be generally equivalent or less than those identified in TOP EIR for this sub-area.

Mitigation Measures AQ 3-1, 3-2, and 3-3 as outlined in Section 3.a have already been adopted by the City that would facilitate continued City cooperation with the SCAQMD and Southern California Association of Governments (SCAG) to reduce short-term construction emissions, help promote regional air quality improvement goals and energy conservation design and development techniques, encourage alternative modes of transportation, and implement transportation demand strategies. However, TOP EIR concluded that air pollutant impacts would be significant even with implementation of Mitigation Measures MM AQ 3-1 through 3-3.

The proposed PUD project would implement MM AQ 3-1 through AQ 3-3 and is generally within the limits established for the site in TOP and evaluated in TOP EIR. Therefore, the PUD project itself will not result in a cumulatively considerable net increase of any criteria pollutant for which the region is in non-attainment under an applicable federal or state ambient air quality because the project is consistent with the existing TOP land use designation for the site and the overall air quality impacts of TOP have already been evaluated in TOP EIR and a Statement of Overriding Considerations was prepared and certified along with TOP EIR.

Due to the size of the PUD project site and the amount of development proposed, construction under either Phase 1 or Phase 2 of the PUD, or the combination of both phases, will not exceed the applicable regional significance thresholds and less than significant impacts would occur. No mitigation beyond that identified in TOP EIR is required.

The PUD project will comply with Mitigation Measures AQ 3-1 through 3-3 outlined in TOP FEIR as recommended by the SCAQMD, resulting in project level impacts that are less than significant with mitigation. The project will not result in any new, increased or substantially different impacts not previously considered and addressed in TOP EIR. No changes or additions to TOP EIR analyses are necessary.

Mitigation: Implement Mitigation Measures AQ 3-1 through AQ 3-3 as described in Section 3.a above, otherwise, no project specific mitigation is required.

c. Expose sensitive receptors to substantial pollutant concentrations?

Discussion of Effects: TOP EIR concluded that development and operation of new land uses accommodated under TOP 2050 proposed land use plan could generate new sources of localized criteria air pollutant and Toxic Air Contaminants (TACs) in the City from area/stationary sources and mobile sources.

The Overlay Planning Area was previously analyzed by TOP EIR as a mixture of residential and commercial uses under the MU-MH land use designation. Certain land uses contain persons especially susceptible to air pollutants (children, the elderly, sick persons, etc.). These types of "sensitive" land uses include residences, day care centers, hospitals, etc. and are referred to as sensitive receptors. The SCAQMD recommends that the nearest sensitive receptor be considered when determining the project's potential to cause an individual or cumulatively significant impact. The PUD project does have sensitive receptors west and north of the site. However, the size of the site and anticipated amount of new development is not expected to result in significant short- or long-term air quality impacts to nearby sensitive receptors.

With implementation of TOP EIR Mitigation Measures AQ 3-1 through AQ 3-3, the proposed PUD project would not result in any new impacts beyond those identified in TOP EIR and no project specific mitigation is required for sensitive receptors. The project will not result in any new, increased or substantially different impacts not previously considered and addressed in TOP EIR. No changes or additions to TOP EIR analyses are necessary.

Mitigation: No project specific mitigation is required.

d. Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

Discussion of Effects: TOP EIR concluded TOP would have a less than significant direct, indirect, and cumulative impacts relating to other emissions, such as those leading to odors (SEIR p. 5.3-47). The subject site was previously analyzed by TOP EIR as a mixture of residential and commercial uses which is consistent with the existing land uses surrounding the site. The mixed uses proposed on the project site will not create objectionable odors. Further, the project shall comply with the policies of the Ontario Municipal Code and TOP regarding solid waste storage and disposal which will prevent potential odor impacts. Therefore, no adverse impacts are anticipated.

The project will not result in any new, increased or substantially different impacts not previously considered and addressed in TOP EIR. No changes or additions to TOP EIR analyses are necessary.

Mitigation: No project specific mitigation is required.

4. BIOLOGICAL RESOURCES. Would the project:

a. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?

Discussion of Effects: TOP EIR concluded that "no sensitive plant species have been observed in Ontario, and the only such species that are considered potentially present in the City have a low potential due to lack of suitable habitat. Therefore, implementation of TOP 2050 would not have substantial adverse impacts on sensitive plant species" (SEIR p. 5.4-30). The project site was previously analyzed by TOP EIR as a mixture of residential and commercial uses.

According to TOP EIR, the Overlay Planning Area (including the PUD project site) is located within an area that has been identified as having the potential to contain species identified as a candidate, sensitive, or special status species in local or regional plans, policies or regulations or by the California Department of Fish and Wildlife (CDFW) or U.S. Fish and Wildlife Service (USFWS). These species include: the Delhi Sands flower-loving fly (DSFLF), coast horned lizard, burrowing owl, and various species of nesting birds protected under the Migratory Bird Treaty Act. The proposed project is consistent with TOP land use designation and zoning classification for the site of mixed use (MU) as a Neighborhood Community Hub (NH). The project does have a potential to impact nesting birds by removal of landscaping during redevelopment. However, governmental database information and TOP EIR indicate there is little or no potential for any listed or otherwise sensitive species to be present on the project site. With regulatory compliance (e.g., Migratory Bird Treaty Act, Fish and Game codes), TOP EIR concluded that future development in the City would not have significant impacts on listed or sensitive species and no mitigation was recommended.

The PUD project site is currently developed with several commercial buildings. Due to its developed condition and surrounding urban land uses, the project site does not contain or support any listed or otherwise sensitive species of plants or animals. With regulatory compliance, the PUD project will not result in any new, increased or substantially different impacts not previously considered and addressed in TOP EIR. No changes or additions to TOP EIR analyses are necessary.

Mitigation: No project specific mitigation is required.

b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?

Discussion of Effects: TOP EIR indicated development "of new, previously undeveloped areas of the City even though it would result in an increase in land use intensity. Individual projects undergoing environmental review under CEQA would be required to determine whether there is potential habitat on-site for sensitive species. If sensitive species were found on-site, the project proponent would be required to consult with the CDFW regarding impacts to sensitive species and ensuing mitigation" (SEIR p. 5.4-31). The EIR concluded TOP would have a less than significant direct, indirect, and cumulative impacts relating to riparian habitat or sensitive natural community. In TOP EIR, the Overlay Planning Area, including the PUD project site, was previously analyzed as mixed use. TOP EIR does not identify any natural drainage features in this portion of the City due to its urbanized condition. With regulatory compliance, the EIR did not recommend any specific mitigation for future development relative to jurisdictional features.

Based on a review of aerial photographs, the site is totally developed and does not contain any riparian habitat or other sensitive natural community identified by CDFW or USFWS (GoogleEarth). Therefore, no adverse environmental impacts are anticipated. In addition, the project will not result in any new, increased or substantially different impacts not previously considered and addressed in TOP EIR. No changes or additions to TOP EIR analyses are necessary.

Mitigation: No project specific mitigation is required.

c. Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

Discussion of Effects: TOP EIR did not identify any wetland habitat or resources on the project site or in the immediate surrounding area due to its urban condition. The EIR stated TOP "would have a less than significant direct, indirect, and cumulative impacts relating to state or federally protected wetlands. Accordingly, no changes or alterations to the *TOP [2050]* were required to avoid or substantially lessen any significant environmental impacts under those thresholds" (SEIR p. 5.4-33).

According to aerial photographs, the site is developed and no drainage areas or wetland habitat are present on the project site (GoogleEarth). Therefore, project implementation would have no impact on these resources. In addition, the project will not result in any new, increased or substantially different impacts not previously considered and addressed in TOP EIR. No changes or additions to TOP EIR analyses are necessary.

Mitigation: No project specific mitigation is required.

d. Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

Discussion of Effects: TOP EIR did not identify any drainages or wetland habitat that could support fish on the project site, and the site is not located within an identified wildlife movement corridor due to its physical condition and development of the surrounding area.

TOP EIR found that no regional wildlife movement corridors have been identified in the City, so it did not result in substantial adverse effects to wildlife movement (SEIR p. 5.4-33).

According to aerial photographs, the site is developed with no drainages or native vegetation present (GoogleEarth). As a result, there are no wildlife corridors connecting this site to other areas. The project site and area may support nesting birds but regulatory compliance (e.g., Migratory Bird Treaty Act, Fish

and Game codes) will help assure there will be no impacts to migratory birds. With regulatory compliance, the project will not interfere with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife. The project will not result in any new, increased or substantially different impacts not previously considered and addressed in TOP EIR. No changes or additions to TOP EIR analyses are necessary.

Mitigation: No project specific mitigation is required.

e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

Discussion of Effects: TOP EIR indicates the City includes the Ontario Recovery Unit for the DSFLF with 21.7 square miles mainly in the eastern and southwestern portions of the City (i.e., not on or adjacent to the project site), The EIR concluded TOP would not conflict with the requirements of the DSFLF Ontario Recovery Unit (SEIR p. 5.4-34).

The City does not currently have any specific policies or ordinances protecting biological resources. The City's Development Code requires replacement of trees removed. With implementation of the ODC requirements for tree replacement, and its proposed Landscaping Plan, no adverse environmental impacts are anticipated.

The project will not result in any new, increased or substantially different impacts not previously considered and addressed in TOP EIR. No changes or additions to TOP EIR analyses are necessary.

Mitigation: No project specific mitigation is required.

f. Conflict with the provisions of an adopted Habitat Conservation Plan (HCP), Natural Community Conservation Plan (NCCP), or other approved local, regional, or state habitat conservation plan?

Discussion of Effects: TOP EIR only acknowledges a small portion of the City that contains an HCP for DSFLF but this plan does not apply to the proposed Project, and there are no HCPs or NCCPs to protect biological resources that affect the proposed Project site.

The site is not part of an adopted HCP, NCCP, or other approved habitat conservation plan. As a result, no adverse environmental impacts are anticipated. The project will not result in any new, increased or substantially different impacts not previously considered and addressed in TOP EIR. No changes or additions to TOP EIR analyses are necessary.

Mitigation: No project specific mitigation required.

5. CULTURAL RESOURCES. Would the project:

a. Cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5?

Discussion of Effects: TOP EIR concluded that buildout of TOP could result in significant impacts to historical resources or paleontological resources but Mitigation Measure 5-1 would reduce impacts to less than significant levels (SEIR p. 5.5-23). The project site was previously analyzed by TOP EIR as a mixture of residential and commercial uses.

The PUD project site is developed with a number of commercial buildings the largest of which is vacant. The site does not contain any buildings or structures constructed more than 50 years ago and cannot be considered for eligibility for listing in the California Register of Historic Resources.

The Euclid Avenue (EA) Overlay District was established to recognize, protect, and enhance the visual character and quality of Euclid Avenue as a major scenic and historic resource of the City as well as its position on the National Register of Historic Places. Properties located within the EA require approval of a Certificate of Appropriateness to ensure no adverse impacts to designated historic resources occur as a result of new development and buildings. This PUD includes design criteria within Chapter 5 for site and building design that is consistent with the overall character of Euclid Avenue.

The public right-of-way of Euclid Avenue from Philadelphia Street north to the I-10 Freeway was designated as Local Landmark No. 67 on January 16, 2001 by the Ontario City Council. On August 10, 2005, the public right-of-way of Euclid Avenue from Philadelphia Street in Ontario north to 24th Street in Upland was listed on the National Register of Historic Places as a significant cultural landscape. One contributing character-defining feature of the public right-of way is the 60-foot-wide median separating the north/south bound vehicular lanes of Euclid Avenue. The Euclid/Walnut PUD project does not alter or affect this feature.

Several buildings within the proposed PUD project have frontage on Euclid Avenue. However, the PUD site is 0.4 mile south of the southern boundary (Philadelphia Street) of this Local Landmark/National Register of Historic Places designation. The extended view of the Euclid Avenue corridor, whether viewed northward from the parcels or southward towards the parcels of the PUD, is also visually disrupted within the immediate foreground view as a result of the Pomona Freeway (SR-60), which is elevated above Euclid Avenue. Additionally, the proposed PUD is approximately three miles south of the City's Downtown Historic District. Based upon the City's Historic Preservation records, there are no potential or proposed historic resources within the immediate surrounding area of the parcels within the PUD project. Therefore, the PUD will not alter or affect any designated historical districts or resources in the City.

In addition, the project will not result in any new, increased or substantially different impacts not previously considered and addressed in TOP EIR. No changes or additions to TOP EIR analyses are necessary.

Mitigation: No project specific mitigation is required.

b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?

Discussion of Effects: TOP EIR (Section 5.5) indicates no archeological sites or resources have been recorded in the City with the Archeological Information Center at San Bernardino County Museum. The CRAs prepared for the project site included a pedestrian survey, a record search, a Sacred Lands File (SLF) search, and a review of existing documentation for the project site and surrounding area. The Native American Heritage Commission (NAHC) was contacted for a SLF search as part of TOP EIR preparation which indicated the project site contained no identified archaeological or tribal resources.

The NAHC SLF search also did not indicate any archaeological resources or artifacts associated with Tribal Cultural Resources (TCRs) were located within the project site. The project site has been highly disturbed by modern human activities including agricultural use in the distant past and development for commercial uses more recently. It is likely these activities could have displaced potential surface and subsurface archaeological resources if any were present. Therefore, it is not anticipated the proposed project will impact archaeological or identified TCRs.

While no adverse impacts to archeological resources are anticipated at this site due to its disturbed nature, the project will implement TOP MM CUL 5-2 to ensure that, in the event of unanticipated archeological discoveries, construction activities will not continue or will be moved to other parts of the project site and a qualified archaeologist shall be contacted to determine significance of these resources. If the find is discovered to be historical or unique archaeological resources, as defined in Section 15064.5 of the CEQA Guidelines, avoidance or other appropriate measures shall be implemented. The project will not result in any new, increased or substantially different impacts not previously considered and addressed in TOP EIR. No changes or additions to TOP EIR analyses are necessary.

Mitigation: No project specific mitigation is required. However, the following mitigation measure from TOP EIR is applicable to the project:

CUL 5-2: In areas of documented or inferred archaeological and/or paleontological resource presence, City staff shall require applicants for development permits to provide studies to document the presence/absence of such resources. On properties where resources are identified, such studies shall provide a detailed mitigation plan, including a monitoring program and recovery and/or in situ preservation plan, based on the recommendations of a qualified cultural preservation expert. The mitigation plan shall include the following requirements:

a) Archaeologists and/or paleontologist shall be retained for the project and will be on call during grading and other significant ground-disturbing activities.

b) Should any cultural resources be discovered, no further grading shall occur in the area of the discovery until the Planning Director or designee is satisfied that adequate provisions are in place to protect these resources.

c) Unanticipated discoveries shall be evaluated for significance by a San Bernardino County Certified Professional Archaeologist/Paleontologist. If significance criteria are met, then the project shall be required to perform data recovery, professional identification, radiocarbon dates, and other special studies; submit materials to a museum for permanent curation; and provide a comprehensive final report including catalog with museum numbers.

c. Disturb any human remains, including those interred outside of formal cemeteries?

Discussion of Effects: TOP EIR states there are known Native American gravesites and cemeteries in the City, but none on or adjacent to the project site. Future development and grading of sensitive areas may disturb human remains, including those outside of formal cemeteries (SEIR p. 5.5-20).

The proposed PUD project site is developed and the area has been previously and extensively disturbed by human activity. No known religious or sacred sites exist within the project area. Thus, human remains are not expected to be encountered during any construction activities. However, in the unlikely event that human remains are discovered, existing regulations, including Public Resources Code Section 5097.98, would afford protection for human remains discovered during development activities. Per state law, in the event unanticipated discoveries of human remains are identified during excavation, the area shall not be disturbed until any required investigation is completed by the County Coroner and/or Native American consultation has been completed, if deemed applicable.

The project will not result in any new, increased or substantially different impacts not previously considered and addressed in TOP EIR. No changes or additions to TOP EIR analyses are necessary.

Mitigation: No project specific mitigation is required. However, the PUD project shall implement TOP EIR Mitigation Measure 5-2 as outlined above.

6. ENERGY Would the project:

a. Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?

Discussion of Effects: Energy was analyzed at a programmatic level in TOP EIR based on the 2019 revisions to the CEQA Guidelines. TOP EIR concluded TOP would not result in wasteful, inefficient, or unnecessary consumption of fuel use during construction or result in new or a substantial increase in magnitude of impacts (SEIR p. 5.6-13).

Implementation of the project would increase the demand for electricity and natural gas at the project site and gasoline consumption in the region during construction and operation, as described below:

Electricity

Construction. Temporary electric power would be required for lighting and electronic equipment (e.g., computers) located in trailers used by the construction crew. However, the electricity used for such activities would be temporary and would have a negligible contribution to the project's overall energy consumption.

Operation/Occupancy. The proposed PUD project entails the construction of 369 new apartment units and 12,000 square feet of new commercial uses which are consistent with TOP land use and zoning designations for the property. These commercial and residential buildings will be similar in design and operation to existing and planned uses in the surrounding area and will have similar energy use during operation to existing commercial businesses and apartments in the City. Operation of the PUD project would require electricity for multiple purposes, such as: building heating and cooling, lighting, appliances, and electronics.

The PUD project will be required to comply with the CALGreen Building Code (CBC) commercial and residential requirements in effect at the time of development. Typical CBC requirements that would reduce electricity consumption include but are not limited to enhanced window insulation, cool-roofing, improved efficiency heating, ventilation, and air conditioning (HVAC) systems, enhanced duct insulation, Energy Star commercial appliances, water efficient landscaping and irrigation systems, and water-efficient toilets and

faucets. Although electricity consumption would increase at the site with implementation of the project, the building envelope, HVAC, lighting, and other systems, would be designed to maximize energy performance.

With implementation of these various measures, the electricity that would be consumed by the project is not considered to be inefficient or wasteful, and impacts would be less than significant.

Natural Gas

Construction. Natural gas consumption is not anticipated during construction of the PUD project. Fuels used for construction would generally consist of diesel and gasoline, which are discussed in the next subsection.

Operation/Occupancy. The proposed PUD project is consistent with TOP and zoning designations for the site. Planned commercial and residential uses will be similar in size and appearance to existing and planned uses in the surrounding area and will have similar natural gas use during operation or occupancy. During operation and occupancy, the PUD project would require natural gas consumption for various purposes, such as building heating and cooling.

All future structures developed on the site would be built to the Title 24 CALGreen efficiency requirements in effect at the time of development. These requirements include but are not limited to wall, attic, and window insulation; high efficiency water heaters, and optimized building orientation. Although natural gas consumption would increase at the site under implementation of the project, the building envelope, HVAC, lighting, and other systems, would be designed to maximize energy performance. The project would be subject to statewide mandatory energy requirements as outlined in the CALGreen Code. For these reasons, the natural gas that would be consumed by the project is not considered to be inefficient or wasteful, and impacts would be less than significant.

Diesel and Gasoline Fuel

Construction. Diesel and gasoline fuels, also referred to as petroleum in this subsection, would be consumed throughout construction of the PUD project. Fuel consumed by construction equipment would be the primary energy resource consumed over the course of construction, and vehicle miles traveled (VMT) associated with the transportation of construction materials (e.g., deliveries to the site) and worker trips to and from the site would also result in petroleum consumption. Whereas on-site, heavy-duty construction equipment and delivery trucks would predominantly use diesel fuel, construction workers would generally rely on gasoline-powered vehicles.

The project will be required to comply with the California Air Resources Board (CARB) Airborne Toxic Control Measures, which restrict heavy-duty diesel vehicle idling to five minutes. Since petroleum use during construction would be temporary and required to conduct development activities, it would not be wasteful or inefficient, and impacts would be less than significant.

Operation/Occupancy. Fuel consumption associated with operation of the PUD project's commercial uses and occupancy of the project's residential uses. As regulatory requirements increase (i.e., become more stringent), the amount of petroleum consumed as a result of vehicular trips to and from the project site during operation and occupancy is anticipated to decrease over time.

There are numerous regulations in place that require and encourage fuel efficiency. For example, CARB has adopted an approach to passenger vehicles by combining the control of smog-causing pollutants and GHG emissions into a single, coordinated package of standards. The approach also includes efforts to support and accelerate the number of plug-in hybrids and zero emission vehicles (ZEVs) in California. In addition, CARB adopted a regional goal for the SCAG region of reducing per-capita GHG emissions from 2005 levels by 8% in 2020 and 19% in 2035 for light-duty passenger vehicles. Accordingly, operation of the project is expected to decrease the amount of petroleum it consumes in the future due to improvements in state-wide fuel economy over time. Although the project would increase petroleum use in the region during construction and operation, the use would be a small incremental fraction of the statewide use and due to efficiency increases would diminish over time. As such, petroleum consumption associated with the project would not be considered to be inefficient or wasteful so its energy-related impacts would be less than significant. The project will comply with Title 24 and other applicable state energy conservation regulations as recommended in TOP EIR. In November 2014, the City adopted the most current version of the Community Climate Action Plan (CCAP) which includes energy conservation that results from implementation of the recommended GHG reduction measures. The PUD project will be required to comply with applicable portions of the City's CCAP. Compliance with the CCAP and Title 24 will result in the project not having any new, increased or substantially different impacts not considered and addressed in TOP EIR.

No changes or additions to TOP EIR analyses are necessary.

Mitigation: No project-specific mitigation is required.

b. Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

Discussion of Effects: Energy was analyzed at a programmatic level in TOP EIR based on the 2019 revisions to the CEQA Guidelines. The EIR determined TOP would have a less than significant direct, indirect, and cumulative impacts relating to conflict with or obstruction of a state or local plan for renewable energy or energy efficiency (SEIR p. 5.6-14).

The PUD project would not conflict with or obstruct a state or local plan adopted for the purposes of increasing the amount of renewable energy or energy efficiency. The California Title 24 energy efficiency standards for residential and non-residential buildings address electricity and natural gas efficiency in lighting, water, heating, and air conditioning, as well as the effects of the building envelope (e.g., windows, doors, walls and roofs, etc.) on energy consumption. As described above, the project would be required to comply with the appropriate Title 24 CALGreen standards current at that time. Since each new building will comply with applicable State standards and adhere to the City's CCAP, which includes energy reductions measures, the PUD project would not conflict with nor obstruct a state or local plan for renewable energy or energy efficiency.

This impact would be less than significant and the project will not result in any new, increased or substantially different impacts not previously considered and addressed in TOP EIR. No changes or additions to TOP EIR analyses are necessary.

Mitigation: No project specific mitigation is required.

7. GEOLOGY & SOILS. Would the project:

a. Expose people or structures to potential substantial adverse effects, including the risk of loss, injury or death involving:

i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.

Discussion of Effects: According to TOP EIR, there are no active faults known on the site and the project site is located outside the Fault Rapture Hazard Zone (formerly Alquist-Priolo Zone). TOP EIR (Section 5.7/Figure 5.7-2) identifies eight active or potentially active fault zones near the City. The EIR determined TOP would have a less than significant direct, indirect, and cumulative impacts relating to seismic-related hazards (SEIR p. 5.7-19).

Given that the closest active fault zone is located over ten miles from the PUD project site, fault rupture within the project area is not likely. All development will comply with the CBC seismic design standards to reduce geologic hazard susceptibility. Therefore, no adverse impacts are anticipated.

The PUD project will not result in any new, increased or substantially different impacts not previously considered and addressed in TOP EIR. No changes or additions to TOP EIR analyses are necessary.

Mitigation: No project specific mitigation is required.

ii. Strong seismic ground shaking?

Discussion of Effects: TOP EIR indicates there are no active faults known on the site and the project site is located outside the Fault Rapture Hazard Zone (formerly Alquist-Priolo Zone). TOP EIR (Section 5.7/Figure 5.7-2) identifies eight active or potentially active fault zones near the City. The closest fault zone is located more than eight miles from the Project site.

The proximity of the PUD project site to the active faults will result in ground shaking during moderate to severe seismic events. All construction will comply with the CBC, the Ontario Municipal Code (OMC), TOP and all other ordinances adopted by the City related to construction and safety. Therefore, no adverse impacts are anticipated.

The PUD project will not result in any new, increased or substantially different impacts not previously considered and addressed in TOP EIR. No changes or additions to TOP EIR analyses are necessary.

Mitigation: No project specific mitigation is required.

iii. Seismic-related ground failure, including liquefaction?

Discussion of Effects: As identified in TOP EIR (Section 5.7), groundwater saturation of sediments is required for earthquake induced liquefaction. In general, groundwater depths shallower than 10 feet to the surface can cause the highest liquefaction susceptibility. TOP EIR indicates that depths to groundwater in the project site vicinity during the winter months is estimated to be over 200 feet below ground surface. Therefore, the liquefaction potential within the project area is minimal. Implementation of TOP strategies in the Safety Element regarding seismic building design, the CBC, and the OMC would reduce impacts to a less than significant level.

The PUD project will not result in any new, increased or substantially different impacts not previously considered and addressed in TOP EIR. No changes or additions to TOP EIR analyses are necessary.

Mitigation: No project specific mitigation is required.

iv. Landslides?

Discussion of Effects: TOP EIR did not identify any significant slopes in the City or the project area, so there were no impacts related to landslides and no mitigation is needed.

The project would not expose people or structures to potential adverse effects, including the risk of loss, injury, or death involving landslides because the relatively flat topography of the project site (less than one percent slope) and the chance of a landslide onsite would be remote. The PUD project proposes 369 new apartments and 12,000 square feet of new commercial uses onsite which are consistent with TOP land use and zoning designations.

Therefore, the project will not result in any new, increased or substantially different impacts not previously considered and addressed in TOP EIR. No changes or additions to TOP EIR analyses are necessary.

Mitigation: No project specific mitigation is required.

b. Result in substantial soil erosion or the loss of topsoil?

Discussion of Effects: TOP EIR concluded that TOP policies and state regulations would ensure that potential impacts from erosion or the loss of topsoil would be less than significant (SEIR p. 5.7-20).

The project site will not result in significant soil erosion or loss of topsoil because of the previously disturbed nature of the project site, its current developed condition (i.e., site is covered by mainly impervious surfaces), and implementation of the project-specific Water Quality Management Plan (WQMP)(see Appendix C) for water quality control (including erosion). Grading increases the potential for erosion by removing protective vegetation, changing natural drainage patterns, and constructing slopes. However, compliance with the CBC and review of grading plans by the City Engineer will ensure no significant impacts will occur. In addition, the City requires an erosion/dust control plan for projects located within this area. Implementation of a WQMP and Best Management Practices (BMPs), consistent with the federal water quality permitting requirements of the National Pollution Discharge Elimination Program (NPDES) program, the Environmental Resource Element of TOP Policy Plan strategies, the CBC, and the OMC, would reduce potential impacts to a less than significant level.

The project will not result in any new, increased or substantially different impacts not previously considered and addressed in TOP EIR. No changes or additions to TOP EIR analyses are necessary.

Mitigation: No project specific mitigation is required.

c. Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?

Discussion of Effects: TOP EIR (Section 5.7) indicates that subsidence is generally associated with large decreases or withdrawals of water from an aquifer. The project would use domestic water supplies and would not withdraw water from the existing aquifer. The EIR states that future projects under TOP could

expose structures or persons to potentially significant hazards from lateral spreading, ground subsidence, liquefaction, and compressible soils, However, compliance with the CBC and review of grading plans for individual projects by the City Engineer would ensure no significant impacts would occur (SEIR p. 5.7-21). The City is relatively flat, including the project site, so the risk of landslides is negligible.

The new commercial and residential buildings would not result in the location of development on a geologic unit or soil that is unstable, or that would become unstable because as previously discussed, the potential for liquefaction and landslides associated with the project is less than significant. Further, implementation of TOP strategies, the CBC and the OMC would reduce impacts to a less than significant level. Therefore, the project would not create greater landslide potential impacts than were identified in TOP EIR.

The project will not result in any new, increased or substantially different impacts not previously considered and addressed in TOP EIR. No changes or additions to TOP EIR analyses are necessary.

Mitigation: No project specific mitigation is required.

d. Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?

Discussion of Effects: TOP EIR identified limited soil stability impacts of future development if expansive or other soil constraints were present beneath structures. TOP EIR recommended compliance with the CBC and OMC to assure impacts will be less than significant (SEIR p. 5.7-21).

The majority of Ontario, including the project site, is located on alluvial, and in some areas, aeolian (i.e., sandy) soil deposits. These types of soils are not generally considered to be expansive. In addition, specific soil conditions beneath each proposed building will be verified and addressed by specific foundation design to be confirmed by the City Engineering Department as part of the City's development permitting process. With this regulatory compliance, no adverse impacts will occur.

Through the City's development and design review process, the project will not result in any new, increased or substantially different impacts not previously considered and addressed in TOP EIR. No changes or additions to TOP EIR analyses are necessary.

Mitigation: No project specific mitigation is required.

e. Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?

Discussion of Effects: TOP EIR states that TOP policies and state regulations would ensure that the potential impacts from geology and soils hazards would be less than significant. Wastewater from Ontario is treated at wastewater treatment facilities owned and operated by the Inland Empire Utilities Agency (IEUA). Use of septic tanks would be limited to existing septic tanks, and new septic tanks would be constricted to areas not in practical proximity to existing sewer mains, dependent on approval by the Santa Ana Regional Water Quality Control Board (RWQCB) on a case-by-case basis (SEIR p. 5.7-22).

The PUD project area is served by the local sewer system and the use of alternative systems is not necessary. Future sewer service is based on planned land uses and sizing of pipes and treatment facilities to accommodate planned growth. Since the project is consistent with TOP land use and zoning designations on the site, there will be no significant impacts to the sewage system.

The project will not result in any new, increased or substantially different impacts not previously considered and addressed in TOP EIR. No changes or additions to TOP EIR analyses are necessary.

Mitigation: No project specific mitigation is required.

f. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Discussion of Effects: TOP EIR indicates the City is underlain by deposits of Quaternary and Upper-Pleistocene sediments deposited during the Pliocene and early Pleistocene time, Quaternary Older Alluvial sediments may contain significant, nonrenewable, paleontological resources and are, therefore, considered to have high sensitivity at depths of 10 feet or more below ground surface. In addition, TOP EIR (Section 5.5) indicates that only one paleontological resource has been discovered in the City. The project site has surficial sediments composed of younger Quaternary Alluvium, derived as alluvial fan deposits from the

San Gabriel Mountains to the north or as dune sands. These deposits typically do not contain significant vertebrate fossils, at least in the uppermost layers, but they may be underlain by older sedimentary materials at estimated depths greater than 10 feet which could contain paleontological resources.

Project grading may exceed 10 feet in depth in some areas so the project will implement TOP EIR Mitigation Measure 5-2, which is included in Section 5, Cultural Resources, as this measure addresses paleontological resources. The measure requires that, in the event unanticipated paleontological resources are identified during excavation, construction activities will not continue or will be moved to other parts of the project site and a qualified paleontologist shall be contacted to determine the significance of these resources. If the find is determined to be significant, avoidance or other appropriate resource protection actions will be taken.

The project will not result in any new, increased or substantially different impacts not previously considered and addressed in TOP EIR. No changes or additions to TOP EIR analyses are necessary.

Mitigation: The project will be required to implement TOP EIR Mitigation Measure 5-2. No additional project specific mitigation is required.

8. GREENHOUSE GAS EMISSIONS. Would the project:

a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

Discussion of Effects: TOP EIR determined TOP would have a significant direct, indirect, and cumulative impacts relating to the generation of GHG emissions (SEIR p. 5.7-26). The subject site was previously analyzed by TOP EIR as a mixture of residential and commercial uses (i.e., mixed use). The impact of buildout of the TOP on the environment due to the emission of GHGs was analyzed in the EIR for the Policy Plan of TOP. According to TOP EIR, this impact would be significant and unavoidable and a statement of overriding considerations was adopted for this impact. Developing the site with mixed residential and commercial uses will not create significantly greater impacts than were identified in TOP EIR.

The analysis, methodology, and significance determination (thresholds) are based upon the City's CCAP which includes GHG emission inventories (2008 and 2020 forecasts), a year 2020 emission reduction target, the goals and policies to reach the target, and TOP EIR Addendum prepared for the CCAP. The City will require the PUD project to be consistent and comply with the CCAP. Pursuant to Public Resources Code Section 21083.3, this impact need not be analyzed further because: (1) the proposed project would result in an impact that was previously analyzed in TOP EIR, which was certified by the City; (2) the proposed project would not result in any GHG impacts that were not addressed in TOP EIR; and (3) the proposed PUD project is consistent with TOP. The proposed impacts of the PUD project were already analyzed in TOP EIR and the project will be built to current energy efficient standards. Potential impacts of project implementation will be less than significant and will be supported by compliance with current Title 24 energy efficiency standards of the California Code of Regulations. No changes or additions to TOP EIR analyses are necessary.

The project will not result in any new, increased or substantially different impacts not previously considered and addressed in TOP EIR. No changes or additions to TOP EIR analyses are necessary. Regulatory compliance adequately addresses any GHG impacts and there is no need for any project specific mitigation measures.

Mitigation: No project specific mitigation is required.

b. Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

Discussion of Effects: The EIR determined TOP was consistent with statewide strategies adopted for the purpose of reducing GHG emissions including CARB's Scoping Plan and SCAG's Connect SoCal (SEIR p. 5.8-27). The subject site was previously analyzed by TOP EIR as mixed use (residential and commercial). By implementing TOP EIR Mitigation Measures AQ 3-1 through 3-3 regarding air pollutant emissions, the proposed project is consistent with TOP Goal ER 4 of improving air quality by, among other things, implementation of Policy ER 4-3, regarding the reduction of GHG emissions in accordance with regional, state and federal regulations. In addition, the proposed project is consistent with the policies outlined in Section 5.6.4 of the EIR for TOP, which aims to reduce the City's contribution of GHG emissions at build-out by implementing energy efficient design, energy efficient irrigation systems, electric vehicle charging

stations, and compliance with Title 24 of the California Code of Regulations. The PUD project will be required to comply with the City's CCAP. Therefore, the proposed PUD project does not conflict with an applicable plan, policy or regulation adopted for the purpose of reducing emissions of GHGs.

The PUD project will not result in any new, increased or substantially different impacts not previously considered and addressed in TOP EIR. No changes or additions to TOP EIR analyses are necessary.

Mitigation: Project will implement TOP EIR Mitigation Measures AQ 3-1 through 3-3 but no project specific mitigation is required.

9. HAZARDS & HAZARDOUS MATERIALS. Would the project:

a. Create a significant hazard to the public or the environment through the routine transport, use or disposal of hazardous materials?

Discussion of Effects: TOP EIR determined that implementation of the policies in the Safety Element, in addition to existing regulations, would ensure less than significant impacts from transport, use, and/or disposal of hazardous materials. It further concluded TOP would have less than significant direct, indirect, and cumulative impacts relating to transport, use, and disposal of hazardous materials, release of hazardous materials, and emission and handling of hazardous materials, substances, or waste (SEIR p. 5.9-37).

The subject site was previously analyzed by TOP EIR as a mixture of residential and commercial uses (i.e., mixed use). As a residential and commercial project, the PUD will not involve the transport, use or disposal of hazardous materials during either construction or project implementation based on the land use restrictions for mixed use in TOP. Therefore, no adverse impacts are anticipated. However, in the unlikely event of an accident, implementation of the strategies included in TOP regarding emergency services such as police and fire protection will decrease the potential for health and safety risks from hazardous materials to less than significant levels.

The PUD project will not result in any new, increased or substantially different impacts not previously considered and addressed in TOP EIR. No changes or additions to TOP EIR analyses are necessary.

Mitigation: No project specific mitigation is required.

b. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

Discussion of Effects: TOP EIR concluded that implementation of the policies in the Safety Element, in addition to existing regulations, would ensure that development under TOP would not exacerbate hazards associated with existing hazardous materials sites (SEIR p. 5.9-39).

The subject site was previously analyzed by TOP EIR as mixed use (e.g., residential and commercial uses). Since it is not an industrial use, the proposed PUD project would not involve the use of hazardous materials or volatile fuels. In addition, there are no known stationary commercial or industrial land uses within close proximity to the PUD project site which use or store hazardous materials to the extent that they would pose a significant hazard to visitors/occupants to the subject site. Therefore, upset conditions resulting in the release of hazardous materials are not anticipated.

The project will not result in any new, increased or substantially different impacts not previously considered and addressed in TOP EIR. No changes or additions to TOP FEIR analyses are necessary.

Mitigation: No project specific mitigation is required.

c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances or waste within one-quarter mile of an existing or proposed school?

Discussion of Effects: TOP EIR concluded that several hazardous material facilities were within a quarter mile of various schools in the City and impacts were potentially significant, such that mitigation was recommended. However, the project site is not within a quarter mile of any school sites so there will be no impacts and no mitigation is required relative to TOP EIR analysis.

The PUD involves residential and commercial uses, so it does not involve the use, emissions or handling of hazardous or acutely hazardous materials, substances or waste that would typically be associated with industrial uses. Therefore, no impacts are anticipated. The PUD project will not result in any new, increased or substantially different impacts not previously considered and addressed in TOP EIR. No changes or additions to TOP EIR analyses are necessary.

Mitigation: No project specific mitigation is required.

d. Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?

Discussion of Effects: TOP EIR identified that implementation of the policies in the Safety Element in addition to existing regulations ensured that development of TOP would not exacerbate existing hazards associated with existing hazardous materials sites. The EIR concluded TOP would have a less than significant direct, indirect, and cumulative impacts relating to location on a site which is included on a list of hazard materials. Accordingly, no changes or alterations to the Proposed Project were required to avoid or substantially lessen any significant environmental impacts under those thresholds. (Draft SEIR pg. 5.9-39)

The PUD project site is not listed on the hazardous materials site compiled pursuant to Government Code Section 65962.5. Therefore, the project would not create a hazard to the public or the environment and no impact is anticipated.

The PUD project will not result in any new, increased or substantially different impacts not previously considered and addressed in TOP EIR. No changes or additions to TOP EIR analyses are necessary.

Mitigation: No project specific mitigation is required.

e. For a project located within the safety zone of the airport land use compatibility plan for ONT or Chino Airports, would the project result in a safety hazard for people residing or working in the project area?

Discussion of Effects: Sections 5.9 (Hazards and Hazardous Materials) and 5.11 (Land Use and Planning) of TOP EIR indicated that with proper land-use planning, aircraft safety risks could be reduced, primarily by avoiding incompatible land uses. The FAA and Caltrans Division of Aeronautics provide guidance for land use safety near airports. However, the proposed PUD project is not within the hazard or influence zones of either the Ontario International Airport to the northeast or the Chino Airport to the south. The PUD project will therefore have no impacts relative to airport safety or land use compatibility.

The PUD project will not result in any new, increased or substantially different impacts that were not previously considered and addressed in TOP EIR. No changes or additions to TOP EIR analyses are necessary, and there is no need for any project specific mitigation measures.

Mitigation: No project specific mitigation is required.

f. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

Discussion of Effects: TOP EIR concluded TOP would not interfere with an emergency evacuation plan. According to the Vulnerability Analysis conducted as part of TOP, the threat of flood is the City's greatest hazard as large portions of the City are within the flood zone (i.e., the project site is within the 500-year flood zone). Figure S-10 of TOP indicates that Haven Avenue to the west, Airport Drive to the north, and Jurupa Street to the south are designated evacuation routes in the City. The City's Safety Element, as contained within TOP, includes policies and procedures to be administered in the event of a disaster. TOP seeks interdepartmental and inter-jurisdictional coordination and collaboration to be prepared for, respond to and recover from disasters or emergencies. The EIR concluded TOP would have a less than significant direct, indirect, and cumulative impacts relating to impairment of or interference with adopted emergency response plans or emergency evacuation plans (SEIR p. 5.9-41).

The project will comply with the requirements of the Ontario Fire Department and all City requirements for fire and other emergency access. Because the project is required to comply with all applicable City codes, any impacts would be reduced to less than significant levels.

The project will not result in any new, increased or substantially different impacts not previously considered and addressed in TOP EIR. No changes or additions to TOP EIR analyses are necessary.

Mitigation: No project specific mitigation is required.

g. Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?

Discussion of Effects: TOP EIR indicates the City would result in less than significant risks from wildfire hazards. The City is outside of the state responsibility area, and California Department of Forestry and Fire Protection (CAL FIRE) has determined that the City contains no areas subject to very high wildfire risk. The EIR concluded TOP would have a less than significant direct, indirect, and cumulative impacts relating to wildland fires (SEIR p. 5.9-42). Figure S-04 from TOP indicates the project site is not within any designated wildfire area. Therefore, no impacts are anticipated.

The PUD project is residential and commercial in nature and not industrial so it will not result in any new, increased or substantially different impacts not previously considered and addressed in TOP EIR. No changes or additions to TOP EIR analyses are necessary.

Mitigation: No project specific mitigation is required.

10. HYDROLOGY & WATER QUALITY. Would the project:

a. Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?

Discussion of Effects: TOP EIR concluded there would be less than significant impacts related to water quality from development activities associated with future development under TOP. Nearly the entire City is developed, and implementation of TOP would not substantially alter the amount of developed land in the City. TOP EIR would have a less than significant direct, indirect, and cumulative impacts relating to surface or groundwater quality (SEIR p. 5.10-21).

The PUD project site is already developed and served by City water and sewer service and will not affect water quality standards or waste discharge requirements. Discharge of storm water pollutants from areas of materials storage, vehicle or equipment fueling, vehicle or equipment maintenance could result in a temporary increase in the amount of suspended solids, trash and debris, oil and grease, organic compounds, pesticides, nutrients, heavy metals and bacteria pathogens in surface flows during a concurrent storm event, thus resulting in surface water quality impacts. The site is required to comply with the statewide National Pollutant Discharge Elimination System (NPDES) General Construction Activities Stormwater Permit, the San Bernardino County Area-Wide Urban Runoff Permit (MS4 permit) and the Ontario Municipal Code (OMC) Title 6, Chapter 6 (Stormwater Drainage System). This compliance would reduce any impacts to below a level of significance.

A Preliminary Water Quality Management Plan (PWQMP) is required to be prepared for the PUD project prior to issuance of grading or building permits. The PWQMP will identify how the site will comply with storm water discharge and water quality management requirements of the City and the Regional Water Quality Control Board. The PWQMP includes site design measures that capture runoff and pollutant transport by minimizing impervious surfaces and maximizes low impact development (LID) best management practices (BMPs), such as infiltration, biotreatment and evapotranspiration. The PWQMP would include the use of underground stormwater infiltration systems for both of the PUD project phases of development.

The PUD project will not result in any new, increased or substantially different impacts not previously considered and addressed in TOP EIR. No changes or additions to TOP EIR analyses are necessary.

Mitigation: No project specific mitigation is required.

b. Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?

Discussion of Effects: TOP EIR identified less than significant impacts related to groundwater recharge and supply for TOP. At buildout, TOP is forecast to increase residential units by 25,399 and increase nonresidential square footage by 1,092,508 square feet; future development would increase the amount of impermeable surfaces in the City and reduce the amount of permeable surfaces available for groundwater

recharge. TOP would have a less than significant direct, indirect, and cumulative impacts relating to impediment of sustainable groundwater management of the basin (SEIR p. 5.10-23).

The PUD Project site was previously analyzed by TOP EIR as mixed use (i.e., residential and commercial uses). No increases in the current amount of water flow to the project site are anticipated, and the proposed project will not deplete groundwater supplies, nor will it interfere with recharge. The water use associated with the proposed use of the property was included in TOP EIR analysis. For development of the site, grading and excavation is expected to be less than 25 feet and would not reach a depth that could affect the existing aquifer, estimated to be over 200 feet below the ground surface. No adverse impacts are anticipated.

The PUD project will not result in any new, increased or substantially different impacts not previously considered and addressed in TOP EIR. No changes or additions to TOP EIR analyses are necessary.

Mitigation: No project specific mitigation is required.

c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:

i. Result in substantial erosion or siltation on- or off-site;

Discussion of Effects: TOP EIR concluded that implementation of BMPs outlined in SWPPPs, erosion and sediment control plans, WQMPs, and TOP policies would address anticipated erosion and siltation impacts. Therefore, development would not result in substantial erosion or siltation on- or off-site (SEIR p. 5.10-24).

The site is already developed and the project hydrology report and PWQMP demonstrate that the project will not alter the drainage pattern of the site or area in a manner that would result in erosion, siltation or flooding on-or-off site, nor will the proposed PUD project increase the erosion of the PUD project site or surrounding areas. The existing drainage pattern of the site will not be altered, and it will have no significant impact on downstream hydrology. Stormwater generated by the project will be discharged in compliance with the statewide NPDES General Construction Activities Stormwater Permit and San Bernardino County MS4 permit requirements. With the full implementation of a Storm Water Pollution Prevention Plan (SWPPP) developed in compliance with the General Construction Activities Permit requirements, the BMPs included in the SWPPP, and a stormwater monitoring program, the project's potential impact would be reduced to below a level of significance. No streams or streambeds are present on the site. No changes in erosion off-site are anticipated.

The PUD project will not result in any new, increased or substantially different impacts not previously considered and addressed in TOP EIR. No changes or additions to TOP EIR analyses are necessary.

Mitigation: No project specific mitigation is required.

ii. Substantially increase the rate or amount of surface runoff water in a manner which would result in flooding on- or off-site;

Discussion of Effects: TOP EIR states that the current Flood Insurance Rate Map (FIRM) for the City only shows small portions of the City adjacent to flood control channels, detention basins, and creeks are within the 100-year floodplain. In addition to TOP policies, the OMC, Chapter 13, Flood Damage Prevention Program, requires that a development permit be obtained prior to development in a special flood hazard area to ensure that the site is reasonably safe from flooding and flood hazards. The City requires that all new structures in a special flood hazard area have elevations above the base flood elevation. Therefore, with implementation of existing policies, the potential to impede or redirect flood flows was considered less than significant (SEIR p. 5.10-25).

The project hydrology report concludes the proposed PUD project will not increase the flow velocity or volume of storm water runoff to cause environmental harm from the site and will not create a burden on existing infrastructure. Furthermore, with the implementation of an approved PWQMP developed for the site, in compliance with the San Bernardino County MS4 Permit requirements, stormwater runoff volume shall be reduced to below a level of significance.

The PUD project will not result in any new, increased or substantially different impacts not previously considered and addressed in TOP EIR. No changes or additions to TOP EIR analyses are necessary.

Mitigation: No project specific mitigation is required.

iii. Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff;

Discussion of Effects: TOP EIR indicates there are three major regional drainage channels that convey stormwater runoff from the City's storm drain system—San Antonio Channel, Cucamonga Channel, and Day Creek Channel. There are also several flood retention facilities and spreading basins in the City that are used to retain flood flows and recharge the Chino Groundwater Basin. Projects considered for approval under TOP would be required to prepare project-specific hydrology and hydraulic studies. The methodology for these studies is provided in the San Bernardino County Hydrology Manual, which describes the approach for estimating stormwater runoff and peak flow rates, for the 100-year storm event (SEIR 5.10-26). In addition, TOP EIR stated TOP would have a less than significant direct, indirect, and cumulative impacts relating to risk of release of pollutants due to project inundation (SEIR p. 5.10-27).

The site is already developed and the PUD project simply reconstructs the site with new residential and commercial land uses. The site is expected to have approximately 85% impervious surfaces (buildings, roofs, parking, sidewalks).

Pursuant to the requirements of TOP, the City's Development Code, and the San Bernardino County MS4 Permit, individual developments must provide site drainage and PWQMP plans according to guidelines established by the City's Engineering Department. The City's development review process requires a project-specific hydro report and a PWQMP to demonstrate that a new development will not have any significant drainage or water quality-related impacts. The PUD project will be required to have an approved hydro report and PWQMP prior to the issuance of a grading or building permit.

With this regulatory compliance, the PUD project will not increase offsite runoff or change the overall direction of runoff from the site.

The PUD project will not result in any new, increased or substantially different impacts not previously considered and addressed in TOP EIR. No changes or additions to TOP EIR analyses are necessary.

Mitigation: No project specific mitigation is required.

iv. Impede or redirect flood flows?

Discussion of Effects: TOP EIR states that the current FIRM for the City only shows small portions of the City adjacent to flood control channels, detention basins, and creeks that are within the 100-year floodplain. In addition to TOP policies, the OMC, Chapter 13, Flood Damage Prevention Program, requires that a development permit be obtained prior to development in a special flood hazard area to ensure that the site is reasonably safe from flooding and flood hazards. However, Figure S-03 of TOP indicates most of the project site is not within the 500-year or 100-year flood plains, so there will be no flooding impacts relative to the 100-year flood zone. Impacts will be less than significant.

Urbanization in the areas surrounding the project site have resulted in increased responsiveness of the basin to rainfall. The increase in impervious surfaces such as roofs, roads, and parking lots has resulted in a decrease in groundwater infiltration and larger storm surges. The project site currently slopes gently to the southwest and the existing drainage pattern is characterized by sheet flow in that direction.

The PUD project site is not impacted by offsite flows and is not located in a Federal Emergency Management Agency (FEMA) Federal Insurance Rate Map (FIRM) Panel designated Flood Zone Risk, and according to the USFWS National Wetlands Inventory (NWI) no wetlands or other ponding features exist on the property. The project will lead to the conversion of permeable surfaces to impermeable surfaces such as parking areas, building roofs, and building foundation areas. The project site would discharge onsite flows into a combination of onsite infiltrations basins and existing storm drain facilities. As such, the PUD proposed project would not impede or redirect flood flows. With adherence to existing federal, state, and local regulation, no changes to the existing flood flows would occur.

The PUD project will not result in any new, increased or substantially different impacts not previously considered and addressed in TOP EIR. No changes or additions to TOP EIR analyses are necessary.

Mitigation: No project specific mitigation is required.

d. In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?

Discussion of Effects: Figure S-04 of TOP indicates the project site is not within the inundation zones of either the San Antonio Dam to the northwest or overflow of debris basins to the north. Due to its location and surrounding conditions, TOP EIR identified less than significant impacts related to flood hazards, tsunamis, seiches, or dam inundation (SEIR p. 5.10-27).

Impacts associated with flooding are primarily related to the construction or placement of structures in areas prone to flooding including within an unprotected 100-year flood zone, and in areas susceptible to high tides, tsunamis, seiches, mudflows or sea level rise. Specifically, structures placed in flood prone areas, if flooded, would be damaged, and could subject people to injury or death. The National Flood Insurance Act of 1968 requires the identification of floodplain areas and establishment of flood-risk zones within those areas. FEMA administers the programs and coordinates with communities to establish effective floodplain management standards. According to FEMA, the project site is not located in a known floodplain as shown in Figure S-04 of TOP. The project site is located within a flood hazard area identified as “Zone X”, which is defined as an area of minimal flood hazard. The project site is not located within a 100-year or 500-year flood hazard zone. Furthermore, this area is not known to flood and is not typically subjected to flooding. The project site is developed and does not contain any vegetation associated with riparian features. No wetlands have been mapped on the project site according to the National Wetlands Inventory (NWI).

According to the FEMA, the project is not located in an area that is subject to flood hazard, tsunami, or seiche zones. The project site is located over 55 miles northeast of the Pacific Ocean and is not located in a mapped tsunami zone. Therefore, the PUD project would not have a significant risk of flood hazard, tsunami, seiche zones, release of pollutants due to project inundation.

The PUD project will not result in any new, increased or substantially different impacts not previously considered and addressed in TOP EIR. No changes or additions to TOP EIR analyses are necessary.

Mitigation: No project specific mitigation is required.

e. Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

Discussion of Effects: TOP EIR identified less than significant impacts related to water quality or groundwater issues. The City’s groundwater supplies are from the Chino Groundwater Basin, which is adjudicated and managed by the Chino Basin Watermaster. The Chino Basin is exempt from legislative requirements under the Sustainable Groundwater Management Act because it is an adjudicated basin and is not required to prepare a groundwater sustainability plan. TOP EIR concluded TOP would have less than significant direct, indirect, and cumulative impacts relating to a conflict with or obstruction of a water quality control plan or sustainable groundwater management plan (SEIR p. 5-10-27).

The Regional Water Quality Control Board's Basin Plan is designed to preserve and enhance water quality and protect the beneficial uses of all regional waters. Specifically, the Basin Plan (i) designates beneficial uses for surface and ground waters, (ii) sets narrative and numerical objectives that must be attained or maintained to protect the designated beneficial uses and conform to the state's anti-degradation policy, and (iii) describes implementation programs to protect all waters in the region. The project would be required to adhere to requirements of the water quality control plan, including all existing regulation and permitting requirements. This would include the incorporation of BMPs to protect water quality during construction and operational periods. The PUD project would be subject to all existing water quality regulations and programs, including all applicable construction permits. Existing TOP policies related to water quality would also be applicable to the project. Implementation of these policies, in conjunction with compliance with existing regulatory programs, would ensure that water quality impacts related to the project would be less than significant.

The PUD project will not result in any new, increased or substantially different impacts not previously considered and addressed in TOP EIR. No changes or additions to TOP EIR analyses are necessary.

Mitigation: No project specific mitigation is required.

11. LAND USE & PLANNING. Would the project:

a. Physically divide an established community?

Discussion of Effects: TOP EIR concluded TOP policies would prevent conflicting land uses and would not divide any established communities. TOP would have less than significant direct, indirect, and cumulative impacts relating to physical division of an established community (SEIR p. 5.11-2).

The project site is developed with commercial buildings but the largest one is currently vacant. Development of the PUD project will allow local residents to again circulate on and around the site in a safe and efficient manner. It will in fact reconnect the existing surrounding neighborhoods by improving the site and having regular ongoing commercial activities along with the residential uses. The project buildings will also be of compatible in size and design with surrounding development. No adverse impacts are anticipated.

The PUD project will not result in any new, increased or substantially different impacts not previously considered and addressed in TOP EIR. No changes or additions to TOP FEIR analyses are necessary.

Mitigation: No project specific mitigation is required.

b. Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?

Discussion of Effects: TOP EIR found that buildout of TOP would not conflict with applicable plans adopted for the purpose of avoiding or mitigating an environmental effect, including SCAG regional plans and policies and the land use compatibility plans for the Ontario International Airport (OIA) and the Chino Airport. The project site is just east of the OIA and within its safety and noise impact zones (SEIR p. 5.11-6).

TOP EIR in 2022 evaluated the development of a maximum of 369 residential units and approximately 142,840 square feet of non-residential development on the Overlay Planning Area (including the PUD project site). The PUD project proposes 369 units and approximately 12,000 square feet of non-residential development in Phases 1 and 2, leaving 130,840 square feet of non-residential development to be built in the remainder of the MU-NH area adjacent to the SR-60 Freeway. Development of the proposed PUD would slightly exceed the total number of residential units for this area under the TOP (369 proposed MF units+15 existing SF units = 384 total units vs. 369 TOP projected total units). However, development of the PUD would substantially reduce the amount of anticipated non-residential growth in this sub-area (12,000 SF in the PUD plus 28,000 existing = 40,000 SF vs. 142,840 SF). Therefore, development of the "PUD project" would result in a 4% increase in residential impacts but a 28% decrease in commercial impacts. While this Addendum only covers impacts of the new residential and commercial uses currently proposed under the PUD Project described below, the preceding analysis demonstrates the anticipated impacts of growth in this MU-NH sub-area with the PUD are considered to be equivalent or less than those identified in TOP EIR for this sub-area. Therefore, the proposed PUD project is generally consistent with the MU land use designation and level of growth estimated for the site under the 2022 TOP and the TOP EIR. TOP 2050 has three components: the Vision; a Governance Manual; and the Policy Plan (General Plan).

The Ontario Vision – the central theme adopted by the City Council that motivates the Vision is "A sustained, community-wide prosperity which continuously adds value and yields benefits." Value is comprehensive in this regard and is expressed in land, revenues, infrastructure, businesses, education, employment, health, community services, recreation, etc. In particular, Ontario is committed to being "A Premier Community by Design." One of the foundations to accomplish this is described in the Vision as ensuring that development is "distinctive." The Euclid/Walnut PUD helps the City in realizing specific "Points of Vision" as outlined for "Distinctive Development" as follows:

- A system of vibrant retail, town, and neighborhood centers responsive to market demands and woven into the fabric of the community.
- A demonstrated ability to attract housing in pursuit of our acknowledged responsibility to balance housing with the job growth that drives our quality of life.
- Superior quality and design of the built environment and open spaces through careful attention to

detail at every scale, including public and private spaces and structures.

The Governance Manual – the purpose of the Manual is to institutionalize Ontario's approach to governance and to provide a "business plan" for the City. Ontario believes that the job of the City is to create, maintain and grow economic value. The overall purpose of the Manual is to guide the City's leadership and to ensure that TOP 2050 is integrated into the City's daily operations and provide for effective administration. The Euclid/Walnut PUD is established in conformance with the City's requirements and includes an administrative section consistent with provisions contained in the Development Code for consideration of "Development Plans."

The Policy Plan (General Plan) – The Land Use Element designates the subject parcels within the Euclid/Walnut PUD as "MU - Mixed Use." Generally, these properties are developed with an intense mixture of uses that, when concentrated, create focal points for community activity and identify and facilitate walking, biking, and the use of transit. The MU – Mixed Use land use category accommodates a horizontal and/or vertical mixture of retail, service, office, restaurant, entertainment, cultural and residential uses. The densities and intensities of the MU – Mixed Use designation represent the intended level of anticipated development; however, individual projects may vary depending upon an approved master plan, such as a specific plan, or planned unit development.

Implementation of the PUD project will achieve many City goals and policies outlined in The Policy Plan (General Plan). Those specific goals and polices are evaluated in Table 4.

Table 4: TOP Consistency Analysis

TOP Element, Goals, and Policies	Consistency Analysis
Land Use Element	
Goal LU-1 Balance. A community that has a spectrum of housing types and price ranges that match the jobs in the City and that make it possible for people to live and work in Ontario and maintain a quality of life.	**Consistent.** The PUD project provides both apartment units and commercial employment to allow people to live and work in the City.
Policy LU-1.1 Strategic Growth. We concentrate growth in strategic locations that help create place and identity, maximize available and planned infrastructure, foster the development of transit, and support the expansion of the active and multimodal transportation networks throughout the City.	**Consistent.** The PUD project site has underutilized commercial uses and will be redeveloped with both housing and retail uses. It is adjacent to Euclid Ave. and SR-60 which facilitates transit.
Policy LU-1.6 Complete Community. We incorporate a variety of land uses and building types in our land use planning efforts that result in a complete community where residents at all stages of life, employers, workers, and visitors have a wide spectrum of choices of where they can live, work, shop and recreate within Ontario.	**Consistent.** The PUD project provides both apartment units and commercial employment to allow people to live and work in the City which is one aspect of a complete community.
Goal LU-2 Compatibility. Compatibility between a wide range of uses and resultant urban patterns and forms.	**Consistent.** The PUD provides compatibility for residential uses to the west and south, commercial uses to the east, and mixed uses to the north.
Policy LU-2.1 Land Use Decisions. We minimize adverse impacts on adjacent properties when considering land use and zoning requests.	
Policy LU-2.2 Buffers. We require new uses to provide mitigation or buffers between existing uses where potential adverse impacts could occur. Additional mitigation is required when new uses could negatively impact environmental justice areas.	**Consistent.** The PUD project has a comprehensive wall and fence plan plus a landscaping plan to provide adequate buffers from adjacent land uses.
Goal LU-4 Phased Growth. Development that provides short-term value only when the opportunity to achieve our Vision can be preserved.	**Consistent.** The PUD project divides the commercial development into two phases with most of the apartment units being built in Phase 1.

Table 4: TOP Consistency Analysis	
TOP Element, Goals, and Policies	**Consistency Analysis**
Policy LU-4.2 Interim Development. We allow development in urban, mixed use, and transit-oriented Place Types that is not immediately reflective of our ultimate Vision for the Place Type, provided it can be modified or replaced when circumstances are right to support development aligned with the Place Type Vision. We will not allow development that impedes, precludes, or compromises our ability to achieve our Vision.	**Consistent.** The PUD project divides the commercial development into two phases with most of the apartment units being built in Phase 1.
Policy LU-4.3 Infrastructure Timing. We require that the necessary infrastructure and services be in place prior to or concurrently with development.	**Consistent.** The PUD requires necessary utility and infrastructure to be installed prior to or during development of new land uses to minimize impacts on existing systems.
Policy LU-4.4 Shared Infrastructure. We encourage and facilitate the use of shared infrastructure (including shared or managed parking) in urban, mixed use, and transit-oriented Place Types.	**Consistent.** The PUD project shares parking between the residential and commercial uses to maximize convenience for residents and customers.
Housing Element	
Goal H-2 Housing Supply & Diversity. Diversity of types of quality housing that are affordable to a range of household income levels, accommodate changing demographics, and support and reinforce the economic sustainability of Ontario.	**Consistent.** The PUD project provides both apartment units and commercial employment to allow people to live and work in the City.
Policy H-2.1 Corridor Housing. We revitalize transportation corridors by encouraging the production of higher density residential and mixed-uses that are architecturally, functionally, and aesthetically suited to corridors.	**Consistent.** The PUD project is within the Euclid Avenue corridor and proposes higher density apartment units consistent with TOP guidelines.
Policy H-2.5 Housing Design. We require architectural excellence through adherence to City design guidelines, thoughtful site planning, environmentally sustainable practices, and other best practices.	**Consistent.** The PUD emphasizes high quality design and best practices consistent with Euclid Avenue corridor design standards.
Policy H-2.6 Infill Development. We support the revitalization of neighborhoods through the construction of higher-density residential developments on underutilized residential and commercial sites.	**Consistent.** The PUD project site has underutilized commercial uses and will be redeveloped with both housing and retail uses consistent with the Euclid Avenue Overlay requirements.
Goal H-3 Governmental Regulations. A City regulatory environment that balances the need for creativity and excellence in residential design, flexibility and predictability in the project approval process, and the provision of an adequate supply and prices of housing.	**Consistent.** The project includes a PUD to emphasize high quality design while providing 369 new apartment units adjacent to Euclid Avenue and SR-60 for transit options.
Policy H-3.2 Flexible Standards. We allow flexibility in the application of residential and mixed-use development standards in order to gain benefits such as exceptional design quality, economic advantages, sustainability, or other benefits that would otherwise be unrealized.	**Consistent.** The project includes a PUD to best plan for mixed uses on the site (i.e., residential and commercial) within the Euclid Avenue corridor.
Environmental Resources Element	
Goal ER-1 Water & Wastewater. A reliable and cost-effective system that permits the City to manage its diverse water resources and needs.	**Consistent.** The PUD project will redevelop an existing underutilized commercial site using existing utilities.
Policy ER-1.4 Supply-Demand Balance. We require that available water supply and demands be balanced.	**Consistent.** The PUD project will utilize water conservation design and demand will be similar to that accounted for in TOP

Table 4: TOP Consistency Analysis	
TOP Element, Goals, and Policies	**Consistency Analysis**
	EIR. PUD will reuse an existing underutilized infill site.
Policy ER-1.6 Urban Run-off Quantity. We encourage the use of low impact development strategies, including green infrastructure, to intercept run-off, slow the discharge rate, increase infiltration, and ultimately reduce discharge volumes to traditional storm drain systems.	**Consistent.** The PUD will encourage low impact development through best management practices (BMPs) for runoff and water conservation as part of its Water Quality Management Plan.
Policy ER-1.7 Urban Run-off Quality. We require the control and management of urban run-off, consistent with Regional Water Quality Control Board regulations.	
Policy ER-1.8 Wastewater Management. We require the management of wastewater discharge and collection consistent with waste discharge requirements adopted by the Regional Water Quality Control Board.	**Consistent.** The PUD will encourage low impact development through BMPs for water conservation which helps reduce wastewater generation.
Goal ER-3 Energy. Cost-effective and reliable energy system sustained through a combination of low impact buildings, site and neighborhood energy conservation, and diverse sources of energy generation that collectively helps to minimize the region's carbon footprint.	**Consistent.** The PUD will encourage low impact development through energy conservation strategies as outlined in the City's TOP and Community Climate Action Plan (CCAP).
Policy ER-3.3 Building and Site Design. We require new construction to incorporate energy efficient building and site design strategies, which could include appropriate solar orientation, maximum use of natural daylight, passive solar, and natural ventilation.	
Goal ER-4 Air Quality. Improved indoor and outdoor air quality and reduced locally generated pollutant emissions.	**Consistent.** The PUD project will implement the latest Green Building Code guidelines which reduces energy use and related air pollutants. It has both residential and commercial uses and it is next to Euclid Ave. and SR-60 which are transit corridors – both conditions will help reduce vehicular traffic and associated air pollutant and GHG emissions.
Policy ER-4.1 Land Use. We reduce GHG and other local pollutant emissions through compact, mixed use, and transit-oriented development and development that improves the regional jobs-housing balance.	
Community Economics Element	
Goal CE-1 Complete Community. A complete community that provides for all incomes and stages of life.	**Consistent.** The PUD project provides apartment units of various sizes and commercial uses/employment to allow people to live and work in the City at various stages of life.
Policy CE-1.6 Diversity of Housing. We collaborate with residents, housing providers, and the development community to provide housing opportunities for every stage of life; we plan for a variety of housing types and price points to encourage the development of housing supportive of our efforts to attract business in growing sectors of the community while being respectful of existing viable uses.	
Policy CE-1.7 Retail Goods and Services. We seek to ensure a mix of retail businesses that provide the full continuum of goods and services for the community.	**Consistent.** The PUD project provides space for various kinds of commercial uses and employment.
Goal CE-2 Placemaking. A City of distinctive neighborhoods, districts, corridors, and centers where people choose to be.	**Consistent.** The PUD project is intended to provide a high-quality community hub for the surrounding neighborhoods along the Euclid Avenue corridor.
Policy CE-2.1 Development Projects. We require new development and redevelopment to create unique, high-quality places that add value to the community.	

Table 4: TOP Consistency Analysis	
TOP Element, Goals, and Policies	**Consistency Analysis**
Policy CE-2.2 Development Review. We require those proposing new development and redevelopment to demonstrate how their projects will create appropriately unique, functional, and sustainable places that will compete well with their competition within the region.	**Consistent.** The PUD demonstrates how the project will provide a high-quality community hub for the surrounding neighborhoods along the Euclid Avenue corridor.
Safety Element	
Goal S-1 Seismic & Geologic Hazards. Minimized risk of injury, loss of life, property damage, and economic and social disruption caused by earthquake-induced and other geologic hazards.	**Consistent.** This TOP EIR Addendum demonstrates how the PUD project will not have significant seismic or geologic risks for future residents and workers.
Policy S-1.1 Implementation of Regulations and Standards. We require that all new habitable structures be designed in accordance with the most recent California Building Code adopted by the City, including provisions regarding lateral forces and grading.	**Consistent.** This TOP EIR Addendum demonstrates how the PUD requires CBC and OMC compliance which will minimize seismic and geologic risks for future residents and workers.
Policy S-1.2 Entitlement and Permitting Process. We follow state guidelines and the California Building Code to determine when development proposals must conduct geotechnical and geological investigations.	**Consistent.** TOP EIR already included these investigations and PUD project will provide a confirmatory project-specific analysis prior to the issuance of permits.
Goal S-2 Flood Hazards. Minimized risk of injury, loss of life, property damage and economic and social disruption caused by flooding and inundation hazards.	**Consistent.** This TOP EIR Addendum, and supporting technical reports, demonstrate how the PUD is not in a flood zone which will minimize flood risks for future residents and workers.
Policy S-2.5 Stormwater Management. We maintain the storm drain system to convey a 100-year storm, when feasible, and encourage environmental site design practices to minimize flooding and increase groundwater recharge, including natural drainage, green infrastructure, and permeable ground surfaces.	**Consistent.** TOP EIR already included these investigations and the PUD project will have a hydrology report and WQMP to confirm it will not increase offsite runoff and be a low impact development. Consistent with TOP.
Goal S-3 Fire & Rescue Hazards. Reduced risk of death, injury, property damage and economic loss due to fires, accidents and normal everyday occurrences through prompt and capable emergency response.	**Consistent.** The PUD project reutilizes an existing commercial property in a fully developed portion of the City which already has adequate services available.
Policy S-3.1 Prevention Services. We proactively mitigate or reduce the negative effects of fire, hazardous materials release, and structural collapse by implementing the regularly adopted California Fire Code and California Building Code.	**Consistent.** The City's development review process requires compliance with the CFC and CBC prior to the issuance of building permits.
Policy S-3.8 Fire Prevention through Environmental Design. We require new development to incorporate fire prevention consideration in the design of streetscapes, sites, open spaces, and buildings.	**Consistent.** The PUD demonstrates the project has a number of buildings with landscaping and open space that will provide adequate fire safety.
Goal S-4 Noise Hazards. An environment where noise does not adversely affect the public's health, safety, and welfare.	**Consistent.** TOP EIR already included these investigations and required subsequent site-specific interior noise studies to confirm TOP EIR conclusion. PUD will provide the required study prior to issuance of building permits to demonstrate noise along Euclid Avenue will not impact residents.
Policy S-4.1 Noise Mitigation. We utilize the City's Noise Ordinance, building codes, and subdivision and	**Consistent.** The City's development review process requires compliance with

Table 4: TOP Consistency Analysis	
TOP Element, Goals, and Policies	**Consistency Analysis**
development codes to mitigate noise impacts.	the CBC and City Noise Ordinance to minimize noise impacts along the Euclid Avenue corridor.
Goal S-5 Wind-Related Hazards. Minimize the risk of injury, property damage, and economic loss resulting from windstorms and wind-related hazards.	**Consistent.** The PUD project will implement CBC requirements regarding wind design for new buildings.
Policy S-5.1 Dust Control Measures. We require the implementation of Best Management Practices for dust control at all excavation and grading projects.	**Consistent.** The PUD project will implement TOP EIR Mitigation Measures AQ 3-1 through 3-3 which includes dust control measures.
Goal S-7 Law Enforcement. Residential neighborhoods, commercial areas, and industrial districts that are kept safe through a multi-faceted approach of prevention, suppression, and community involvement in public safety.	**Consistent.** The City's development review process includes an evaluation by the Police Department regarding defensible space, crime prevention, and police patrol services (i.e., CPTED).
Policy S-7.4 Crime Prevention through Environmental Design (CPTED). We require new development to incorporate CPTED in the design of streetscapes, sites, open spaces, and buildings.	
Community Design Element	
Goal CD-1 Image & Identity. A dynamic, progressive city containing distinct and complete places that foster a positive sense of identity and belonging among residents, visitors, and businesses.	**Consistent.** The PUD project provides both apartment units and commercial employment to allow people to live and work in the City which enhances the feeling of community.
Policy CD-1.2 Place Types. We establish Place Types in urban, mixed use, and transit-oriented areas to foster the City's identity as a premier community and require new development within each Place Type to incorporate prescribed urban patterns, forms, and placemaking priorities.	**Consistent.** This mixed-use project is intended to provide an attractive, high quality community hub for the surrounding neighborhoods along the Euclid Avenue corridor which is demonstrated by the PUD document.
Goal CD-2 Design Quality. A high level of design quality resulting in neighborhoods, commercial areas, public spaces, parks, and streetscapes that are attractive, safe, functional, human- scale, and distinct.	
Policy CD-2.1 Quality Building Design and Architecture. We encourage all development projects to convey visual interest and character through: 1. Building volume, massing, and height to provide context-appropriate scale and proportion; 2. A true architectural style which is carried out in plan, section, and elevation through all aspects of the building and site design and appropriate for its setting; and 3. Exterior building materials that are articulated, high quality, durable, and appropriate for the architectural style.	
Policy CD-2.4 Urban, Mixed Use, and Transit-oriented Areas. We establish Place Types to require mixed use, urban, and transit-oriented areas to be designed and developed as pedestrian oriented areas that are integrated with adjacent neighborhoods and promote a vibrant, comfortable, and functional environment, as	

Table 4: TOP Consistency Analysis	
TOP Element, Goals, and Policies	**Consistency Analysis**
defined for each Place Type.	
Policy CD-2.7 Sustainability. We collaborate with the development community to design and build neighborhoods, streetscapes, sites, outdoor spaces, landscaping, and buildings to reduce energy demand through solar orientation, maximum use of natural daylight, passive solar and natural ventilation, building form, mechanical and structural systems, building materials, and construction techniques.	**Consistent.** The PUD will encourage low impact development through energy conservation strategies as outlined in the City's TOP and Community Climate Action Plan (CCAP).
Policy CD-2.8 Safe Design. We incorporate defensible space design into new and existing developments to ensure the maximum safe travel and visibility on pathways, corridors, and open space and at building entrances and parking areas by avoiding physically and visually isolated spaces, maintaining visibility and accessibility, and using lighting.	**Consistent.** The City's development review process includes an evaluation by the Police Department regarding defensible space, crime prevention, and police patrol services (i.e., CPTED). The PUD outlines how the project will provide or foster these conditions.
Policy CD-2.9 Landscape Design. We encourage durable, sustainable, and drought-tolerant landscaping materials and designs that enhance the aesthetics of structures, create and define public and private spaces, and provide shade and environmental benefits.	**Consistent.** The PUD project has a comprehensive Landscaping Plan which will utilize native plants, minimize water use, and be attractive for project residents, workers, and customers.
Policy CD-2.13 Entitlement Process. We work collaboratively with all stakeholders to ensure a high degree of certainty in the efficient review and timely processing of all development plans and permits.	**Consistent.** The PUD will help expedite the development processing for the project by providing comprehensive development-related information about the mixed-use project to be completed in two phases.
Goal CD-3 Urban, Mixed Use, and Transit-Oriented Place Types. Vibrant urban environments that are organized around intense buildings, pedestrian and transit areas, public plazas, and linkages between and within developments that are conveniently located, visually appealing and safe during all hours.	**Consistent.** This mixed use project is intended to provide an attractive, high quality community hub with public spaces for the project residents, workers, as well as surrounding neighborhoods along the Euclid Avenue corridor, all of which is demonstrated by the PUD document including architecture, urban design and layout, landscaping and hardscape areas with public spaces, and articulation with surrounding uses and the Euclid Avenue corridor.
Policy CD-3.1 Unique Identity. We promote development that heightens the unique character and identity of each Place Type by requiring compatible land uses and land planning, site design, and building design that promotes an active public realm.	
Policy CD-3.4 Context-Aware and Appropriate Design. We require appropriate building and site design that complements existing development, respects the intent and identity of the Place Type, and provides appropriate transitions and connections between adjacent uses to ensure compatibility of scale, maintain an appropriate level of privacy for each use, and minimize potential conflicts.	
Policy CD-3.5 Active Frontages. We create lively pedestrian streetscapes by requiring primary building, business, and residential entrances, outdoor dining, and storefronts be located on ground floors adjacent to sidewalks or public spaces and designed to maximize safety, comfort, aesthetics, and the intended functionality (as defined by the Place Type).	

Table 4: TOP Consistency Analysis	
TOP Element, Goals, and Policies	**Consistency Analysis**
Policy CD-3.6 Managed Infrastructure. We collaborate with developers and property owners to facilitate development that realizes the envisioned character and functionality of the Place Type through the use of green and shared infrastructure within each Place Type.	**Consistent.** The PUD project has integrated mixed uses with open space and landscaping that provides low impact development through energy and water conservation strategies, as outlined in the City's TOP and Community Climate Action Plan (CCAP).

Source: PUD, September 2022 PUD = Planned Unit Development

Table 4 demonstrates the proposed PUD project is consistent with the various applicable TOP goals and policies. Therefore, the PUD project will not conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect. There will be no impacts and no project specific mitigation is required.

The PUD project will not result in any new, increased or substantially different impacts not previously considered and addressed in TOP EIR. No changes or additions to TOP EIR analyses are necessary.

Mitigation: No project specific mitigation is required.

12. MINERAL RESOURCES. Would the project:

a. Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?

Discussion of Effects: TOP EIR indicates there are two areas in Ontario that are designated Mineral Resource Zone 2 (MRZ-2) where significant mineral resources are known or are likely. The remainder of the City is designated Mineral Resource Zone 3 (MRZ-3), where the significance of mineral deposits is unknown. Development in an MRZ-3 area would not result in significant impacts because mineral resources of statewide or local importance are not identified on the California Geological Survey's Production-Consumption maps (SEIR p. 5.12-6). The project site is not within the portions of the City designated as MRZ-2.

The PUD project site is developed and surrounded by urban land uses in all directions. There are no known mineral resources so no impacts are anticipated and no mitigation required.

The PUD project will not result in any new, increased or substantially different impacts not previously considered and addressed in TOP EIR. No changes or additions to TOP FEIR analyses are necessary.

Mitigation: No project specific mitigation is required.

b. Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?

Discussion of Effects: TOP EIR indicates there are two areas in Ontario that are designated Mineral Resource Zone 2 (MRZ-2) where significant mineral resources are known or are likely. The remainder of the City is designated Mineral Resource Zone 3 (MRZ-3), where the significance of mineral deposits is unknown. Development in an MRZ-3 area would not result in significant impacts because mineral resources of statewide or local importance are not identified on the California Geological Survey's Production-Consumption maps (SEIR p. 5.12-6).

The PUD project site is not within the portions of the City designated as MRZ-2. There are no known mineral resources in the area so no impacts are anticipated.

The PUD project will not result in any new, increased or substantially different impacts not previously considered and addressed in TOP EIR. No changes or additions to TOP EIR analyses are necessary.

Mitigation: No project specific mitigation is required.

13. NOISE. Would the project result in:

a. Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

Discussion of Effects: TOP EIR found stationary and transportation noise impacts of future development under TOP to be less than significant with implementation of Safety Element Policy S-4.1, Noise Mitigation, which utilizes the City's Noise Ordinance, building codes, and subdivision and development code regulations to reduce noise from future development projects (SEIR p. 5.13-32).

The project site was previously analyzed by TOP EIR as mixed use (with residential and commercial uses). Due to the nature of the project, it is not expected to expose people to or generate noise levels in excess of the standards established in TOP EIR (Section 5.12). The project site is surrounded on all sides by urban development with multi-family residential uses to the west, single family residential uses to the south, and mixed uses to the north. The SR-60 Freeway is north of the existing mixed-use area.

The PUD project proposes residential and commercial development which is consistent with existing surrounding land uses. The PUD specifies that a parking management plan will organize loading and unloading in proximity to both the residential and non-residential uses to help minimize noise impacts on adjacent uses. In addition, noise shall be addressed as part of the parking management plan submitted to the Planning Director and trash receptacles/recyclable container storage areas will be provided for all residential and commercial uses. Such receptacle/storage area may receive trash from commercial and residential sources. The PUD project must also demonstrate compliance with the City's Noise Ordinance through the development review process.

TOP EIR evaluated potential noise impacts in the City as the result of future development and recommended implementation of Mitigation Measure MM NOI 12-1 to address potential site-specific noise impacts along major roadways in the City. With implementation of TOP EIR MM NOI 12-1, potential noise impacts of the proposed PUD land uses will be less than significant and no project-specific mitigation is required.

The PUD project will not result in any new, increased or substantially different impacts not previously considered and addressed in TOP EIR. No changes or additions to TOP EIR analyses are necessary.

Mitigation: The PUD project site is adjacent to Euclid Avenue, a major roadway, and a portion of the site falls within the roadway's 65 dBA CNEL contour. TOP EIR contains Mitigation Measure MM NOI 12-1 to address site specific noise impacts along major roadways:

NOI 12-1: Prior to the issuance of building permits for any project that involves a noise-sensitive use within the 65 dBA CNEL contour along major roadways, freeways, railroads, or the Ontario International Airport, the project property owner/developers shall retain an acoustical engineer to conduct an acoustic analysis and identify, where appropriate, site design features (e.g., setbacks, berms, or sound walls) and/or required building acoustical improvements (e.g., sound transmission class rated windows, doors, and attic baffling), to ensure compliance with the City's Noise Compatibility Criteria and the California State Building Code and California Noise Insulation Standards (Title 24 and 21 of the California Code of Regulations).

b. Generation of excessive ground-borne vibration or ground-borne noise levels?

Discussion of Effects: The project proposes commercial and residential uses consistent with TOP Policy Plan. The site was previously analyzed by the TOP EIR as supporting both residential and commercial uses (i.e., mixed use). TOP EIR indicates these types of uses do not normally induce significant ground-borne vibrations because they do not typically involve equipment or activities which result in large vibrations (e.g., blasting, impact compaction, handling of large boulders, etc.). Therefore, less than significant impacts are anticipated.

The PUD project will not result in any new, increased or substantially different impacts not previously considered and addressed in TOP EIR. No changes or additions to TOP EIR analyses are necessary.

Mitigation: No project specific mitigation is required.

c. For a project located within the vicinity of a private airstrip or the noise impact zones of the airport land use compatibility plan for ONT and Chino Airports, would the project expose people residing or working in the project area to excessive noise levels?

Discussion of Effects: The Land Use Element of TOP states that all new developments surrounding airports should be consistent with the adopted ALUCP and should meet standards and recommendations of Part 77 of the FAA, adopted through Ordinance 2758 in the Ontario Municipal Code. Section 9.3.e. *Hazards and Hazardous Materials*, indicates the site is not within the hazard or influence area of either the Ontario International Airport or the Chino Airport. Therefore, there are no impacts and no mitigation required.

The PUD project will not result in any new, increased or substantially different impacts not previously considered and addressed in TOP EIR. No changes or additions to TOP FEIR analyses are necessary.

Mitigation: No project specific mitigation is required.

14. POPULATION & HOUSING. Would the project:

a. Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of road or other infrastructure)?

Discussion of Effects: TOP EIR identified less than significant impacts associated with population and housing increases. TOP allows the City to accommodate population growth through land use designations, goals, and policies that provide a vision and guide growth in the City (SEIR p. 5.14-11).

The proposed PUD project is consistent with the Mixed-Use TOP land use designation. The project site was previously analyzed by TOP EIR with both residential and commercial uses so it would generate additional housing and population which was already calculated in TOP EIR.

The PUD project will not result in any new, increased or substantially different impacts not previously considered and addressed in TOP EIR. No changes or additions to TOP EIR analyses are necessary.

Mitigation: No project specific mitigation is required.

b. Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

Discussion of Effects: The purpose of TOP is to adequately plan and accommodate future growth through the distribution, location, balance, and extent of land uses. Implementation of TOP 2050 would accommodate population growth through land use designations, goals, and policies that provide a vision and guide growth in the City. The EIR concluded TOP would have less than significant direct, indirect, and cumulative impacts relating to displacement of people and housing (SEIR p. 5.14-12). The PUD project site is all commercial does not contain any existing housing, nor is it designated or zoned for residential uses. The PUD will result in the 10.6-acre MU-NH sub-area to exceed its residential growth projection in TOP by 4% while reducing the planned non-residential growth in the sub-area by 28%, On balance these changes are minimal and will not result in any significant housing or growth impacts.

The PUD project will therefore not result in any new, increased or substantially different impacts not previously considered and addressed in TOP EIR. No changes or additions to TOP EIR analyses are necessary.

Mitigation: No project specific mitigation is required.

15. PUBLIC SERVICES. Would the project:

a. Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:

i. Fire protection?

Discussion of Effects: TOP EIR determined TOP would result in an increase in development and population, which would result in increased demand on fire protection services. The EIR indicated that existing facilities and services would not be adequate to meet increased demand from growth under TOP. Therefore, the Fire Department was planning on adding facilities and/or services as demand increases. With implementation of TOP policies and Fire Department review of new development, impacts will be less than significant (SEIR p. 5.15-3).

The PUD project site is in a developed area currently served by the Ontario Fire Department. The Project is consistent with TOP land use designations, and TOP EIR states the City will not require the construction of any new fire protection facilities or alteration of any existing facilities or cause a decline in the levels of service, which could cause the need to construct new facilities in this portion of the City. Therefore, no impacts are anticipated.

The PUD project will not result in any new, increased or substantially different impacts not previously considered and addressed in TOP EIR. No changes or additions to TOP EIR analyses are necessary.

Mitigation: No project specific mitigation is required.

ii. Police protection?

Discussion of Effects: TOP EIR determined TOP would result in an increase in development and population, which would result in increased demand on police protection services. The EIR indicated that existing staffing would not be adequate to meet increased demand from growth under TOP. Therefore, the Police Department is planning on adding facilities and/or services as demand increases. With implementation of TOP policies and Police Department review of new development, impacts will be less than significant (SEIR p. 5.15-7).

The site was previously developed and is in a developed area currently served by the Ontario Police Department. It is not anticipated the project will contribute to the need for construction of any new police facilities or alteration of any existing facilities or cause a decline in the levels of service, which could cause the need to construct new facilities. No impacts are anticipated.

The PUD project will not result in any new, increased or substantially different impacts not previously considered and addressed in TOP EIR. No changes or additions to TOP EIR analyses are necessary.

Mitigation: No site-specific mitigation is required.

iii. Schools?

Discussion of Effects: TOP EIR identified impacts to school facilities and services as less than significant upon payment of SB 50 school impact fees (SEIR p. 5.15-14).

The PUD project proposes mixed uses (i.e., residential apartments and retail commercial uses) which are expected to generate school-aged students that require educational facilities or services. The project will be required to pay school fees as prescribed by state law prior to the issuance of building permits, which is considered adequate mitigation under CEQA. No impacts are anticipated.

The PUD project will not result in any new, increased or substantially different impacts not previously considered and addressed in TOP EIR. No changes or additions to TOP EIR analyses are necessary.

Mitigation: No project specific mitigation is required.

iv. Parks?

Discussion of Effects: TOP would generate additional residents, increasing the use of existing park and recreational facilities. However, TOP EIR concluded this would not result in a significant impact as long as development of park facilities keeps pace with the anticipated increase in population from buildout (SEIR p. 5-15-14).

The site is in a developed area currently served by the City in terms of parks and recreational services. The project has both a residential and commercial component and will provide onsite recreational amenities. Due to the size of the residential portion of the project (369 apartments), the PUD project will not require the construction of any new park facilities or alteration of any existing facilities or cause a decline in the

levels of service, which could cause the need to construct new facilities. Like all new development under TOP, the PUD project will be required to pay a park-related Development Impact Fee (DIF). Therefore, no impacts are anticipated.

The PUD project will not result in any new, increased or substantially different impacts not previously considered and addressed in TOP EIR. No changes or additions to TOP EIR analyses are necessary.

Mitigation: No project specific mitigation is required.

v. Other public facilities?

Discussion of Effects: TOP would generate additional residents, increasing the use of existing public facilities (e.g., libraries). TOP EIR identified less than significant impacts to library services and facilities (SEIR p. 5-15-18).

The site is in a developed area currently served by the City. Typically, new public facilities are needed to serve additional population generated by new housing. The project will generate 369 new apartment units which will incrementally increase the need for other public facilities in the future. Due to its size, it is unlikely this PUD project will require the construction of any new public facilities or alteration of any existing facilities or cause a decline in the levels of service, which could cause the need to construct new facilities. Like all new development under TOP, the PUD project will be required to pay established Development Impact Fees (DIFs) to the City which factor in the future need for public facilities based on the City's overall population. Therefore, no impacts are anticipated.

The PUD project will not result in any new, increased or substantially different impacts not previously considered and addressed in TOP EIR. No changes or additions to TOP EIR analyses are necessary.

Mitigation: No project specific mitigation is required.

16. RECREATION. Would the project:

a. Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?

Discussion of Effects: TOP would generate additional residents, increasing the use of existing park and recreational facilities. However, TOP EIR concluded this would not result in a significant impact as long as development of park facilities keeps pace with the anticipated increase in population from buildout (SEIR p. 5-16-14).

The project has both a residential and commercial component and will provide onsite recreational amenities. Due to the size of the residential portion of the project (369 apartments), the PUD project will not require the construction of any new park facilities or alteration of any existing facilities or cause a decline in the levels of service, which could cause the need to construct new facilities. Like all new development under TOP, the PUD project will be required to pay an appropriate park-related Development Impact Fee (DIF). Therefore, no impacts are anticipated.

The PUD project will not result in any new, increased or substantially different impacts not previously considered and addressed in TOP EIR. No changes or additions to TOP EIR analyses are necessary.

Mitigation: No project specific mitigation is required.

b. Does the project include recreational facilities or require the construction or expansion of recreational facilities that have an adverse physical effect on the environment?

Discussion of Effects: TOP would generate additional residents, increasing the use of existing park and recreational facilities. However, TOP EIR concluded this would not result in a significant impact as long as development of park facilities keeps pace with the anticipated increase in population from buildout (SEIR p. 5-16-14).

The project is mixed use with both residential and commercial components. The PUD indicates the project will also provide onsite recreational amenities (275 square feet of common amenities per unit). Due to the size of the residential portion of the project (369 apartments), the PUD project will not require the construction of any new park facilities or alteration of any existing facilities. Like all new development under

TOP, the PUD project will be required to pay an appropriate park-related Development Impact Fee (DIF). Therefore, no impacts are anticipated.

The PUD project will not result in any new, increased or substantially different impacts not previously considered and addressed in TOP EIR. No changes or additions to TOP EIR analyses are necessary.

Mitigation: No project specific mitigation is required.

17. TRANSPORTATION. Would the project:

a. Conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?

Discussion of Effects: TOP EIR found that the recommended TOP circulation plan would comply with adopted policies, plans, and programs for alternative transportation, including SCAG's Connect SoCal (SEIR p. 5.17-23) so impacts would be less than significant.

The subject site was previously analyzed by TOP EIR as supporting mixed use (i.e., 369 higher density residential units and 142,840 square feet of commercial uses). The site is bounded by residential uses to the west and south, commercial uses to the east, and mixed uses to the north adjacent to SR-60.

A trip generation study of the existing land uses on the site compared to the proposed PUD project was prepared in June 2022 by Linscott Law & Greenspan (LLG) (Appendix D). The study first identified vehicular trips that could result from full operation of the existing onsite uses which include a Kmart, Sears Appliance Repair Center (although both are currently closed), a Carl's Junior drive-through restaurant, and a small tenant retail commercial building. Next, the study estimated future vehicular trips for the land uses proposed in Phases 1 and 2 of the PUD project. Finally, the study compared the two trip generation totals (existing vs. proposed uses) to determine if the proposed PUD project will significantly increase traffic generation compared to the existing land uses at full utilization. **Table 5** provides a summary of the LLG trip generation study results.

Table 5: Trip Generation Comparison

Traffic Condition	AM Peak Hour	PM Peak Hour	Average Daily Traffic (ADT)
Existing Land Uses (current conditions)	91	61	1,438
Existing Land Uses (fully utilized)	162	211	4,043
Euclid/Walnut PUD Project			
Phase 1	138	153	1,791
Phase 2	24	37	449
TOTAL	**162**	**190**	**2,240**
Difference (Total PUD v. Fully Utilized)	*0*	*-21*	*-1,803*
Difference (Total PUD v. Current Conditions)	*71*	*131*	*802*

Source: Table 1, Project Traffic Generation Rates and Forecast, LLG 2022

The LLG trip generation study indicates the proposed PUD project would generate more traffic than the underutilized shopping center currently generates (802 daily trips) but would actually generate approximately 1,803 less total daily vehicular trips than the shopping center generated at full operation of its existing uses (i.e., Kmart, Sears Center, Carl's Jr, and small retail building fully occupied). The traffic analysis prepared for TOP and TOP EIR assumed full buildout of existing and proposed land uses so the PUD project would generate less traffic than was assumed and analyzed under TOP EIR. Based on this analysis, the PUD project would not result in any greater traffic-related impacts on streets and intersections than were already analyzed in TOP EIR.

Transit. The project area and the City are served by Omnitrans, a public transit agency serving various jurisdictions in San Bernardino County. Omnitrans currently operates Route 83 adjacent to the site on Euclid Avenue (closest stop is Walnut Street). Omnitrans also regularly reviews and periodically changes routes, stops, etc. to address ridership and community demand needs as well as budget limitations. As part

of the City's development review process, the project developer will coordinate with Omnitrans to determine if any expanded or additional bus service in the project area as needed.

In addition, TOP Figure M-03, Public Transit, shows Euclid Avenue currently serves as a Bus Rapid Transit (BRT) corridor. Metrolink also operates commuter service on the rail lines 2.3 mile north of the PUD project site on the rail line that crosses Euclid Avenue south of Holt Boulevard with an Amtrak station located on the east side of Euclid Avenue.

Bicycles. The project site and surrounding area support mainly residential and commercial uses but none of the streets in the area currently contain bicycle lanes. The City's TOP 2050 Trails and Bikeway Systems Map (Figure M-02) shows a Class II on-street bicycle lane planned for Walnut Street both east and west of Euclid Avenue, and Euclid Avenue (north of Riverside Drive) is indicated as needing study for a possible future Class III bike route. In addition, Euclid Avenue south of Riverside Drive (south of the PUD site) is proposed for a future Class I Multipurpose Trail. The PUD project will provide improvements or accommodations along its frontage of Walnut Street and Euclid Avenue if needed for these future improvements. However, no additional bicycle lanes are currently in place or under construction in the surrounding area at present due to its fully developed condition.

Sidewalks/Trails. The project site is developed but underutilized and sidewalks are in place on adjacent and area streets including Euclid Avenue. The PUD project will connect to these existing sidewalks and thus provide a complete pedestrian network in this area. The City's TOP 2050 Trails and Bikeway Systems Map shows Euclid Avenue south of Walnut Street proposed for a future Class I Multipurpose Trail. However, at present no trails or other pedestrian-oriented improvements are under construction in the immediate surrounding area.

The PUD project will be developed consistent with the City's adopted plans for non-vehicular improvements as indicated in TOP. The project will install sidewalks on perimeter streets as indicated in the standard City street cross sections and will install bus stop infrastructure if directed by Omnitrans during the development review process. Therefore, the PUD project will not conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities. Impacts will be less than significant.

The PUD project will not result in any new, increased or substantially different impacts not previously considered and addressed in TOP EIR. No changes or additions to TOP EIR analyses are necessary.

Mitigation: No project specific mitigation is required.

b. Conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?

Discussion of Effects: TOP EIR concludes TOP would result in a significant transportation impact related to VMT mainly due to the increase in population accommodated by TOP. TOP includes goals and policies to offset VMT impacts by creating greater access to transit and enhanced alternative transportation modes. In addition, projects that are calculated to exceed City-wide VMT levels must develop mitigation plans.

The City has developed its own "VMT Guidelines for CEQA Assessment of VMT Impacts" dated 2021. In addition, the City uses the San Bernardino County Transportation Authority (SBCTA) VMT Screening Tool, which allows users to select an assessor's parcel number (APN) to determine if a project's location meets one or more of the screening thresholds for land use projects identified in the City Guidelines.

The City Guidelines state that certain projects that meet the following VMT screening criteria may be presumed to result in a less than significant transportation impact:

- Transit Priority Area (TPA) Screening
- Low VMT Area Screening
- Project Type Screening

A land use project needs to meet only one of these screening criteria to have a less than significant impact.

TPA Screening. Projects located within a TPA (i.e., within a half-mile of an existing "major transit stop"[1] or an existing stop along a "high-quality transit corridor"[2] may be presumed to have a less than significant VMT impact. The Screening Tool indicates the project site is located within a half-mile of an existing major transit stop or along a high-quality transit corridor (Euclid Avenue Bus Rapid Transit corridor). Therefore, the TPA screening criterion is met.

Low VMT Area Screening. The City Guidelines cite the OPR Technical Advisory in that "Residential and office projects that locate in areas with low VMT and that incorporate similar features (density, mix of uses, and transit accessibility) will tend to exhibit similarly low VMT." The City Guidelines state that projects may be presumed to have a less than significant VMT impact if located in an already low VMT generating traffic analysis zones (TAZs) that generates a VMT per service population (SP) that is 15% below County of San Bernardino Baseline VMT per SP. The Screening Tool uses the sub-regional San Bernardino Transportation Analysis Model (SBTAM) to measure VMT performance within individual TAZ's within the region. The Project's physical location based on parcel number is selected in the Screening Tool to determine the TAZ in which the Project will reside (TAZ 53643101). The Project's TAZ VMT per service population was compared to 15% below County of San Bernardino Baseline VMT per SP. The Screening Tool was run for production-attraction (PA) VMT per service population and indicates the VMT per SP for the PUD site is just under the City's average for 2022 through 2040, but it does not exceed 15% less than that figure in the future. The Screening Tool determined the PUD project is not located within a low VMT generating zone for any baseline year from 2022 to 2040. Therefore, the low VMT area screening criterion is not met.

Project Type Screening. The City Guidelines indicate that local-serving retail less than 50,000 square feet or other local serving essential services (e.g., day care centers, public schools, medical/dental office buildings, etc.) are presumed to have a less than significant impact absent substantial evidence to the contrary. The PUD project proposes only 12,000 square feet of local serving uses. Therefore, the Project meets that portion of this criterion. The City Guidelines also state that small projects generating fewer than 110 daily vehicle trips or less may be presumed to have a less than significant VMT impact, subject to discretionary approval by the City. A trip generation study was prepared for the PUD project that estimated vehicle trips generated by the project's proposed land uses based on trip generation rates collected by the Institute of Transportation Engineers (ITE) Trip Generation Manual, 11th Edition, 2021 (see Threshold 17.a above)(LLG 2022). According to the study, the PUD project will generate 2,240 daily vehicle trip-ends per day at buildout (see Table 5). Even accounting for the difference of PUD buildout vs. current conditions (i.e., operation of 28,000 square feet of existing commercial uses) would still generate 131 PM peak hour trips. Therefore, the PUD project generates daily vehicle trips exceeding the 110 daily vehicle trip threshold, so the project does not meet this portion of the project type screening criterion.

Based on this analysis, the PUD project is eligible for screening under the TPA Screening Criteria and the first portion of the Project Type Screening Criteria so a detailed VMT analysis is not required (i.e., it has a less than significant local VMT impact). Moreover, the PUD project is mixed use and generally consistent with TOP's underlying land use assumptions and buildout projection for this sub-area, so the PUD project is also considered to have a less than significant cumulative VMT impact as well.

The VMT project will not result in any new, increased or substantially different impacts not previously considered and addressed in TOP EIR. No changes or additions to TOP EIR analyses are necessary.

Mitigation: No project specific mitigation is required.

c. Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

Discussion of Effects: TOP EIR found that circulation improvements under the recommended TOP circulation plan would be designed to adequately address potentially hazardous conditions and potential conflicting uses (SEIR p. 5.17-26) so impacts would be less than significant.

[1] Pub. Resources Code, § 21064.3 ("'Major transit stop' means a site containing an existing rail transit station, a ferry terminal served by either a bus or rail transit service, or the intersection of two or more major bus routes with a frequency of service interval of 15 minutes or less during the morning and afternoon peak commute periods.").

[2] Pub. Resources Code, § 21155 ("For purposes of this section, a high-quality transit corridor means a corridor with fixed route bus service with service intervals no longer than 15 minutes during peak commute hours.").

The PUD project is largely surrounded by existing residential and commercial development and the area is fully improved with suburban density uses. All internal streets will be improved with project construction. The roads on or adjacent to the site are linear according to the City's Circulation Element master plan of streets in terms of alignment and cross section. The site is also adjacent to Euclid Avenue, a major arterial, and the SR-60 Freeway is just north of the site with on- and off-ramps at Euclid Avenue. Therefore, the PUD project will not create a substantial increase in hazards due to a design feature. No impacts are anticipated.

The PUD project will not result in any new, increased or substantially different impacts not previously considered and addressed in TOP EIR. No changes or additions to TOP EIR analyses are necessary.

Mitigation: No project specific mitigation is required.

d. Result in inadequate emergency access?

Discussion of Effects: TOP EIR found that circulation improvements under the recommended TOP circulation plan would be designed to adequately address emergency access (SEIR p. 5.17-26) so impacts would be less than significant.

As shown in Exhibit 2-4, the PUD project site and surrounding area will have standard linear street alignments and cross sections which can provide access for all emergency vehicles and will therefore not result in inadequate emergency access. No impacts are anticipated.

The PUD project will not result in any new, increased or substantially different impacts not previously considered and addressed in TOP EIR. No changes or additions to TOP EIR analyses are necessary.

Mitigation: No project specific mitigation is required.

18. TRIBAL CULTURAL RESOURCES. Would the project cause a substantial adverse change in the significance of a TCR, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

a. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k)?

Discussion of Effects: The subject site was previously analyzed by TOP EIR as supporting mixed use (i.e., residential and commercial uses) and is not listed in the California Register of Historic Resources or local register of historical resources. TOP EIR concluded that with recommended mitigation potential impacts to TCRs were reduced to less than significant levels. TOP EIR also included the required consultation with Native American tribal groups and representatives.

Developing a mixture of residential and commercial uses consistent with TOP and current zoning will not create greater impacts on the PUD project site than were identified in TOP EIR. In addition, the Sacred Lands File (SLF) Search commissioned through the NAHC failed to indicate known TCRs within the project boundaries or within a one-mile radius of the project area.

The PUD project site has been previously disturbed by human activities including agricultural use from the 1920's through the 1950's. The surrounding area is largely developed and supports infrastructure that would have displaced surface and subsurface archaeological resources. Therefore, it is not anticipated the proposed PUD project will impact TCRs or Native American artifacts relating to TCRs. However, to err on the side of caution, the City will apply TOP EIR Mitigation Measure CUL 5-2 and its standard conditions of approval for inadvertent discovery of archaeological resources. In addition, the City will require the developer enter into monitoring agreements with interested tribal groups. With this regulatory compliance, no significant impacts will occur.

The PUD project will not result in any new, increased or substantially different impacts not previously considered and addressed in TOP EIR. No changes or additions to TOP EIR analyses are necessary.

Mitigation: No additional project specific mitigation is required. Mitigation Measure CUL 5-2 from TOP EIR shall be implemented.

b. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

Discussion of Effects: TOP EIR (Section 5.5) indicates no archeological sites or resources have been recorded in the City with the Archeological Information Center at San Bernardino County Museum so there were no significant impacts. The CRAs prepared for the project site included a pedestrian survey, a record search, a SLF search, and a review of existing documentation for the project site and surrounding area. The NAHC was contacted for a SLF search on April 1, 2019, and a response was received on April 15, 2019, indicating the project site contained no identified archaeological or tribal resources.

While no adverse impacts to archeological resources are anticipated at this site due to its disturbed nature, the PUD project will implement TOP MM CUL 5-2 to help assure there will be no impacts to any unknown TCRs, which may be present onsite.

The PUD project will not result in any new, increased or substantially different impacts not previously considered and addressed in TOP EIR. No changes or additions to TOP EIR analyses are necessary.

Mitigation: No project specific mitigation is required. The project will implement TOP Mitigation Measure CUL 5-2.

19. UTILITIES AND SERVICE SYSTEMS. Would the project:

a. Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?

Discussion of Effects: TOP EIR stated TOP would result in an overall increase in the number of residential dwelling units and non-residential square footage. To accommodate needed infrastructure expansion and improvements, the City has prepared a Water Master Plan (WMP) and Capital Improvement Program (CIP). The City also requires development impact fees and has construction requirements based on a completed evaluation of existing and projected water demands. The City and the Inland Empire Utility Authority (IEUA) have made plans for infrastructure expansion and improvement. TOP EIR concluded TOP would have less than significant direct, indirect, and cumulative impacts relating to water supply and delivery systems (SEIR p. 5.19-31). TOP EIR indicated the City concluded it could meet projected water demand through implementation of the WMP and CIP consistent with the Urban Water Management Plan requirements of the State.

There are existing water and sewer lines in Euclid Avenue and Walnut Street, as well as other utility lines or pipelines depending on the service and provider.

The PUD project is consistent with the land use designation and zoning for the site, and the project is thus consistent with the WMP. Therefore, the City has sufficient water supplies to serve the project over the 20-year life of the WMP, including during multiple dry-year scenarios.

The proposed PUD project is served by the City water system and has existing water lines available for connection in Euclid Avenue and Walnut Street and adequate water supply for the project. The proposed project is served by the City sewer system, which has existing sewer lines available for connection from Euclid Avenue and Walnut Street. The project's waste will be treated by the IEUA at the RP-1 treatment plant. RP-1 is not at capacity and future development of this project site will not cause RP-1 to exceed capacity. TOP EIR indicates increases in RP capacity in the future will be based on designated TOP land uses, and the Project is consistent with those designations. The project will therefore not require the construction of new unanticipated water or wastewater treatment facilities, or the expansion of existing facilities other than that already identified in TOP and TOP EIR. It should be noted the City does not provide will serve letters as it is both the land use authority and the water purveyor. Water and sewer service for development projects typically require the owner to complete requirements it specifies to provide adequate utility services. As the project goes through the City's development review process, the City will issue conditions of approval that will specify the developer's obligations in order to receive water and sewer service from the City. Less than significant impacts are anticipated.

TOP EIR stated TOP has the potential to increase sewer flows by 2.55 million gallons per day (mgd) within the City and by 166 mgd in the City's growth areas. TOP EIR concluded TOP would generate additional wastewater which would be adequately treated in accordance with the Santa Ana RWQCB and California Department of Public Health requirements (SEIR p. 5.19-11).

The proposed PUD project is served by the City with existing storm drains located in Euclid Avenue and Walnut Street. The project is required to meet the requirements of the Ontario Engineering Department regarding the size, location, and connectivity of storm drain facilities. Less than significant impacts are anticipated.

As discussed in Section 6 above, the PUD project will have less than significant impacts with regard to electric power and natural gas. In addition, telecommunication providers increase service and facilities as necessary as area population and land uses expand. Therefore, the PUD project will not have a significant impact on telecommunications facilities.

The PUD project will not result in any new, increased or substantially different impacts not previously considered and addressed in TOP EIR. No changes or additions to TOP EIR analyses are necessary.

Mitigation: No project specific mitigation is required.

b. Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years? In making this determination, the City shall consider whether the project is subject to the water supply assessment requirements of Water Code Section 10910, et seq. (SB 610), and the requirements of Government Code Section 664737 (SB 221).

Discussion of Effects: TOP EIR stated TOP would result in an overall increase in the number of residential dwelling units and non-residential square footage. To accommodate needed infrastructure expansion and improvements, the City has prepared a WMP and CIP. The City also requires development impact fees and has construction requirements based on a completed evaluation of existing and projected water demands. The City and the IEUA have made plans for infrastructure expansion and improvement. TOP EIR concluded TOP would have less than significant direct, indirect, and cumulative impacts relating to water supply and delivery systems (SEIR p. 5.19-31).

The PUD project is consistent with the mixed-use land use designation and zoning for the site - it will increase the residential growth of the MU-NH area by 4% but decrease non-residential growth by 28%. No significant change in water use of this area is expected so the PUD project is thus consistent with the WMP. Therefore, the City has sufficient water supplies to serve the PUD project over the 20-year life of the WMP, including during multiple dry-year scenarios.

The project site is served by the City water system. It is estimated the project will generate approximately 926 residents and 50 employees[3] who would consume 97,600 gallons of water[4] per day (maximum 109 acre-feet per year) based on 100 gallons per person per day. Since the project site land uses are consistent with the TOP, there is currently a sufficient water supply available to the City to serve this project as per the findings of the TOP EIR. Less than significant impacts are anticipated.

The PUD project will not result in any new, increased or substantially different impacts not previously considered and addressed in TOP EIR. No changes or additions to TOP EIR analyses are necessary.

Mitigation: No project specific mitigation is required.

c. Result in a determination by the wastewater treatment provider that serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

Discussion of Effects: TOP EIR stated TOP has the potential to increase sewer flows by 2.55 million gallons per day (mgd) within the City and by 1.66 mgd in the City's unincorporated Planning Area. TOP EIR concluded TOP would generate additional wastewater which would be adequately treated in accordance with the Santa Ana RWQCB and California Department of Public Health requirements (SEIR p. 5.19-11).

[3] US Census and SCAG data indicates the Project could generate 926 residents (369 units X 2.51 persons/unit) and 50 employees
[4] 976 total persons (residents and employees) per day X 100 gallons/day = 97,600 gallons per day

It is estimated the PUD project will generate approximately 926 residents and 50 employees[3] who would generate 48,800 gallons of wastewater[5] per day (maximum 0.05 mgd based on 50 gallons per person of wastewater generated per day). The project site is served by the City sewer system, which has waste treated by the Inland Empire Utility Agency (IEUA) at the RP-1 treatment plant. RP-1 is not at capacity and future development of this project site will not cause RP-1 to exceed capacity. In addition, the project site land uses are consistent with TOP and its EIR. Therefore, less than significant impacts are anticipated.

The PUD project will not result in any new, increased or substantially different impacts not previously considered and addressed in TOP EIR. No changes or additions to TOP EIR analyses are necessary.

Mitigation: No project specific mitigation is required.

d. Generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?

Discussion of Effects: TOP EIR indicated the City disposes of its solid waste in the Badlands Sanitary Landfill or the El Sobrante Landfill. These landfills currently have a combined excess daily capacity of 7,046 tons/day and have a remaining landfill capacity of 15,750,000 cubic yards for Badlands Sanitary Landfill and 144,000,000 cubic yards for El Sobrante Landfill. Both landfills have closure dates beyond 2050. In addition, state and local regulations and ordinances regarding the recycling of construction debris and organic wastes will further reduce the amount of solid waste transported to these landfills in the future. Therefore, TOP EIR concluded that potential impacts were less than significant with continued compliance with applicable regulations (SEIR p. 5.19-14).

It is estimated the PUD project will generate approximately 926 residents and 50 employees who would generate 3,318 pounds of waste[6] per day (1.7 tons per day) based on 3.4 pounds per person per day. This amount of waste represents 0.02 percent of the combined landfills' excess capacity (7,046 tons). In addition, the City currently contracts with a waste disposal company that transports trash to a landfill with sufficient capacity to handle the City's solid waste disposal. Potential impacts of the PUD project relative to waste disposal would be less than significant and consistent with the analysis presented in TOP EIR.

It should also be noted the parcel within the boundary of the PUD will be defined as a Priority Land Use (PLU) which includes residential land uses with at least ten (10) dwelling units per acre, industrial, commercial, mixed urban, and public transportation station. All PLU shall comply with the statewide Trash Provisions adopted by the State Water Resources Control Board (SWRCB) and trash requirements in the most current San Bernardino County Area-Wide MS4 Permit. Drainage from the PLU shall be designed with conveyance tributary to a Full Trash Capture System which has been approved by the SWRCB.

Therefore, the PUD project will not result in any new, increased or substantially different impacts not previously considered and addressed in TOP EIR. No changes or additions to TOP EIR analyses are necessary.

Mitigation: No project specific mitigation required.

e. Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?

Discussion of Effects: TOP EIR indicated that potential impacts related to solid waste reduction would be less than significant based on compliance with state and local regulations and ordinances regarding the recycling of construction debris and organic wastes will reduce the amount of solid waste transported to the two landfills serving the City in the future. Therefore, continued compliance with the applicable regulations, would ensure future development under TOP would have less than significant impacts (SEIR p. 5.19-16).

City development review regulations will require this project comply with federal, state, and local statues and regulations regarding solid waste. Therefore, no impacts are anticipated.

The PUD project will not result in any new, increased or substantially different impacts not previously considered and addressed in TOP EIR. No changes or additions to TOP EIR analyses are necessary.

[5] 976 total persons X 50 gallons/day = 48,800 gallons per day

[6] 976 residents and employees X 3.4 pounds/day = 3,318 pounds/day or 1.7 tons/day

Mitigation: No project specific mitigation is required.

20. WILDFIRE. If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:

a. Substantially impair an adopted emergency response plan or emergency evacuation plan?

Discussion of Effects: TOP EIR found that improvements under the recommended TOP circulation plan would be designed to adequately address emergency access. In addition, emergency access is included as part of the City's Design Review process for new development. According to the City's 2018 Local Hazard Mitigation Plan (LHMP), interstate highways would serve as major emergency response and evacuation routes. Additionally, the Fire Department reviews development applications to ensure that adequate emergency accessibility is provided based on local and state guidance. Figure S-10 of the TOP indicates that Haven Avenue to the west, Airport Drive to the north, and Jurupa Street to the south are designated evacuation routes in the City. The EIR concluded TOP would have a less than significant direct, indirect, and cumulative impacts relating to impairment of an adopted emergency response plan or emergency evacuation plan (SEIR p. 5.20-15 and p. 5.17-26).

The PUD project site is not located in or near a state responsibility area, nor is it located in or near lands classified as very high fire hazard severity zones. Therefore, no impacts are anticipated.

The PUD project will not result in any new, increased or substantially different impacts not previously considered and addressed in the Certified TOP FEIR. No changes or additions to TOP FEIR analyses are necessary.

Mitigation: No project specific mitigation is required.

b. Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?

Discussion of Effects: TOP EIR indicated the City is outside of the State Responsibility Area and contains no areas subject to very high wildfire risk. Therefore, the EIR concluded TOP would result in less-than-significant risks from wildfire hazards (SEIR p. 5.20-16).

The PUD project site is not located in or near a State Responsibility Area, nor is it located in or near lands classified as very high fire hazard severity zones. Therefore, no impacts are anticipated.

The PUD project will not result in any new, increased or substantially different impacts not previously considered and addressed in TOP EIR. No changes or additions to TOP EIR analyses are necessary.

Mitigation: No project specific mitigation is required.

c. Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?

Discussion of Effects: TOP EIR indicated the City is outside of the State Responsibility Area, and CAL FIRE and contains no areas subject to very high wildfire risk. Therefore, the EIR concluded TOP would result in less-than-significant risks from wildfire hazards (SEIR p. 5.20-16). In addition, the PUD project site is in an urbanized area surrounded by developed residential and commercial buildings so no improvements for preventing wildfires are needed either on or adjacent to the site.

The PUD project site is not located in or near a State Responsibility Area nor is it located in or near lands classified as very high fire hazard severity zones. Therefore, no impacts are anticipated.

The PUD project will not result in any new, increased or substantially different impacts not previously considered and addressed in TOP EIR. No changes or additions to TOP EIR analyses are necessary.

Mitigation: No project specific mitigation is required.

d. Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?

Discussion of Effects: TOP EIR indicated the City is outside of the State Responsibility Area, and CAL FIRE and contains no areas subject to very high wildfire risk. Therefore, the EIR concluded TOP would result in less-than-significant risks from wildfire hazards (SEIR p. 5.20-16). In addition, the project site and surrounding area are flat so there is little risk from flooding or landslides.

The PUD project site is not located in or near a State Responsibility Area, nor is it located in or near lands classified as very high fire hazard severity zones. Therefore, no impacts are anticipated.

The PUD project will not result in any new, increased or substantially different impacts not previously considered and addressed in TOP EIR. No changes or additions to TOP EIR analyses are necessary.

Mitigation: No project specific mitigation is required.

21. MANDATORY FINDINGS OF SIGNIFICANCE.

a. Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat or a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?

Discussion of Effects: TOP EIR evaluated the potential impacts of future development under TOP and determined impacts related to biological or cultural resources could be reduced to less than significant levels by implementing a number of mitigation measures on sites that contain such resources.

The proposed PUD project does not have the potential to reduce wildlife habitat and threaten a wildlife species with implementation of regulatory compliance relative to nesting birds if they are present onsite during grading. It will also not threaten any important examples of the major periods of California history or prehistory. Therefore, no impacts are anticipated.

The PUD project will not result in any new, increased or substantially different impacts not previously considered and addressed in TOP EIR. No changes or additions to TOP EIR analyses are necessary.

Mitigation: No project-specific mitigation is required. The project will implement TOP EIR Mitigation Measure CUL 5-2 to reduce impacts on potential archaeological resources.

b. Does the project have the potential to achieve short-term environmental goals to the disadvantage of long-term environmental goals?

Discussion of Effects: The analysis in TOP EIR, as outlined in Sections 1 through 20 of this document, indicate TOP is intended to achieve both the short- and long-term goals of the City in terms of the environment.

The PUD project does not have the potential to achieve short-term environmental goals to the disadvantage of long-term environmental goals as it is consistent with TOP land use and zoning designations for the site which were analyzed in TOP EIR. The project will implement several short- and long-term goals in TOP by development of this mixed-use neighborhood community hub.

The PUD project will not result in any new, increased or substantially different impacts other than those previously considered and addressed in TOP EIR. No changes or additions to TOP EIR analyses are necessary.

Mitigation: No project specific mitigation is required. The project will implement TOP EIR Mitigation Measures AQ 3-1 through 3-3 to reduce potential cumulative air quality impacts.

c. Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current project, and the effects of probable future projects.)

Discussion of Effects: TOP EIR concluded that all impacts of TOP could be reduced to less than significant levels with implementation of the recommended mitigation measures except for air quality, historical resources, noise, and transportation. The EIR further concluded TOP would not make a significant

contribution to any cumulatively considerable impacts with the recommended mitigation except for air quality.

The PUD project will make an incremental contribution to cumulatively considerable air pollutant emissions both of criteria pollutants and greenhouse gases (GHGs). This mixed-use PUD project will also make incremental impacts related to Vehicle Miles Traveled (VMT) but it meets the screening criteria of the City's VMT Guidelines for CEQA Documents so no additional analysis of VMT impacts is required. TOP EIR already examined these impacts and adopted a Statement of Overriding Considerations for the cumulative air quality impacts of future development under TOP as well as GHG and VMT impacts. Since the proposed PUD project is consistent with TOP land use designations for the site, the potential air quality impacts of the project have been previously evaluated in TOP EIR and appropriate mitigation applied (i.e., TOP EIR MM AQ 3-1 through 3-3).

The PUD project will not result in any new, increased or substantially different impacts not previously considered and addressed in TOP EIR. No changes or additions to TOP EIR analyses are necessary.

Mitigation: No project specific mitigation is required. The project will implement TOP EIR Mitigation Measures AQ 3-1 through 3-3.

d. Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?

Discussion of Effects: TOP EIR concluded that all impacts of TOP could be reduced to less than significant levels with implementation of the recommended mitigation measures except for air quality, historical resources, noise, and transportation. The air quality and noise impacts may have direct and/or indirect adverse effects on humans as development occurs in the City under TOP.

With implementation of the recommended TOP EIR Mitigation Measures, the PUD project does not have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly.

The PUD project will not result in any new, increased or substantially different impacts not previously considered and addressed in TOP EIR. No changes or additions to TOP EIR analyses are necessary.

Mitigation: No project specific mitigation is required. The project will implement TOP EIR Mitigation Measure NOI 12-1 to reduce noise impacts on project residents from Euclid Ave. traffic.

EARLIER ANALYSES

*(Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, one or more effects have been adequately analyzed in an earlier EIR or Negative Declaration. Section 15063 (c)(3)(D))***:**

a) The Ontario Plan Final EIR 2022

b) The Ontario Plan 2022

c) City of Ontario Zoning 2021 as amended

All documents listed above are on file with the City of Ontario Planning Department, 303 East "B" Street, Ontario, California 91764, (909) 395-2036.

SUMMARY OF MITIGATION MEASURES

The following measures are from TOP EIR for the indicated environmental issue and will be implemented by the Euclid/Walnut PUD Project:

AIR QUALITY

AQ 3-1: Prior to discretionary approval by the City of Ontario for development projects subject to CEQA (California Environmental Quality Act) review (i.e., nonexempt projects), project applicants shall prepare and submit a technical assessment evaluating potential project construction-related air quality impacts to the City of Ontario Planning Department for review and approval. The evaluation shall be prepared in conformance with South Coast Air Quality Management District (South Coast AQMD) methodology for assessing air quality impacts. If construction-related criteria air pollutants are determined to have the potential to exceed the South Coast AQMD–adopted thresholds of significance, the City of Ontario Building Department shall require feasible mitigation measures to reduce air quality emissions. Potential measures shall be incorporated as conditions of approval for a project and may include:

- Require fugitive dust control measures that exceed South Coast Air Quality Management District's Rule 403, such as:
  - Requiring use of nontoxic soil stabilizers to reduce wind erosion.
  - Applying water every four hours to active soil disturbing activities.
  - Tarping and/or maintaining a minimum of 24 inches of freeboard on trucks hauling dirt, sand, soil, or other loose materials.
- Using construction equipment rated by the United States Environmental Protection Agency as having Tier 4 interim or higher exhaust emission limits.
- Ensuring construction equipment is properly serviced and maintained to the manufacturer's standards
- Limiting nonessential idling of construction equipment to no more than five consecutive minutes.
- Using Super-Compliant VOC paints for coating of architectural surfaces whenever possible. A list of Super-Compliant architectural coating manufactures can be found on the South Coast Air Quality Management District's website at: http://www.aqmd.gov/prdas/brochures/SuperCompliant_AIM.pdf. These identified measures shall be incorporated into all appropriate construction documents (e.g., construction management plans) submitted to the City and shall be verified by the City's Planning Department.

AQ 3-2: The City of Ontario shall evaluate new development proposals within the City and require all developments to include access or linkages to alternative modes of transportation, such as transit stops, bike paths, and/or pedestrian paths (e.g., sidewalks).

AQ 3-3: Prior to discretionary approval by the City of Ontario for development projects subject to CEQA (California Environmental Quality Act) review (i.e., nonexempt projects), project applicants shall prepare and submit a technical assessment evaluating potential project operation-phase-related air quality impacts to the City of Ontario Planning Department for review and approval. The evaluation shall be prepared in conformance with South Coast Air Quality Management District (South Coast AQMD) methodology in assessing air quality impacts. If operation-related air pollutants are determined to have the potential to exceed the South Coast AQMD–adopted thresholds of significance, the City of Ontario Planning Department shall require that applicants for new development projects incorporate mitigation measures to reduce air pollutant emissions during operational activities. The identified measures shall be included as part of the conditions of approval. Possible mitigation measures to reduce long-term emissions could include but are not limited to the following:

- For site-specific development that requires refrigerated vehicles, the construction documents shall demonstrate an adequate number of electrical service connections at loading docks for plug-in of the anticipated number of refrigerated trailers to reduce idling time and emissions.

- Applicants for manufacturing and light industrial uses shall consider energy storage and combined heat and power in appropriate applications to optimize renewable energy generation systems and avoid peak energy use.
- Site-specific developments with truck delivery and loading areas and truck parking spaces shall include signage as a reminder to limit idling of vehicles while parked for loading/unloading in accordance with California Air Resources Board Rule 2845 (13 CCR Chapter 10 sec. 2485).
- Provide changing/shower facilities as specified in Section A5.106.4.3 of CALGreen (Nonresidential Voluntary Measures).
- Provide bicycle parking facilities per Section A4.106.9 of CALGreen (Residential Voluntary Measures).
- Provide preferential parking spaces for low-emitting, fuel-efficient, and carpool/van vehicles per Section A5.106.5.1 of CALGreen (Nonresidential Voluntary Measures).
- Provide facilities to support electric charging stations per Section A5.106.5.3 and Section A5.106.8.2 of CALGreen (Nonresidential Voluntary Measures; Residential Voluntary Measures).
- Applicant-provided appliances shall be Energy Star–certified appliances or appliances of equivalent energy efficiency (e.g., dishwashers, refrigerators, clothes washers, and dryers). Installation of Energy Star–certified or equivalent appliances shall be verified by the City during plan check.

CULTURAL RESOURCES

CUL 5-2: In areas of documented or inferred archaeological and/or paleontological resource presence, City staff shall require applicants for development permits to provide studies to document the presence/absence of such resources. On properties where resources are identified, such studies shall provide a detailed mitigation plan, including a monitoring program and recovery and/or in situ preservation plan, based on the recommendations of a qualified cultural preservation expert. The mitigation plan shall include the following requirements:

a) Archaeologists and/or paleontologist shall be retained for the project and will be on call during grading and other significant ground-disturbing activities.

b) Should any cultural resources be discovered, no further grading shall occur in the area of the discovery until the Planning Director or designee is satisfied that adequate provisions are in place to protect these resources.

c) Unanticipated discoveries shall be evaluated for significance by a San Bernardino County Certified Professional Archaeologist/Paleontologist. If significance criteria are met, then the project shall be required to perform data recovery, professional identification, radiocarbon dates, and other special studies; submit materials to a museum for permanent curation; and provide a comprehensive final report including catalog with museum numbers.

NOISE

NOI 12-1: Prior to the issuance of building permits for any project that involves a noise-sensitive use within the 65 dBA CNEL contour along major roadways, freeways, railroads, or the Ontario International Airport, the project property owner/developers shall retain an acoustical engineer to conduct an acoustic analysis and identify, where appropriate, site design features (e.g., setbacks, berms, or sound walls) and/or required building acoustical improvements (e.g., sound transmission class rated windows, doors, and attic baffling), to ensure compliance with the City's Noise Compatibility Criteria and the California State Building Code and California Noise Insulation Standards (Title 24 and 21 of the California Code of Regulations).

REFERENCES

2016 Air Quality Management Plan (AQMP). South Coast Air Quality Management District (SCAQMD). August 2016.

The Ontario Plan 2050, Final Supplemental Environmental Impact Report (SCH# 2021070364), Placeworks/City of Ontario. August 2022.

The Ontario Plan 2050, Placeworks/City of Ontario. August 2022.

City of Ontario Municipal Code, Title 9, Chapter 1, Development Code, Zoning. City of Ontario, 2022.

City of Ontario Guidelines for the Implementation of the California Environmental Quality Act (CEQA). City of Ontario. 2019.

Euclid and Walnut Planned Unit Development (PUD), City of Ontario, MIG Inc., June 2023 (**Appendix A**)

Euclid and Walnut, Ontario, CA, Legacy Partners, AO Architects.

Euclid/Walnut Mixed Use Planned Unit Development Project, Health Risk Assessment Report Per Ontario Development Code Table 6.10-3. MIG Inc. June 2023 (**Appendix B**)

Hydrology Data (April 2023) and Water Quality Management Plan (June 2023) (**Appendix C**)

Trip Generation Assessment for the Euclid Avenue Mixed Use Apartment Project, Ontario, California. Linscott Law & Greenspan (LLG). June 23, 2022 (**Appendix D**)

Addendum Appendix A



City of Ontario
PUD 22-004

Euclid Walnut

Planned Unit Development

A Project by Legacy Partners

CITY OF ONTARIO SOUTHERN CALIFORNIA

3085

Euclid/Walnut

Planned Unit Development

City of Ontario
PUD 22-004
City Council Approval Date - TBD
City Council Ordinance No. TBD

303 E. B Street
Ontario, CA 91764
(909) 395-2000
ontarioca.gov

Applicant:

Legacy Partners
5141 California Avenue
Suite 100
Irvine, CA 92617

Table of Contents

Chapter 1: Introduction 7

Chapter 2: Objectives 11
- 2.1 Consistency with The Ontario Plan 11
- 2.2 Euclid Avenue (EA) Overlay District and Historic Resources 18
- 2.3 Euclid/Walnut PUD Objectives 19

Chapter 3: Land Use Plan 21
- 3.1 Land Use and Zoning 21
- 3.2 Phasing and Build-Out 22
- 3.3 Permitted Uses 24

Chapter 4: Development Regulations 27
- 4.1 Intensity 28
- 4.2 Density 28
- 4.3 Building Envelope 28
- 4.4 Vehicle Access 28
- 4.5 Parking Facilities, Supply and Design 29
- 4.6 Residential Open Space and Common Amenities 29
- 4.7 Service Facilities 30
- 4.8 Signs 30
- 4.9 Landscape/Hardscape 30
- 4.10 Fences and Walls 31
- 4.11 Public Right-of-Way Improvements 31
- 4.12 Infrastructure 31
- 4.13 Summary of Development Standards 32

Chapter 5: Design Criteria 35
- 5.1 Building Orientation 36
- 5.2 Access and Parking Facilities 36
- 5.3 Service Facilities 36
- 5.4 Pedestrian Linkages 37
- 5.5 Architectural Character 37
- 5.6 Massing & Scale 37
- 5.7 Articulation & Fenestration 37
- 5.8 Architectural Details 37
- 5.9 Storefronts 41
- 5.10 Material & Colors 41
- 5.11 Roofs/Rooftop Equipment 41
- 5.12 Non-Residential Outdoor Dining Areas 41
- 5.13 Residential Outdoor Space, Common Recreational Amenities 41
- 5.14 Landscape/Hardscape Elements 42

Chapter 6: Administration 47
- 6.1 Items Not Addressed in PUD 47
- 6.2 Development Plan and Other Applications 48
- 6.3 Administrative Exceptions 48

Exhibits

Exhibit 1-1: PUD Location Map 8

Exhibit 3-1: Land Use/Zoning Map 22

Exhibit 3-2: Phase 1 Conceptual Site Plan 23

Exhibit 5-1: Architectural Character — Vertical Mixed-Use 38

Exhibit 5-2: Architectural Character — Three-Story Residential 39

Exhibit 5-3: Architectural Character — Four-Story Residential 40

Exhibit 5-4: Typical Common Recreational Amenity 41

Exhibit 5-5: Typical Courtyard 41

Exhibit 5-6: Fence/Wall Concepts 44

Tables

Table 3-1: Permitted Uses 24

Table 4-1: Summary of Development Standards 32

Table 5-1: Master Plant Palette 42

1 Introduction

The Euclid/Walnut Planned Unit Development (PUD) functions as a set of planning and design principles, development regulations, and performance standards to guide and govern the redevelopment of a commercial shopping center into a mixed-use development. The project site comprises three parcels located on the northwest corner of Euclid Avenue and Walnut Street, as shown on Exhibit 1-1: PUD Location Map. This PUD will facilitate development of high-density apartments, restaurants, retail shops, and other commercial services that will achieve the City's goals to economically revitalize and aesthetically enhance an underutilized parcel on the Euclid Avenue corridor.

Exhibit 1-1: PUD Location Map



This document is organized to fulfill the requirements for a PUD, as set forth in the Ontario Development Code (ODC). The Euclid/Walnut PUD replaces the existing zoning district designation and ODC regulations applicable to the affected properties. The properties also lie within the "EA – Euclid Avenue Overlay" district. Any applicable requirements of the overlay district shall remain in full force and effect. Unless otherwise defined or stated herein, definitions and interpretations contained in the ODC shall apply. City staff and private developers will rely on this PUD to determine whether precise plans for development ("Development Plans") adequately meet the City's land use and design objectives of The Ontario Plan (TOP) 2050.

This page was intentionally left blank.

2 Objectives

2.1 Consistency with The Ontario Plan

The Ontario Plan (TOP), the City's comprehensive plan, has undergone a significant update to shape the Ontario community through 2050. TOP 2050 has three policy level components: the Vision, a Governance Manual, and the Policy Plan (General Plan).

The Ontario Vision – adopted by the City Council envisioning "A sustained, community-wide prosperity which continuously adds value and yields benefits." Value is comprehensive in this regard and is expressed in land, revenues, infrastructure, businesses, education, employment, health, community services, recreation, etc. In particular, Ontario is committed to being "A Premier Community by Design." One of the foundations to accomplish this is described in the Vision as ensuring that development is "distinctive." The Euclid/Walnut PUD helps the City realize specific "Points of Vision" as outlined for "Distinctive Development" as follows:

- A system of vibrant retail, town, and neighborhood centers responsive to market demands and woven into the fabric of the community.
- A demonstrated ability to attract housing in pursuit of our acknowledged responsibility to balance housing with the job growth that drives our quality of life.
- Superior quality and design of the built environment and open spaces through careful attention to detail at every scale, including public and private spaces and structures.

The Governance Manual – institutionalizes Ontario's approach to governance and provides a business plan for the City. Ontario believes the City has the obligation to create, maintain, and grow economic value. The Manual guides the City's leadership and ensures that TOP 2050 is integrated into daily operations and provides for effective administration. The Euclid/Walnut PUD is established in conformance with the City's requirements and includes an administrative section consistent with provisions contained in the ODC for consideration of "Development Plans."

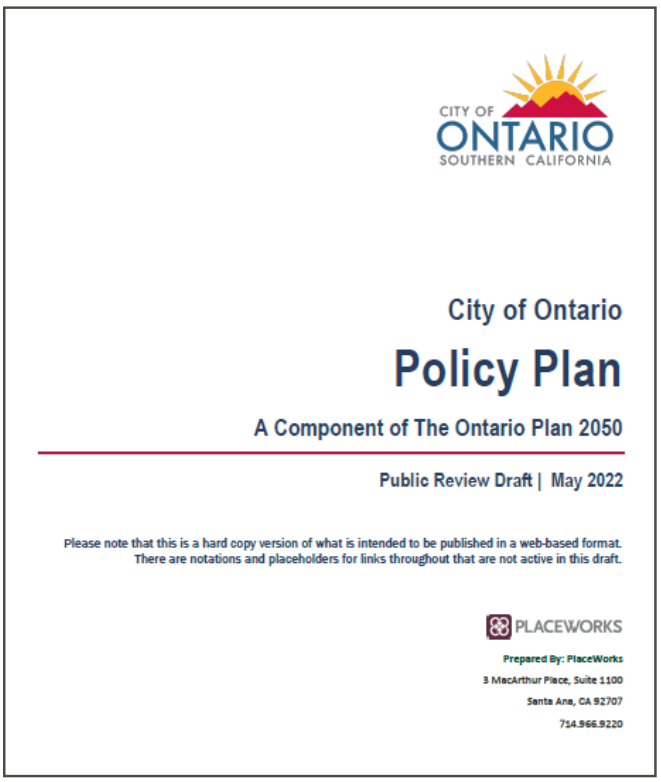
The Policy Plan (General Plan) – includes the Land Use Element, which designates the subject parcels within the Euclid/Walnut PUD as "MU - Mixed Use." Generally, these properties are developed with a mix of uses that, when concentrated, create focal points for community activity and facilitate walking, biking, and transit use The MU – Mixed Use land use category accommodates a horizontal and/or vertical mix of retail, service, office, restaurant, entertainment, cultural, and residential uses. The densities and intensities of the MU – Mixed Use designation represent the intended level of anticipated development; however, individual projects may vary depending upon an approved master plan, such as a specific plan or planned unit development.

Within the Land Use Element, the MU – Mixed Use designation is broken down into unique sub-categories to further refine the type of mixed-use development desired by the City. The parcels comprising the Euclid/Walnut PUD are part of a sub-area categorized as MU-NH – Mixed Use Neighborhood Activity Hub. This specific designation envisions low-rise (three to five stories) buildings, with a mix of retail and residential uses that will create identity and place, and serve surrounding residents. This category allows for residential densities ranging from 20 to 75 dwelling units per acre and non-residential intensity of 1.00 floor area ratio (FAR). Five locations within the City have the MU-NH land use designation. The Future Build-out Projections Table of the Land Use Element provides details for each of these five MU-NH sub-areas. The build-out of the 16-acre "MU-NH (Euclid & Walnut)" sub-area is projected to be 369 dwelling units and 142,840 square feet of non-residential development.

This PUD regulates the redevelopment of 10.6 acres of this sub-area to create a mixed-use project providing a total of 369 dwelling units and 12,000 non-residential square feet. The other 5.4 acres of the sub-area is located north of the PUD boundary and currently developed with 15 single family dwelling units, and approximately 28,000 square feet of non-residential development. There is a nominal increase to the total build-out projection for the number of residential dwelling units within this sub-area resulting from the combination of existing to remain and construction of new within the boundaries of this PUD. However,

it is offset by a significant reduction in the build-out of non-residential square footage should the existing uses/buildings remain unchanged on the 5.4-acre portion. Implementation of this PUD would still allow for redevelopment of the 5.4 acre portion of the sub-area of up to 130,000 of non-residential square footage, consistent with the TOP 2050 build-out projections for this sub-area.

In addition to the requirements of the Land Use Element, all mixed-use development is subject to specific "Place Types" as defined in the Community Design Element, which represent the intended outcome and character for each area. The Euclid/Walnut PUD falls within Place Type 8 (a-e). Properties with this Place Type are considered "Neighborhood Center – Infill" development where commercial and residential parcels were largely developed in an incremental manner prior to 2020. The Community Design Element acknowledges that many properties in this Place Type range in size, complexity, and relationships with surrounding streets and neighborhoods, and that redevelopment could result in horizontal or vertical mixed use. However, all of these centers are envisioned to incorporate site design that prioritizes safe, attractive, and well-shaded pedestrian access on site, from the public rights-of-way, and from the adjacent neighborhoods.


CITY OF ONTARIO SOUTHERN CALIFORNIA

City of Ontario

Policy Plan

A Component of The Ontario Plan 2050

Public Review Draft | May 2022

Please note that this is a hard copy version of what is intended to be published in a web-based format. There are notations and placeholders for links throughout that are not active in this draft.

PLACEWORKS

Prepared By: PlaceWorks
3 MacArthur Place, Suite 1100
Santa Ana, CA 92707
714.966.9220

Implementation of the Euclid/Walnut PUD will achieve many City goals and policies outlined in The Policy Plan (General Plan). Those specific goals and polices are as follows.

Land Use Element

Goal LU-1 Balance

A community that has a spectrum of housing types and price ranges that match the jobs in the City and that make it possible for people to live and work in Ontario and maintain a quality of life.

- LU-1.1 Strategic Growth. We concentrate growth in strategic locations that help create place and identity, maximize available and planned infrastructure, foster the development of transit, and support the expansion of the active and multimodal transportation networks throughout the City.
- LU-1.5 Jobs-Housing Balance. We coordinate land use, infrastructure, and transportation planning and analysis with regional, county, and other local agencies to further regional and subregional goals for jobs-housing balance.
- LU-1.6 Complete Community. We incorporate a variety of land uses and building types in our land use planning efforts that result in a complete community where residents at all stages of life, employers, workers, and visitors have a wide spectrum of choices of where they can live, work, shop and recreate within Ontario.

Goal LU-2 Compatibility

Compatibility between a wide range of uses and resultant urban patterns and forms.

- LU-2.1 Land Use Decisions. We minimize adverse impacts on adjacent properties when considering land use and zoning requests.
- LU-2.2 Buffers. We require new uses to provide mitigation or buffers between existing uses where potential adverse impacts could occur. Additional mitigation is required when new uses could negatively impact environmental justice areas.

Goal LU-4 Phased Growth

Development that provides short-term value only when the opportunity to achieve our Vision can be preserved.

- LU-4.2 Interim Development. We allow development in urban, mixed use, and transit-oriented Place Types that is not immediately reflective of our ultimate Vision for the Place Type, provided it can be modified or replaced when circumstances are right to support development aligned with the Place Type Vision. We will not allow development that impedes, precludes, or compromises our ability to achieve our Vision.
- LU-4.3 Infrastructure Timing. We require that the necessary infrastructure and services be in place prior to or concurrently with development.
- LU-4.4 Shared Infrastructure. We encourage and facilitate the use of shared infrastructure (including shared or managed parking) in urban, mixed use, and transit-oriented Place Types.

Housing Element

Goal H-2 Housing Supply & Diversity

Diversity of types of quality housing that are affordable to a range of household income levels, accommodate changing demographics, and support and reinforce the economic sustainability of Ontario.

- H-2.1 Corridor Housing. We revitalize transportation corridors by encouraging the production of higher density residential and mixed-uses that are architecturally, functionally, and aesthetically suited to corridors.
- H-2.5 Housing Design. We require architectural excellence through adherence to City design guidelines, thoughtful site planning, environmentally sustainable practices, and other best practices.
- H-2.6 Infill Development. We support the revitalization of neighborhoods through the construction of higher-density residential developments on underutilized residential and commercial sites.

Goal H-3 Governmental Regulations

A City regulatory environment that balances the need for creativity and excellence in residential design, flexibility and predictability in the project approval process, and the provision of an adequate supply and prices of housing.

- H-3.2 Flexible Standards. We allow flexibility in the application of residential and mixed-use development standards in order to gain benefits such as exceptional design quality, economic advantages, sustainability, or other benefits that would otherwise be unrealized.

Environmental Resources Element

Goal ER-1 Water & Wastewater

A reliable and cost-effective system that permits the City to manage its diverse water resources and needs.

- ER-1.4 Supply-Demand Balance. We require that available water supply and demands be balanced.
- ER-1.6 Urban Run-off Quantity. We encourage the use of low impact development strategies, including green infrastructure, to intercept run-off, slow the discharge rate, increase infiltration, and ultimately reduce discharge volumes to traditional storm drain systems.
- ER-1.7 Urban Run-off Quality. We require the control and management of urban run-off, consistent with Regional Water Quality Control Board regulations.
- ER-1.8 Wastewater Management. We require the management of wastewater discharge and collection consistent with waste discharge requirements adopted by the Regional Water

Quality Control Board.

Goal ER-3 Energy

Cost-effective and reliable energy system sustained through a combination of low impact buildings, site and neighborhood energy conservation, and diverse sources of energy generation that collectively helps to minimize the region's carbon footprint.

- ER-3.3 Building and Site Design. We require new construction to incorporate energy efficient building and site design strategies, which could include appropriate solar orientation, maximum use of natural daylight, passive solar, and natural ventilation.

Goal ER-4 Air Quality

Improved indoor and outdoor air quality and reduced locally generated pollutant emissions.

- ER-4.1 Land Use. We reduce GHG and other local pollutant emissions through compact, mixed use, and transit-oriented development and development that improves the regional jobs-housing balance.

Community Economics Element

Goal CE-1 Complete Community

A complete community that provides for all incomes and stages of life.

- CE-1.6 Diversity of Housing. We collaborate with residents, housing providers, and the development community to provide housing opportunities for every stage of life; we plan for a variety of housing types and price points to encourage the development of housing supportive of our efforts to attract business in growing sectors of the community while being respectful of existing viable uses.
- CE-1.7 Retail Goods and Services. We seek to ensure a mix of retail businesses that provide the full continuum of goods and services for the community.

Goal CE-2 Placemaking

A City of distinctive neighborhoods, districts, corridors, and centers where people choose to be.

- CE-2.1 Development Projects. We require new development and redevelopment to create unique, high-quality places that add value to the community.
- CE-2.2 Development Review. We require those proposing new development and redevelopment to demonstrate how their projects will create appropriately unique, functional, and sustainable places that will compete well with their competition within the region.

Safety Element

Goal S-1 Seismic & Geologic Hazards

Minimized risk of injury, loss of life, property damage, and economic and social disruption caused by earthquake-induced and other geologic hazards.

- S-1.1 Implementation of Regulations and Standards. We require that all new habitable structures be designed in accordance with the most recent California Building Code adopted by the City, including provisions regarding lateral forces and grading.
- S-1.2 Entitlement and Permitting Process. We follow state guidelines and the California Building Code to determine when development proposals must conduct geotechnical and geological investigations.

Goal S-2 Flood Hazards

Minimized risk of injury, loss of life, property damage and economic and social disruption caused by flooding and inundation hazards.

- S-2.5 Stormwater Management. We maintain the storm drain system to convey a 100-year storm, when feasible, and encourage environmental site design practices to minimize flooding and increase groundwater recharge, including natural drainage, green infrastructure, and permeable ground surfaces.

Goal S-3 Fire & Rescue Hazards

Reduced risk of death, injury, property damage and economic loss due to fires, accidents and normal everyday occurrences through prompt

and capable emergency response.

- S-3.1 Prevention Services. We proactively mitigate or reduce the negative effects of fire, hazardous materials release, and structural collapse by implementing the regularly adopted California Fire Code and California Building Code.
- S-3.8 Fire Prevention through Environmental Design. We require new development to incorporate fire prevention consideration in the design of streetscapes, sites, open spaces, and buildings.

Goal S-4 Noise Hazards

An environment where noise does not adversely affect the public's health, safety, and welfare.

- S-4.1 Noise Mitigation. We utilize the City's Noise Ordinance, building codes, and subdivision and development codes to mitigate noise impacts.

Goal S-5 Wind-Related Hazards

Minimize the risk of injury, property damage, and economic loss resulting from windstorms and wind-related hazards.

- S-5.1 Dust Control Measures. We require the implementation of Best Management Practices for dust control at all excavation and grading projects.

Goal S-7 Law Enforcement

Residential neighborhoods, commercial areas, and industrial districts that are kept safe through a multi-faceted approach of prevention, suppression, and community involvement in public safety.

- S-7.4 Crime Prevention through Environmental Design (CPTED). We require new development to incorporate CPTED in the design of streetscapes, sites, open spaces, and buildings.

Community Design Element

Goal CD-1 Image & Identity

A dynamic, progressive city containing distinct and complete places that foster a positive sense of identity and belonging among residents, visitors, and businesses.

- CD-1.2 Place Types. We establish Place Types in urban, mixed use, and transit-oriented areas to foster the City's identity as a premier community and require new development within each Place Type to incorporate prescribed urban patterns, forms, and placemaking priorities.

Goal CD-2 Design Quality

A high level of design quality resulting in neighborhoods, commercial areas, public spaces, parks, and streetscapes that are attractive, safe, functional, human- scale, and distinct.

- CD-2.1 Quality Building Design and Architecture. We encourage all development projects to convey visual interest and character through:
  1. Building volume, massing, and height to provide context-appropriate scale and proportion;
  2. A true architectural style which is carried out in plan, section, and elevation through all aspects of the building and site design and appropriate for its setting; and
  3. Exterior building materials that are articulated, high quality, durable, and appropriate for the architectural style.
- CD-2.4 Urban, Mixed Use, and Transit-oriented Areas. We establish Place Types to require mixed use, urban, and transit-oriented areas to be designed and developed as pedestrian oriented areas that are integrated with adjacent neighborhoods and promote a vibrant, comfortable, and functional environment, as defined for each Place Type.
- CD-2.7 Sustainability. We collaborate with the development community to design and build neighborhoods, streetscapes, sites, outdoor spaces, landscaping, and buildings to reduce energy demand through solar orientation, maximum use of natural daylight, passive solar and natural ventilation, building form, mechanical and structural systems, building materials, and construction techniques.

- CD-2.8 Safe Design. We incorporate defensible space design into new and existing developments to ensure the maximum safe travel and visibility on pathways, corridors, and open space and at building entrances and parking areas by avoiding physically and visually isolated spaces, maintaining visibility and accessibility, and using lighting.
- CD-2.9 Landscape Design. We encourage durable, sustainable, and drought-tolerant landscaping materials and designs that enhance the aesthetics of structures, create and define public and private spaces, and provide shade and environmental benefits.
- CD-2.13 Entitlement Process. We work collaboratively with all stakeholders to ensure a high degree of certainty in the efficient review and timely processing of all development plans and permits.

Goal CD-3 Urban, Mixed Use, and Transit-Oriented Place Types

Vibrant urban environments that are organized around intense buildings, pedestrian and transit areas, public plazas, and linkages between and within developments that are conveniently located, visually appealing and safe during all hours.

- CD-3.1 Unique Identity. We promote development that heightens the unique character and identity of each Place Type by requiring compatible land uses and land planning, site design, and building design that promotes an active public realm.
- CD-3.4 Context-Aware and Appropriate Design. We require appropriate building and site design that complements existing development, respects the intent and identity of the Place Type, and provides appropriate transitions and connections between adjacent uses to ensure compatibility of scale, maintain an appropriate level of privacy for each use, and minimize potential conflicts.
- CD-3.5 Active Frontages. We create lively pedestrian streetscapes by requiring primary building, business, and residential entrances, outdoor dining, and storefronts be located on ground floors adjacent to sidewalks or public spaces and designed to maximize

CD-3.1 Unique Identity



CD-3.4 Context Aware and Appropriate Building Design



CD-3.5 Active Frontages



CD-3.6 Managed Infrastructure



2.2 Euclid Avenue (EA) Overlay District and Historic Resources

The EA Overlay zoning district was established to recognize, protect, and enhance the visual character and quality of Euclid Avenue as a major scenic and historic resource in Ontario as well as its position on the National Register of Historic Places. Properties located within the EA require approval of a Certificate of Appropriateness to ensure no adverse impacts to designated historic resources occur as a result of new development and buildings. This PUD includes design criteria within Chapter 5 for site and building design that strengthen the overall character of Euclid Avenue.

The public right-of-way of Euclid Avenue from Philadelphia Street northward to the Interstate 10 was designated as Local Landmark No. 67 on January 16, 2001 by the Ontario City Council. On August 10, 2005, the public right-of-way of Euclid Avenue from Philadelphia Street in Ontario northward to 24th Street in Upland was listed on the National Register of Historic Places as a significant cultural landscape. One contributing character defining-feature of the right-of way is the 60-foot-wide median separating the north/southbound vehicular lanes of Euclid Avenue. This PUD does not propose to alter or affect this character-defining feature.

Although the parcels within this PUD have Euclid Avenue frontage, the location of this PUD is separated from the southern boundary (Philadelphia Street) of this Local Landmark/National Register of Historic Places designation by a distance of approximately 0.4 miles. The extended view of the Euclid Avenue corridor, when viewed northward from the parcels or southward towards the parcels of this PUD, is also visually disrupted within the immediate foreground view as a result of the Pomona Freeway (SR-60), which is elevated above Euclid Avenue. Additionally, this PUD is separated from the closest boundary of an historic district, the Downtown Historic District, by a distance of approximately three miles. Based upon the City's Historic Preservation records, there are no potential or proposed historic resources within the immediate surrounding area of the parcels within this PUD.



Historic Euclid Avenue

2.3 Euclid / Walnut PUD Objectives

The Euclid/Walnut PUD establishes a set of planning and design principles, development regulations, and performance standards to guide and govern the development of a defined project site. This PUD will facilitate redevelopment of the project site with structures and related improvements that support residential and non-residential land uses within the same project site. In addition to facilitating achievement of many City goals and policies as outlined herein, this PUD has the following objectives:

- Develop and provide new, high-quality rental housing combined with a mixed-use component.
- Provide transition between new mixed-use development and surrounding residential neighborhoods and commercial properties.
- Provide areas of private and passive open space for each residential unit, as well as community gathering and active open spaces.
- Promote development that is consistent with the MU-NH – Mixed Use Neighborhood Activity Hub land use designation.
- Promote revitalization of commercial uses on the project site by establishing new ground-floor retail and similar uses that serve on-site residents and those in surrounding neighborhoods.
- Provide outdoor gathering places adjacent to commercial storefronts, such as outdoor patio or bench seating with inviting/attractive landscape elements.
- Orient non-residential, ground-floor uses towards Euclid Avenue.
- Incorporate site design solutions to allow for phased development.
- Satisfy the build-out projections for residential dwelling units within the MU-NH (Euclid-Walnut) sub-area, as defined in TOP 2050.

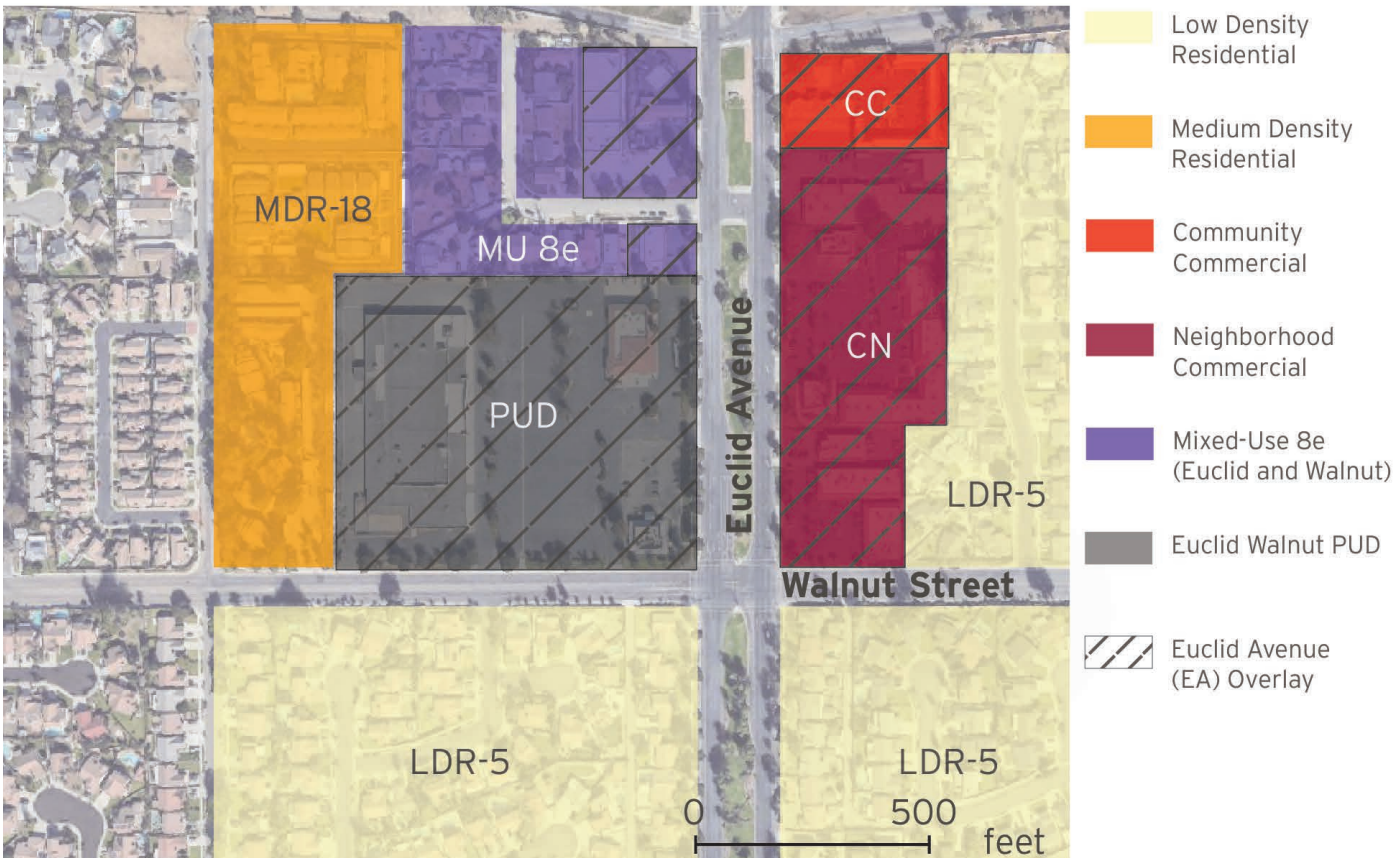


3 Land Use Plan

3.1 Land Use and Zoning

The Euclid/Walnut PUD applies to the parcels shown on Exhibit 3-1: Land Use/Zoning Map. The map establishes a single zoning district of PUD - Planned Unit Development providing for a mix of commercial and residential uses consistent with TOP 2050 MU-NH land use designation. This PUD allows both horizontal and vertical mixed-use development in buildings of three and four stories. Buildings with direct Euclid Avenue frontage will contain ground-floor commercial uses and residential units directly above. All other buildings will contain residential units on all floor levels. A combination of garages, tandem spaces, carports, and surface parking spaces will be provided, with gated access limited to residents and residents' guests. Unrestricted access to surface-level parking will serve the commercial uses and provide additional resident guest parking spaces. Residents will enjoy a low-maintenance, urban lifestyle with conveniently located shopping, dining, and personal service businesses in combination with convenient access to established transportation routes and employment hubs.

Exhibit 3-1: Land Use/Zoning Map



3.2 Phasing and Building Out

Implementation of the land use plan and the build-out allowable under this PUD will be achieved through two redevelopment phases. Exhibit 3-2: Phase 1 Conceptual Site Plan illustrates the development plan for the initial phase.

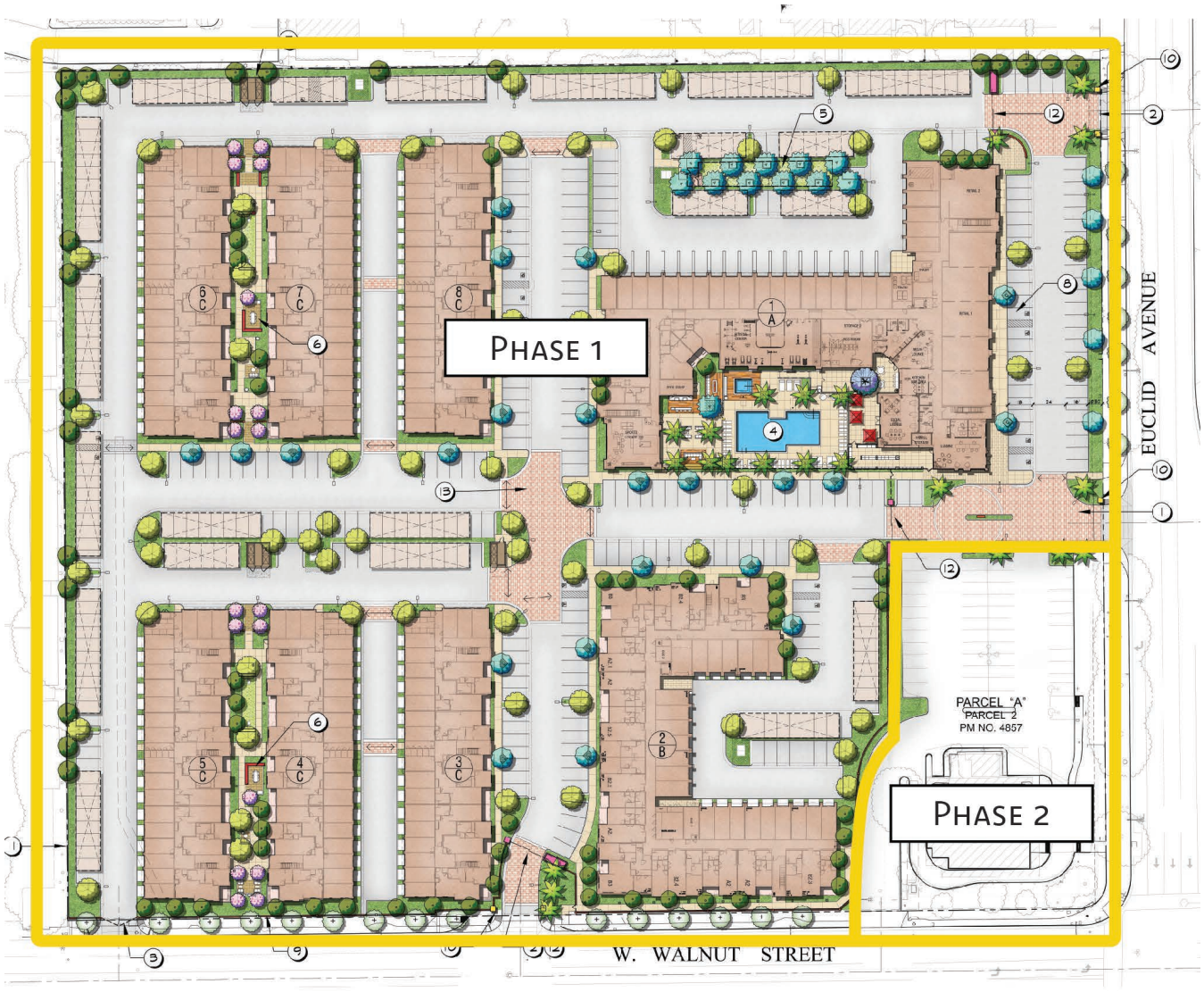
The first phase will retain the fast-food, drive-through restaurant use, occupying an approximately 4,100-square-foot building and its related site improvements. The remaining area within the boundaries of this PUD will be developed with two four-story buildings and six three-story buildings, providing a combined total of 346 dwelling units, 5,400 square feet of ground-floor commercial space, associated on-site parking areas for both residential and non-residential land uses, and landscaping and recreational amenities for residents[1].

The second phase will implement the full build-out of the PUD area with demolition of the restaurant and related site improvements; replacing them with an additional mixed-use, four-story building. Completion of the second phase will provide up to an additional 23 dwelling units and up to an additional 6,600 square feet of ground-floor commercial space, plus associated site improvements.

This PUD, inclusive of all development standards and requirements, applies to both phases. Ultimate build-out will result in a maximum of 369 dwelling units and approximately 12,000 square feet of commercial land uses.

1. Demolition of approximately 100,950 square feet of older commercial buildings will occur before project construction proceeds.

Exhibit 3-2: Phase 1 Conceptual Site Plan



3.3 Permitted Uses

Table 3-1: Permitted Uses lists the allowable land use, activity, or facility permitted within this PUD. A land use that is not listed shall be considered a prohibited land use unless otherwise allowed by the Zoning Administrator in accordance with the requirements and procedures outlined in the ODC. The land uses established in this table are consistent with those listed uses and land use definitions of the ODC. The ODC relies upon the North American Industry Classification System (NAICS) for non-residential land uses, utilizing the NAICS website definitions for each business establishment classification. The "Notes or ODC Regulations" column provides reference to the location of any specific regulations, operating conditions, and/or development standards applicable to the corresponding land use, activity, or facility; as well as exception to any standards or requirement as modified within this PUD. The "Permit Type" column symbols shall have the same meaning and utilize the same permit type, process, and approvals as contained in the ODC.

Table 3-1: Permitted Uses		
Land Uses, Activities, and Facilities	Permit Type "P" – Permitted by Right "C" – Conditional Use Permit "A" – Administrative Use Permit	Notes or ODC Regulations
Residential		
Accessory Dwelling Units	P	ODC Section 5.03.010
Animal Keeping (accessory) Household Pets - 4 or fewer pets	P	
Community Gardens (accessory)	A	ODC Section 5.03.410
Home Occupation (accessory)	A	ODC Section 5.03.240
Multiple-Family Dwellings	P	
Mixed Uses		
Residential Mixed-Use Developments	P	ODC Section 5.03.285
Non-Residential Uses – Limited to Ground Floor and Euclid Avenue Frontage		
Alcoholic Beverage Sales (off-premise)	C	ODC Section 5.03.025
Art Dealer	P	
Clothing, Shoes and Jewelry Store	P	
Consignment Shop	P	
Convenience Store	P	
Document Preparation Services	P	
Drycleaning and Laundry Services - Limited to Drop-off and Pick-up	P	Drive-thru prohibited
Electronics and Appliance Store	P	ODC Section 5.03.175
Finance and Insurance Services	P	Check Cashing, Advanced Payday, and Pawnshops prohibited

Table 3-1: Permitted Uses		
Land Uses, Activities, and Facilities	Permit Type "P" – Permitted by Right "C" – Conditional Use Permit "A" – Administrative Use Permit	Notes or ODC Regulations
Florist	P	
Furniture and Home Furnishings Store	P	ODC Section 5.03.210
General Merchandise Store	P	
Health and Personal Care Store	P	
Investigative and Security Services	P	
Office Administrative Support Services	P	
Office Supplies, Stationary and Gift Store	P	
Personal and Household Goods Repair	P	
Personal Care Services With Massage Services	P A	 ODC Section 5.03.270
Personal Fitness Training Studio	P	Limited to 10,000 sq. ft.
Pet Supply Store	P	Animal Sales prohibited
Pharmacies and Drug Store	P	Drive-thru prohibited
Police Storefront/Community Services	P	
Private Mail Centers and Postal Supply	P	
Professional and Technical Services	P	Limited to non-medical
Real Estate, Rental, and Leasing Services	P	
Restaurants, Fast Food With Drive-Thru	P P	 ODC Section 5.03.150
Restaurants, Limited Service With Alcoholic Beverage Sales With Live Entertainment	P C C	 ODC Section 5.03.025 ODC Section 5.03.257
Restaurants, Snack and Nonalcoholic Beverage Bar	P	
Specialty Food and/or Beverage Store With Alcoholic Beverage Sales	P C	 ODC Section 5.03.025
Sporting Goods, Hobby, Book, and Music Store	P	
Supermarket and Grocery Store	P	
Travel Arrangement Services	P	

4 Development Regulations

This section sets forth standards that govern the placement, height, and bulk of permitted buildings and other structures; establishes locational criteria for vehicular access to development sites; establishes parking and loading requirements; and specifies minimum requirements for recreational amenities for residential uses. Unless otherwise modified herein, development within this PUD shall comply with the ODC standards and requirements as may apply generally to Multiple-Family Dwellings and Commercial development, as determined appropriate by the Director. Table 4-1: Summary of Development Standards provides an at-a-glance reference to the regulations for the various standards, and is to be used in combination with the descriptions and specific criteria listed for each of the standards.

4.1 Intensity

The intensity of non-residential development shall not exceed a maximum 0.5 floor area ratio (FAR) based upon the net site area. The calculation shall be derived by dividing the gross square footage of the commercial space of the vertical mixed use buildings by the net site area. In determining FAR, this square footage should not include indoor common amenity space or other interior square footage serving the residential land uses.

4.2 Density

The density of residential development shall not exceed a maximum 40 dwelling units per acre based upon the net site area. In no case shall the total number of residential units exceed 369 units upon build-out of Phase 2.

4.3 Building Envelope

a. Non-residential land uses shall be on the ground-floor level of vertical mixed-use buildings.

b. Residential dwelling units may be located on any floor level.

c. The height of four-story buildings shall not exceed 60 feet. The height of three-story buildings shall not exceed 50 feet. Height shall be measured as specified in the ODC and is inclusive of architectural projections.

d. Any rooftop mechanical venting or communications equipment shall be built within or otherwise screened by the roof structure so that they do not project above parapets and are not visible from any public right of way, or neighboring building.

e. The location of vertical mixed-use buildings shall be limited to buildings with frontage along Euclid Avenue.

f. The building edge along Euclid Avenue may vary. It may occur a minimum of 10 feet behind the public right-of-way line or at a point that allows for up to two parking bays served by a drive aisle, up to a maximum building setback of 80 feet.

g. The building edge along Walnut Street shall provide a minimum setback of 10 feet.

h. Building setbacks shall be measured from the ultimate property lines or ultimate right-of-way width, whichever is greater.

i. Placement of buildings and structures shall conform with other specifications of Table 4-1: Summary of Development Standards.

j. Any yard areas provided between the buildings and the right-of-way may be finished with hardscape, including walls/ fences, or landscape.

4.4 Vehicle Access

Vehicular access from any public right-of-way shall be limited to two locations along Euclid Avenue and a maximum of three locations along Walnut Street, as approved by the City Engineer.



4.5 Parking Facilities, Supply, and Design

On-street parking on Euclid Avenue and Walnut Street adjacent to this PUD shall not be allowed.

a. Non-residential uses shall be provided with parking at a minimum ratio of one parking space per 250 gross square feet of building area. Such parking shall be located on site, and shall be accessible during operating hours of the businesses being served.

b. Residential uses shall be provided with parking at a minimum ratio of 1.2 parking spaces per bedroom in each dwelling unit, inclusive of providing guest or unassigned parking spaces. Resident parking shall be located on site, and may have access restricted by gated entrance. Resident parking for each dwelling unit or guests of that dwelling unit may be provided within a garage space, as a tandem space, within a carport, as surface level parking, or in combination. Tandem spaces are restricted to those directly in front of a garage door and shall be assigned to the same dwelling unit as the garage space.

c. A parking management plan shall be submitted for the Planning Director approval prior to the issuance of building permits. The plan shall address the assignment, distribution, and functionality of all parking spaces among the various uses, including the use of non-residential spaces providing overflow resident guest spaces when businesses are closed.

d. Parking spaces shall not obstruct access to building entrances, pedestrian paths, trash storage areas, or loading areas.

e. Parking space dimensions, drive aisles, etc. shall generally conform to the standards set forth in the ODC unless modified herein.

4.6 Residential Open Space and Common Amenities

Open space for the residential component shall be provided at a minimum ratio of 250 square feet per dwelling unit. Such space can be a combination of residential private open space and common amenities, subject to the following:

a. A minimum of 50 square feet of individual private open space, in the form of balcony or patio area directly accessible from the interior of each dwelling unit, shall be provided. Individual balcony or patio areas shall have a minimum dimension for length and width of five feet.

b. Common amenities shall be provided at the minimum ratio of 175 square feet per dwelling unit. This may include a combination of passive and active, indoor and outdoor spaces, roof-top or upper floor decks, as well as landscaped and hardscaped ground surfaces providing paseos between or adjacent to buildings. Up to 15 percent of the overall common amenity square footage may consist of indoor area and be grouped into a single building that is accessible to all residents. Such indoor area shall provide opportunities for fitness, lounge/gathering space, business/mail center, and similar amenities. The remaining common amenities provided shall be in the form of outdoor common areas consisting of both programmed and unprogrammed spaces. Programmed space may provide specific amenities: such as a dog park, seating/conversational areas, outdoor cooking facilities with table seating areas, etc. Unprogrammed space may provide passive use such as landscaped paseos.

4.7 Service Facilities

Service areas and facilities shall comply with the following:

a. Loading and unloading in proximity to both the residential and non-residential uses shall be addressed as part of the parking management plan submitted to the Planning Director to ensure coordination of operational hours and occupancy/vacancy of parking areas.

b. Trash receptacles/recyclable container storage areas shall be provided for all residential and non-residential uses. Such receptacle/storage area may receive trash from commercial and residential sources. Locations, sizes, and design of such areas shall be readily accessible by trash disposal company equipment and work crews, as approved by the Planning and Public Works Directors, in consultation with the trash disposal vendor.

c. Individual storage units shall be provided for the occupants of each dwelling unit, exclusive of any closets in the units. The total amount of cubic feet provided shall average 150 cubic feet per dwelling unit.

4.8 Signs

A Master Sign Program shall be submitted for approval by the Planning Director prior to issuance of a building permit to provide design and standards applicable to both residential and non-residential land uses within this PUD. The program will include specific sign criteria for gated access points. All signs shall comply with standards in the ODC. Any signage within the Euclid Avenue Caltrans right-of-way will require Caltrans review and approval.

4.9 Landscape/Hardscape

a. A detailed plan shall be submitted with the Development Plan specifying all landscape and hardscape elements of the residential open space and common amenities, as well as the perimeter yards abutting the street rights-of-way and all street trees.

b. Water conservation shall be provided through low water using plant materials, hydro zones, water efficient irrigation and weather-based controllers as required by City codes. Landscaped areas may be used for storm water infiltration through vegetated swales, retention basins, or dry wells as needed with the use of appropriate planting materials.

c. The landscape design shall generally satisfy the requirements of the Landscape Development Standards outlined in the ODC and shall create well-functioning spaces within a sustainable design utilizing materials as provided in Table 5-1: Master Plant Palette.

d. Within parking areas, the following landscape areas and standards apply:

1. For each row of parking spaces located within the restricted access (gated) parking areas, planter islands of at least six feet in width that extend the full length of the abutting parking space shall be located at a minimum rate of every 15 spaces. This rate shall be increased to every 10 spaces for parking areas with unrestricted access and/or adjacent to Euclid Avenue.

2. Tree wells, tree diamonds, or center planter strips shall be provided to allow for the planting of shade trees at a minimum ratio of one tree for each five parking spaces. Tree wells shall not have a minimum dimension less than five feet.

3. All landscape planters within parking areas shall be delineated with a six-inch-wide curb regardless of parking space configuration. The use of a 12-inch-wide curb may be provided to allow for a "step area" in circumstances where there is increased frequency of passengers exiting or entering a vehicle.



4. Bordering the Euclid Avenue frontage, a minimum 10 foot in depth planter area shall be provided between the public right-of-way and a parking space oriented perpendicular to the right-of-way.
5. A minimum 20-foot deep planter area shall be provided at a driveway between any public right-of-way to the first parking space to allow for a minimum 20-foot drive aisle throat.

f. Street trees shall comply with the variety, size, and spacing as directed by the City of Ontario Master Street Tree Plan.

4.10 Fences and Walls

a. Fences and walls shall be an integral design or compatible with the building architecture and shall comply with the height and materials shown in Exhibit 5-6: Fence/Wall Concepts.

b. Fences and walls may be setback zero feet from property lines except where such fence or wall is required to comply with Engineering Corner Sight Distance Standards and other applicable standards.

c. Decorative walls, monuments, and/or other similar features shall not encroach into the public right-of-way.

4.11 Public Right-of-Way Improvements

As determined by the City Engineer, design and construction of any street improvements adjacent to the property frontage of Euclid Avenue and Walnut Street shall be conditioned and may include, but not be limited to, concrete curb and gutter, sidewalk, LED street lights, signing and striping, and parkway landscaping. Any improvements within the Euclid Avenue Caltrans right-of-way will require Caltrans review and approval.

4.12 Infrastructure

The parcels within the boundary of this PUD shall be served by existing water lines and wastewater flows and/or upgraded to satisfy the required capacities as determined by the City and its service purveyors/agencies, including the Fire Department.

On-site stormwater drainage facilities shall be provided consistent with the San Bernardino County Stormwater Program's Water Quality Management Plan (WQMP) requirements for new development projects. Stormwater capture and infiltration facilities may include the utilization of vegetated swales, depressed landscaped basins, pervious concrete pavement, and/or underground stormwater retention/infiltration vaults.

The parcels within the boundary of this PUD are considered a Priority Land Use (PLU). A PLU shall comply with the statewide Trash Provisions adopted by the State Water Resources Control Board (SWRCB) and trash requirements in the most current San Bernardino County Area-Wide MS4 Permit. Drainage from the PLU shall be designed with conveyance tributary to a Full Trash Capture System which has been approved by the SWRCB.

4.13 Summary of Development Standards

Table 4-1: Summary of Development Standards provides the quantitative development standards set forth in previous Sections 4.1 through 4.12 and any additional requirements for development within this PUD.

Table 4-1: Summary of Development Standards		
Development Standard	**Requirement**	**Notes**
Maximum Intensity - Floor Area Ratio	0.50 FAR	Gross building square footage of commercial space
Density Range - Minimum and Maximum	20.1 - 40	Up to a maximum of 369 dwelling units
Maximum Building Height by Number of Stories Four Stories Three Stories	 60 ft. 50 ft.	Inclusive of architectural projections and equipment screening
Building Setbacks - From Right-of-Way	10 ft. minimum	
Setbacks - Interior Property Line Buildings Adjacent to Residential Buildings Adjacent to Non-Residential Carport or Trash Enclosure	 50 ft. minimum 5 ft. minimum 5 ft. minimum	
Building Separation Building to Building Building to Drive Aisle or Parking Areas Building to Carport Patio to Patio	 25 ft. minimum 5 ft. minimum 25 ft. minimum 15 ft. minimum	 Individual driveway depth limited to 5 ft. or less, or 18 ft. or more
Minimum Number of Parking Spaces Ratio for Residential Uses Ratio for Non-Residential Uses	 1.2 spaces/bedroom 1 space/250 sq. ft.	 Inclusive of guest spaces
Residential Open Space and Common Amenities - Combined Minimum Ratio Minimum Private Open Space Ratio Minimum Common Amenity Ratio	 250 sq. ft./du 50 sq. ft./du 175 sq. ft./du	 5 ft. minimum width and length 15% maximum indoor
Residential Storage Units	150 cubic feet/du minimum	Does not include closets or cabinets interior to the unit

This page was intentionally left blank.

5 Design Criteria

New development implemented under this PUD will generate new uses and design aesthetics in a way that fulfills many of the design goals and policies discussed previously in Chapter 2. The Community Design Element in TOP 2050 outlines specific "Place Types"; this PUD is categorized under Place Type 8e, which is considered "Neighborhood Center – Infill" type development, where the commercial and residential parcels were largely developed in an incremental manner prior to 2020. Redevelopment could result in either horizontal or vertical mixed use and are envisioned to incorporate site design that prioritizes safe, attractive, and well-shaded pedestrian access from the public rights-of-way and adjacent neighborhoods.

The parcels within this PUD site do not contain significant buildings, structures, or locations subject to historic preservation. While the first phase of development retains an existing fast-food restaurant structure, this building is not considered historic. The new infill development will include architecture that creates a dynamic visual environment and increases the pedestrian experience. The design criteria for the buildings provide articulation, dynamic materials and colors, and avoid bulky and monotonous elevations. Street trees and landscaped street-facing setback areas will provide opportunities to frame the street, create a pleasant pedestrian pathway, and minimize the building bulk from the public right-of-way.

The following sections provide guidance to City staff and private developers in the design of buildings, yards, and streets. Variations from strict interpretation of the standards are permitted, provided that the integrity of the urban design is not compromised. The following criteria shall be incorporated into the Development Plan for each phase of this PUD, subject to final interpretation by the Planning Commission.

5.1 Building Orientation

a. Buildings along Euclid Avenue shall provide storefronts that invite pedestrian activity.

b. Architectural focal treatments such as taller elements, textured surfaces, and unique fenestration shall be provided on frontage facing public streets.

c. Buildings located at the street corner shall be designed to incorporate architectural features that respond to the corner location by having directed entries and/or tower elements.

d. Multiple shop entrances and display windows with clear glazing, shall be provided along Euclid Avenue facades.

5.2 Access and Parking Facilities

a. Vehicular access and on-site parking shall be designed to reduce visual impact along Euclid Avenue and Walnut Street.

b. On-site parking facilities serving non-residential uses shall be readily accessible, screened, and separated from the public right-of-way views with landscaping, including shade trees.

c. On-site parking facilities serving residential uses may be located behind gated ingress/egress points. Gate access points from Euclid Avenue shall be set back to allow stacking of at least two vehicles, with sufficient space configured to allow a vehicle to turn around without backing into the street. The primary entry gate serving residential uses shall be designed to be easily recognizable to visitors.

d. Carports and individual garage entries shall be designed to be compatible with the building architecture and use similar colors, materials, and details.

5.3 Service Facilities

a. Service, loading and, storage facilities shall be located away from public streets, outdoor spaces, and adjacent residential uses.

b. Electrical equipment shall be located on the interior of a building. When interior locations are not practical, electrical equipment shall be enclosed and screened from public streets with walls, fencing, and/or landscaping that allows for sufficient ventilation, or buried in vaults.

c. Service areas shall be screened and gated.

d. All types of loading doors within view of public streets shall be screened with walls, berms, or plant materials.

5.4 Pedestrian Linkages

a. Pedestrian pathways shall be designed and located for clear and comfortable on-site pedestrian circulation. Sidewalks and pedestrian paths shall provide convenient connections between storefronts, outdoor spaces, and parking, as well as portals to adjacent residential uses.

b. Landscape paseos shall be used to reinforce pedestrian connections. For instance, attractive paving and planting design may identify and highlight these connections by establishing a visual separation between vehicular and pedestrian routes and provide passive open space opportunities for residents.

5.5 Architectural Character

a. The architectural character shall reflect the various styles within the City and along Euclid Avenue and shall fit in contextually without matching. The use of complementing proportions, building details, and building materials shall be employed.

b. Compatibility between the vertical and horizontal mixed-use architecture shall be achieved through the use of unifying elements such as similar materials and colors.

c. A schematic illustration of acceptable architectural character is shown in Exhibit 5.1: Architectural Character – Vertical Mixed-Use, Exhibit 5-2: Architectural Character – Three Story Residential, and Exhibit 5-3: – Four Story Residential.

5.6 Massing & Scale

a. Simple, yet varied massing shall be used, with wall openings that create shadow line and provide visual relief.

b. Massing and height of corner elements shall be emphasized by using strong and identifiable building forms such as taller building mass, tower element, or cupola.

c. Building increments shall employ various architectural devices such as changes in colors/finish material, horizontal breaks and offsets, upper building portion reflecting the same increment of articulation as the ground level, and use of trim and moldings at the top of facades that reflect the vertical massing of the building.

d. Where buildings will be of varying heights, they shall be designed to promote transition in massing and avoid abrupt changes in scale within the development.

5.7 Articulation & Fenestration

a. Buildings shall have three-dimensional qualities.

b. The base and upper levels of a vertical mixed use building shall be differentiated with features for storefronts such as a bulkhead, display windows, and/or transom and detailed trim.

c. Buildings shall be articulated on all sides. Fenestration, changes in wall plane, material, texture, color, etc. shall be used to create shadow lines and articulate building walls.

d. Highly visible public entrances shall be provided where buildings are oriented towards Euclid Avenue to provide individual shop entrances featuring recesses, overhangs, special materials, and/or detailing.

Exhibit 5-1: Architectural Character — Vertical Mixed-Use





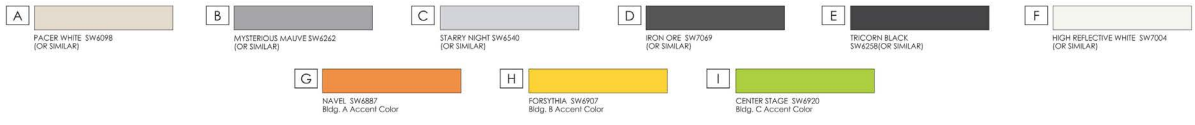




Exhibit 5-2: Architectural Character — Three-Story Residential



Exhibit 5-3: Architectural Character — Four-Story Residential



5.8 Architectural Details

a. Architectural details shall be used to enhance a building's appearance at the base, eaves, parapets, and around entries and windows.

b. Human-scaled details such as canopies and awnings, transparent windows and window displays shall be provided facing Euclid Avenue.

c. Architectural features and details shall be an integral part of the building without an appearance of being "tacked on."

5.9 Storefronts

a. Storefronts for each commercial establishment shall have a unifying architectural aesthetic, but may include alteration of exterior treatments on the individual frontage of the space where such modifications compliment the overall design quality of the development.

b. Storefronts shall incorporate desirable building materials such as brick, stone, tile, exterior cement plaster, or fiber cement siding.

c. Storefront glazing shall be clear glass to permit clear views into the interior space. The amount of such glass shall provide a balance between high visibility into the store interior and architectural quality.

d. Entrance doors shall be of a traditional style and as transparent as possible.

5.10 Material & Colors

a. Materials shall be those of permanence and quality and that unify a building's appearance on all sides.

b. Materials and colors shall accentuate the architectural details of the building and promote visual harmony.

c. To create visual interest, at least three different building materials shall be used.

5.11 Roof/Rooftop Equipment

a. At least one break in roof plane shall be provided on each building

b. Rooftop equipment, including ladders and antenna devices, shall be screened so as not to be visible from streets and adjacent buildings. Methods of rooftop screening should be integral to the building's form.

5.12 Non-Residential Outdoor Dining Areas

Outdoor dining areas adjacent to a ground-level eating or drinking establishment shall be oriented toward Euclid Avenue.

5.13 Residential Outdoor Space, Common Recreational Amenities

a. Private balcony and/or patio enclosures shall consist of materials that are complementary to materials and colors used on the building elevations. Each balcony shall be oriented or enclosed sufficiently to increase privacy between balconies of adjacent units.

b. Common outdoor spaces providing passive recreation shall include either shade elements and/or trees providing shade canopy.

c. Indoor recreation/fitness/community facilities shall be of the same architectural style and materials that match or complement the primary building architecture with a layout as shown in Exhibit 5-4: Typical Common Recreational Amenity.

d. Outdoor seating, tables and umbrellas, gazebos, barbecues, natural or artificial lawn area, and/or other place-making features that are provided shall be compatible with the architectural style of the buildings with a layout as shown in Exhibit 5-5: Typical Courtyard.

Exhibit 5-4: Typical Common Recreational Amenity

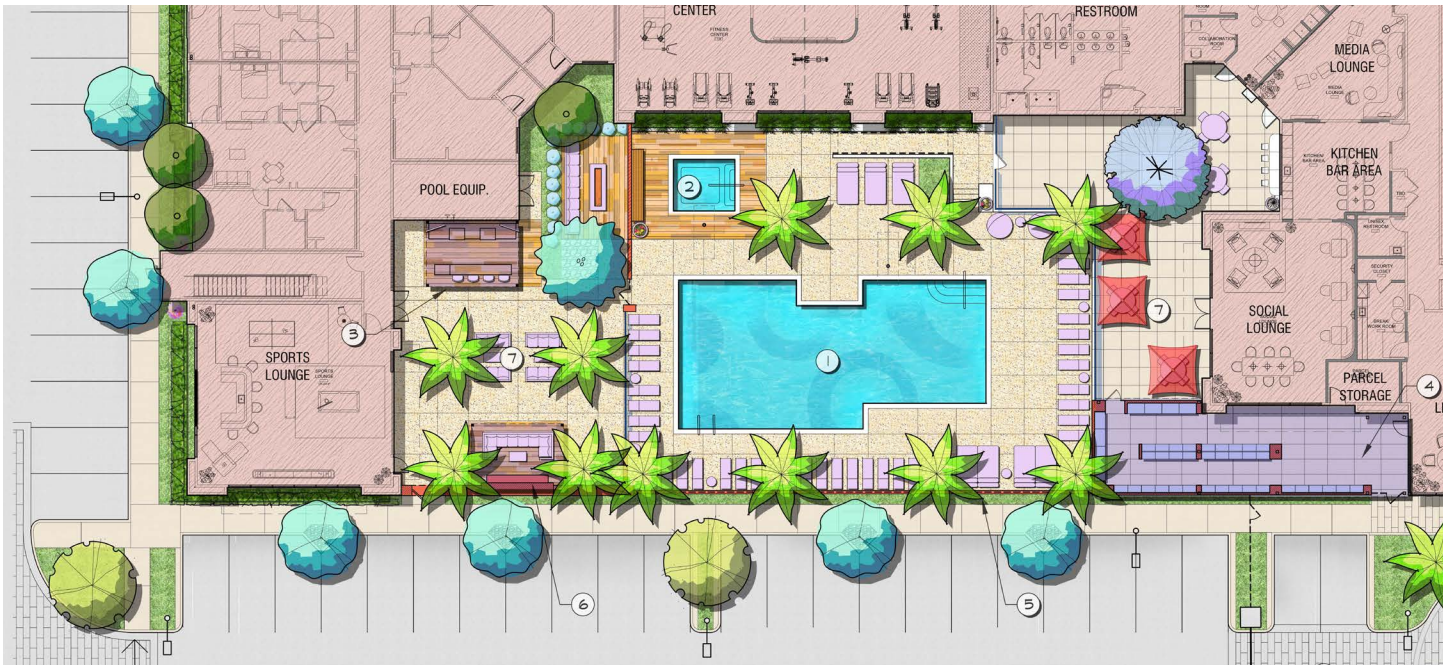
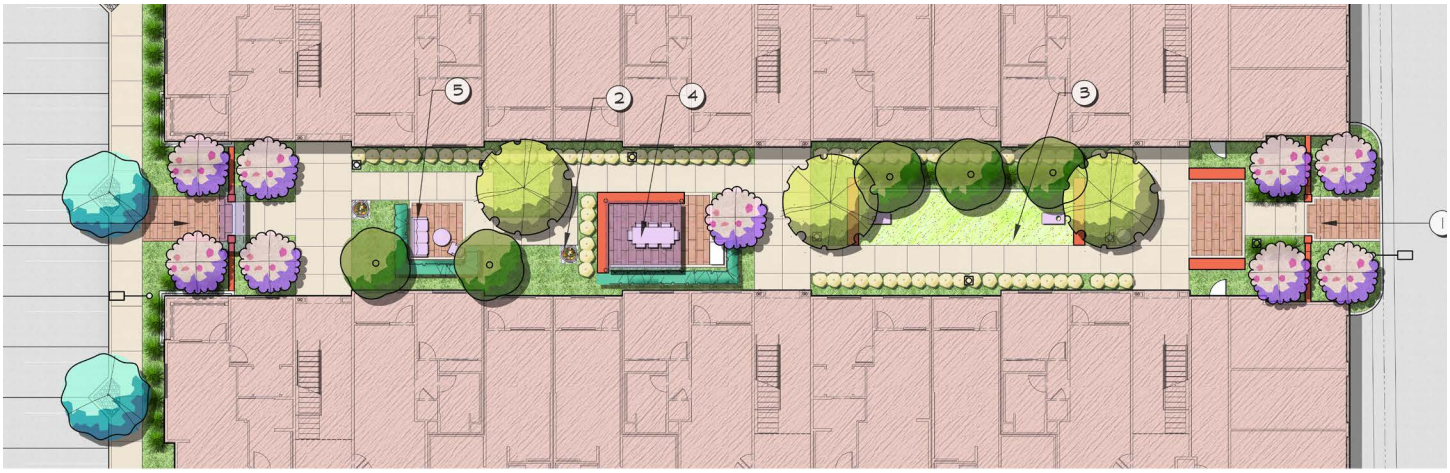


Exhibit 5-5: Typical Courtyard



5.14 Landscape / Hardscape Elements

a. Landscaping elements shall contribute and complement the aesthetic quality and character of the public and private spaces.

b. Table 5-1: Master Plant Palette shall guide the selection of materials for street trees, perimeter trees and shrubs, courtyard and common area trees, vines, screening and hedge plants, and groundcover.

c. Landscaping shall be provided to define and enrich courtyards and walkways and shall include specimen trees of minimum size 24 inch box.

d. Hardscaping shall be composed of decorative paving materials and patterns, rather than a single, continuous surface.

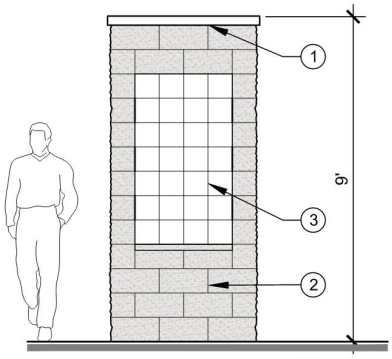
e. Fences/walls shall complement the building materials similar to those depicted in Exhibit 5-6: Fence/Wall Concepts.

Table 5-1: Master Plant Palette

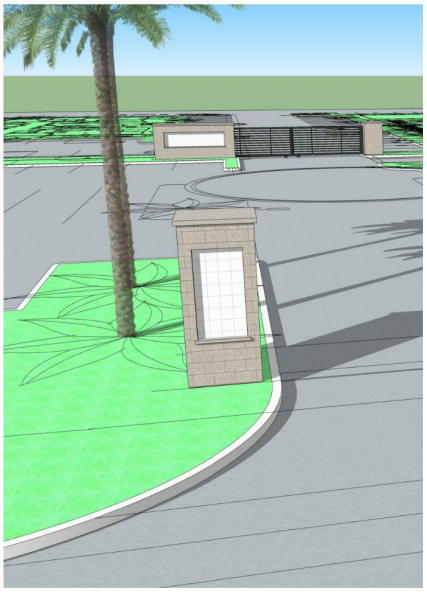
Botanical Name	Common Name	Minimum Size
Street Trees		
Grevillea robusta	Silk Oak (Euclid)	24" Box
Platanus wrightii	Arizona Sycamore	
Site Trees and Palms		
Quercus agrifolia	Coast Live Oak	48" Box
Platanus racemosa	California Sycamore	
Ulmus parvifolia 'True Green'	Evergreen Elm	
Koelreuteria paniculata	Golden Rain Tree	36" Box
Lagerstroemia hybrids 'Muskogee'	Crape Myrtle (Lavender)	
Chilopsis linearis	Desert Willow	
Aloe bainesii	Tree Aloe	24" Box
Arbutus 'Marina'	Strawberry Tree	
Cercis occidentalis	Western Redbud	
Platanus acerifolia 'Bloodgood'	London Plane Tree (anthracnose res.)	
Podocarpus gracilior	Fern Pine	
Quercus wislizeni	Interior Live Oak	
Tristania conferta	Brisbane Box	
Phoenix dactylifera	Date Palm	16' Brown Trunk Height

Table 5-1: Master Plant Palette		
Botanical Name	Common Name	Minimum Size
Shrubs		
Agave 'Blue Flame'	Blue Flame Agave	5 Gallon
Agave desmettiana ' Variegata'	Variegated Dwarf Century Plant	
Alyogne huegelii 'MONleon'	Leon's Purple Delight Lilac Hibiscus	
Arbutus unedo 'Elfin King'	Elfin King Strawberry King	
Buxus microphylla japonica	Japanese Boxwood	1 Gallon
Calandrinia spectabilis	Rock Purslane	
Carex tumulicola	Foothill Sedge	
Carissa grandiflora 'Green Carpet'	Natal Plum	
Dianella revoluta 'DR5000'	Little Rev Flax Lily	
Dianella tasmanica 'Silver Streak'	Silver Streak Flax Lily	
Ilex crenata 'Sky Pencil'	Sky Pencil Ilex	5 Gallon
Juniperus scopulorum 'Skyrocket'	Skyrocket Juniper	
Lantana montevedensis 'Monma'	White Lightin' Lantana	1 Gallon
Ligustrum japonicum 'Texanum'	Wax Leaf Privet	5 Gallon
Lomandra longifolia 'LM300'	Breeze Dwarf Mat Rush	
Muhlenbergia capillaris 'Regal Mist'	Regal Mist Muhly	
Myoporum parvifolium	No Common Name	1 Gallon
Philodendron x 'Xanadu'	Dwarf Philodendron	5 Gallon
Pittosporum tobira	Tobira	
Podocarpus elongatus 'Monmal'	Icee Blue Yellow-Wood	
Prunus caroliniana 'Bright n' Tight'	Carolina Cherry	
Rhaphiolepis indica 'Clara'	Dwarf Indian Hawthorne	
Rhaphiolepis x. 'Montic'	Majestic Beauty Indian Hawthorne	
Rosa 'Flower Carpet var. Noatraum'	Pink Carpet Rose	2 Gallon
Rosa f. 'Ice Berg'	White Shrub Rose	5 Gallon
Trachelospermum asiaticum	Asian Jasmine	1 Gallon
Vines and Espaliers		
Clytostoma callistegioides	Violet Trumpet Vine	5 Gallon
Distictus buccinatoria	Blood Red Trumpet Vine	
Ficus pumila (repens)	Creeping Fig	1 Gallon
Parthenocissus tricuspidata	Boston Ivy	

Exhibit 5-6: Fence/Wall Concepts

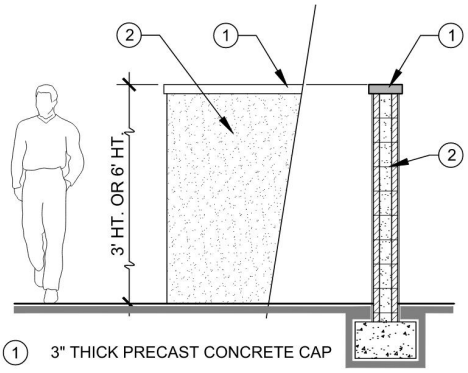


1. 3" THICK PRECAST CONCRETE CAP
2. 8x8x16 BURNISHED CMU WALL
   COLOR: TAN
3. PROJECT SIGN TILE INSET



4' SQ. PILASTER

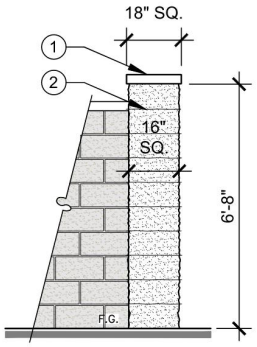
SCALE: N.T.S.



1. 3" THICK PRECAST CONCRETE CAP
2. 8" CMU BLOCK WALL W/ STUCCO FINISH
   COLOR: WHITE

3' HT. OR 6' HT. STUCCO WALL

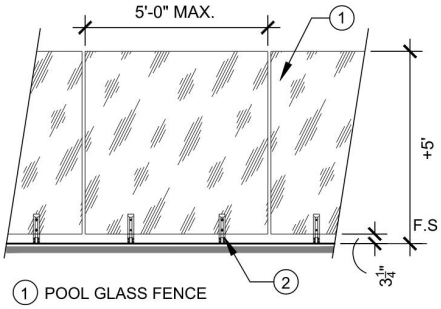
SCALE: N.T.S.



1. 3" THICK PRECAST
   CONCRETE CAP
2. 6x16x16 SPLIT FACE COLUMN BLOCK
   COLOR: TAN

16" SQ. PILASTER

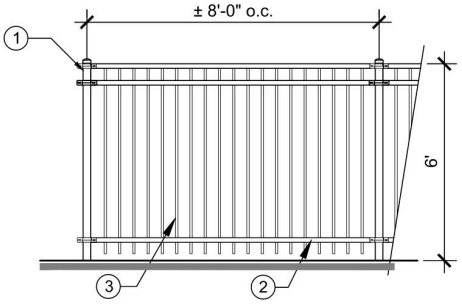
SCALE: N.T.S.



1. POOL GLASS FENCE
2. DAYTON RICHMOND DOWEL SPLICER SYSTEM

GLASS FENCE

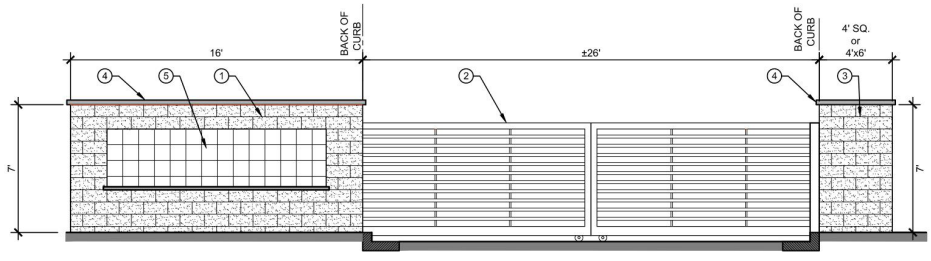
SCALE: N.T.S.



1. 2" SQ. FENCE POST
2. 2" SQ. TOP AND BOTTOM RAIL
3. 5/8" SQ. PICKETS @ 4" O.C. MAX.
   FENCE COLOR: BLACK

TUBULAR STEEL FENCE

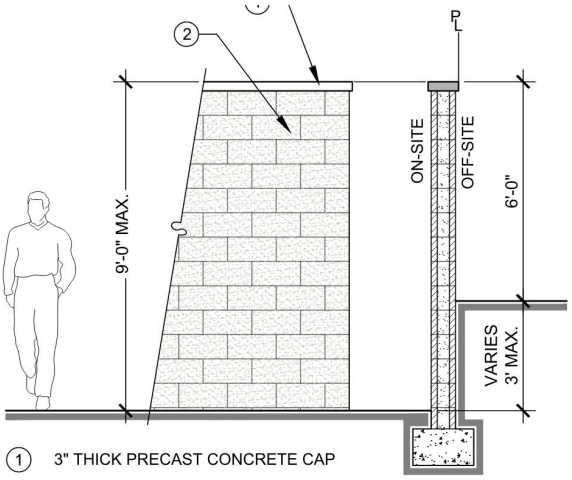
SCALE: N.T.S.



1. BURNISHED BLOCK SIGN WALL, COLOR: TAN
2. SLIDING T.S. VEHICULAR GATE, COLOR: BLACK
3. BURNISHED BLOCK PILASTER, COLOR: TAN
4. 3" THICK PRECAST CAP, COLOR: NATURAL
5. PROJECT SIGN AREA W/ TILE BACKDROP



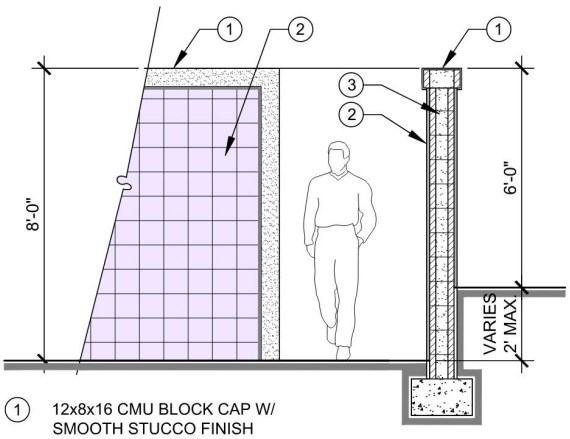
ENTRY GATE



1. 3" THICK PRECAST CONCRETE CAP
2. 8x8x16 SPLIT FACE (2-SIDES) CMU WALL
   COLOR: TAN

PERIMTER WALL

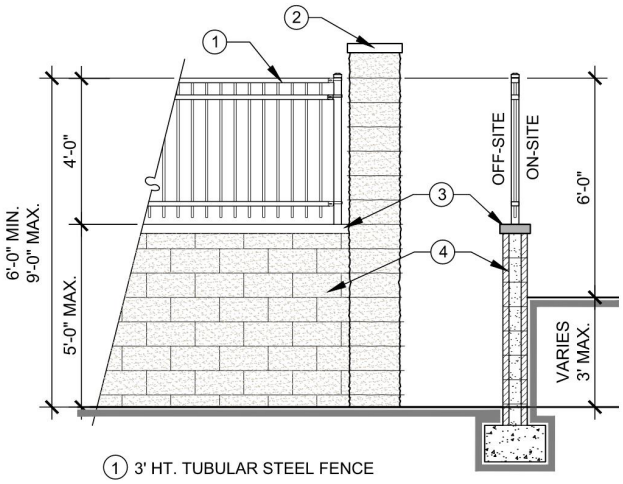
SCALE: N.T.S.



1. 12x8x16 CMU BLOCK CAP W/
   SMOOTH STUCCO FINISH
2. DECORATIVE TILE VENEER
   8" SQ. CEMENTINE TILE
3. 8x8x16 CMU BLOCK WALL W/
   SMOOTH STUCCO FINISH
   COLOR: WHITE

DECORATIVE STUCCO WALL

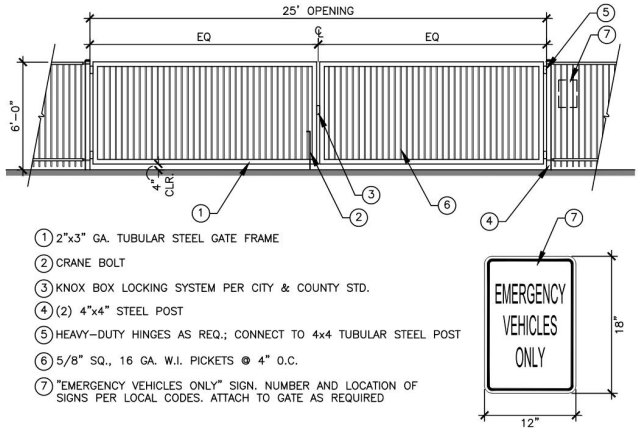
SCALE: N.T.S.



1. 3' HT. TUBULAR STEEL FENCE
2. 8X8X16 SPLIT FACE PILASTER
   COLOR: TAN
3. 3" THICK PRECAST CONCRETE CAP
4. 6X8X16 SPLIT FACE CMU WALL
   COLOR: TAN

SPLIT FACE COMBO WALL

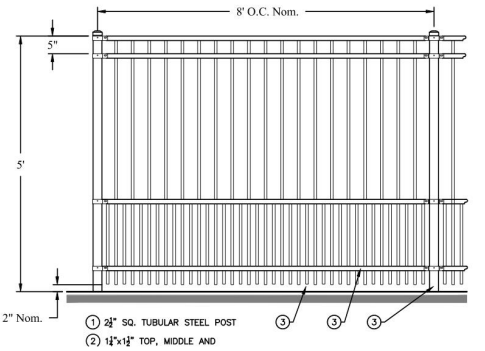
SCALE: N.T.S.



1. 2"x3" GA. TUBULAR STEEL GATE FRAME
2. CRANE BOLT
3. KNOX BOX LOCKING SYSTEM PER CITY & COUNTY STD.
4. (2) 4"x4" STEEL POST
5. HEAVY-DUTY HINGES AS REQ.; CONNECT TO 4x4 TUBULAR STEEL POST
6. 5/8" SQ., 16 GA. W.I. PICKETS @ 4" O.C.
7. "EMERGENCY VEHICLES ONLY" SIGN. NUMBER AND LOCATION OF SIGNS PER LOCAL CODES. ATTACH TO GATE AS REQUIRED

EVA GATE

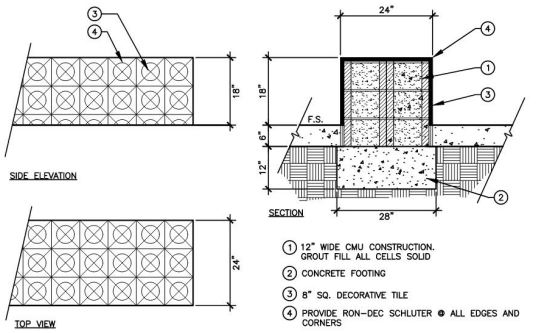
SCALE: N.T.S.



1. 2½" SQ. TUBULAR STEEL POST
2. 1½"x1½" TOP, MIDDLE AND

DOG PARK FENCE

SCALE: N.T.S.



1. 12" WIDE CMU CONSTRUCTION.
   GROUT FILL ALL CELLS SOLID
2. CONCRETE FOOTING
3. 8" SQ. DECORATIVE TILE
4. PROVIDE RON-DEC SCHLUTER @ ALL EDGES AND CORNERS

18" HT. DECORATIVE SEAT WALL

SCALE: N.T.S.

6 Administration

6.1 Items Not Addressed in PUD

Any terms not defined herein and any issues affecting the design and development of the subject project area not specifically addressed in this PUD shall be governed by the provisions of the ODC.

6.2 Development Plan and Other Applications

A Development Plan shall be submitted for each phase of this PUD for approval by the Development Advisory Board and the Ontario Planning Commission, pursuant to the requirements and procedures outlined in the ODC.

To ensure proper implementation of the EA Overlay district, an application for a Certificate of Appropriateness shall be submitted in conjunction with the Development Plan required for each phase of this PUD, pursuant to all requirements and procedures outlined in the ODC.

Lot line adjustments or the combining of parcels within this PUD shall comply with all requirements and procedures outlined in the ODC. Such actions may be conditioned for compliance as part of the Development Plan approval process.

6.3 Administrative Exceptions

Deviation from the development standards set forth in this PUD may be granted up to a maximum of 10 percent by the Zoning Administrator. Any deviation that is greater than 10 percent shall require Variance approval pursuant to the requirements and procedures outlined in the ODC.

This page was intentionally left blank.

Addendum Appendix B

Euclid / Walnut Mixed Use Planned Unit Development Project

Health Risk Assessment Report

(Per Ontario Development Code Table 6.10-3)

June 26, 2023

Prepared for:

Legacy Partners
5141 California Avenue, Ste. 100
Irvine, CA 92617

Prepared by:

MIG, Inc.
1650 Spruce Street, Ste. 106
Riverside, CA 92507

This document is formatted for double-sided printing to conserve natural resources.

Table of Contents

EXECUTIVE SUMMARY ..... **I**
1 INTRODUCTION **1**
1.1 Report Organization 1
2 REGULATORY FRAMEWORK **2-1**
2.1 United States Environmental Protection Agency 2-1
2.1.1 Federal Clean Air Act 2-1
2.2 California Air Resources Board 2-1
2.2.1 California Clean Air Act 2-1
2.3 South Coast Air Quality Management District 2-1
3 PROJECT DESCRIPTION AND ENVIRONMENTAL SETTING **3-1**
3.1 Project Location and Surrounding Land Uses 3-1
3.2 Proposed Development and Phasing 3-1
3.2.1 Phase 1 PUD Development: Legacy Partners 3-1
3.2.2 Phase 2 PUD Development 3-2
3.3 Sources of Air Toxics in Proximity of the Project Site 3-2
3.3.1 Mobile Source Air Toxics 3-2
3.4 Meteorology and Wind Conditions at the Project Site 3-2
4 ANALYSIS METHODOLOGY **4-1**
4.1 Mobile Source Emissions 4-1
4.1.1 Traffic Volumes, Time of Day Splits, and Traffic Speeds 4-1
4.1.2 Mobile Source Emissions and Emissions Rates 4-3
4.2 AERMOD Dispersion Modeling 4-4
4.2.1 Modeled Sources and Emissions Rates 4-4
4.2.2 Meteorological Data Inputs 4-5
4.2.3 Terrain Inputs 4-7
4.2.4 Modeled Receptors 4-7
4.3 Health Risk Assessment Methodology 4-7
4.3.1 Mobile Source Health Risk Assessment Methodology 4-8
5 HEALTH RISK ASSESSMENT RESULTS **5-1**
5.1 Thresholds of Significance 5-1
5.2 Estimated Health Risks 5-1
6 REPORT PREPARERS AND REFERENCES **6-1**
6.1 References 6-1

List of Tables

Table 4-1. AERMOD Source Parameters 4-5
Table 4-2. Project Receptor Grid Details 4-7
Table 4-3. MSAT Cancer Potency Factors and Reference Exposure Levels 4-9
Table 4-4. Weighted CPFs and RELs for TOG Running (Exhaust) Emissions 4-11
Table 4-5. Weighted CPFs and RELs for TOG Running Loss (Evaporative) Emissions 4-11
Table 5-1: SCAQMD Health Risk Thresholds 5-1
Table 5-2: Risks at MEI from Single and Cumulative Sources 5-2

List of Figures

Figure 3-1 Site Aerial 3-4
Figure 3-2 Site Plan 3-5
Figure 3-3 Wind Rose for Ontario International Airport (2012 to 2016) (Blowing From) 3-6
Figure 4-1 Modeled Emission Sources 4-6
Figure 5-1 Total Annual Average TOG Exhaust Concentrations (µg/m^3) 5-3
Figure 5-2 Total Annual Average TOG Evaporative Concentrations (µg/m^3) 5-4
Figure 5-3 Total Annual Average DPM Exhaust Concentrations (µg/m^3) 5-5

Appendices

Appendix A: Traffic Volumes and Mobile Source Emissions Quantification for AERMOD
Appendix B: AERMOD Output
Appendix C: Cancer and Non-Cancer Risk Values and Health Risk Calculations

List of Acronyms, Abbreviations, and Symbols	
Acronym / Abbreviation	**Full Phrase or Description**
AADT	Annual Average Daily Traffic
AERMOD	American Meteorological Society/Environmental Protection Agency Regulatory Model
ASF	Age Sensitivity Factor
Benzo[a]pyrene	B[a]P
BR	Breathing Rate
BW	Body Weight
CAA	Federal Clean Air Act
C_{AIR}	Concentration of TAC in air (µg/m3)
Cal-EPA	California Environmental Protection Agency
CARB	California Air Resources Board
CPF	Cancer Potency Factor
CPF_{MSAT}	Cancer Potency Factor for MSAT Inhalant
CPF_{W}	Weighted Cancer Potency Factor
CT-EMFAC2017	Caltrans Version of EMFAC
$DOSE_{AIR}$	Daily Inhalation Dose
DPM	Diesel Particulate Matter
D	Distance of roadway segment (mi)
ED	Exposure Duration
EF_{R}	Running emissions factor, based on speed bin (g/veh-mile)
EF_{RL}	Running loss emissions factor (g/veh-hour)
$E_{R.HR}$	Running emissions (g-hr)
$E_{RL.HR}$	Running loss emissions (g-hr)
EMFAC	CARB's Emissions Factor Database
FAH	Fraction at Home
g/s	Grams per second
HVAC	Heating ventilation and air conditioning
kg	Kilogram
L	Liters
MEI	Maximally Exposed Individual
MERV	Minimum Efficiency Rating Value
MPH	Miles per Hour
MSAT	Mobile Source Air Toxic

List of Acronyms, Abbreviations, and Symbols	
Acronym / Abbreviation	**Full Phrase or Description**
$MSAT_R$	Ratio of MSAT to TOG
NED	National Elevation Dataset
OEHHA	California Office of Environmental Health Hazard Assessment
PeMS	Caltrans Performance Measurement System
POM	Polycyclic Organic Material
REL	Reference Exposure Level
REL_{MSAT}	REL for MSAT Inhalant
Report	Health Risk Assessment Report
SCAQMD	South Coast Air Quality Management District
SR	State Route
TAC	Toxic Air Contaminants
TOG	Total Organic Gas
U.S. EPA	United State Environmental Protection Agency
UTM	Universal Transverse Mercator,
VMT	Vehicle Miles Traveled
VOL_{HR}	Vehicle Volume per hour (veh-hr)
µm	Micron

EXECUTIVE SUMMARY

This Health Risk Assessment Report (Report) evaluates and documents the potential health risk impacts that could be posed to the receptors of the proposed Euclid / Walnut Mixed Use Planned Unit Development Project (Project) from existing sources of mobile source toxic air pollution along State Route 60 (SR 60), located approximately 665 feet north of the Planned Unit Development's (PUD) northernmost boundary. The Project is located at the northwest corner of Euclid Avenue / Walnut Street intersection in the City of Ontario, California 91761 and would accommodate up to 369 dwelling units and 12,000 square feet of retail space upon buildout on 10.6 acres.

The Project includes multifamily residential development, and the City of Ontario (City) has determined the Project is subject to the requirements identified in Ontario Development Code Table 6.01-3: Multiple-Family Residential Development Standards, which requires multiple-family development projects located within proximity of a freeway (as determined by the City's Zoning Administrator) to prepare a health risk assessment. This Report evaluates the potential risks posed by toxic air pollution, consistent with guidance and methodology documents maintained by United States Environmental Protection Agency (U.S. EPA), Office of Environmental Health and Hazard Assessment (OEHHA), and South Coast Air Quality Management District (SCAQMD), and outlines measures, if necessary, that would reduce risks below SCAQMD thresholds.

S.1 PROPOSED PROJECT DESCRIPTION

The Project is a PUD that would accommodate up to 369 multi-family dwelling units and 12,000 square feet of retail space upon buildout. The 10.6-acre site is located at the northwest corner of Euclid Avenue / Walnut Street intersection, and the Project's northern boundary is approximately 665 feet south of SR 60. The Project would be constructed in at least two phases. Phase 1, the details for which are currently known, would provide 346 multi-family dwelling units in three- and four-story buildings, with 5,400 square feet of ground floor retail space within the four-story building fronting Euclid Avenue. Phase 1 construction activities would develop 9.4 acres of the Project site, excluding the southeast corner of the Project site. The southeast corner of the Project site is currently developed with a Carl's Jr. and may be developed in the future as Phase 2 of the Project. Phase 2 would accommodate the remaining 23 multi-family residential units and up to an additional 6,600 square feet of ground-floor retail space. The first phase of the Project is slated to become operational in 2025.

S.2 HEALTH RISK ASSESSMENT RESULTS

A health risk assessment (HRA) was prepared to evaluate potential cancerogenic and non-cancerogenic health effects that could result from receptor exposure to toxic air contaminant (TAC) concentrations at the Project site. The HRA was prepared in accordance with applicable guidelines from the U.S. EPA, the SCAQMD, and OEHHA. Roadway traffic volumes in proximity of the Project site were obtained from Caltrans. Mobile Source Air Toxic (MSAT) emissions were estimated using these traffic volumes and emission factors derived from the Caltrans version of the California Air Resources Board (CARB) Emissions Factor Database (CT-EMFAC2017).[1] The U.S. EPA- and SCAQMD-approved **A**merican

[1] The nine priority MSATs included in the HRA are: 1,3-Butadiene, Acetaldehyde, Acrolein, Benzene, Diesel Particulate Matter (DPM), Ethylbenzene, Formaldehyde, Naphthalene, Polycyclic Organic Matter (POM).

Meteorological Society/**E**nvironmental Protection Agency **R**egulatory **Mod**el (AERMOD, V. 21112) was used to predict pollutant concentrations at the Project site. The AERMOD dispersion model simulates the dispersion of pollutant emissions and estimates concentrations of pollutants at specified receptor locations.

The results of the modeling indicate that the Maximally Exposed Individual (MEI) for cancer risk would be located in the northeastern corner of the northeaster building of Phase 1 (i.e., the building with retail space on the ground floor) and have a cancer risk of 7.0 excess cancers per million, which would be below the SCAQMD's cancer risk threshold of 10.0 excess cancers per million. This cancer risk estimate accounts for Project compliance with Section 120.1(b)(1)(C) of the 2019 Title 24 Building Code, which requires that high-density residential buildings be constructed with HVAC system air filters that meet a designated efficiency equal to Minimum Efficiency Rating Value (MERV) 13 standards. The MERV 13 filters would be capable of removing approximately 90 percent of diesel particulate emissions from SR 60. Chronic and acute non-cancer risks for receptors at the site would also be below the SCAQMD non-cancer risk thresholds of 1.0. Cancer and non-cancer risks for Phase 2 receptors would be lower, because these receptors are further from SR 60 and would be exposed to lower pollutant concentrations.

As described above, cancer and non-cancer risks would not exceed thresholds and no mitigation or further abatement of air toxic concentrations is required. Compliance with standard building code requirements would be sufficient to reduce potential risks below SCAQMD thresholds.

1 INTRODUCTION

This Health Risk Assessment Report (Report) has been developed for the proposed Euclid / Walnut Mixed Use Planned Unit Development Project (Project) located at the northwest corner of Euclid Avenue / Walnut Street intersection in the City of Ontario, California 91761. The Project would accommodate up to 369 multi-family dwellings and approximately 12,000 square feet of retail space upon buildout on 10.6 acres.

The Project would consist of a two-phased Planned Unit Development (PUD). Phase 1 would involve constructing 346 multi-family dwelling units and approximately 5,400 square feet of ground-floor retail space. Development details associated with Phase 1 are currently known and Legacy Partners is proposing to develop this portion of the Project. It is anticipated that this portion of the PUD, which comprises 9.4 acres, would become operational in 2025. Phase 2 would consist of an additional 23 multi-family residential units and up to an additional 6,600 square feet of retail space. This area would be located in the southwestern portion of the site. Further planning details for Phase 2 are not currently known at this time, but it is anticipated that this portion of the PUD would not be developed for another 15 years.

The 10.6-acre Project site is located approximately 665 feet south of State Route (SR 60). The operation of mobile sources (i.e., cars and trucks) along this roadway produce emissions from fuel combustion (i.e., exhaust) and evaporation, and some of these emissions are known Toxic Air Contaminants (TACs), as defined by the California Air Resources Board (CARB), that could affect the health and safety of Project occupants and visitors to the site. The City of Ontario Development Code Table 6.01-3: Multiple-Family Residential Development Standards requires multiple-family development projects located in proximity of a freeway (as determined by the City's Zoning Administrator) to prepare a health risk assessment. This Report evaluates potential risks from mobile sources on SR 60, consistent with risk assessment procedures maintained by the United States Environmental Protection Agency (U.S. EPA), Office of Environmental Health and Hazard Assessment (OEHHA), and South Coast Air Quality Management District (SCAQMD).

1.1 REPORT ORGANIZATION

This Report is organized as follows:

- **Chapter 1, Introduction,** explains the contents of this Report and its intended use.
- **Chapter 2, Regulatory Framework,** provides pertinent background information on the federal, state, and local entities that regulate air quality conditions at and near the Project site.
- **Chapter 3, Project Description and Environmental Setting**, provides pertinent information on the design and operating characteristics of the Project, as well as meteorological conditions and sources of toxic air pollution in proximity of the Project site.
- **Chapter 4, Health Risk Assessment Methodology,** discloses the methodology used to estimate the emissions of mobile sources in proximity of the Project site and the potential risks they could pose to future Project receptors.
- **Chapter 5, Health Risk Assessment Results,** describes the criteria used to evaluate potential health risks, the results of the health risk assessment prepared for the Project, and any potential measures necessary reduce risks below the applied thresholds.
- **Chapter 6, Report Preparers and References,** lists the individuals involved, and the references used, in the preparation of this Report.

This page intentionally left blank.

2 REGULATORY FRAMEWORK

This Report has been prepared to satisfy Ontario Development Code Table 6.01-3: Multiple-Family Residential Development Standards, which requires multiple-family development projects located in proximity of a freeway (as determined by the City's Zoning Administrator) to prepare a health risk assessment.

The following provides an overview of the federal, state, and local regulatory entities that oversee and regulate air quality emissions in proximity of the Project site.

2.1 UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

2.1.1 Federal Clean Air Act

The Federal Clean Air Act (CAA) defines the United States Environmental Protection Agency's (U.S. EPA) responsibilities for protecting and improving the United States air quality and ozone layer. Key components of the CAA include reducing ambient concentrations of air pollutants that cause health and aesthetic problems, reducing emission of toxic air pollutants, and stopping production and use of chemicals that destroy the ozone.

2.2 CALIFORNIA AIR RESOURCES BOARD

2.2.1 California Clean Air Act

In addition to being subject to Federal requirements, air quality in the State is also governed by more stringent regulations under the California Clean Air Act, which was enacted in 1988 to develop plans and strategies for attaining the California Ambient Air Quality Standards. The California Air Resources Board (CARB), which is part of the California Environmental Protection Agency (Cal-EPA), develops Statewide air quality regulations, including industry-specific limits on criteria, toxic, and nuisance pollutants.

In California, both the Federal and State Clean Air Acts are administered by CARB. It sets all air quality standards including emission standards for vehicles, fuels, and consumer goods as well as monitors air quality and sets control measures for toxic air contaminants. CARB oversees the functions of local air pollution control districts and air quality management districts, which in turn administer air quality activities at the regional level.

2.3 SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

The SCAQMD is the agency primarily responsible for maintaining air quality and regulating emissions of criteria and toxic air pollutants within the South Coast Air Basin (Basin).[2] The SCAQMD carries out this responsibility by preparing, adopting, and implementing plans, regulations, and rules that are designed to achieve attainment of state and national air quality standards.

[2] the South Coast Air Basin (Basin) which includes Orange County and the non-desert portions of Los Angeles, San Bernardino, and Riverside counties. The Basin encompasses approximately 6,745 square miles of coastal plains and is bounded by the San Gabriel, San Bernardino, and San Jacinto Mountains to the north and east.

3 PROJECT DESCRIPTION AND ENVIRONMENTAL SETTING

The proposed Project consists of a Planned Unit Development (PUD) that would accommodate up to 369 multi-family dwelling units and 12,000 square feet of retail space in the City of Ontario, California 91761. The Project is located at the northwest corner of Euclid Avenue / Walnut Street intersection and would be constructed in two phases, with most development occurring in Phase 1.

3.1 PROJECT LOCATION AND SURROUNDING LAND USES

The 10.6-acre rectangular Project site is located at the northwest corner of Euclid Avenue / Walnut Street intersection in the City of Ontario, California 91761 (see Figure 3-1 for Project location). The site consists of three parcels (Assessor Parcel Numbers 041018133, 041018134, and 041018135), and is primarily developed as a surface parking lot that once served a commercial shopping center anchored by K-Mart (located on the western portion of the Project site), a nail salon and toy store (located in the northeastern portion of the Project site), and Carl's Jr. (located in the southeastern corners of the Project site).

The Project site is surrounded by a preschool, residential land uses, and retail and commercial office land uses. These include:

- North of the Project Site: The "Monty's Montessori Academy of Ontario" preschool and single-family and multi-family residential land uses
- Northwest of the Project Site: Multi-family residential land uses at the "Belcourt Apartments" apartment complex
- West of the Project Site: Various commercial and retail office land uses
- South of the Project Site: Across Walnut Street, single family residential land uses
- East of the Project Site: Across Euclid Avenue, various commercial amenities such as "7-Eleven", "Victor's Cleaners and Laundry", "N8's Billiards" and then single-family residential land uses further to the east beyond the aforementioned non-residential land uses

3.2 PROPOSED DEVELOPMENT AND PHASING

As mentioned above the Project would be comprised of two phases totaling 369 multi-family dwelling units and up to 12,000 square feet of retail space. Legacy Partners (Legacy) is proposing to construct Phase 1 of the Project, which would consist of 346 multi-family dwelling units and 5,400 square feet of ground floor retail space on approximately 9.4 acres of land in the northeast, northwest, and southwest portions of the Project site (see Figure 3-2). Phase 2 would consist of an additional 23 multi-family dwelling units and up to an additional 6,600 square feet of retail space constructed on the remaining approximately 1.2 acres of land located in the southeastern portion of the site. Specific details regarding Phase 2 development are currently unknown at this time.

3.2.1 Phase 1 PUD Development: Legacy Partners

Phase 1 would consist of two, four-story apartment buildings with tuck under garages, one of which would have approximately 5,400 square feet of ground-floor retail space, and six, three-story apartment buildings with tuck under garages, carports, and surface parking. The four-story building with ground floor retail space would be located in the northeastern portion of the site. In addition to the 5,400 square feet of retail space, the ground floor of this building would include a mail/parcel facility area, leasing office space,

pool court and fitness area, club open space, and sports lounge, while the upper floors would be comprised of residential units. A dog park would be located to north of this building. Three (3), three-story multi-family buildings would be located west of the ground-floor retail space building (i.e., in the northwestern corner of the Project site) and be oriented in a north-south direction. Three (3) additional three-story multi-family buildings, also oriented in a north-south direction, would be constructed in the southwest corner of the Project site. Finally, a four-story "C" shaped multi-family residential building would be constructed in the southeastern portion of the Phase 1 area and adjacent to the Phase 2 area. Each residential dwelling unit would have window(s) and/or a balcony that would provide their unit with access to outdoor air.

3.2.2 Phase 2 PUD Development

Phase 2 would involve the construction and operation of up to an additional 23 multi-family dwelling units and up to an additional 6,600 square feet of retail space. It is anticipated that Phase 2 of the PUD would not occur for approximately 15 more years. No additional project-specific details associated with Phase 2 are known at this time.

3.3 Sources of Air Toxics in Proximity of the Project Site

The Project site is located within 700 feet of SR 60. Vehicles traveling along this freeway produce pollutants designated by CARB as TACs. TACs are pollutants that are known, or suspected, to cause cancer or other serious health effects.

3.3.1 Mobile Source Air Toxics

Operation of fossil-fueled motor vehicles, such as those operating in proximity of the Project site, produce emissions through fuel combustion. Mobile Source Air Toxics (MSATs) are a subset of TACs that are emitted by mobile sources (i.e., cars and trucks). There are nine priority MSATs, which include: 1,3-Butadiene, Acetaldehyde, Acrolein, Benzene, Diesel Particulate Matter (DPM), Ethylbenzene, Formaldehyde, Naphthalene, Polycyclic Organic Matter (POM). These MSATs (excluding DPM) are a fraction of the Total Organic Gas (TOG) emissions from the motor vehicles.

3.4 Meteorology and Wind Conditions at the Project Site

Southwestern San Bernardino County and the broader South Coast Air Basin (Basin) are defined by a semi-arid, Mediterranean climate with mild winters and warm summers. The San Gabriel, San Bernardino, and San Jacinto Mountains bound the Basin to the north and east trap ambient air and pollutants within the Los Angeles and Inland Empire valleys below. The climate of the greater Los Angeles region is classified as Mediterranean, but weather conditions within the Basin are dependent on local topography and proximity to the Pacific Ocean. The climate is dominated by the Pacific high-pressure system that results in generally mild, dry summers and mild, wet winters. This temperate climate is occasionally interrupted by extremely hot temperatures during the summer, Santa Ana winds during the fall, and storms from the Pacific northwest during the winter. In addition to the basin's topography and geographic location, El Niño and La Niña patterns also have large effects on weather and rainfall received between November and March.

The Pacific high-pressure system drives the prevailing winds in the Basin. The winds tend to blow onshore in the daytime and offshore at night. In the summer, an inversion layer is created over the coastal areas and increases ozone levels. A temperature inversion is created when a layer of cool air is overlain by a layer of warmer air; this can occur over coastal areas when cool, dense air that originates over the ocean is blown onto land and flows underneath the warmer, drier air that is present over land. In the winter, areas

throughout the Basin often experience a shallow inversion layer that prevents the dispersion of surface level air pollutants, resulting in higher concentrations of criteria air pollutants such as CO and NO_X.

Temperatures near the Project site range from a high of 92 degrees Fahrenheit (F) in July and August to a low of 40 degrees Fahrenheit in January. Annual precipitation is approximately 20 inches, falling mostly from November through March (WRCC, 1980).

The SCAQMD maintains publicly meteorological data for use in air quality analyses. The Project site is approximately 2.5 miles southwest of Ontario International Airport. As shown in Figure 3-3, the prevailing wind at Ontario International Airport is generally from the west-southwest, indicating the prevailing wind at the Project site is also likely from the west-southwest.

Figure 3-1 Site Aerial

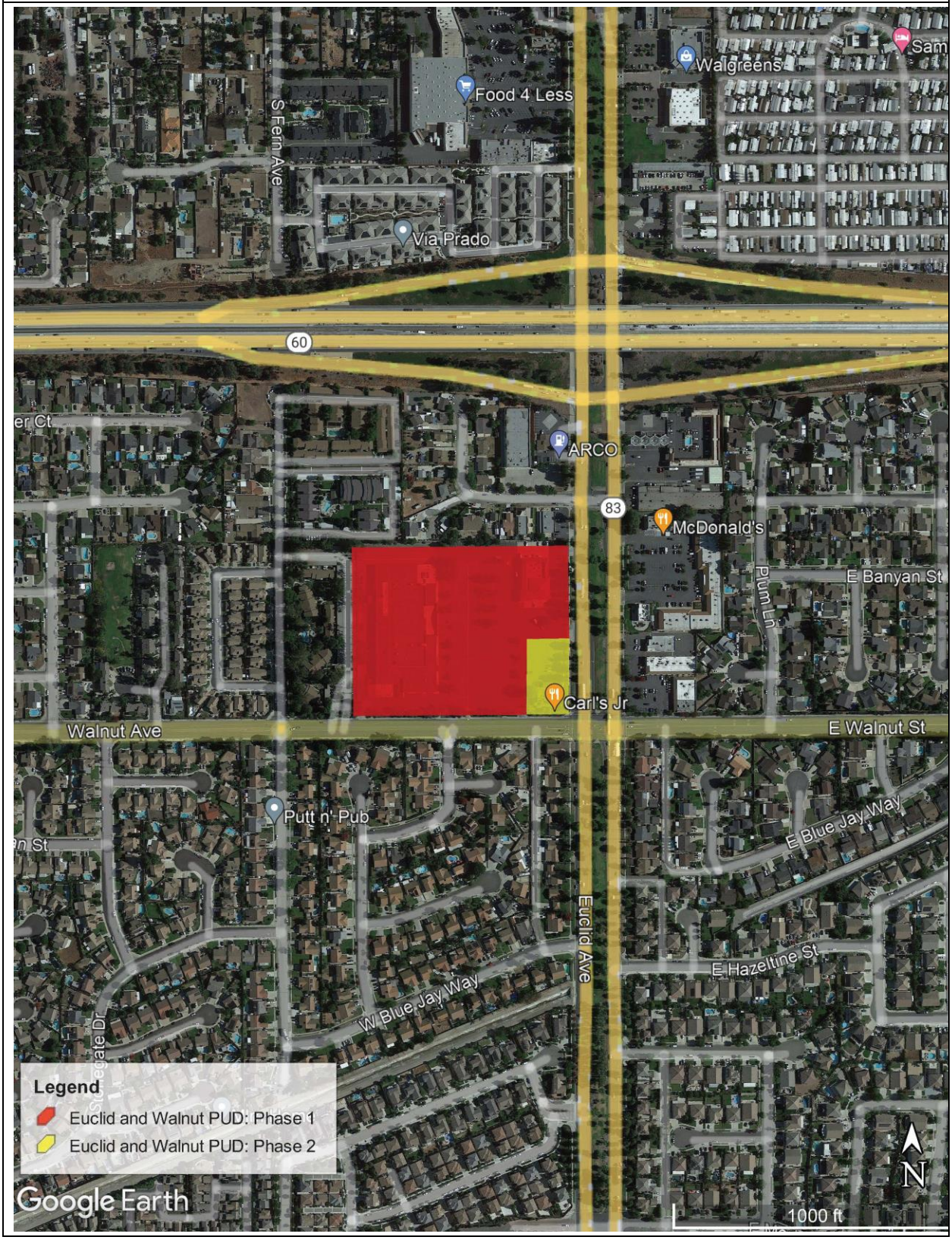
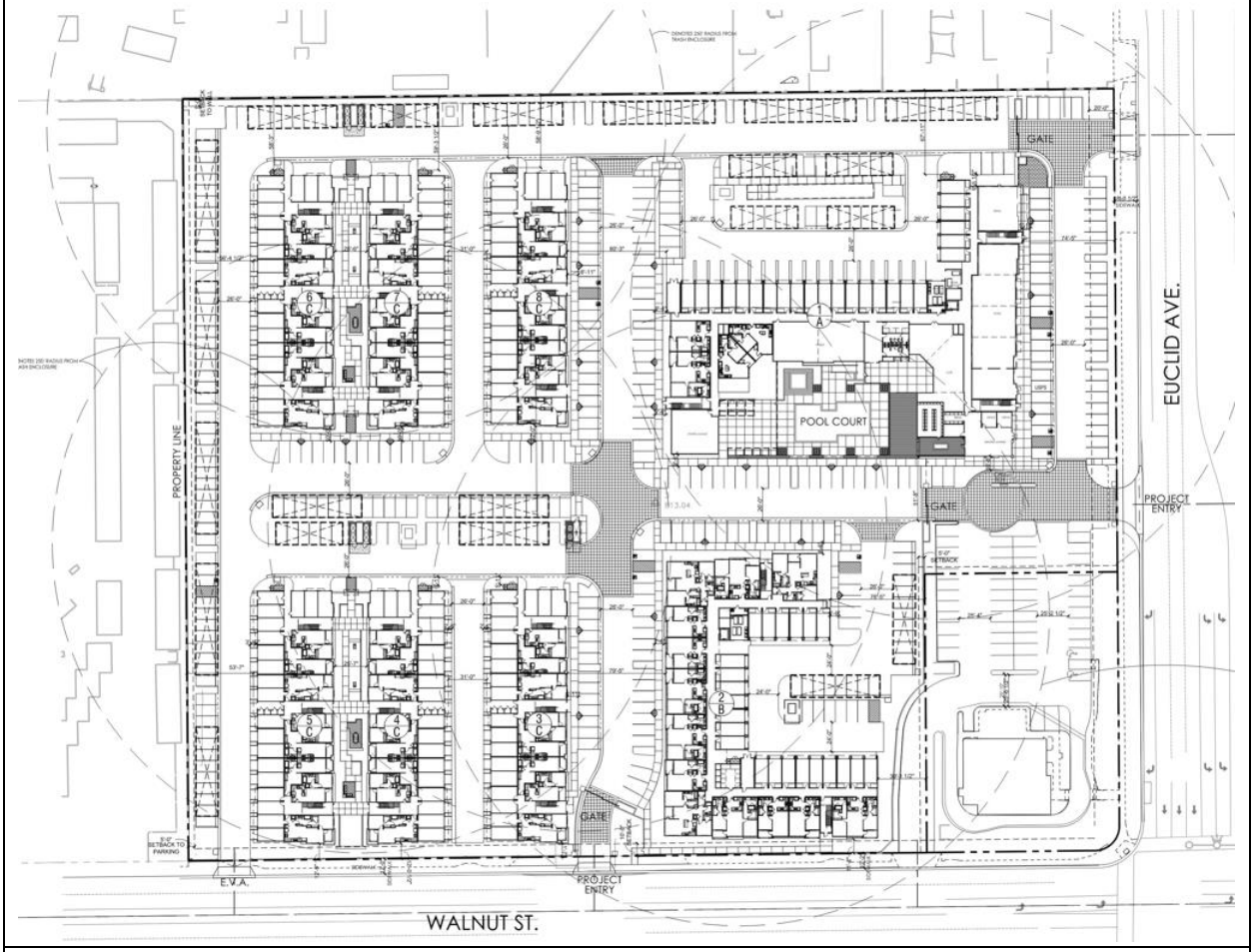
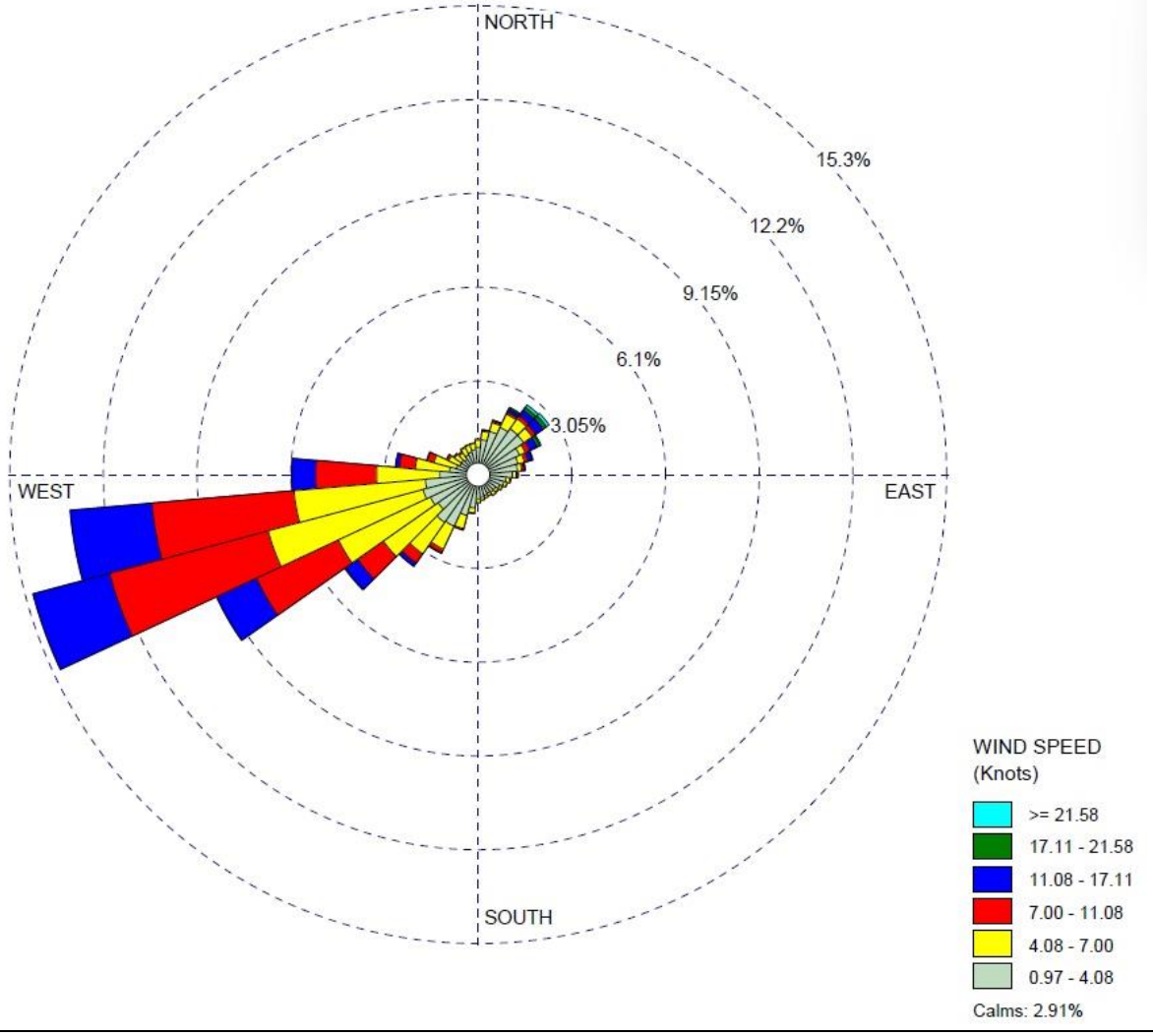


Figure 3-2 Site Plan



Source: Legacy Partners, 2022

Figure 3-3 Wind Rose for Ontario International Airport (2012 to 2016) (Blowing From)



Source: SCAQMD 2017

4 ANALYSIS METHODOLOGY

This Chapter describes the methodology utilized to estimate emissions, conduct dispersion modeling, and assess potential cancer and non-cancer risks at the Project site.

4.1 MOBILE SOURCE EMISSIONS

Mobile source emissions were estimated for freeways (including freeway on- and off-ramps) based hourly vehicle flow by type of pollutant.

4.1.1 Traffic Volumes, Time of Day Splits, and Traffic Speeds

Mobile source emissions were estimated for freeways and (including freeway on- and off-ramps) based on hourly vehicle flows. These pieces of information were obtained from several Caltrans sources. Specifically, the roadway segments evaluated include:

- State Route 60 (Eastbound and Westbound)
- State Route 60 Westbound On-Ramp from Euclid Avenue
- State Route 60 Eastbound Off-Ramp from Euclid Avenue
- State Route 60 Eastbound On-Ramp from Euclid Avenue
- State Route 60 Westbound On-Ramp from Euclid Avenue

See Appendix A for all details related to traffic volumes, time of day splits, and traffic speeds for the various roadway segments.

Traffic Volumes

Traffic volumes for the roadway segments evaluated were obtained from the following sources. The Project is anticipated to become operational in 2025. Traffic volumes were scaled up by one percent each year to derive 2025 volumes from prior years.[3]

- State Route 60 traffic volumes (for all vehicles and trucks) were obtained from the Caltrans Traffic Census Program, which provided Annual Average Daily Traffic (AADT) on the California Highway System in 2019.[4] All traffic vehicle volumes were split evenly between Eastbound and Westbound SR 60 (Caltrans, 2022a).
    - **All Vehicles.** The AADT values for three Caltrans "breakpoints" were evaluated to determine the traffic volume on SR 60 north of the Project site; these three breakpoints were: Mountain Avenue; Ontario, Jct. Rte. 83; and Grove Avenue. The AADT values between Mountain Avenue and the SR 60 / SR 83 junction were marginally higher than the AADT values between SR 83 and Grove Avenue (i.e., approximately 0.2%) and therefore were applied to the entirety of the portion of SR 60 modeled.

[3] For example, if the data sourced is from 2020, the traffic volume for that year would be scaled up by one percent for five years (i.e., approximately a five percent increase).

[4] The 2019 calendar year was selected as the base year for scaling, because it predates the COVID-19 pandemic and is considered to be a better reference for what traffic levels may look like in the future, compared to those of recent years that have been affected by the COVI-19 pandemic.

  - **Trucks.** The AADT values on SR 60 east of and west of the SR 60 / SR 83 junction were averaged to derive the proportion truck traffic volume on SR 60 adjacent to the Project site.[5]
- State Route 60 on- and off-ramp volumes for Euclid Avenue (all vehicles) were calculated using the same process as that described for the SR 60 volumes. The ramp segments utilized from the Caltrans data were "WB on from Euclid/83," "EB off to Euclid/83," "EB on from Euclid/83," and "WB Off to Euclid Ave" (Caltrans 2022a).

Time of Day Split

Time of day traffic volume splits were developed for each of the roadway segments utilizing the Caltrans Performance Measurement System (PeMS), which collects data from approximately 40,000 individual detectors spanning the freeway system across all major metropolitan areas of California. Data was obtained for the entire 2019 calendar year[6] for all vehicles and trucks and then summed for each hour to develop the time-of-day splits for the two vehicle categories (Caltrans 2022b).[7] The SR 60 Eastbound data were obtained from the "Mainline VDS 801356 - EUCLID" segment and the SR 60 Westbound data were obtained from the "Mainline VDS 801355 - EUCLID" segment.

The average daily traffic volumes were multiplied through by the time-of-day splits to derive vehicle and truck volumes for each hour of the day.

Vehicle Speeds

The rate at which vehicles generate exhaust emissions is in part dependent on the speed at which it travels. The following describes the way vehicle speeds were assigned to the various roadway segments.

- State Route 60 vehicle speeds were derived using the Caltrans PeMS data source. Speed averages were taken for each hour across the entire year and then down up to the nearest factor of five (e.g., if the average speed was 67 miles per hour, it was rounded down to 65 miles per hour). The PeMS data source does not distinguish speed by all vehicles and trucks. Therefore, truck speeds were limited to a maximum of 55 miles per hour, which is the speed limit for vehicles towing a trailer. See Appendix A for a breakdown of hourly speeds for vehicles traveling on SR 60.
- State Route 60 on- and off-ramp vehicle speeds were assumed to be 45 and 5 miles per hour, respectively, on a consistent basis.

[5] The AADT for trucks was estimated to provide the Caltrans version of the CARB Emissions Factor Database (CT-EMFAC) with an input. The CT-EMFAC model is described further on in this section. The truck AADT was not used for any other purpose.

[6] The 2019 calendar year was selected for vehicle/truck AADT values, because it precedes the COVID-19 pandemic and provides a better representation of how travel behaviors between all vehicles and trucks are anticipated to be in the future.

[7] These two sets of splits were developed because vehicles that emit DPM typically have different travel patterns than passenger vehicles and therefore the emissions from these vehicles disperse differently (i.e., peak hour volumes for passenger vehicles differ from those of trucks and therefore the peak hour emissions for the two types of vehicles would be subject to differing meteorological conditions).

4.1.2 Mobile Source Emissions and Emissions Rates

The traffic roadways volumes, time of day splits, and vehicle speed derived using the methodology described in Section 4.1.1 were utilized in conjunction with emissions factors derived from Caltrans version of EMFAC2017, also known as CT-EMFAC2017, to estimate emissions generated by mobile sources in proximity of the Project site. CT-EMFAC2017 provides running (exhaust) and running loss (evaporative) emission factors for mobile source criteria air pollutants, including TOG, and all nine priority MSATs based on the geographic area in which they are occurring, the year they are occurring in, and the makeup of cars and trucks on the roadway.

The CT-EMFAC2017 model was run derive emission factors for the average vehicle mix on freeways. The model run specified San Bernardino County as the region and 2025 as the year. For SR 60, the traffic mix was developed using the truck AADT described under the "Traffic Volumes" subheading of Section 4.1.1.[8]

The CT-EMFAC2017 outputs were used to develop three sets of hourly emissions estimates for each roadway – one for TOG running (exhaust) emissions, another for TOG running loss (evaporative) emissions, and one for DPM running (exhaust) emissions.[9] Whereas the running emissions factors (grams/vehicle-mile) are based on speed bins in 5 mile per hour increments, the running loss emissions factors (grams/vehicle-hour) are independent of the speed of the car. Therefore, running emissions are based on the speed of the car across a specified distance, while running loss emissions are based on the amount of time the car is on the roadway. In other words, a car will generally produce more emissions when moving slowly across a given distance than it would if it were traveling faster.[10] The equations for calculating hourly running and running loss emissions are presented in Equation 1 and Equation 2 below.

Equation 1: Running (Exhaust) Emissions

$$E_{R.HR} = EF_R \times D \times VOL_{HR}$$

Where:

$E_{R.HR}$ = Running emissions (g-hr)
EF_R = Running emissions factor, based on speed bin (g/veh-mile)
D = Distance of roadway segment (mi)

[8] CT-EMFAC includes two truck categories, Truck 1 and Truck 2, which correspond to medium duty trucks and heavy duty trucks, respectively. The truck AADT data provided from the Caltrans Traffic Census Program breaks down trucks by axle. Trucks with two axels were assign to the Truck 1 category. Trucks with three or more axels were assigned to the Truck 2 category. The freeway run of CT-EMFAC has a truck makeup of 12.3%, with 3.1% consisting of Truck 1 and 9.2% consisting of Truck 2.

[9] Consistent with the guidance contained in the SCAQMD *Health Risk Assessment Guidance for Analyzing Cancer Risks from Mobile Source Diesel Emissions* white paper, DPM emissions were treated as PM_{10}, even though CT-EMFAC provides emission rates for DPM, specifically (SCAQMD 2003).

[10] In addition to having running and running loss emissions scale at different rates, there are two other reasons for developing three sets of emission factors for each roadway. The first is that the ratio of MSATs to TOG differs between running and running loss emissions factors (see Section 4.3.1 for more information). The second being that the source / release characteristics of TOG and DPM differ. For example, the time of day splits between the two pollutants differ (see Section 4.1.1), as do the typical heights at which they are released (i.e., TOG is generated by passenger vehicles, which have a relatively low release point, while DPM is generated by trucks that have a higher release point; see Section 4.2.1 for more information).

VOL_{HR} = Vehicle volume per hour (veh-hr)

Equation 2: Running Loss (Evaporative) Emissions

$$E_{RL.HR} = EF_{RL} \times \frac{D}{MPH} \times VOL_{HR}$$

Where:

$E_{RL.HR}$ = Running loss emissions (g-hr)
EF_{RL} = Running loss emissions factor (g/veh-hour)
D = Distance of roadway segment (mi)
MPH = Speed of vehicle (mi-hr)
VOL_{HR} = Vehicle volume per hour (veh-hr)

The roadway distances utilized for the emission estimation are based on the length of roadway source modeled in AERMOD (see Table 4-1). The hourly running and running loss emissions were converted to a rate of grams per second (g/s) by diving the hourly rate by 3,600 (i.e., the number of seconds in an hour). See Appendix A for details regarding the emissions rates for each roadway segment.

4.2 AERMOD DISPERSION MODELING

The U.S. EPA's AERMOD dispersion model (version 21112) was used to predict pollutant concentrations at the Project site. The AERMOD dispersion model is a U.S. EPA-approved and SCAQMD-recommended model for simulating the dispersion of pollutant emissions and estimating concentrations of pollutants at specified receptor locations. AERMOD requires the user to input information on the source(s) of pollutants being modeled, the receptors where pollutant concentrations are modeled, and the meteorology, terrain, and other factors that affect the potential dispersion of pollutants. Two AERMOD runs were completed for the Project. The first modeled TOG emissions as $PM_{2.5}$, because AERMOD does not have a pollutant dispersion option for TOG, and the second modeled DPM as PM_{10}.

4.2.1 Modeled Sources and Emissions Rates

Mobile source emissions occurring on roadways in proximity of the Project site were modeled as a series of line area sources, as shown in Table 4-1 and depicted in Figure 4-1. An emissions rate for each source listed in Table 4-1 was derived using the methodology described in Section 4.1.

Table 4-1. AERMOD Source Parameters

ID	Description	UTM Coordinates(A)		Length (m)	Width (m)
		X	Y		
ARLN01	SR 60 Westbound Freeway Exhaust(B)	440650.04	3765727.33	1779.1	18.29
ARLN02	SR 60 Eastbound Freeway Exhaust(B)	438872.22	3765713.80	1778.6	18.29
ARLN03	SR 60 Westbound On-ramp Exhaust(B)	439895.14	3765792.04	475.1	3.96
ARLN04	SR 60 Eastbound Off-ramp Exhaust(B)	439895.39	3765645.74	436.3	7.62
ARLN05	SR 60 Eastbound On-ramp Exhaust(B)	439941.30	3765645.29	508.2	3.96
ARLN06	SR 60 Westbound Off-ramp Exhaust(B)	440392.61	3765738.84	455	11.58
ARLN07	SR 60 Westbound Freeway Evaporative	440650.04	3765727.33	1779.1	18.29
ARLN08	SR 60 Eastbound Freeway Evaporative	438872.22	3765713.80	1778.6	18.29
ARLN09	SR 60 Westbound On-ramp Evaporative	439895.14	3765792.04	475.1	3.96
ARLN10	SR 60 Eastbound Off-ramp Evaporative	439895.39	3765645.74	436.3	7.62
ARLN11	SR 60 Eastbound On-ramp Evaporative	439941.30	3765645.29	508.2	3.96
ARLN12	SR 60 Westbound Off-ramp Evaporative	440392.61	3765738.84	455	11.58

See Appendix B

(A) UTM coordinates represent the initial coordinate of the source.

(B) These source parameters were the same for the TOG emissions modeling as the DPM emission modeling.

The TOG emissions sources were assigned a release height of 1.3 meters and an initial vertical dimension of 1.2 meters (U.S. EPA 2010). These parameters for the TOG emissions sources are representative of the exhaust and evaporative plume height from light-duty vehicles. The DPM emissions source were assigned a release height of 3.4 meters and an initial vertical dimension of 3.2 meters. These parameters for the DPM emissions sources are representative of the exhaust plume height for heavy-duty vehicles (U.S. EPA 2010).

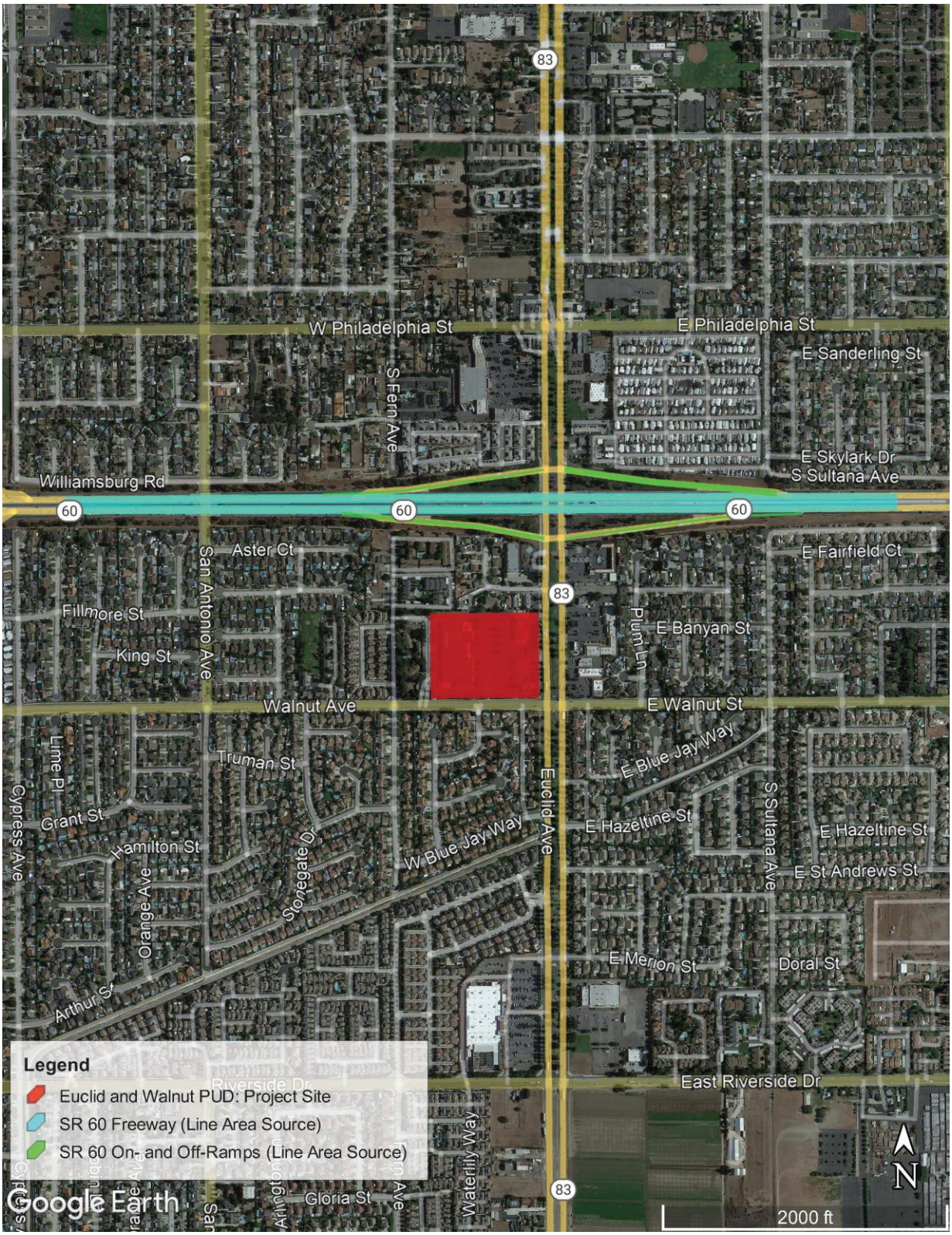
Each roadway source was modeled to have an emissions rate of 1 gram per second (g/s). AERMOD allows users to specify variable emissions factors for sources depending on the temporal interval over which emissions are released. These variable emissions factors function as multipliers for the source's base emissions rate (as noted previously, this base emissions rate is 1 g/s). Variable emissions factors were assigned to each source for each hour of the day (i.e., 12 AM, 1 AM, 2 AM, etc.) in order to reflect the source's emissions characteristics (i.e., the emissions that would be generated by hourly traffic volumes that were derived using the methodology described in Section 4.1.1).

4.2.2 Meteorological Data Inputs

AERMOD requires meteorological data as an input for the model. The meteorological data is processed using AERMET, a pre-processor to AERMOD. AERMET requires surface meteorological data, upper air meteorological data, and surface parameter data such as albedo (reflectivity) and surface roughness.

For the proposed Project, pre-processed surface data was obtained from the SCAQMD for Ontario International Airport (KONT) (see Figure 3-3). Upper air data was obtained from Marine Corps Air Station Miramar (KNKX), since this is the upper air profile provided by the SCAQMD with the KONT surface data. These data sets contained five complete years of meteorological data from January 2012 to December 2016. The meteorological data was processed using AERMET version 16216 with the adjusted U* option.

Figure 4-1 Modeled Emission Sources



4.2.3 Terrain Inputs

The SR 60 overpass with Euclid Avenue is one of the closest portions of SR 60 to Project site. As identified in the U.S. EPA's *AERMOD Implementation Guide*:

> "For cases in which receptor elevations are lower than the base elevation of the source (i.e., receptors that are down-slope of the source), AERMOD will predict concentrations that are less than what would be estimated from an otherwise identical flat terrain situation… To avoid underestimating concentrations in such situations, it may be reasonable in cases of terrain-following plumes in sloping terrain to apply the non-DFAULT (sic) option to assume flat, level terrain" (U.S. EPA 2022a; pg. 12).

Consistent with this guidance from the U.S. EPA, the non-regulatory "Flat" terrain option was selected, meaning that AERMOD does not account for terrain in the dispersion modeling.

4.2.4 Modeled Receptors

Several cartesian receptor grids were generated in proximity of the Project site to evaluate the dispersion characteristics of the modeled emissions sources and estimate pollutant concentrations for the future receptors that would be located at the Project site. The receptor grids were then converted to discrete cartesian receptors. Receptors were modeled at ground level. In general, the receptor grids moved from fine resolution to coarse resolution data (i.e., UCART1 had the finest resolution, while UCART3 had the coarsest resolution). The details of the receptor grids generated for the Project are presented in Table 4-2.

Table 4-2. Project Receptor Grid Details

Grid ID	Description	UTM Coordinates(A)		Grid Dimensions	Spacing (m)	Receptor Height (m)
		X	Y			
UCART1	Project Site (Fine)	439769.00	3765400.00	47 x 37	5	0
UCART2	Project Site (Coarse)	439769.00	3765400.00	9 x 7	30	0
UCART3	Project Vicinity	439769.00	3765400.00	11 x 11	100	0

Source: SCAQMD 2020.
(A) UTM coordinates represent the center coordinate of the grid.

Receptors associated with UCART1 in the roadways and non-occupiable portions of the project site were removed, so the fine resolution receptor spacing was tailored to where receptors could be located at the Project site (i.e., in landscaped areas, residential units, recreational areas, and at the dog park). In total, 1,115 discrete cartesian receptors were modeled.

4.3 HEALTH RISK ASSESSMENT METHODOLOGY

Cancer and non-cancer health risks to sensitive receptors at the Project site were estimated using the U.S. EPA's AERMOD dispersion model and recommendations contained in the SCAQMD's *Health Risk Assessment Guidance for Analyzing Cancer Risks from Mobile Source Diesel Emissions* white paper and *Supplemental Guidelines for Preparing Risk Assessments for the Air Toxics Hot Spots Information and Assessment Act*, as well as the California Office of Environmental Health Hazard Assessment (OEHHA) *Air Toxics Hot Spots Program Guidance Manual* (SCAQMD 2003 and 2020; OEHHA 2015) for mobile sources (i.e., MSAT emissions).

4.3.1 Mobile Source Health Risk Assessment Methodology

Cancer Risk

Cancer risk is the calculated, pollutant-specific estimated probability of developing cancer based upon the dose and exposure to a TAC. Cancer risk is determined by calculating the combinatory effects of the cancer potency factor (CPF) when inhaling the toxic, the daily inhalation dose, the age group the receptor is cohort to, the duration of exposure over a lifetime (70 years), and other factors such as age sensitivity and the amount of time spent at the location of exposure. Risks were assessed for the inhalation pathway (i.e., breathing) for residential receptors at the Project site. Cancer risk calculations for residential receptors are summarized in Equation 3 and Equation 4 below.

Equation 3: Residential Cancer Risk

$$RISK_{INH.RES} = DOSE_{AIR.RES} \times CPF \times ASF \times \frac{ED}{AT} \times FAH$$

Where:

$DOSE_{AIR}$ = Daily Inhalation Dose (mg/kg-day). See Equation 4.

CPF = Cancer Potency Factor for Inhalants (mg/kg-day). CPF is expressed as the 95th percent upper confidence limit of the slope of the dose response curve under continuous lifetime exposure conditions. See Table 4-3 for MSAT CPFs.

ASF = Age Sensitivity Factor. ASF is a protective coefficient intended to take into account increased susceptibility to long-term health effects from early-life exposure to TACs. The recommended ASFs are 10 for the third-trimester to birth and two-year age bins, 3 for the two-year to nine-year and 16-year age bins, and 1 for receptors over 16 years of age.

ED = Exposure Duration (years). Exposure duration characterizes the length of residency (30 Years)

FAH = Fraction at Home. FAH is the percentage of time the receptor is physically at the receptor location. The recommended percentages are 85 percent for the third-trimester to birth and two-year age bins, 72 percent for the two-year to nine-year and 16-year age bins, and 73 for receptors over 16 years of age.

Equation 4: Residential Dose

$$DOSE_{AIR.RES} = C_{AIr} \times \frac{BR}{BW} \times A \times EF \times 10^{-6}$$

Where:

C_{AIR} = Concentration of TAC in air (µg/m^3). Concentration of toxic in micrograms per one cubic meter of air. The AERMOD program is used in the study to determine concentrations of MSATs at surrounding discrete and grid receptor points.

BR/BW = Breathing Rate ÷ Body Weight (L/kg/day). Daily breathing rate normalized to body weight. The 95th percentile breathing rate to body weight ratios are used in this study with a recommended 361 L/kg/day for the third-trimester to birth age bin and 1,090 L/kg/day for the birth to two-years age bin. The 80th percentile breathing rate to body weight ratios are used in this study with a recommended 572 for the two-years to 16-

years age bin, 261 L/kg/day for the 16-years to 30-years age bin, and 233 L/kg/day for the 16-years to 70-years age bin.

A = Inhalation Absorption Factor. Is a coefficient that reflects the fraction of chemical absorbed in studies used in the development of CPF and Reference Exposure Levels (RELs). An absorption factor of one is recommended for all chemicals.

EF = Exposure Frequency. EF is the ratio of days in a year that a receptor is receiving the dose. The recommended EF is 0.96 characterizing an assumed 350 days a year that a residential receptor is home for some portion of the day.

Non-Cancer Risk

The chronic non-cancer hazard quotient is the calculated pollutant-specific indicator for risk of developing an adverse health effect on specific organ system(s) targeted by the identified TAC. The potential for exposure to result in chronic non-cancer effects is evaluated by comparing the estimated annual average air concentration to the chemical-specific, non-cancer chronic RELs. The same is true for evaluating acute non-cancer effects. The REL is a concentration below which there is assumed to be no observable adverse health impact to a target organ system. When calculated for a single chemical, the comparison yields a ratio termed a hazard quotient. To evaluate the potential for adverse non-cancer health effects from simultaneous exposure to multiple chemicals, the hazard quotients for all chemicals are summed, yielding a hazard index. For a chronic non-cancer hazard index, the annual average pollutant concentration is divided by chronic hazard quotient. For an acute hazard index, the one-hour maximum concentration is divided by the acute hazard quotient. Table 4-3 presents the chronic and acute non-cancer RELs applicable to MSAT emissions in the vicinity of the Project site.

Table 4-3. MSAT Cancer Potency Factors and Reference Exposure Levels

Pollutant	CPF	Chronic REL	Acute REL
1,3-Butadiene	6.00E-01	2.00E+00	6.60E+02
Acetaldehyde	1.00E-02	1.40E+02	4.70E+02
Acrolein	--	3.50E-01	2.50E+00
Benzene	1.00E-01	3.00E+00	2.70E+01
Diesel PM	1.10E+00	5.00E+00	--
Ethylbenzene	8.70E-03	2.00E+03	0.00E+00
Formaldehyde	2.10E-02	9.00E+00	5.50E+01
Naphthalene	1.20E-01	9.00E+00	0.00E+00
POM	7.95E-01(A)	--	--

Source: BAAQMD 2021

(A) The CPF for POM was estimated based on the assumption that POM has a carcinogenic potency equal to 5% of that for pure benzo[a]pyrene (B[a]P), which has an inhalation cancer slope factor of 3.9 and an oral cancer slope factor of 12. Combined these factors yield a CPF of 15.9 before being multiplied through by the 5%.

Weighted Cancer and Non-cancer Risk Factors

As described in Section 4.2, pollutant concentrations were evaluated for three sets of emissions: running (exhaust) TOG, running loss (evaporative) TOG, and DPM. With the exception of DPM, emissions of MSATs were not directly modeled; rather, TOG was used as a proxy for assessing how MSAT pollutants

would disperse. The CT-EMFAC2017 provides a breakdown of emissions factors for each MSAT, along with TOG. These breakdowns were used to develop ratios between MSAT concentrations and those modeled through the TOG emission factor inputs for AERMOD. The emissions factors from the 5 mile per hour bin was utilized for the running exhaust emissions factors, because it provided the greatest ratio of MSATs to TOG. Equation 5 and Equation 6 present the manner in which MSAT CPFs and RELs were weighted per emission TOG.

Equation 5: Weighted Cancer Risk Potency Factor

$$CPF_W = \sum MSAT_R \times CPF_{MSAT}$$

Where:

CPF_W = Weighted Cancer Potency Factor (mg/kg-day)
$MSAT_R$ = Ratio of MSAT to TOG (unitless).
CPF_{MSAT} = Cancer Potency Factor for MSAT Inhalant (mg/kg-day). See Table 4-3.

Equation 6: Weighted Reference Exposure Level

$$REL_W = \frac{1}{\sum MSAT_R \times REL_{MSAT}}$$

Where:

REL_W = Weighted Reference Exposure Level (unitless)
$MSAT_R$ = Ratio of MSAT to TOG (unitless).
REL_{MSAT} = REL for MSAT Inhalant. See Table 4-3.

Table 4-4 and Table 4-5 present the ratio of MSAT to TOG for running (exhaust) and running loss (evaporative) emissions, respectively, as well as the weighted CPF and REL values used for the health risk assessment.

Table 4-4. Weighted CPFs and RELs for TOG Running (Exhaust) Emissions

Pollutant	Emissions Factor(A)	Ratio to TOG	CPF	Chronic REL	Acute REL	Weighted Toxicity Factor		
						CPF	Chronic REL	Acute REL
TOG	0.187712	--	--	--	--	--	--	--
1,3-Butadiene	0.000764	0.004070	6.00E-01	2.00E+00	6.60E+02	2.44E-03	2.04E-03	6.17E-06
Acetaldehyde	0.002473	0.013174	1.00E-02	1.40E+02	4.70E+02	1.32E-04	9.41E-05	2.80E-05
Acrolein	0.000165	0.000879	0.00E+00	3.50E-01	2.50E+00	0.00E+00	2.51E-03	3.52E-04
Benzene	0.003663	0.019514	1.00E-01	3.00E+00	2.70E+01	1.95E-03	6.50E-03	7.23E-04
Ethylbenzene	0.001444	0.007693	8.70E-03	2.00E+03	0.00E+00	6.69E-05	3.85E-06	0.00E+00
Formaldehyde	0.006140	0.032710	2.10E-02	9.00E+00	5.50E+01	6.87E-04	3.63E-03	5.95E-04
Naphthalene	0.000127	0.000677	1.20E-01	9.00E+00	0.00E+00	8.12E-05	7.52E-05	0.00E+00
POM	0.000159	0.000847	7.95E-01	--	--	6.73E-04	--	--
					Total	**6.03E-03**	**6.73E+01(B)**	**5.87E+02(B)**

Source: CT-EMFAC2017; see Appendix C.

(A) Emissions in grams / veh-mi for 5 mile per hour speed bin.

(B) Value reflects the inverse of the above REL's summed.

Table 4-5. Weighted CPFs and RELs for TOG Running Loss (Evaporative) Emissions

Pollutant	Emissions Factor(A)	Ratio to TOG	CPF	Chronic REL	Acute REL	Weighted Toxicity Factor		
						CPF	Chronic REL	Acute REL
TOG	1.275299	--	--	--	--	--	--	--
1,3-Butadiene	0	0.0%	6.00E-01	2.00E+00	6.60E+02	0.00E+00	0.00E+00	0.00E+00
Benzene	0.012753	1.0%	1.00E-01	3.00E+00	2.70E+01	1.00E-03	3.33E-03	3.70E-04
Ethylbenzene	0.020915	1.6%	8.70E-03	2.00E+03	0.00E+00	1.43E-04	8.20E-06	0.00E+00
Naphthalene	0.001785	0.1%	1.20E-01	9.00E+00	0.00E+00	1.68E-04	1.56E-04	0.00E+00
					Total	**1.31E-03**	**2.86E+02(B)**	**2.70E+03(B)**

Source: CT-EMFAC2017; see Appendix C.

(A) Emissions in grams / veh-hour.

(B) Value reflects the inverse of the above REL's summed.

This page intentionally left blank.

5 HEALTH RISK ASSESSMENT RESULTS

This chapter presents the results of the health risk assessment and compares risks against thresholds to determine their significance.

5.1 THRESHOLDS OF SIGNIFICANCE

The SCAQMD maintains significance thresholds for cancer and non-cancer health risks. These thresholds are presented below in Table 5-1.

Table 5-1. SCAQMD Health Risk Thresholds

Risk Category	Threshold
Cancer Risk	Increased cancer risk of >10.0 in a million
Non-Cancer Risk	Increased non-cancer risk of > 1.0 Hazard Index (Chronic or Acute)

Source: SCAQMD 2021

5.2 ESTIMATED HEALTH RISKS

Using the average DPM and TOG concentrations derived from AERMOD, the individual residential cancer and non-cancer risks were computed using the methodology described in Section 4.3.1. Table 5-2 presents the cancer and non-cancer risk estimates from each source, as well as the cumulative risk from the sources combined at the Maximally Exposed Individuals (MEIs). MEIs have been evaluated Phase 1 only.[11] Whereas only the residential complexes are considered for cancer risk and chronic non-cancer risk, because receptors could be there for the 30-year duration assessed in the risk assessment, acute non-cancer risks are also considered for receptors at the dog park, because receptors at that location could be there for 1-hour or more (i.e., the temporal interval over which acute risks are assessed).

Figure 5-1 and Figure 5-2 present contours of total TOG exhaust and total TOG evaporative concentrations, respectively, while Figure 5-3 identifies DPM concentrations. The location of the Phase 1 MEI for cancer risk and chronic hazard risk would be located at the northeastern corner of the building with retail space on the bottom floor, in the northeastern portion of the PUD. The MEI for acute risk would the located in the northwestern portion of the Phase 1 dog park.

The proposed Project would be subject to the California Title 24 Building Code, including Section 120.1(b)(1)(C), which per the 2019 Title 24 Building Code, requires high-density residential buildings to be constructed with HVAC system air filters that meet a designated efficiency equal to Minimum Efficiency Rating Value (MERV) 13 standards. As reported by the U.S. EPA, MERV 13 filters are capable of removing

[11] As shown further on in the analysis, pollutant concentrations and corresponding risks would be greatest in the northern portion of the PUD. If risks for Phase 1 are acceptable, so too would risks for Phase 2. This is because emissions from SR 60 (and the on- and off-ramps) are anticipated to decrease in the future as more cars and trucks transition cleaner fuel sources (e.g., electric vehicles).

90 percent of particles between 3 and 10 µm (U.S. EPA 2022b).[12] As shown in Table 5-2, the cancer risk from SR 60 would be approximately 5.6 excess cancers per million after accounting for the MERV-13 filtration system. Cumulative cancer risks from SR 60 and vehicles on the on- and off-ramps would be 7.0 excess cancers per million, which is below the SCAQMD threshold of 10.0 excess cancers per million. Cumulative non-cancer risks (chronic and acute) would also be below the SCAQMD thresholds.

Table 5-2. Risks at MEI from Single and Cumulative Sources

Source	Maximum Cancer Risk (per million)	Maximum Chronic Hazard Index	Maximum Acute Hazard Index
State Route 60 Freeway	5.6	0.01	0.01
State Route 60 On- and Off-ramps	1.4	<0.01	<0.01
Combined Risks	*7.0(A)*	*0.02*	*0.02*
SCAQMD Threshold	10.0	1.0	1.0
Threshold Exceeded?	No	No	No

Source: SCAQMD 2021
(A) Approximately 71% of the 7.0 excess cancer risk would be from DPM.

[12] High-efficiency particulate filters (MERV-13 to HEPA) cannot completely remove TOG from the air, because the particles that contribute to TOG emissions are smaller than the particulate matter sizes that the MERV filters are designed to capture.

Figure 5-1 Total Annual Average TOG Exhaust Concentrations (µg/m³)

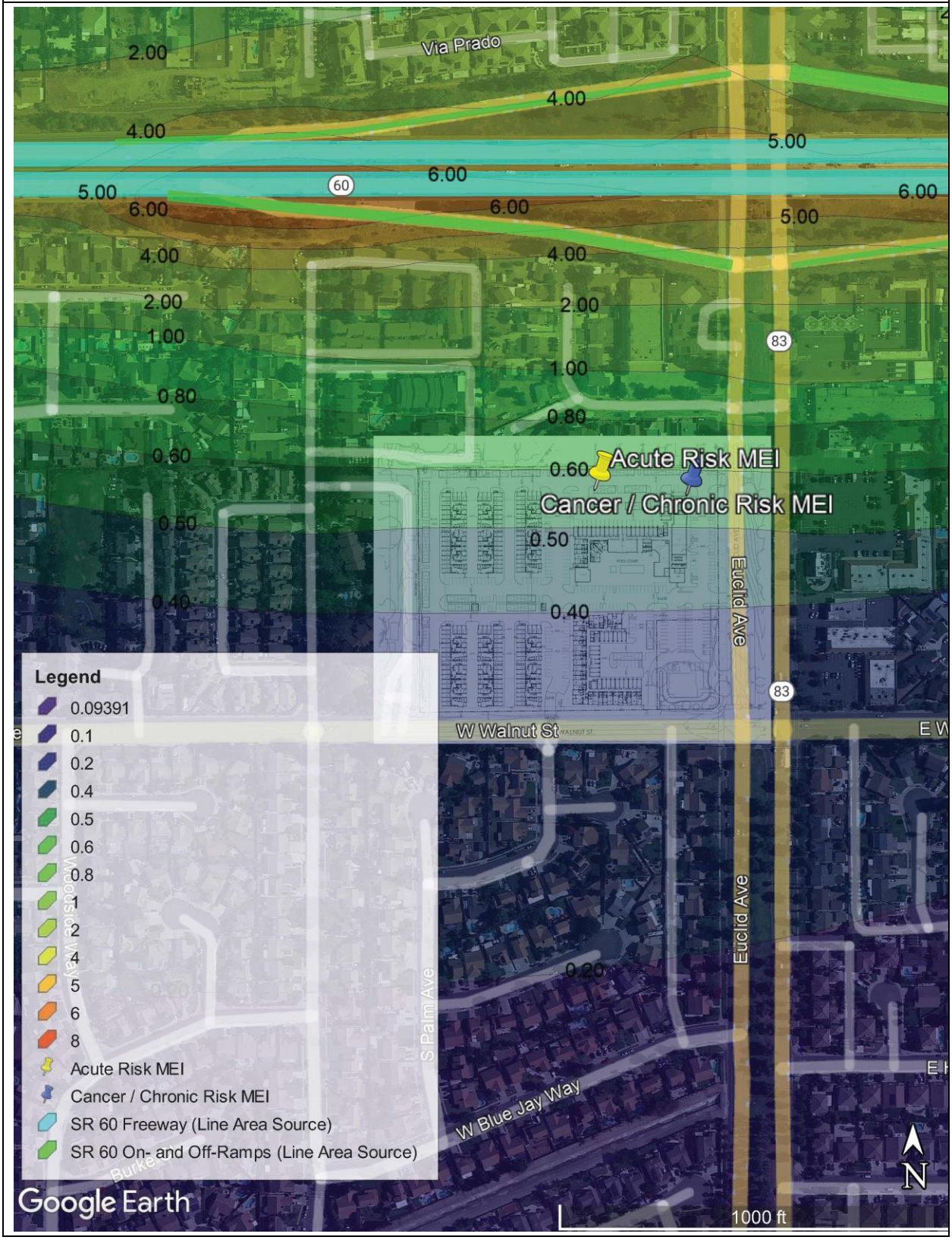


Figure 5-2 Total Annual Average TOG Evaporative Concentrations (µg/m³)

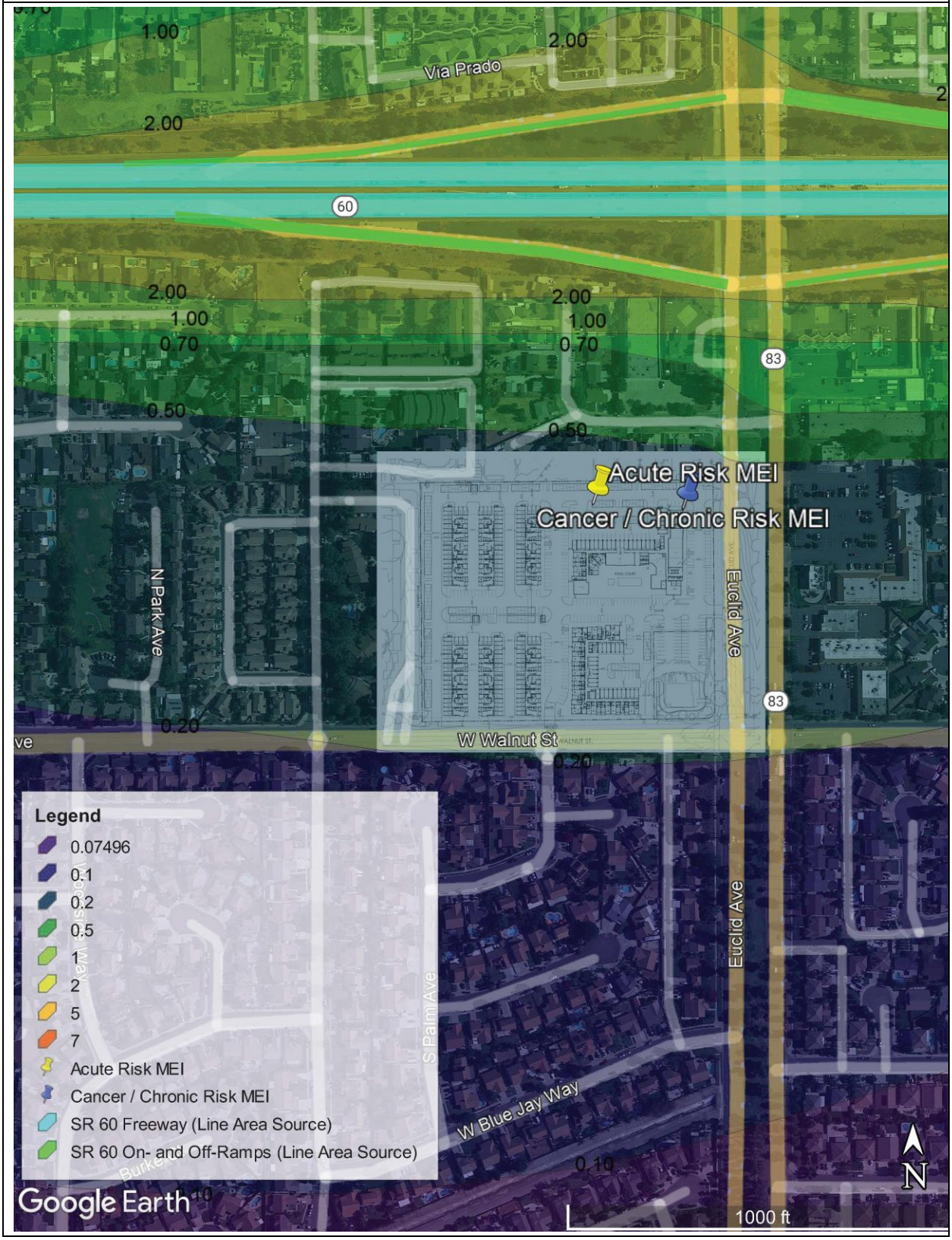
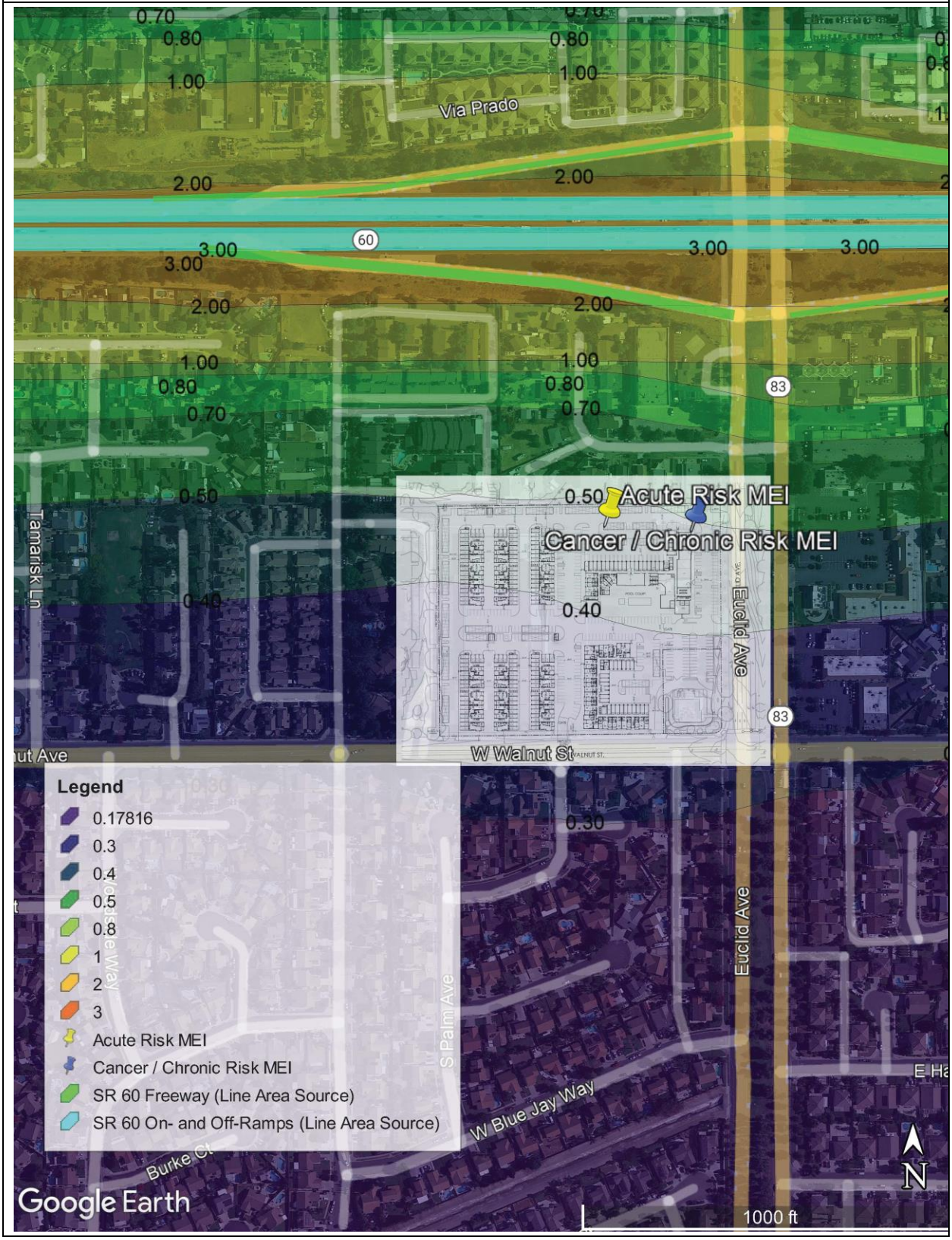


Figure 5-3 Total Annual Average DPM Exhaust Concentrations (µg/m³)



This page intentionally left blank.

6 REPORT PREPARERS AND REFERENCES

This Health Risk Assessment Report was prepared by MIG under contract to Legacy Partners. This Report reflects the independent, objective, professional opinion of MIG.

MIG
1650 Spruce Street
Suite 106
Riverside, CA 92507

Chris Dugan, Director of Air Quality and Greenhouse Gas Services
Phil Gleason, Senior Analyst II

Legacy Partners
5141 California Avenue
Suite 100
Irvine, CA 92617

David Pinto, Vice President of Development

City of Ontario, Planning Dept
303 East B Street
Ontario, CA 91764

Rudy Zeledon, Planning Director
Alexis Vaughn, Associate Planner

6.1 REFERENCES

Bay Area Air Quality Management District (BAAQMD). 2021. Regulation 2, Rule 5: New Source Review of Toxic Air Contaminants. Updated December 15, 2021. Accessed October 6, 2022. https://www.baaqmd.gov/~/media/dotgov/files/rules/reg-2-permits/2021-amendments/documents/20211215_rg0205-pdf.pdf?la=en

California Department of Transportation (Caltrans). 2022a. Traffic Census Program. Accessed June 30, 2022. Available online: https://dot.ca.gov/programs/traffic-operations/census

_____2020b. Performance Measurement System (PeMS) Data Source. Accessed July 11, 2022. Available online: https://dot.ca.gov/programs/traffic-operations/mpr/pems-source

Legacy Partners. 2022. Euclid and Walnut Site Plan. October 2022.

Office of Environmental Health Hazard Assessment (OEHHA) 2015. *Air Toxics Hot Spots Program Guidance Manual*. Sacramento, CA. February 2015.

South Coast Air Quality Management District (SCAQMD). 2003. *Health Risk Assessment Guidance for Analyzing Cancer Risks from Mobile Source Diesel Emissions* white paper. August 2003.

_____2017. Meteorological Data for Dispersion Modeling. AERMOD Table 1. Accessed October 4, 2022. https://www.aqmd.gov/home/air-quality/meteorological-data/aermod-table-1

_____2020. AB 2588 and Rule 1402 *Supplemental Guidelines (Supplemental Guidelines for Preparing Risk Assessments for the Air Toxics "Hot Spots" Information and Assessment Act).* October 2020.

_____2021. South Coast AQMD Air Quality Significance Thresholds. April 2019. http://www.aqmd.gov/docs/default-source/ceqa/handbook/scaqmd-air-quality-significance-thresholds.pdf

United States Environmental Protection Agency (U.S. EPA). 2010. *Transportation Conformity Guidance for Quantitative Hot-spot analyses in PM2.5 and PM10 nonattainment and maintenance areas.* EPA-420-B-10-040. December 2010.

_____2022a. AERMOD Implementation Guide. June 2022. https://gaftp.epa.gov/Air/aqmg/SCRAM/models/preferred/aermod/aermod_implementation_guide.pdf

_____2022b. *Indoor Air Quality (IAQ)*. "What is a MERV rating?" Web. Updated July 1, 2022. Accessed August 8, 2022. Available online: https://www.epa.gov/indoor-air-quality-iaq/what-merv-rating

Western Regional Climate Center (WRCC). 1980 "Period of Record Monthly Climate Summary". *Upland 3 N, California, California (049158).* Accessed September 28, 2022. https://wrcc.dri.edu/cgi-bin/cliMAIN.pl?ca9158

Appendix A
Traffic Volumes and Mobile Source Emissions Quantification for AERMOD

This page intentionally left blank.

Euclid/Walnut Mixed Use Planned Unit Development Project (City of Ontario, CA)

Health Risk Assessment Report

Appendix A: Traffic Volumes and Mobile Source Emissions Quantification for AERMOD
Prepared by: MIG, Inc.
October 2022

Contents:

Sheet 1: AERMOD Source Lengths and Release Height Parameters
Sheet 2: AERMOD Source Emissions Rates
Sheet 3: SR 60 TOG Emissions
Sheet 4: SR 60 On- and Off-ramp TOG Emissions
Sheet 5: SR 60 DPM Emissions
Sheet 6: SR 60 On- and Off-ramp DPM Emissions
Sheet 7: CT-EMFAC2017 Emission Factors
Sheet 8: Caltrans All Vehicle AADT Data
Sheet 9: Caltrans Truck AADT Data
Sheet 10: Caltrans All Vehicle on- and Off-ramp AADT Data

This page intentionally left blank.

Sheet 1: AERMOD Source Lengths and Release Height Parameters

Table 1-1: AERMOD Source Parameters

Source	Description	Length (m)	Width (m)	TOG Height	TOG Int Vert Dim	DPM Height	DPM Int Vert Dim
ARLN01	SR 60 WB TOG Exh	1779.1	18.29	1.3	1.2	--	--
ARLN02	SR 60 EB TOG Exh	1778.6	18.29	1.3	1.2	--	--
ARLN03	SR 60 WB On-ramp TOG Exh	475.1	3.96	1.3	1.2	--	--
ARLN04	SR 60 EB Off-Ramp TOG Exh	436.3	7.62	1.3	1.2	--	--
ARLN05	SR 60 EB On-ramp TOG Exh	508.2	3.96	1.3	1.2	--	--
ARLN06	SR 60 WB Off-Ramp TOG Exh	455	11.58	1.3	1.2	--	--
ARLN07	SR 60 WB TOG Exh	1779.1	18.29	1.3	1.2	--	--
ARLN08	SR 60 EB TOG Evap	1778.6	18.29	1.3	1.2	--	--
ARLN09	SR 60 WB On-ramp TOG Evap	475.1	3.96	1.3	1.2	--	--
ARLN10	SR 60 EB Off-Ramp TOG Evap	436.3	7.62	1.3	1.2	--	--
ARLN11	SR 60 EB On-ramp TOG Evap	508.2	3.96	1.3	1.2	--	--
ARLN12	SR 60 WB Off-Ramp TOG Evap	455	11.58	1.3	1.2	--	--
ARLN13	SR 60 WB DPM Exh	--	--	--	--	3.4	3.2
ARLN14	SR 60 EB DPM Exh	--	--	--	--	3.4	3.2
ARLN15	SR 60 WB On-ramp DPM Exh	--	--	--	--	3.4	3.2
ARLN16	SR 60 EB Off-Ramp DPM Exh	--	--	--	--	3.4	3.2
ARLN17	SR 60 EB On-ramp DPM Exh	--	--	--	--	3.4	3.2
ARLN18	SR 60 WB Off-Ramp DPM Exh	--	--	--	--	3.4	3.2

Sheet 2: AERMOD Source Emissions Rates

Table 2-1: TOG Exhaust Emission Rates for AERMOD

	TOG Running (Exhaust) Emissions (g/s)																						
Segment	**12:00 AM**	**1:00 AM**	**2:00 AM**	**3:00 AM**	**4:00 AM**	**5:00 AM**	**6:00 AM**	**7:00 AM**	**8:00 AM**	**9:00 AM**	**10:00 AM**	**11:00 AM**	**12:00 PM**	**1:00 PM**	**2:00 PM**	**3:00 PM**	**4:00 PM**	**5:00 PM**	**6:00 PM**	**7:00 PM**	**8:00 PM**	**9:00 PM**	**10:00 PM**	**11:00 PM**
SR 60 WB	1.44E-02	1.99E-02	2.03E-02	3.12E-02	6.47E-02	7.49E-02	8.43E-02	9.15E-02	9.01E-02	8.89E-02	9.00E-02	9.23E-02	9.43E-02	9.64E-02	9.98E-02	1.02E-01	1.03E-01	1.00E-01	8.86E-02	7.29E-02	6.26E-02	5.93E-02	4.91E-02	3.61E-02
SR 60 EB	1.72E-02	1.24E-02	1.08E-02	1.26E-02	2.03E-02	3.40E-02	4.31E-02	4.57E-02	4.39E-02	4.14E-02	4.20E-02	4.39E-02	4.63E-02	4.83E-02	5.01E-02	4.91E-02	5.08E-02	5.06E-02	4.72E-02	4.59E-02	4.17E-02	4.08E-02	3.34E-02	2.48E-02
SR 60 WB On-ramp	2.51E-03	1.97E-03	2.01E-03	3.09E-03	6.42E-03	7.58E-03	8.54E-03	9.11E-03	8.96E-03	8.84E-03	8.96E-03	9.18E-03	9.38E-03	9.59E-03	9.93E-03	1.01E-02	1.02E-02	1.01E-02	8.97E-03	7.24E-03	6.34E-03	5.89E-03	4.87E-03	3.58E-03
SR 60 EB Off-Ramp	2.61E-03	1.88E-03	1.65E-03	1.92E-03	3.09E-03	5.18E-03	7.27E-03	8.11E-03	7.80E-03	7.34E-03	7.45E-03	7.79E-03	8.22E-03	8.57E-03	8.85E-03	8.68E-03	8.52E-03	8.49E-03	8.37E-03	7.75E-03	7.03E-03	6.21E-03	5.08E-03	3.78E-03
SR 60 EB On-ramp	4.01E-03	2.88E-03	2.53E-03	2.94E-03	4.74E-03	7.94E-03	1.11E-02	1.24E-02	1.20E-02	1.13E-02	1.14E-02	1.19E-02	1.26E-02	1.31E-02	1.36E-02	1.33E-02	1.31E-02	1.30E-02	1.28E-02	1.19E-02	1.08E-02	9.51E-03	7.79E-03	5.80E-03
SR 60 WB Off-Ramp	4.02E-04	3.16E-04	3.22E-04	4.95E-04	1.03E-03	1.21E-03	1.37E-03	1.46E-03	1.44E-03	1.42E-03	1.43E-03	1.47E-03	1.50E-03	1.54E-03	1.59E-03	1.62E-03	1.64E-03	1.62E-03	1.44E-03	1.16E-03	1.02E-03	9.42E-04	7.81E-04	5.74E-04

Table 2-2: TOG Evaporative Emission Rates for AERMOD

	Running Loss (Evap) Emissions (g/s)																						
Segment	**12:00 AM**	**1:00 AM**	**2:00 AM**	**3:00 AM**	**4:00 AM**	**5:00 AM**	**6:00 AM**	**7:00 AM**	**8:00 AM**	**9:00 AM**	**10:00 AM**	**11:00 AM**	**12:00 PM**	**1:00 PM**	**2:00 PM**	**3:00 PM**	**4:00 PM**	**5:00 PM**	**6:00 PM**	**7:00 PM**	**8:00 PM**	**9:00 PM**	**10:00 PM**	**11:00 PM**
SR 60 WB	1.09E-02	8.55E-03	8.71E-03	1.34E-02	2.78E-02	3.56E-02	4.01E-02	4.67E-02	4.59E-02	4.53E-02	4.59E-02	4.70E-02	4.81E-02	4.91E-02	5.09E-02	5.19E-02	5.24E-02	4.76E-02	4.21E-02	3.14E-02	2.98E-02	2.55E-02	2.11E-02	1.55E-02
SR 60 EB	1.30E-02	9.32E-03	8.17E-03	9.51E-03	1.53E-02	2.57E-02	3.90E-02	4.75E-02	4.56E-02	4.30E-02	4.36E-02	4.56E-02	4.81E-02	5.02E-02	5.70E-02	5.59E-02	6.10E-02	6.08E-02	4.90E-02	4.16E-02	3.77E-02	3.07E-02	2.52E-02	1.87E-02
SR 60 WB On-ramp	3.41E-03	2.68E-03	2.73E-03	4.20E-03	8.72E-03	1.03E-02	1.16E-02	1.24E-02	1.22E-02	1.20E-02	1.22E-02	1.25E-02	1.27E-02	1.30E-02	1.35E-02	1.38E-02	1.39E-02	1.38E-02	1.22E-02	9.83E-03	8.61E-03	8.00E-03	6.62E-03	4.87E-03
SR 60 EB Off-Ramp	3.95E-04	2.84E-04	2.49E-04	2.90E-04	4.66E-04	7.82E-04	1.10E-03	1.22E-03	1.18E-03	1.11E-03	1.12E-03	1.18E-03	1.24E-03	1.29E-03	1.34E-03	1.31E-03	1.29E-03	1.28E-03	1.26E-03	1.17E-03	1.06E-03	9.37E-04	7.67E-04	5.71E-04
SR 60 EB On-ramp	5.45E-03	3.92E-03	3.43E-03	4.00E-03	6.44E-03	1.08E-02	1.51E-02	1.69E-02	1.62E-02	1.53E-02	1.55E-02	1.62E-02	1.71E-02	1.78E-02	1.84E-02	1.81E-02	1.77E-02	1.77E-02	1.74E-02	1.61E-02	1.46E-02	1.29E-02	1.06E-02	7.88E-03
SR 60 WB Off-Ramp	4.82E-04	3.79E-04	3.86E-04	5.94E-04	1.23E-03	1.46E-03	1.64E-03	1.75E-03	1.72E-03	1.70E-03	1.72E-03	1.76E-03	1.80E-03	1.84E-03	1.91E-03	1.94E-03	1.96E-03	1.95E-03	1.72E-03	1.39E-03	1.22E-03	1.13E-03	9.37E-04	6.89E-04

Table 2-3: DPM Emission Rates for AERMOD

	DPM Running (Exhaust) Emissions (g/s)																						
Segment	**12:00 AM**	**1:00 AM**	**2:00 AM**	**3:00 AM**	**4:00 AM**	**5:00 AM**	**6:00 AM**	**7:00 AM**	**8:00 AM**	**9:00 AM**	**10:00 AM**	**11:00 AM**	**12:00 PM**	**1:00 PM**	**2:00 PM**	**3:00 PM**	**4:00 PM**	**5:00 PM**	**6:00 PM**	**7:00 PM**	**8:00 PM**	**9:00 PM**	**10:00 PM**	**11:00 PM**
SR 60 WB	9.57E-04	6.59E-04	5.79E-04	1.03E-03	2.94E-03	4.68E-03	5.27E-03	6.01E-03	6.49E-03	6.66E-03	6.88E-03	7.25E-03	7.07E-03	6.83E-03	6.62E-03	6.43E-03	6.19E-03	6.05E-03	4.94E-03	3.85E-03	3.48E-03	3.02E-03	2.24E-03	1.43E-03
SR 60 EB	2.74E-03	2.71E-03	2.64E-03	2.72E-03	3.39E-03	4.30E-03	5.41E-03	5.02E-03	5.91E-03	7.06E-03	7.47E-03	7.31E-03	6.90E-03	6.30E-03	4.30E-03	3.33E-03	2.60E-03	2.35E-03	3.29E-03	4.02E-03	4.26E-03	3.98E-03	3.80E-03	3.14E-03
SR 60 WB On-ramp	8.17E-05	5.63E-05	4.94E-05	8.80E-05	2.51E-04	8.80E-05	4.50E-04	5.13E-04	5.54E-04	5.68E-04	5.87E-04	6.18E-04	6.03E-04	5.82E-04	5.65E-04	5.48E-04	5.28E-04	5.16E-04	4.21E-04	3.29E-04	2.97E-04	2.58E-04	1.91E-04	1.22E-04
SR 60 EB Off-Ramp	4.51E-05	4.46E-05	4.33E-05	4.47E-05	5.58E-05	7.08E-05	8.90E-05	8.25E-05	9.71E-05	1.16E-04	1.23E-04	1.20E-04	1.13E-04	1.04E-04	8.15E-05	6.30E-05	5.48E-05	4.97E-05	5.41E-05	6.62E-05	7.01E-05	6.55E-05	6.25E-05	5.16E-05
SR 60 EB On-ramp	3.14E-04	3.10E-04	3.01E-04	3.11E-04	3.88E-04	1.08E-04	6.19E-04	5.74E-04	6.76E-04	8.08E-04	8.55E-04	8.36E-04	7.89E-04	7.20E-04	5.67E-04	4.38E-04	3.81E-04	3.45E-04	3.76E-04	4.60E-04	4.88E-04	4.56E-04	4.35E-04	3.59E-04
SR 60 WB Off-Ramp	2.29E-05	1.58E-05	1.39E-05	2.47E-05	7.04E-05	1.12E-04	1.26E-04	1.44E-04	1.55E-04	1.59E-04	1.65E-04	1.73E-04	1.69E-04	1.63E-04	1.58E-04	1.54E-04	1.48E-04	1.45E-04	1.18E-04	9.23E-05	8.34E-05	7.23E-05	5.35E-05	3.42E-05

Sheet 3: SR 60 TOG Emissions

Table 3-1: SR 60 AADT Information

All Veh AADT	2019	2025
SR 60	235,000	249,457

Assumes 1% Traffic Growth per year

Table 3-2: SR 60 Hourly Vehicle Volumes and Speed (TOG)

	Vehicle Volumes and Speed by Hour																						
Roadway Segment	12:00 AM	1:00 AM	2:00 AM	3:00 AM	4:00 AM	5:00 AM	6:00 AM	7:00 AM	8:00 AM	9:00 AM	10:00 AM	11:00 AM	12:00 PM	1:00 PM	2:00 PM	3:00 PM	4:00 PM	5:00 PM	6:00 PM	7:00 PM	8:00 PM	9:00 PM	10:00 PM	11:00 PM
SR 60 (WB)	1.45%	1.14%	1.16%	1.78%	3.70%	4.37%	4.92%	5.25%	5.17%	5.10%	5.17%	5.29%	5.41%	5.53%	5.73%	5.84%	5.89%	5.84%	5.17%	4.17%	3.66%	3.39%	2.81%	2.07%
SR 60 (EB)	1.72%	1.24%	1.09%	1.27%	2.04%	3.42%	4.79%	5.35%	5.14%	4.84%	4.91%	5.14%	5.42%	5.65%	5.84%	5.73%	5.62%	5.60%	5.52%	5.11%	4.63%	4.09%	3.35%	2.49%
Veh-Hr (WB)	1,805	1,418	1,445	2,224	4,614	5,454	6,139	6,551	6,445	6,360	6,442	6,603	6,746	6,895	7,145	7,278	7,352	7,284	6,449	5,205	4,559	4,233	3,506	2,577
Veh-Hr (EB)	2,151	1,547	1,356	1,579	2,541	4,262	5,980	6,670	6,413	6,037	6,125	6,406	6,764	7,048	7,283	7,141	7,006	6,983	6,887	6,372	5,780	5,105	4,182	3,111
WB Speed	65	65	65	65	65	60	60	55	55	55	55	55	55	55	55	55	55	60	60	65	60	65	65	65
EB Speed	65	65	65	65	65	65	60	55	55	55	55	55	55	55	50	50	45	45	55	60	60	65	65	65

Table 3-3: SR 60 Segment Distances

Distance (Mi)	WB SR 60	EB SR 60
Segment distance	1.11	1.11

Table 3-4: SR 60 TOG Running (Exhaust) Emissions per Hour

	TOG Running (Exhaust) Emissions (g) by Hour of Day																						
Roadway Segement	12:00 AM	1:00 AM	2:00 AM	3:00 AM	4:00 AM	5:00 AM	6:00 AM	7:00 AM	8:00 AM	9:00 AM	10:00 AM	11:00 AM	12:00 PM	1:00 PM	2:00 PM	3:00 PM	4:00 PM	5:00 PM	6:00 PM	7:00 PM	8:00 PM	9:00 PM	10:00 PM	11:00 PM
SR 60 WB	5.19E+01	4.08E+01	4.16E+01	6.39E+01	1.33E+02	1.42E+02	1.59E+02	1.62E+02	1.59E+02	1.57E+02	1.59E+02	1.63E+02	1.66E+02	1.70E+02	1.76E+02	1.80E+02	1.81E+02	1.89E+02	1.67E+02	1.50E+02	1.18E+02	1.22E+02	1.01E+02	7.41E+01
SR 60 EB	6.18E+01	4.45E+01	3.90E+01	4.54E+01	7.31E+01	1.23E+02	1.55E+02	1.65E+02	1.58E+02	1.49E+02	1.51E+02	1.58E+02	1.67E+02	1.74E+02	1.80E+02	1.77E+02	1.83E+02	1.82E+02	1.70E+02	1.65E+02	1.50E+02	1.47E+02	1.20E+02	8.94E+01

Table 3-5: SR 60 TOG Running Loss (Evap) Emissions per Hour

	TOG Running Loss (Evap) Emissions (g) by Hour of Day																						
Roadway Segement	12:00 AM	1:00 AM	2:00 AM	3:00 AM	4:00 AM	5:00 AM	6:00 AM	7:00 AM	8:00 AM	9:00 AM	10:00 AM	11:00 AM	12:00 PM	1:00 PM	2:00 PM	3:00 PM	4:00 PM	5:00 PM	6:00 PM	7:00 PM	8:00 PM	9:00 PM	10:00 PM	11:00 PM
SR 60 WB	3.91E+01	3.07E+01	3.13E+01	4.82E+01	1.00E+02	1.28E+02	1.44E+02	1.68E+02	1.65E+02	1.63E+02	1.65E+02	1.69E+02	1.73E+02	1.77E+02	1.83E+02	1.87E+02	1.88E+02	1.71E+02	1.52E+02	1.13E+02	1.07E+02	9.18E+01	7.60E+01	5.59E+01
SR 60 EB	4.66E+01	3.36E+01	2.94E+01	3.42E+01	5.51E+01	9.24E+01	1.40E+02	1.71E+02	1.64E+02	1.55E+02	1.57E+02	1.64E+02	1.73E+02	1.81E+02	2.05E+02	2.01E+02	2.19E+02	2.19E+02	1.76E+02	1.50E+02	1.36E+02	1.11E+02	9.07E+01	6.75E+01

Table 3-6: SR 60 TOG Running (Exhaust) Emissions per Second

	Running (Exhaust) Emissions (g/s)																						
Roadway Segement	12:00 AM	1:00 AM	2:00 AM	3:00 AM	4:00 AM	5:00 AM	6:00 AM	7:00 AM	8:00 AM	9:00 AM	10:00 AM	11:00 AM	12:00 PM	1:00 PM	2:00 PM	3:00 PM	4:00 PM	5:00 PM	6:00 PM	7:00 PM	8:00 PM	9:00 PM	10:00 PM	11:00 PM
SR 60 WB	1.44E-02	1.99E-02	2.03E-02	3.12E-02	6.47E-02	7.49E-02	8.43E-02	9.15E-02	9.01E-02	8.89E-02	9.00E-02	9.23E-02	9.43E-02	9.64E-02	9.98E-02	1.02E-01	1.03E-01	1.00E-01	8.86E-02	7.29E-02	6.26E-02	5.93E-02	4.91E-02	3.61E-02
SR 60 EB	1.72E-02	1.24E-02	1.08E-02	1.26E-02	2.03E-02	3.40E-02	4.31E-02	4.57E-02	4.39E-02	4.14E-02	4.20E-02	4.39E-02	4.63E-02	4.83E-02	5.01E-02	4.91E-02	5.08E-02	5.06E-02	4.72E-02	4.59E-02	4.17E-02	4.08E-02	3.34E-02	2.48E-02

Table 3-6: SR 60 TOG Running Loss (Evap) Emissions per Second

	Running Loss (Evap) Emissions (g/s)																						
Roadway Segement	12:00 AM	1:00 AM	2:00 AM	3:00 AM	4:00 AM	5:00 AM	6:00 AM	7:00 AM	8:00 AM	9:00 AM	10:00 AM	11:00 AM	12:00 PM	1:00 PM	2:00 PM	3:00 PM	4:00 PM	5:00 PM	6:00 PM	7:00 PM	8:00 PM	9:00 PM	10:00 PM	11:00 PM
SR 60 WB	1.09E-02	8.55E-03	8.71E-03	1.34E-02	2.78E-02	3.56E-02	4.01E-02	4.67E-02	4.59E-02	4.53E-02	4.59E-02	4.70E-02	4.81E-02	4.91E-02	5.09E-02	5.19E-02	5.24E-02	4.76E-02	4.21E-02	3.14E-02	2.98E-02	2.55E-02	2.11E-02	1.55E-02
SR 60 EB	1.30E-02	9.32E-03	8.17E-03	9.51E-03	1.53E-02	2.57E-02	3.90E-02	4.75E-02	4.56E-02	4.30E-02	4.36E-02	4.56E-02	4.81E-02	5.02E-02	5.70E-02	5.59E-02	6.10E-02	6.08E-02	4.90E-02	4.16E-02	3.77E-02	3.07E-02	2.52E-02	1.87E-02

Sheet 4: SR 60 On- and Off-ramp TOG Emissions

Table 4-1: SR 60 On- and Off-Ramp AADT Information for Euclid Avenue

Segment	Year	All (Trucks+Cars) ADT Volume	
		Caltrans Data	2025
SR 60 WB On-ramp (Euclid)	2015	10,200	11,267
SR 60 EB Off-Ramp (Euclid)	2018	10,004	10,726
SR 60 EB On-ramp (Euclid)	2018	13,168	14,118
SR 60 WB Off-Ramp (Euclid)	2018	13,967	14,975

Assumes 1% Traffic Growth per year

Table 4-2: SR 60 East- and Westbound On- and Off-Ramps at Eucalid - Hourly Vehicle Volumes and Speed (Cars)

Roadway Segment	SR 60 Off- and On-ramp Vehicle Volumes and Speed by Hour																						
	12:00 AM	1:00 AM	2:00 AM	3:00 AM	4:00 AM	5:00 AM	6:00 AM	7:00 AM	8:00 AM	9:00 AM	10:00 AM	11:00 AM	12:00 PM	1:00 PM	2:00 PM	3:00 PM	4:00 PM	5:00 PM	6:00 PM	7:00 PM	8:00 PM	9:00 PM	10:00 PM	11:00 PM
Car Breakdown (WB)	1.45%	1.14%	1.16%	1.78%	3.70%	4.37%	4.92%	5.25%	5.17%	5.10%	5.17%	5.29%	5.41%	5.53%	5.73%	5.84%	5.89%	5.84%	5.17%	4.17%	3.66%	3.39%	2.81%	2.07%
Car Breakdown (EB)	1.72%	1.24%	1.09%	1.27%	2.04%	3.42%	4.79%	5.35%	5.14%	4.84%	4.91%	5.14%	5.42%	5.65%	5.84%	5.73%	5.62%	5.60%	5.52%	5.11%	4.63%	4.09%	3.35%	2.49%
SR 60 WB On-ramp Vol (TOG)	163	128	131	201	417	493	555	592	582	574	582	597	609	623	645	657	664	658	583	470	412	382	317	233
SR 60 EB Off-Ramp Vol (TOG)	185	133	117	136	219	366	514	574	551	519	527	551	582	606	626	614	602	600	592	548	497	439	360	267
SR 60 EB On-ramp Vol (TOG)	243	175	153	179	288	482	677	755	726	683	693	725	766	798	824	808	793	790	779	721	654	578	473	352
SR 60 WB Off-Ramp Vol (TOG)	217	170	173	267	554	655	737	786	774	764	773	793	810	828	858	874	883	874	774	625	547	508	421	309
On-ramp Speed	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
Off-ramp Speed	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45

Table 4-3: SR 60 East- and Westbound On- and Off-Ramps at Eucalid - Segment Distances

Distance (Mi)	SR 60 WB On	SR 60 EB Off	SR 60 EB On	SR 60 WB Off
Segment	0.30	0.27	0.32	0.28

Table 4-4: SR 60 East- and Westbound On- and Off-Ramps at Eucalid - TOG Running (Exhaust) Emissions per Hour

Roadway Segment	Running (Exhaust) Emissions (g) by Hour of Day																						
	12:00 AM	1:00 AM	2:00 AM	3:00 AM	4:00 AM	5:00 AM	6:00 AM	7:00 AM	8:00 AM	9:00 AM	10:00 AM	11:00 AM	12:00 PM	1:00 PM	2:00 PM	3:00 PM	4:00 PM	5:00 PM	6:00 PM	7:00 PM	8:00 PM	9:00 PM	10:00 PM	11:00 PM
SR 60 WB Car On-ramp	9.03E+00	7.10E+00	7.23E+00	1.11E+01	2.31E+01	2.73E+01	3.07E+01	3.28E+01	3.23E+01	3.18E+01	3.22E+01	3.31E+01	3.38E+01	3.45E+01	3.58E+01	3.64E+01	3.68E+01	3.65E+01	3.23E+01	2.61E+01	2.28E+01	2.12E+01	1.75E+01	1.29E+01
SR 60 EB Car Off-Ramp	9.41E+00	6.77E+00	5.93E+00	6.91E+00	1.11E+01	1.86E+01	2.62E+01	2.92E+01	2.81E+01	2.64E+01	2.68E+01	2.80E+01	2.96E+01	3.08E+01	3.19E+01	3.13E+01	3.07E+01	3.06E+01	3.01E+01	2.79E+01	2.53E+01	2.23E+01	1.83E+01	1.36E+01
SR 60 EB Car On-ramp	1.44E+01	1.04E+01	9.10E+00	1.06E+01	1.70E+01	2.86E+01	4.01E+01	4.48E+01	4.30E+01	4.05E+01	4.11E+01	4.30E+01	4.54E+01	4.73E+01	4.89E+01	4.79E+01	4.70E+01	4.68E+01	4.62E+01	4.28E+01	3.88E+01	3.43E+01	2.81E+01	2.09E+01
SR 60 WB Car Off-Ramp	1.45E+00	1.14E+00	1.16E+00	1.78E+00	3.70E+00	4.37E+00	4.92E+00	5.25E+00	5.17E+00	5.10E+00	5.16E+00	5.29E+00	5.41E+00	5.53E+00	5.73E+00	5.83E+00	5.89E+00	5.84E+00	5.17E+00	4.17E+00	3.65E+00	3.39E+00	2.81E+00	2.07E+00

Table 4-5: SR 60 East- and Westbound On- and Off-Ramps at Eucalid - TOG Running Loss (Evap) Emissions per Hour

Roadway Segment	Running Loss (Evap) Emissions (g) by Hour of Day																						
	12:00 AM	1:00 AM	2:00 AM	3:00 AM	4:00 AM	5:00 AM	6:00 AM	7:00 AM	8:00 AM	9:00 AM	10:00 AM	11:00 AM	12:00 PM	1:00 PM	2:00 PM	3:00 PM	4:00 PM	5:00 PM	6:00 PM	7:00 PM	8:00 PM	9:00 PM	10:00 PM	11:00 PM
SR 60 WB Car On-ramp	1.23E+01	9.64E+00	9.83E+00	1.51E+01	3.14E+01	3.71E+01	4.18E+01	4.46E+01	4.38E+01	4.33E+01	4.38E+01	4.49E+01	4.59E+01	4.69E+01	4.86E+01	4.95E+01	5.00E+01	4.95E+01	4.39E+01	3.54E+01	3.10E+01	2.88E+01	2.38E+01	1.75E+01
SR 60 EB Car Off-Ramp	1.42E+00	1.02E+00	8.96E-01	1.04E+00	1.68E+00	2.82E+00	3.95E+00	4.41E+00	4.24E+00	3.99E+00	4.05E+00	4.23E+00	4.47E+00	4.66E+00	4.81E+00	4.72E+00	4.63E+00	4.61E+00	4.55E+00	4.21E+00	3.82E+00	3.37E+00	2.76E+00	2.06E+00
SR 60 EB Car On-ramp	1.96E+01	1.41E+01	1.24E+01	1.44E+01	2.32E+01	3.89E+01	5.45E+01	6.08E+01	5.85E+01	5.50E+01	5.58E+01	5.84E+01	6.17E+01	6.43E+01	6.64E+01	6.51E+01	6.39E+01	6.37E+01	6.28E+01	5.81E+01	5.27E+01	4.65E+01	3.81E+01	2.84E+01
SR 60 WB Car Off-Ramp	1.74E+00	1.36E+00	1.39E+00	2.14E+00	4.44E+00	5.25E+00	5.91E+00	6.30E+00	6.20E+00	6.12E+00	6.20E+00	6.35E+00	6.49E+00	6.63E+00	6.87E+00	7.00E+00	7.07E+00	7.01E+00	6.20E+00	5.01E+00	4.39E+00	4.07E+00	3.37E+00	2.48E+00

Table 4-6: SR 60 East- and Westbound On- and Off-Ramps at Eucalid - TOG Running (Exhaust) Emissions per Second

Roadway Segment	Running (Exhaust) Emissions (g/s)																						
	12:00 AM	1:00 AM	2:00 AM	3:00 AM	4:00 AM	5:00 AM	6:00 AM	7:00 AM	8:00 AM	9:00 AM	10:00 AM	11:00 AM	12:00 PM	1:00 PM	2:00 PM	3:00 PM	4:00 PM	5:00 PM	6:00 PM	7:00 PM	8:00 PM	9:00 PM	10:00 PM	11:00 PM
SR 60 WB Car On-ramp	2.51E-03	1.97E-03	2.01E-03	3.09E-03	6.42E-03	7.58E-03	8.54E-03	9.11E-03	8.96E-03	8.84E-03	8.96E-03	9.18E-03	9.38E-03	9.59E-03	9.93E-03	1.01E-02	1.02E-02	1.01E-02	8.97E-03	7.24E-03	6.34E-03	5.89E-03	4.87E-03	3.58E-03
SR 60 EB Car Off-Ramp	2.61E-03	1.88E-03	1.65E-03	1.92E-03	3.09E-03	5.18E-03	7.27E-03	8.11E-03	7.80E-03	7.34E-03	7.45E-03	7.79E-03	8.22E-03	8.57E-03	8.85E-03	8.68E-03	8.52E-03	8.49E-03	8.37E-03	7.75E-03	7.03E-03	6.21E-03	5.08E-03	3.78E-03
SR 60 EB Car On-ramp	4.01E-03	2.88E-03	2.53E-03	2.94E-03	4.74E-03	7.94E-03	1.11E-02	1.24E-02	1.20E-02	1.13E-02	1.14E-02	1.19E-02	1.26E-02	1.31E-02	1.36E-02	1.33E-02	1.31E-02	1.30E-02	1.28E-02	1.19E-02	1.08E-02	9.51E-03	7.79E-03	5.80E-03
SR 60 WB Car Off-Ramp	4.02E-04	3.16E-04	3.22E-04	4.95E-04	1.03E-03	1.21E-03	1.37E-03	1.46E-03	1.44E-03	1.42E-03	1.43E-03	1.47E-03	1.50E-03	1.54E-03	1.59E-03	1.62E-03	1.64E-03	1.62E-03	1.44E-03	1.16E-03	1.02E-03	9.42E-04	7.81E-04	5.74E-04

Table 4-7: SR 60 East- and Westbound On- and Off-Ramps at Eucalid - TOG Running Loss (Evap) Emissions per Second

Roadway Segment	Running Loss (Evap) Emissions (g/s)																						
	12:00 AM	1:00 AM	2:00 AM	3:00 AM	4:00 AM	5:00 AM	6:00 AM	7:00 AM	8:00 AM	9:00 AM	10:00 AM	11:00 AM	12:00 PM	1:00 PM	2:00 PM	3:00 PM	4:00 PM	5:00 PM	6:00 PM	7:00 PM	8:00 PM	9:00 PM	10:00 PM	11:00 PM
SR 60 WB Car On-ramp	3.41E-03	2.68E-03	2.73E-03	4.20E-03	8.72E-03	1.03E-02	1.16E-02	1.24E-02	1.22E-02	1.20E-02	1.22E-02	1.25E-02	1.27E-02	1.30E-02	1.35E-02	1.38E-02	1.39E-02	1.38E-02	1.22E-02	9.83E-03	8.61E-03	8.00E-03	6.62E-03	4.87E-03
SR 60 EB Car Off-Ramp	3.95E-04	2.84E-04	2.49E-04	2.90E-04	4.66E-04	7.82E-04	1.10E-03	1.22E-03	1.18E-03	1.11E-03	1.12E-03	1.18E-03	1.24E-03	1.29E-03	1.34E-03	1.31E-03	1.29E-03	1.28E-03	1.26E-03	1.17E-03	1.06E-03	9.37E-04	7.67E-04	5.71E-04
SR 60 EB Car On-ramp	5.45E-03	3.92E-03	3.43E-03	4.00E-03	6.44E-03	1.08E-02	1.51E-02	1.69E-02	1.62E-02	1.53E-02	1.55E-02	1.62E-02	1.71E-02	1.78E-02	1.84E-02	1.81E-02	1.77E-02	1.77E-02	1.74E-02	1.61E-02	1.46E-02	1.29E-02	1.06E-02	7.88E-03
SR 60 WB Car Off-Ramp	4.82E-04	3.79E-04	3.86E-04	5.94E-04	1.23E-03	1.46E-03	1.64E-03	1.75E-03	1.72E-03	1.70E-03	1.72E-03	1.76E-03	1.80E-03	1.84E-03	1.91E-03	1.94E-03	1.96E-03	1.95E-03	1.72E-03	1.39E-03	1.22E-03	1.13E-03	9.37E-04	6.89E-04

Sheet 5: I-280 DPM Emissions

Table 5-1: SR 60 AADT Information

All Veh AADT	2019	2025
SR 60	235,000	249,457

Assumes 1% Traffic Growth per year

Table 5-2: SR 60 Hourly Vehicle Volumes and Speed (DPM)

	Vehicle Volumes and Speed by Hour																						
Roadway Segment	12:00 AM	1:00 AM	2:00 AM	3:00 AM	4:00 AM	5:00 AM	6:00 AM	7:00 AM	8:00 AM	9:00 AM	10:00 AM	11:00 AM	12:00 PM	1:00 PM	2:00 PM	3:00 PM	4:00 PM	5:00 PM	6:00 PM	7:00 PM	8:00 PM	9:00 PM	10:00 PM	11:00 PM
SR 60 (WB)	0.89%	0.61%	0.54%	0.96%	2.73%	4.35%	4.90%	5.59%	6.04%	6.19%	6.40%	6.74%	6.57%	6.35%	6.16%	5.98%	5.75%	5.62%	4.59%	3.58%	3.24%	2.81%	2.08%	1.33%
SR 60 (EB)	2.55%	2.52%	2.45%	2.53%	3.15%	4.00%	5.03%	4.67%	5.49%	6.57%	6.95%	6.80%	6.42%	5.86%	4.61%	3.56%	3.10%	2.81%	3.06%	3.74%	3.97%	3.71%	3.53%	2.92%
Veh-Hr (WB)	1,110	765	671	1,196	3,411	5,430	6,115	6,969	7,529	7,723	7,981	8,405	8,199	7,916	7,678	7,455	7,177	7,012	5,727	4,470	4,040	3,502	2,593	1,655
Veh-Hr (EB)	3,183	3,144	3,057	3,154	3,933	4,992	6,280	5,820	6,852	8,191	8,671	8,480	8,006	7,308	5,749	4,442	3,865	3,503	3,814	4,669	4,947	4,622	4,408	3,637
WB Speed	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55	55
EB Speed	55	55	55	55	55	55	55	55	55	55	55	55	55	55	50	50	45	45	55	55	55	55	55	55

Table 5-3: SR 60 Segment Distances

Distance (Mi)	WB SR 60	EB SR 60
Segment Distance	1.1	1.1

Table 5-4: SR 60 DPM Running (Exhaust) Emissions per Hour

	Diesel PM Running Emissions (g) by Hour of Day																						
Roadway Segement	12:00 AM	1:00 AM	2:00 AM	3:00 AM	4:00 AM	5:00 AM	6:00 AM	7:00 AM	8:00 AM	9:00 AM	10:00 AM	11:00 AM	12:00 PM	1:00 PM	2:00 PM	3:00 PM	4:00 PM	5:00 PM	6:00 PM	7:00 PM	8:00 PM	9:00 PM	10:00 PM	11:00 PM
SR 60 WB	3.45E+00	2.37E+00	2.08E+00	3.71E+00	1.06E+01	1.69E+01	1.90E+01	2.16E+01	2.34E+01	2.40E+01	2.48E+01	2.61E+01	2.55E+01	2.46E+01	2.38E+01	2.31E+01	2.23E+01	2.18E+01	1.78E+01	1.39E+01	1.25E+01	1.09E+01	8.05E+00	5.14E+00
SR 60 EB	9.88E+00	9.76E+00	9.49E+00	9.79E+00	1.22E+01	1.55E+01	1.95E+01	1.81E+01	2.13E+01	2.54E+01	2.69E+01	2.63E+01	2.48E+01	2.27E+01	1.55E+01	1.20E+01	9.35E+00	8.48E+00	1.18E+01	1.45E+01	1.54E+01	1.43E+01	1.37E+01	1.13E+01

Table 5-5: SR 60 DPM Running (Exhaust) Emissions per Second

	Diesel PM Running (Exhaust) Emissions (g/s)																						
Roadway Segement	12:00 AM	1:00 AM	2:00 AM	3:00 AM	4:00 AM	5:00 AM	6:00 AM	7:00 AM	8:00 AM	9:00 AM	10:00 AM	11:00 AM	12:00 PM	1:00 PM	2:00 PM	3:00 PM	4:00 PM	5:00 PM	6:00 PM	7:00 PM	8:00 PM	9:00 PM	10:00 PM	11:00 PM
SR 60 WB	9.57E-04	6.59E-04	5.79E-04	1.03E-03	2.94E-03	4.68E-03	5.27E-03	6.01E-03	6.49E-03	6.66E-03	6.88E-03	7.25E-03	7.07E-03	6.83E-03	6.62E-03	6.43E-03	6.19E-03	6.05E-03	4.94E-03	3.85E-03	3.48E-03	3.02E-03	2.24E-03	1.43E-03
SR 60 EB	2.74E-03	2.71E-03	2.64E-03	2.72E-03	3.39E-03	4.30E-03	5.41E-03	5.02E-03	5.91E-03	7.06E-03	7.47E-03	7.31E-03	6.90E-03	6.30E-03	4.30E-03	3.33E-03	2.60E-03	2.35E-03	3.29E-03	4.02E-03	4.26E-03	3.98E-03	3.80E-03	3.14E-03

Sheet 6: SR 60 On- and Off-ramp DPM Emissions

Table 6-1: SR 60 On- and Off-Ramp AADT Information for Euclid Avenue

Segment	Year	All (Trucks+Cars) ADT Volume	
		Caltrans Data	2025
SR 60 WB On-ramp (Euclid)	2015	10,200	11,267
SR 60 EB Off-Ramp (Euclid)	2018	10,004	10,726
SR 60 EB On-ramp (Euclid)	2018	13,168	14,118
SR 60 WB Off-Ramp (Euclid)	2018	13,967	14,975

Assumes 1% Traffic Growth per year

Table 6-2: SR 60 On- and Off-Ramp Hourly Vehicle Volumes and Speed

Roadway Segment	SR 60 Off- and On-ramp Vehicle Volumes and Speed by Hour																						
	12:00 AM	1:00 AM	2:00 AM	3:00 AM	4:00 AM	5:00 AM	6:00 AM	7:00 AM	8:00 AM	9:00 AM	10:00 AM	11:00 AM	12:00 PM	1:00 PM	2:00 PM	3:00 PM	4:00 PM	5:00 PM	6:00 PM	7:00 PM	8:00 PM	9:00 PM	10:00 PM	11:00 PM
Truck Breakdown (WB)	0.89%	0.61%	0.54%	0.96%	2.73%	4.35%	4.90%	5.59%	6.04%	6.19%	6.40%	6.74%	6.57%	6.35%	6.16%	5.98%	5.75%	5.62%	4.59%	3.58%	3.24%	2.81%	2.08%	1.33%
Truck Breakdown (EB)	2.55%	2.52%	2.45%	2.53%	3.15%	4.00%	5.03%	4.67%	5.49%	6.57%	6.95%	6.80%	6.42%	5.86%	4.61%	3.56%	3.10%	2.81%	3.06%	3.74%	3.97%	3.71%	3.53%	2.92%
SR 60 WB On-ramp Vol (DPM)	100	69	61	108	308	490	552	630	680	698	721	759	741	715	694	673	648	633	517	404	365	316	234	149
SR 60 EB Off-Ramp Vol (DPM)	274	270	263	271	338	429	540	500	589	704	746	729	688	628	494	382	332	301	328	401	425	397	379	313
SR 60 EB On-ramp Vol (DPM)	360	356	346	357	445	565	711	659	776	927	981	960	906	827	651	503	438	397	432	528	560	523	499	412
SR 60 WB Off-Ramp Vol (DPM)	133	92	81	144	409	652	734	837	904	927	958	1,009	984	950	922	895	862	842	688	537	485	420	311	199
On-ramp Speed	5	5	5	5	5	45	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
Off-ramp Speed	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45

Table 6-3: SR 60 On- and Off-Ramp Segment Distances

Distance (Mi)	SR 60 WB On	SR 60 EB Off	SR 60 EB On	SR 60 WB Off
Segment Distance	0.30	0.27	0.32	0.28

Table 6-4: SR 60 East- and Westbound On- and Off-Ramps at Eucalid - DPM Running (Exhaust) Emissions per Hour

Roadway Segment	Diesel PM Running (Exhaust) Emissions (g) by Hour of Day																						
	12:00 AM	1:00 AM	2:00 AM	3:00 AM	4:00 AM	5:00 AM	6:00 AM	7:00 AM	8:00 AM	9:00 AM	10:00 AM	11:00 AM	12:00 PM	1:00 PM	2:00 PM	3:00 PM	4:00 PM	5:00 PM	6:00 PM	7:00 PM	8:00 PM	9:00 PM	10:00 PM	11:00 PM
SR 60 WB On-ramp (Euclid)	2.94E-01	2.03E-01	1.78E-01	3.17E-01	9.03E-01	3.17E-01	1.62E+00	1.85E+00	1.99E+00	2.05E+00	2.11E+00	2.23E+00	2.17E+00	2.10E+00	2.03E+00	1.97E+00	1.90E+00	1.86E+00	1.52E+00	1.18E+00	1.07E+00	9.27E-01	6.87E-01	4.38E-01
SR 60 EB Off-Ramp (Euclid)	1.62E-01	1.60E-01	1.56E-01	1.61E-01	2.01E-01	2.55E-01	3.20E-01	2.97E-01	3.50E-01	4.18E-01	4.42E-01	4.33E-01	4.09E-01	3.73E-01	2.93E-01	2.27E-01	1.97E-01	1.79E-01	1.95E-01	2.38E-01	2.52E-01	2.36E-01	2.25E-01	1.86E-01
SR 60 EB On-ramp (Euclid)	1.13E+00	1.12E+00	1.09E+00	1.12E+00	1.40E+00	3.91E-01	2.23E+00	2.07E+00	2.43E+00	2.91E+00	3.08E+00	3.01E+00	2.84E+00	2.59E+00	2.04E+00	1.58E+00	1.37E+00	1.24E+00	1.35E+00	1.66E+00	1.76E+00	1.64E+00	1.56E+00	1.29E+00
SR 60 WB Off-Ramp (Euclid)	8.25E-02	5.68E-02	4.99E-02	8.89E-02	2.53E-01	4.03E-01	4.54E-01	5.18E-01	5.59E-01	5.74E-01	5.93E-01	6.25E-01	6.09E-01	5.88E-01	5.70E-01	5.54E-01	5.33E-01	5.21E-01	4.26E-01	3.32E-01	3.00E-01	2.60E-01	1.93E-01	1.23E-01

Table 6-5: SR 60 R 60 East- and Westbound On- and Off-Ramps at Eucalid - DPM Running (Exhaust) Emissions per Second

Roadway Segment	Diesel PM Running (Exhaust) Emissions (g/s)																						
	12:00 AM	1:00 AM	2:00 AM	3:00 AM	4:00 AM	5:00 AM	6:00 AM	7:00 AM	8:00 AM	9:00 AM	10:00 AM	11:00 AM	12:00 PM	1:00 PM	2:00 PM	3:00 PM	4:00 PM	5:00 PM	6:00 PM	7:00 PM	8:00 PM	9:00 PM	10:00 PM	11:00 PM
SR 60 WB On-ramp (Euclid)	8.17E-05	5.63E-05	4.94E-05	8.80E-05	2.51E-04	8.80E-05	4.50E-04	5.13E-04	5.54E-04	5.68E-04	5.87E-04	6.18E-04	6.03E-04	5.82E-04	5.65E-04	5.48E-04	5.28E-04	5.16E-04	4.21E-04	3.29E-04	2.97E-04	2.58E-04	1.91E-04	1.22E-04
SR 60 EB Off-Ramp (Euclid)	4.51E-05	4.46E-05	4.33E-05	4.47E-05	5.58E-05	7.08E-05	8.90E-05	8.25E-05	9.71E-05	1.16E-04	1.23E-04	1.20E-04	1.13E-04	1.04E-04	8.15E-05	6.30E-05	5.48E-05	4.97E-05	5.41E-05	6.62E-05	7.01E-05	6.55E-05	6.25E-05	5.16E-05
SR 60 EB On-ramp (Euclid)	3.14E-04	3.10E-04	3.01E-04	3.11E-04	3.88E-04	1.08E-04	6.19E-04	5.74E-04	6.76E-04	8.08E-04	8.55E-04	8.36E-04	7.89E-04	7.20E-04	5.67E-04	4.38E-04	3.81E-04	3.45E-04	3.76E-04	4.60E-04	4.88E-04	4.56E-04	4.35E-04	3.59E-04
SR 60 WB Off-Ramp (Euclid)	2.29E-05	1.58E-05	1.39E-05	2.47E-05	7.04E-05	1.12E-04	1.26E-04	1.44E-04	1.55E-04	1.59E-04	1.65E-04	1.73E-04	1.69E-04	1.63E-04	1.58E-04	1.54E-04	1.48E-04	1.45E-04	1.18E-04	9.23E-05	8.34E-05	7.23E-05	5.35E-05	3.42E-05

Sheet 7: CT-EMFAC2017 Emission Factors

Freeway

Vehicle Category	VMT Fraction Across Category	Diesel VMT Fraction Within Category	Gas VMT Fraction Within Category
Truck 1	0.031	0.526	0.474
Truck 2	0.092	0.942	0.027
Non-Truck	0.877	0.012	0.965

Fleet Average Running Exhaust Emission Factors (grams/veh-mile)

	Emissions Factor by Speed (mph)														
Pollutant Name	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75
PM2.5	0.009208	0.006192	0.004301	0.003155	0.002481	0.002108	0.001944	0.001937	0.002061	0.002302	0.002654	0.003120	0.003707	0.003810	0.003810
PM10	0.00993	0.006664	0.004624	0.003388	0.002659	0.002255	0.002074	0.002062	0.002189	0.002439	0.002808	0.003297	0.003916	0.004026	0.004026
TOG	0.187712	0.127375	0.084894	0.059673	0.045314	0.036153	0.030056	0.026062	0.023615	0.022411	0.022320	0.023486	0.026013	0.027927	0.028308
ROG	0.120321	0.079002	0.051353	0.035256	0.026437	0.020996	0.017499	0.015319	0.014111	0.013694	0.014008	0.015110	0.017141	0.018705	0.019040
1,3-Butadiene	0.000764	0.000494	0.000332	0.000234	0.000176	0.000140	0.000117	0.000103	0.000095	0.000092	0.000094	0.000101	0.000115	0.000124	0.000124
Acetaldehyde	0.002473	0.001701	0.000973	0.000579	0.000427	0.000342	0.000285	0.000248	0.000228	0.000221	0.000229	0.000251	0.000286	0.000319	0.000319
Acrolein	0.000165	0.000106	0.000072	0.000052	0.000039	0.000031	0.000026	0.000023	0.000021	0.000020	0.000021	0.000022	0.000025	0.000027	0.000027
Benzene	0.003663	0.002383	0.001574	0.001094	0.000820	0.000651	0.000544	0.000477	0.000441	0.000428	0.000439	0.000472	0.000533	0.000579	0.000579
Diesel PM	0.001991	0.001637	0.001274	0.001035	0.000914	0.000888	0.000942	0.001072	0.001274	0.001546	0.001889	0.002302	0.002710	0.002732	0.002732
Ethylbenzene	0.001444	0.000932	0.000628	0.000444	0.000334	0.000265	0.000221	0.000194	0.000180	0.000175	0.000179	0.000192	0.000217	0.000235	0.000235
Formaldehyde	0.006140	0.004167	0.002468	0.001531	0.001133	0.000905	0.000754	0.000659	0.000606	0.000589	0.000607	0.000662	0.000752	0.000832	0.000832
Naphthalene	0.000127	0.000087	0.000058	0.000041	0.000031	0.000025	0.000021	0.000018	0.000016	0.000015	0.000014	0.000015	0.000017	0.000018	0.000016
POM	0.000159	0.000105	0.000068	0.000046	0.000034	0.000027	0.000023	0.000020	0.000019	0.000018	0.000019	0.000020	0.000023	0.000025	0.000025

Fleet Average Running Loss Emission Factors (grams/veh-hour)

Pollutant Name	Emission Factor
TOG	1.275299
ROG	1.275299
1,3-Butadiene	0
Benzene	0.012753
Ethylbenzene	0.020915
Naphthalene	0.001785

Sheet 8: Caltrans All Vehicle AADT Data

DISTRICT	ROUTE	RTE_SFX	COUNTY	PM_PFX	PM	PM_SFX	DESCRIPTION	BACK_PEAK_HOUR	BACK_PEAK_MADT	BACK_AADT	AHEAD_PEAK_HOUR	AHEAD_PEAK_MADT	AHEAD_AADT
08	060		SBD	R	3.602		MOUNTAIN AVENUE	15900	246000	238000	15700	243000	235000
08	060		SBD	R	4.580		ONTARIO, JCT. RTE. 83	15700	243000	235000	15600	242000	234000
08	060		SBD	R	5.855		GROVE AVENUE	15600	242000	234000	15200	236000	228000

Sheet 9: Caltrans Truck AADT Data

RTE	RTE_SFX	DIST	CNTY	POSTMILE_PFX	POSTMILE	POSTMILE_SFX	LEG	DESCRIPTION	VEHICLE_AADT_TOTAL	TRUCK_AADT_TOTAL	TRK_PERCENT_TOT	TRK_2_AXLE	TRK_3_AXLE	TRK_4_AXLE	TRK_5_AXLE	TRK_2_AXLE_PCT	TRK_3_AXLE_PCT	TRK_4_AXLE_PCT	TRK_5_AXLE_PCT	EAL	YEAR_VER	EST
060		08	SBD	R	4.580		B	ONTARIO, JCT. RTE. 83	235000	28764	12.24	7,231	2,871	903	17,759	25.14	9.98	3.14	61.74	6,777	04	E
060		08	SBD	R	4.580		A	ONTARIO, JCT. RTE. 83	234000	28642	12.24	7,201	2,858	899	17,684	25.14	9.98	3.14	61.74	6,748	04	E

Sheet 10: Caltrans All Vehicle On- and Off-ramp AADT Data

DISTRICT	COUNTY	ROUTE	RTE_SFX	PM_PFX	PM	PM_SFX	DESCRIPTION	YR_2011	YR_2012	YR_2013	YR_2014	YR_2015	YR_2016	YR_2017	YR_2018	YR_2019	YR_2020
08	SBD	060		R	4.387		WB ON FR EUCLID/83					10200					
08	SBD	060		R	4.388		EB OFF TO EUCLID/83								10004		
08	SBD	060		R	4.789		EB ON FR EUCLID/83								13168		
08	SBD	060		R	4.806		WB OFF TO EUCLID AVE								13967		

Appendix B
AERMOD Output

This page intentionally left blank.

Appendix B is comprised of 1,230 pages and is available in electronic format upon request.

This page intentionally left blank.

Appendix C
Cancer and Non-Cancer Risk Values and Health Risk Calculations

This page intentionally left blank.

Appendix C: Health Risk Assessment Calculations
Euclid/Walnut Mixed Use Planned Unit Development Project
Health Risk Assessment Report
Summary of Cancer and Non-Cancer Risks

Uncontrolled (i.e., Without Filtration) Total Excess Risk at MEI

Source	Cancer Risk (Per Million)			Total	Chronic Hazard Index	Acute Hazard Index
	DPM	TOG Exh	TOG Evap			
SR 60 Freeway	19.5	1.3	0.2	21.0	0.01	0.01
SR 60 On- and Off-ramps	3.8	0.5	0.1	4.4	0.00	0.00
Cumulative Risk	*23.3*	*1.8*	*0.3*	*25.4*	*0.02*	*0.02*

MERV13 Particle Removal Effectiveness (3 to 10 µm)
79%

Note: Assumes 90% base reduction, two hours of outdoor exposure per day, and one hour of exposure from open windows.

Controlled (i.e., with MERV 13 Filter) Total Excess Risk at MEI

Source	Cancer Risk (Per Million)			Total	Chronic Hazard Index	Acute Hazard Index
	DPM	TOG Exh	TOG Evap			
SR 60 Freeway	4.1	1.3	0.2	5.6	0.01	0.01
SR 60 On- and Off-ramps	0.8	0.5	0.1	1.4	0.00	0.00
Cumulative Risk	*5.0*	*1.8*	*0.3*	*7.0*	*0.02*	*0.02*
			Threshold	10.0	1.0	1.0
			Threshold Exceeded?	No	No	No

Note: The methodology for the HRA requires quantifying “uncontrolled” risks at receptor locations before “controlled” risks can be quantified. The “uncontrolled” risks reflect those that would occur at the site if no air filtration were to occur at all. The “uncontrolled” scenario is a hypothetical / non-realistic scenario, because the building would be required to install HVAC system air filters that meet a designated efficiency equal to Minimum Efficiency Rating Value (MERV) 13 standards, consistent with Section 120.1(b)(1)(C) of the California Title 24 Building Code. This is described on pages 5-1 and 5-2 of the Report.

In contrast, the "controlled" risks reflect those that would actually occur at the site under implementation of the project with the operation of the HVAC system. The “uncontrolled” risks are used as the baseline to assess how much the MERV-13 air filters would reduce risks (i.e., by 79%, after conservatively accounting for some non-controlled exposure from outdoor recreation and residents having their windows open for part of the day, as shown between the "uncontrolled" and "controlled" tables above).

Appendix C: Health Risk Assessment Calculations
Euclid/Walnut Mixed Use Planned Unit Development Project
Health Risk Assessment Report
Weighted Risk Factor Calculations

Summary of Fleet Average Running Exhaust Emission Factors (grams/veh-mile)

Roadway	Weighted per TOG		
	CPF	Chronic REL	Acute REL
Freeway	6.03E-03	6.73E+01	5.87E+02

Summary of Fleet Average Running Loss Emission Factors (grams/veh-hour)

Roadway	Weighted per TOG		
	CPF	Chronic REL	Acute REL
Freeway	1.31E-03	2.86E+02	2.70E+03

Freeway

Fleet Average Running Exhaust Emission Factors (grams/veh-mile)

Pollutant Name	Emissions Factor by Speed	% of TOG	CPF	Chronic REL	Acute REL	Weighted per TOG		
	5					CPF	Chronic REL	Acute REL
TOG	0.187712	--	--	--	--	--	--	--
1,3-Butadiene	0.000764	0.004070	6.00E-01	2.00E+00	6.60E+02	2.44E-03	2.04E-03	6.17E-06
Acetaldehyde	0.002473	0.013174	1.00E-02	1.40E+02	4.70E+02	1.32E-04	9.41E-05	2.80E-05
Acrolein	0.000165	0.000879	0.00E+00	3.50E-01	2.50E+00	0.00E+00	2.51E-03	3.52E-04
Benzene	0.003663	0.019514	1.00E-01	3.00E+00	2.70E+01	1.95E-03	6.50E-03	7.23E-04
Diesel PM	0.001991	--	--	--	--	--	--	--
Ethylbenzene	0.001444	0.007693	8.70E-03	2.00E+03	0.00E+00	6.69E-05	3.85E-06	0.00E+00
Formaldehyde	0.006140	0.032710	2.10E-02	9.00E+00	5.50E+01	6.87E-04	3.63E-03	5.95E-04
Naphthalene	0.000127	0.000677	1.20E-01	9.00E+00	0.00E+00	8.12E-05	7.52E-05	0.00E+00
POM	0.000159	0.000847	7.95E-01	--	--	6.73E-04	--	--
					Total	***6.03E-03***	***6.73E+01***	***5.87E+02***

Fleet Average Running Loss Emission Factors (grams/veh-hour)

Pollutant Name	Emission Factor	% of TOG	CPF	Chronic REL	Acute REL	Weighted per TOG		
						CPF	Chronic REL	Acute REL
TOG	1.275299	--	--	--	--	--	--	--
1,3-Butadiene	0	0.0%	6.00E-01	2.00E+00	6.60E+02	0.00E+00	0.00E+00	0.00E+00
Benzene	0.012753	1.0%	1.00E-01	3.00E+00	2.70E+01	1.00E-03	3.33E-03	3.70E-04
Ethylbenzene	0.020915	1.6%	8.70E-03	2.00E+03	0.00E+00	1.43E-04	8.20E-06	0.00E+00
Naphthalene	0.001785	0.1%	1.20E-01	9.00E+00	0.00E+00	1.68E-04	1.56E-04	0.00E+00
					Total	***1.31E-03***	***2.86E+02***	***2.70E+03***

Appendix C: Health Risk Assessment Calculations
Euclid/Walnut Mixed Use Planned Unit Development Project
Health Risk Assessment Report
SR 60 Freeway Uncontrolled (i.e., Without Filtration) Health Risk Calculations

METHODOLOGY

Dose (Air) = Cair x DBR x A x EF x CF

Where:
- Cair: Chemical concentration in air (µg/m^3)
- DBR: Daily breathing rate (L/kg-day)
- A: Inhalation adsorption factor (unitless)
- EF: Exposure Frequency, days at home / days in year (unitless)
- CF: 10^{-6} Conversion Factor (m^3/L and mg/µg)

Cancer Risk (per million) = Dose (Air) x CPF x ASF x (ED/AT) x FAH x 1,000,000

Where:
- Dose: Dose of chemical in the air (µg/m3)
- CPF: Cancer Potency Factor $(mg/kg\text{-}day)^{-1}$
- ASF: Age Sensitivity Factor
- ED: Exposure Duration (years)
- AT: Averaging Time for lifetime cancer risks
- FAH: Fraction of daily time spent at home

Risk Parameter Values by Age Bin

Variable	Residential Age Bin				
	3rd Trimester	0-2 Years	2-16 Years	16-30 Years	16-70 Years
DBR	361	1090	572	261	233
A	1	1	1	1	1
EF	0.96	0.96	0.96	0.96	0.96
CF	1.00E-06	1.00E-06	1.00E-06	1.00E-06	1.00E-06
ASF	10	10	3	1	1
ED	0.25	2	14	14	54
AT	70	70	70	70	70
FAH	0.85	0.85	0.72	0.73	0.73

Risk Factors

Pollutant	CPF	Chronic REL	Acute
DPM	1.1	5	0
Veh TOG Exh	6.03E-03	6.73E+01	5.87E+02
Veh TOG Evap	1.31E-03	2.86E+02	2.70E+03

AERMOD Modeled Annual Concentrations (MEI)

		MEI	
	Conc.	X	Y
DPM	0.033	439859	3765470
Veh TOG Exh	0.40777	439859	3765470
Veh TOG Evap	0.247	439859	3765470

AERMOD Modeled Maximum 1-HR Concentrations (MEI)

		MEI	
	Conc.	X	Y
Veh TOG Exh	5.44130	439789	3765475
Veh TOG Evap	4.07794	439789	3765475

Chronic Risk Assessment at MEI

Pollutant	Annual AERMOD Conc.	Chronic Hazard Index	Threshold	Exceeded?
DPM	0.03	0.01	--	--
Veh TOG Exh	0.41	0.01	--	--
Veh TOG Evap	0.25	0.00	--	--
	Hazard Index	0.01	1.0	No

1-HR Risk Assessment at MEI

Pollutant	1-HR AERMOD Conc.	1-HR Hazard Index	Threshold	Exceeded?
Veh TOG Exh	5.4413	0.01	--	--
Veh TOG Evap	4.07794	0.00	--	--
	Hazard Index	0.01	1.0	No

DPM Dose @ MEI

Age Group	Cair x	BR	A	EF	CF		Dose
3rd Trimester	0.033	361	1	0.96	1.00E-06	=	1.14E-05
0-2 Years	0.033	1090	1	0.96	1.00E-06	=	3.45E-05
2-16 Years	0.033	572	1	0.96	1.00E-06	=	1.81E-05
16-30 Years	0.033	261	1	0.96	1.00E-06	=	8.26E-06
30-70 Years	0.033	233	1	0.96	1.00E-06	=	7.37E-06

DPM Excess Risk at MEI

Age Group	Dose	CPF	ASF	ED	AT	FAH	Conversion	Risk
3rd Trimester	1.14E-05	1.1	10	0.25	70	0.85	1,000,000	0.4
0-2 Years	3.45E-05	1.1	10	1.00	70	0.85	1,000,000	4.6
2-16 Years	1.81E-05	1.1	3	1.00	70	0.72	1,000,000	0.6
16-30 Years	8.26E-06	1.1	1	1.00	70	0.73	1,000,000	0.1
30-70 Years	7.37E-06	1.1	1	1.00	70	0.73	1,000,000	0.1

TOG Exh Dose @ MEI

Age Group	Cair x	BR	A	EF	CF		Dose
3rd Trimester	0.40777	361	1	0.96	1.00E-06	=	1.41E-04
0-2 Years	0.40777	1090	1	0.96	1.00E-06	=	4.26E-04
2-16 Years	0.40777	572	1	0.96	1.00E-06	=	2.24E-04
16-30 Years	0.40777	261	1	0.96	1.00E-06	=	1.02E-04
30-70 Years	0.40777	233	1	0.96	1.00E-06	=	9.11E-05

TOG Exh Excess Risk at MEI

Age Group	Dose	CPF	ASF	ED	AT	FAH	Conversion	Risk
3rd Trimester	1.41E-04	6.03E-03	10	0.25	70	0.85	1,000,000	0.0
0-2 Years	4.26E-04	6.03E-03	10	1.00	70	0.85	1,000,000	0.3
2-16 Years	2.24E-04	6.03E-03	3	1.00	70	0.72	1,000,000	0.0
16-30 Years	1.02E-04	6.03E-03	1	1.00	70	0.73	1,000,000	0.0
30-70 Years	9.11E-05	6.03E-03	1	1.00	70	0.73	1,000,000	0.0

TOG Evap Dose @ MEI

Age Group	Cair x	BR	A	EF	CF		Dose
3rd Trimester	0.247	361	1	0.96	1.00E-06	=	8.55E-05
0-2 Years	0.247	1090	1	0.96	1.00E-06	=	2.58E-04
2-16 Years	0.247	572	1	0.96	1.00E-06	=	1.35E-04
16-30 Years	0.247	261	1	0.96	1.00E-06	=	6.18E-05
30-70 Years	0.247	233	1	0.96	1.00E-06	=	5.52E-05

TOG Evap Excess Risk at MEI

Age Group	Dose	CPF	ASF	ED	AT	FAH	Conversion	Risk
3rd Trimester	8.55E-05	1.31E-03	10	0.25	70	0.85	1,000,000	0.0
0-2 Years	2.58E-04	1.31E-03	10	1.00	70	0.85	1,000,000	0.0
2-16 Years	1.35E-04	1.31E-03	3	1.00	70	0.72	1,000,000	0.0
16-30 Years	6.18E-05	1.31E-03	1	1.00	70	0.73	1,000,000	0.0
30-70 Years	5.52E-05	1.31E-03	1	1.00	70	0.73	1,000,000	0.0

Total Excess Risk at MEI (Cumulative, Based on Age at Start of Construction)

Exposure Year	Exposure Duration (Years)	Age	Year	Cancer Risk (Per Million)			Total
				DPM	TOG Exh	TOG Evap	
0	0.25	-0.25 - 0	2025	0.4	0.0	0.0	0.4
1	1	0-1	2026	4.6	0.3	0.0	5.0
2	1	1-2	2027	4.6	0.3	0.0	5.0
3	1	2-3	2028	0.6	0.0	0.0	0.7
4	1	3-4	2029	0.6	0.0	0.0	0.7
5	1	4-5	2030	0.6	0.0	0.0	0.7
6	1	5-6	2031	0.6	0.0	0.0	0.7
7	1	6-7	2032	0.6	0.0	0.0	0.7
8	1	7-8	2033	0.6	0.0	0.0	0.7
9	1	8-9	2034	0.6	0.0	0.0	0.7
10	1	9-10	2035	0.6	0.0	0.0	0.7
11	1	10-11	2036	0.6	0.0	0.0	0.7
12	1	11-12	2037	0.6	0.0	0.0	0.7
13	1	12-13	2038	0.6	0.0	0.0	0.7
14	1	13-14	2039	0.6	0.0	0.0	0.7
15	1	14-15	2040	0.6	0.0	0.0	0.7
16	1	15-16	2041	0.6	0.0	0.0	0.7
17	1	16-17	2042	0.1	0.0	0.0	0.1
18	1	17-18	2043	0.1	0.0	0.0	0.1
19	1	18-19	2044	0.1	0.0	0.0	0.1
20	1	19-20	2045	0.1	0.0	0.0	0.1
21	1	20-21	2046	0.1	0.0	0.0	0.1
22	1	21-22	2047	0.1	0.0	0.0	0.1
23	1	22-23	2048	0.1	0.0	0.0	0.1
24	1	23-24	2049	0.1	0.0	0.0	0.1
25	1	24-25	2050	0.1	0.0	0.0	0.1
26	1	25-26	2051	0.1	0.0	0.0	0.1
27	1	26-27	2052	0.1	0.0	0.0	0.1
28	1	27-28	2053	0.1	0.0	0.0	0.1
29	1	28-29	2054	0.1	0.0	0.0	0.1
30	1	29-30	2055	0.1	0.0	0.0	0.1
			Cumulative Life	**19.5**	**1.3**	**0.2**	**21.0**

Appendix C: Health Risk Assessment Calculations
Euclid/Walnut Mixed Use Planned Unit Development Project
Health Risk Assessment Report
SR 60 On- and Off-ramp Uncontrolled (i.e., Without Filtration) Health Risk Calculations

METHODOLOGY

Dose (Air) = Cair x DBR x A x EF x CF

Where:

Cair: Chemical concentration in air (µg/m^3)
DBR: Daily breathing rate (L/kg-day)
A: Inhalation adsorption factor (unitless)
EF: Exposure Frequency, days at home / days in year (unitless)
CF: 10^{-6} Conversion Factor (m^3/L and mg/µg)

Cancer Risk (per million) = Dose (Air) x CPF x ASF x (ED/AT) x FAH x 1,000,000

Where:

Dose: Dose of chemical in the air (µg/m3)
CPF: Cancer Potency Factor $(mg/kg\text{-}day)^{-1}$
ASF: Age Sensitivity Factor
ED: Exposure Duration (years)
AT: Averaging Time for lifetime cancer risks
FAH: Fraction of daily time spent at home

Risk Parameter Values by Age Bin

Variable	Residential Age Bin				
	3rd Trimester	0-2 Years	2-16 Years	16-30 Years	16-70 Years
DBR	361	1090	572	261	233
A	1	1	1	1	1
EF	0.96	0.96	0.96	0.96	0.96
CF	1.00E-06	1.00E-06	1.00E-06	1.00E-06	1.00E-06
ASF	10	10	3	1	1
ED	0.25	2	14	14	54
AT	70	70	70	70	70
FAH	0.85	0.85	0.72	0.73	0.73

Risk Factors

Pollutant	CPF	Chronic REL	Acute
DPM	1.1	5	0
Veh TOG Exh	6.03E-03	6.73E+01	5.87E+02
Veh TOG Evap	1.31E-03	2.86E+02	2.70E+03

AERMOD Modeled Annual Concentrations (MEI)

		MEI	
	Conc.	X	Y
DPM	0.00645	439859	3765470
Veh TOG Exh	0.1432	439859	3765470
Veh TOG Evap	0.12991	439859	3765470

AERMOD Modeled Maximum 1-HR Concentrations (MEI)

		MEI	
	Conc.	X	Y
Veh TOG Exh	2.32951	439789	3765475
Veh TOG Evap	2.53377	439789	3765475

Chronic Risk Assessment at MEI

Pollutant	Annual AERMOD Conc.	Chronic Hazard Index	Threshold	Exceeded?
DPM	0.01	0.00	--	--
Veh TOG Exh	0.14	0.00	--	--
Veh TOG Evap	0.13	0.00	--	--
	Hazard Index	0.00	1.0	No

1-HR Risk Assessment at MEI

Pollutant	1-HR AERMOD Conc.	1-HR Hazard Index	Threshold	Exceeded?
Veh TOG Exh	2.32951	0.00	--	--
Veh TOG Evap	2.53377	0.00	--	--
	Hazard Index	0.00	1.0	No

DPM Dose @ MEI

Age Group	Cair x	BR	A	EF	CF		Dose
3rd Trimester	0.00645	361	1	0.96	1.00E-06	=	2.23E-06
0-2 Years	0.00645	1090	1	0.96	1.00E-06	=	6.74E-06
2-16 Years	0.00645	572	1	0.96	1.00E-06	=	3.54E-06
16-30 Years	0.00645	261	1	0.96	1.00E-06	=	1.61E-06
30-70 Years	0.00645	233	1	0.96	1.00E-06	=	1.44E-06

DPM Excess Risk at MEI

Age Group	Dose	CPF	ASF	ED	AT	FAH	Conversion	Risk
3rd Trimester	2.23E-06	1.1	10	0.25	70	0.85	1,000,000	0.1
0-2 Years	6.74E-06	1.1	10	1.00	70	0.85	1,000,000	0.9
2-16 Years	3.54E-06	1.1	3	1.00	70	0.72	1,000,000	0.1
16-30 Years	1.61E-06	1.1	1	1.00	70	0.73	1,000,000	0.0
30-70 Years	1.44E-06	1.1	1	1.00	70	0.73	1,000,000	0.0

TOG Exh Dose @ MEI

Age Group	Cair x	BR	A	EF	CF		Dose
3rd Trimester	0.14320	361	1	0.96	1.00E-06	=	4.96E-05
0-2 Years	0.14320	1090	1	0.96	1.00E-06	=	1.50E-04
2-16 Years	0.14320	572	1	0.96	1.00E-06	=	7.85E-05
16-30 Years	0.14320	261	1	0.96	1.00E-06	=	3.58E-05
30-70 Years	0.14320	233	1	0.96	1.00E-06	=	3.20E-05

TOG Exh Excess Risk at MEI

Age Group	Dose	CPF	ASF	ED	AT	FAH	Conversion	Risk
3rd Trimester	4.96E-05	6.03E-03	10	0.25	70	0.85	1,000,000	0.0
0-2 Years	1.50E-04	6.03E-03	10	1.00	70	0.85	1,000,000	0.1
2-16 Years	7.85E-05	6.03E-03	3	1.00	70	0.72	1,000,000	0.0
16-30 Years	3.58E-05	6.03E-03	1	1.00	70	0.73	1,000,000	0.0
30-70 Years	3.20E-05	6.03E-03	1	1.00	70	0.73	1,000,000	0.0

TOG Evap Dose @ MEI

Age Group	Cair x	BR	A	EF	CF		Dose
3rd Trimester	0.12991	361	1	0.96	1.00E-06	=	4.50E-05
0-2 Years	0.12991	1090	1	0.96	1.00E-06	=	1.36E-04
2-16 Years	0.12991	572	1	0.96	1.00E-06	=	7.13E-05
16-30 Years	0.12991	261	1	0.96	1.00E-06	=	3.25E-05
30-70 Years	0.12991	233	1	0.96	1.00E-06	=	2.90E-05

TOG Evap Excess Risk at MEI

Age Group	Dose	CPF	ASF	ED	AT	FAH	Conversion	Risk
3rd Trimester	4.50E-05	1.31E-03	10	0.25	70	0.85	1,000,000	0.0
0-2 Years	1.36E-04	1.31E-03	10	1.00	70	0.85	1,000,000	0.0
2-16 Years	7.13E-05	1.31E-03	3	1.00	70	0.72	1,000,000	0.0
16-30 Years	3.25E-05	1.31E-03	1	1.00	70	0.73	1,000,000	0.0
30-70 Years	2.90E-05	1.31E-03	1	1.00	70	0.73	1,000,000	0.0

Total Excess Risk at MEI (Cumulative, Based on Age at Start of Construction)

Exposure Year	Exposure Duration (Years)	Age	Year	Cancer Risk (Per Million)			Total
				DPM	TOG Exh	TOG Evap	
0	0.25	-0.25 - 0	2025	0.1	0.0	0.0	0.1
1	1	0-1	2026	0.9	0.1	0.0	1.0
2	1	1-2	2027	0.9	0.1	0.0	1.0
3	1	2-3	2028	0.1	0.0	0.0	0.1
4	1	3-4	2029	0.1	0.0	0.0	0.1
5	1	4-5	2030	0.1	0.0	0.0	0.1
6	1	5-6	2031	0.1	0.0	0.0	0.1
7	1	6-7	2032	0.1	0.0	0.0	0.1
8	1	7-8	2033	0.1	0.0	0.0	0.1
9	1	8-9	2034	0.1	0.0	0.0	0.1
10	1	9-10	2035	0.1	0.0	0.0	0.1
11	1	10-11	2036	0.1	0.0	0.0	0.1
12	1	11-12	2037	0.1	0.0	0.0	0.1
13	1	12-13	2038	0.1	0.0	0.0	0.1
14	1	13-14	2039	0.1	0.0	0.0	0.1
15	1	14-15	2040	0.1	0.0	0.0	0.1
16	1	15-16	2041	0.1	0.0	0.0	0.1
17	1	16-17	2042	0.0	0.0	0.0	0.0
18	1	17-18	2043	0.0	0.0	0.0	0.0
19	1	18-19	2044	0.0	0.0	0.0	0.0
20	1	19-20	2045	0.0	0.0	0.0	0.0
21	1	20-21	2046	0.0	0.0	0.0	0.0
22	1	21-22	2047	0.0	0.0	0.0	0.0
23	1	22-23	2048	0.0	0.0	0.0	0.0
24	1	23-24	2049	0.0	0.0	0.0	0.0
25	1	24-25	2050	0.0	0.0	0.0	0.0
26	1	25-26	2051	0.0	0.0	0.0	0.0
27	1	26-27	2052	0.0	0.0	0.0	0.0
28	1	27-28	2053	0.0	0.0	0.0	0.0
29	1	28-29	2054	0.0	0.0	0.0	0.0
30	1	29-30	2055	0.0	0.0	0.0	0.0
			Cumulative Life	**3.8**	**0.5**	**0.1**	**4.4**

Appendix B
AERMOD Output

This page intentionally left blank.

Addendum Appendix C

FUSCOE ENGINEERING

FULL CIRCLE THINKING®

PRELIMINARY HYDROLOGY REPORT

EUCLID-WALNUT
ONTARIO, CA

NW Corner of E. Euclid Avenue and Walnut Street
Ontario, California

Prepared For
LEGARY PARTNERS
5141 California Avenue, Suite 100
Irvine, CA 92617
Ph 949.930.7712

Prepared By
Moyenuddin Sirajee, P.E.
Fuscoe Engineering, Inc.
2850 Inland Empire Blvd. Building B
Ontario, California, 91764
909.581.0676
www.fuscoe.com



Project Manager:
Carolina Gonzalez

Date Prepared: September 2022
Revision 1 : April 2023
Job Number: 424-027

full circle thinking®

PRELIMINARY HYDROLOGY REPORT

EUCLID-WALNUT

Located at NW corner of E. Euclid Avenue and Walnut Street
in the
City of Ontario
County of San Bernardino, California

Prepared for:

LEGACY PARTNERS
5141 California Avenue, Suite 100
Irvine, CA 92617
949.930.7712

Prepared by:

FUSCOE ENGINEERING, INC.
2850 Inland Empire Blvd. Building B
Ontario, CA 91764
909.581.0676

Date Created: September 2022
Revised : April 2023

Table of Contents

1.0 INTRODUCTION 3

1.1 GEOGRAPHIC SETTING 3

1.2 PURPOSE OF THIS REPORT 3

1.3 REFERENCES 3

1.3 PROJECT SITE LOCATION MAP 4

1.4 SOIL & PRECIPITATION DATA 4

2.0 EXISTING TOPOGRAPHIC & HYDROLOGIC CONDITIONS 5

2.1 EXISTING TOPOGRAPHY 5

2.2 EXISTING DRAINAGE SYSTEM 5

3.0 PROPOSED DEVELOPMENT AND DRAINAGE FACILITIES 5

3.1 PROPOSED DEVELOPMENT 5

3.2 PROPOSED DRAINAGE FACILITY 6

4.0 HYDROLOGY AND HYDRAULIC STUDY 7

4.1 METHODOLOGY 7

5.0 RESULTS AND CONCLUSIONS 7

6.0 APPENDICES 9

Appendix 1 *Soil Classification and Maps*

Appendix 2 *NOAA Precipitation Data*

Appendix 3 *Rational Method Pre and Post Development (Q_{100}-24H & Q_{10}-24H)*

Appendix 4 *Hydrology Maps Pre and Post Development Plan*

Appendix 5 *Unit Hydrograph and Routing Calculation and Proposed Temporary Detention system*

Appendix 6 *Supporting Documents (MPD Map)*

Appendix 7 *Soil's Report*

1.0 INTRODUCTION

1.1 GEOGRAPHIC SETTING

The proposed Euclid-Walnut project is located at the northwest corner of East Euclid Avenue and Walnut Street. It is currently developed commercial area with a gross land area of approximately 9.60 Acres. This specific site is part of APN 1051-271-66-0 in the City of Ontario, CA. The approximate latitude and longitude of the project is 34.027414 and -117.652412 respectively. The total disturbed area for this development is approximately 9.83 Ac. For additional detail see Project Site Location or Vicinity Map on paragraph 1.3 next page.

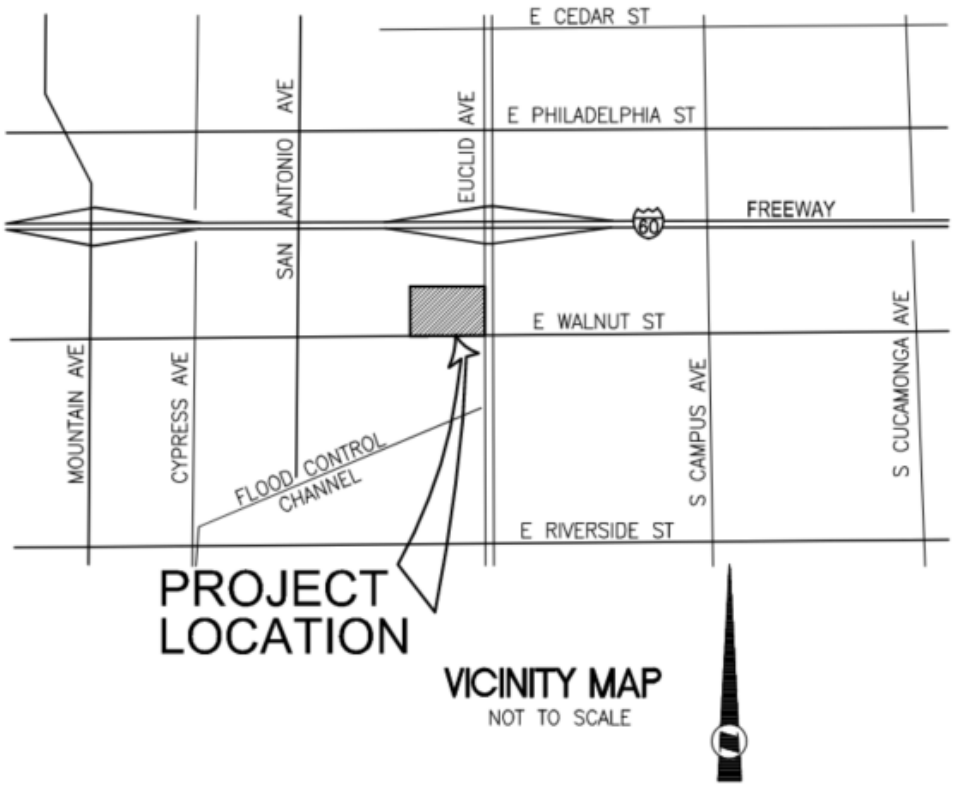
1.2 PURPOSE OF THIS REPORT

The proposed Euclid and Walnut development will include the construction of an apartment complex with its amenities, drive aisles , landscaping, parking areas and dry/wet utilities. The purpose of this report is to determine the storm water runoff from the completed project site will not exceed 90% of the pre-project runoff discharge rate for the 24-hour design storm for 10-year and 100-year return frequency rainfall events. Sizing of all on-site and off-site drainage pipes and structures will not be part of this preliminary report.

1.3 REFERENCES

- San Bernardino County Hydrology Manual 1986
- The Urban Drainage Design Manual (Federal Highway Administration)

1.3 PROJECT SITE LOCATION MAP



1.4 SOIL & PRECIPITATION-RAINFALL INTENSITY DATA

Per the Geotechnical Exploration Report conducted Leighton and Associates, Inc under Project No. 13493.001 dated May 13, 2022, the site is underlain by a relatively thin mantle of undocumented artificial fill materials overlaying Ouatemary-aged young alluvial fan deposits. Groundwater was not encountered during the subsurface exploration to the maximum depth of 51.5 feet. Therefore, groundwater is not expected to pose a constraint during or after construction. Percolation testing was also performed and concluded that the site is marginally feasible for stormwater infiltration.

The Precipitation and Rainfall Intensity Data for this site was obtained from NOAA web site.

2.0 EXISTING TOPOGRAPHIC & HYDROLOGIC CONDITIONS

2.1 EXISTING TOPOGRAPHY

The project site is currently a developed commercial site with approximately 93.3% imperviousness. It is slightly elevated from northeast to southwest with elevations ranging from 825 to 809 feet above mean sea level (amsl). The ground surface cover consisted of commercial buildings, asphalt pavement and some landscaped areas. West and North of the property are currently commercial and residential areas. East of the property is bounded by Euclid Avenue while at the southern portion by Walnut Street.

2.2 EXISTING DRAINAGE SYSTEM

Per City of Ontario Master Plan of Drainage (MPD) this project lies within the drainage subbasins E12, draining to system EULD-VII-1 on the east and subbasin E15, draining to system FERN-VII-1 on the west. Currently there is no existing drainage facilities on site. Therefore, runoff generating from the site surface flows into the adjacent public street. Runoff generating from easterly portion of the site (Area DA-1 per Pre-Development drainage Map, this report) sheet flows from northeast location then it drains to a valley gutter at the mid-portion of the property. It then goes along to a parkway drain that runs to the public street (Walnut Street) gutter from east to west direction. Similarly, runoff generating from the rest of the site (Area DA-2 per Pre-Development drainage Map, this report) sheet flows and then drain through an onsite valley gutter located on the west side of the site, draining south, towards Walnut street through the existing concrete driveway approach. Therefore, in existing condition the entire site drain into the existing MPD drainage system FERN-VII-1 located on the west side of the project. See Appendix 4 for the existing drainage map.

3.0 PROPOSED DEVELOPMENT AND DRAINAGE FACILITIES

3.1 PROPOSED DEVELOPMENT

The proposed development will include the construction of an apartment complex, drive aisles, landscaping and parking areas. In addition, the development will include installation of

appropriate drainage facilities and other utilities. Post development imperviousness will be 80% using proposed Land Use Development type (Apartment) per SBC Hydrology manual.

3.2 PROPOSED DRAINAGE FACILITY

As mentioned earlier that per Master Plan of Drainage (MPD) this project lies within the drainage subbasin E12, draining to system EULD-VII-1 on the east and subbasin E15, draining to system FERN-VII-1 on the west. The proposed drainage improvement will have storm drain system which will mimic MPD drainage pattern as practically as possible. On site runoff will be intercepted by series of catch basins which then drain into the proposed underground Modular wetland (Proprietary Bioretention Systems to mitigate Water Quality requirements) and then into underground storm drain system. The drainage area DA-9 (Per Post-Development drainage Map, this report) will drain toward east into the proposed 24-inch SD system, an extension of EULD-VII-1, per MPD. The remaining site will drain to south into Walnut Street and then drain westward into the system FERN-VII-1 per MPD. Due to site's low infiltration capacity all the water quality runoff needs to be treated with proprietary Bioretention system. These systems are underground and therefore the storm drain system need to be underground. As there is no underground storm drain system on the south to receive runoff from drainage area draining toward south, therefore 100-year runoff generating from some of the drainage area needed to be pumped out to the street on the south. Therefore, it has been proposed to collect runoff generating from the drainage area as designated by DA-1 thru DA-3 as well as water quality flow from the drainage areas DA-4 to DA-8 temporarily into an underground detention facility and pump these out into Walnut Street. The pumping will begin as soon as the detention facility start to receive runoff from these drainage areas. The pumping capacity generally are far lower than the 100-year runoff rate. Therefore, an underground storage facility is required. It will be sized based on the delta flow between 100-years flow and the to be installed pumping capacity. A preliminary calculation using a pump system with 230-gpm (0.51cfs) pumping capacity will require a 1.08 acre-ft of onsite storage. The location and layout of the detention facility and pump system can be found in Post-Development Drainage Map in Appendix 4 of this report. The proposed storm drain system will be designed to capture 100yr storm events. Additionally, this specific project site is a HCOC Exempt area per County of San Bernardino Storm Water Facility Mapping Tool. Pre and Post development Maps are shown in the Hydrology Map in Appendix 4.

4.0 HYDROLOGY AND HYDRAULIC STUDY

4.1 METHODOLOGY

The hydrology study was performed under the guidelines of the San Bernardino County (SBC) Hydrology Manual. Rational method was used to calculate peak runoff rates as prescribed by the San Bernardino County Hydrology Manual.

Computer programs were used:

- Rational Method, Unit Hydrograph &

  Flood Hydrograph Routing; CIVILD

Results of the analysis are included in this report on Appendix 3.

5.0 RESULTS AND CONCLUSIONS

Based on the calculations, it was determined that the proposed development discharge rates for 100-year storm event decreased from 34.85 cfs to 25.86 due to the reduction of imperviousness and temporary detention. It is anticipated that there will be no flooding in the site due to this development and mitigation measures. Rational Method calculation, Unit Hydrograph calculation and Routing Calculation for pre and post development condition shown on Appendix 3.

PRE-DEVELOPED CONDITIONS 100 YEAR 24HR STORM EVENT

Drainage Area	Remarks	Area (acre)	Soil Type	Q100Y 24H (cfs)
DA-1	Discharging to Location Node 1.02	6.8	A / B	25.06
DA-2	Discharging to Location Node 2.02	2.8	A / B	9.79
Total Site	Leaving site at S/W corner on Walnut St.	9.6	A / B	34.85

POST-DEVELOPED CONDITIONS 100 YEAR 24HR STORM EVENT (BEFORE DETENTION)

Drainage Area	Remarks	Area (acre)	Soil Type	Q100Y 24H (cfs)
DA-1 to DA-3	Discharging to Location Node 1.05	4.73	A / B	17.71
DA-4	Discharging to Location Node 4.02	1.32	B	4.63
DA-5	Discharging to Location Node 5.02	0.54	B	2.45
DA-6	Discharging to Location Node 6.02	0.41	B	1.85
DA-7.1	Discharging to Parkway Drain-4	0.75	B	3.44
DA-7.2	Discharging to Parkway Drain-5	0.19	B	0.92
DA-8	Discharging to Location Node 8.03	0.69	B	3.28
DA-9	Discharging to Location Node 9.04	0.97	A / B	4.18
Total Site		9.6	A / B	38.46

POST-DEVELOPED CONDITIONS 100 YEAR 24HR STORM EVENT (AFTER DETENTION)

Drainage Area	Remarks	Area (acre)	Soil Type	Q100Y 24H (cfs)
DA-1 to DA-3	Discharging to Location Node 1.05	4.73	A / B	5.11
DA-4	Discharging to Location Node 4.02	1.32	B	4.63
DA-5	Discharging to Location Node 5.02	0.54	B	2.45
DA-6	Discharging to Location Node 6.02	0.41	B	1.85
DA-7.1	Discharging to Parkway Drain-4	0.75	B	3.44
DA-7.2	Discharging to Parkway Drain-5	0.19	B	0.92
DA-8	Discharging to Location Node 8.03	0.69	B	3.28
DA-9	Discharging to Location Node 9.04	0.97	A / B	4.18
Total Site		9.6	A / B	25.86

CONCLUSION:

PRE-CONSTRUCTION VS. POST-CONSTRUCTION FLOW SUMMARY			
Discharge Location	Pre-Development Flow rate, Q100Y-24H	Post-Development Flow rate Q100Y-24H	Conclusion
LEAVING SITE	**34.85 cfs**		
LEAVING SITE		**25.86 cfs**	**Post Development flow decreased to 74% of Pre-Development**

6.0 APPENDICES

Appendix 1 *Soil Classification and Maps*

Appendix 2 *NOAA Precipitation Data*

Appendix 3 *Rational Method Pre and Post Development (Q_{100}-24H & Q_{10}-24H)*

Appendix 4 *Hydrology Maps Pre and Post Development Plan*

Appendix 5 *Unit Hydrograph and Routing Calculation and Proposed Temporary Detention system*

Appendix 6 *Supporting Documents (MPD Map)*

Appendix 7 *Soil's Report*

APPENDIX 1

SOIL CLASSIFICATION AND MAPS



Map Scale: 1:1,650 if printed on A landscape (11" x 8.5") sheet.

N

Meters: 0 20 40 80 120

Feet: 0 50 100 200 300

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 11N WGS84

APPENDIX 2

NOAA PRECIPITATION DATA

NOAA Atlas 14, Volume 6, Version 2
Location name: Ontario, California, USA*
Latitude: 34.0275°, Longitude: -117.6526°
Elevation: m/ft**
* source: ESRI Maps
** source: USGS

POINT PRECIPITATION FREQUENCY ESTIMATES

Sanja Perica, Sarah Dietz, Sarah Heim, Lillian Hiner, Kazungu Maitaria, Deborah Martin, Sandra Pavlovic, Ishani Roy, Carl Trypaluk, Dale Unruh, Fenglin Yan, Michael Yekta, Tan Zhao, Geoffrey Bonnin, Daniel Brewer, Li-Chuan Chen, Tye Parzybok, John Yarchoan

NOAA, National Weather Service, Silver Spring, Maryland

PF_tabular | PF_graphical | Maps_&_aerials

PF tabular

PDS-based point precipitation frequency estimates with 90% confidence intervals (in inches)[1]

Duration	Average recurrence interval (years)									
	1	2	5	10	25	50	100	200	500	1000
5-min	0.116 (0.097-0.141)	0.153 (0.127-0.185)	0.199 (0.166-0.242)	0.237 (0.196-0.291)	0.289 (0.230-0.366)	0.328 (0.255-0.425)	0.367 (0.279-0.489)	0.408 (0.301-0.559)	0.463 (0.327-0.663)	0.506 (0.345-0.751)
10-min	0.167 (0.139-0.202)	0.219 (0.182-0.265)	0.286 (0.238-0.347)	0.340 (0.280-0.417)	0.414 (0.329-0.525)	0.470 (0.366-0.609)	0.526 (0.400-0.701)	0.585 (0.431-0.802)	0.664 (0.469-0.950)	0.726 (0.494-1.08)
15-min	0.202 (0.168-0.244)	0.264 (0.220-0.320)	0.346 (0.287-0.420)	0.411 (0.339-0.504)	0.500 (0.398-0.635)	0.568 (0.442-0.737)	0.637 (0.483-0.847)	0.707 (0.521-0.969)	0.803 (0.567-1.15)	0.878 (0.598-1.30)
30-min	0.305 (0.255-0.370)	0.401 (0.334-0.485)	0.524 (0.435-0.636)	0.623 (0.514-0.764)	0.758 (0.603-0.961)	0.860 (0.670-1.12)	0.964 (0.732-1.28)	1.07 (0.790-1.47)	1.22 (0.859-1.74)	1.33 (0.905-1.97)
60-min	0.456 (0.381-0.552)	0.598 (0.498-0.724)	0.782 (0.650-0.950)	0.930 (0.767-1.14)	1.13 (0.900-1.44)	1.28 (1.00-1.67)	1.44 (1.09-1.92)	1.60 (1.18-2.19)	1.82 (1.28-2.60)	1.98 (1.35-2.94)
2-hr	0.682 (0.570-0.826)	0.894 (0.745-1.08)	1.16 (0.965-1.41)	1.37 (1.13-1.68)	1.65 (1.31-2.09)	1.85 (1.44-2.40)	2.06 (1.56-2.74)	2.26 (1.66-3.09)	2.52 (1.78-3.61)	2.72 (1.86-4.04)
3-hr	0.858 (0.716-1.04)	1.12 (0.936-1.36)	1.45 (1.21-1.77)	1.71 (1.41-2.10)	2.05 (1.63-2.60)	2.30 (1.79-2.98)	2.54 (1.93-3.38)	2.78 (2.05-3.81)	3.10 (2.19-4.43)	3.33 (2.27-4.94)
6-hr	1.19 (0.996-1.44)	1.56 (1.30-1.89)	2.01 (1.67-2.45)	2.37 (1.95-2.90)	2.83 (2.25-3.59)	3.16 (2.46-4.10)	3.49 (2.65-4.64)	3.82 (2.81-5.23)	4.24 (2.99-6.06)	4.55 (3.10-6.75)
12-hr	1.55 (1.29-1.88)	2.03 (1.69-2.45)	2.63 (2.18-3.19)	3.10 (2.55-3.79)	3.71 (2.95-4.71)	4.17 (3.24-5.40)	4.61 (3.50-6.14)	5.06 (3.73-6.94)	5.64 (3.98-8.08)	6.08 (4.14-9.02)
24-hr	2.02 (1.79-2.33)	2.65 (2.35-3.06)	3.47 (3.06-4.02)	4.13 (3.61-4.82)	5.00 (4.23-6.03)	5.66 (4.69-6.96)	6.32 (5.12-7.96)	6.98 (5.50-9.05)	7.88 (5.96-10.6)	8.56 (6.26-11.9)
2-day	2.41 (2.13-2.78)	3.23 (2.85-3.73)	4.31 (3.80-4.99)	5.19 (4.54-6.06)	6.40 (5.42-7.72)	7.34 (6.08-9.03)	8.29 (6.71-10.4)	9.28 (7.31-12.0)	10.6 (8.05-14.3)	11.7 (8.55-16.3)
3-day	2.58 (2.28-2.97)	3.50 (3.10-4.04)	4.73 (4.17-5.48)	5.75 (5.03-6.71)	7.16 (6.06-8.63)	8.27 (6.86-10.2)	9.40 (7.62-11.9)	10.6 (8.35-13.7)	12.3 (9.27-16.5)	13.6 (9.92-18.9)
4-day	2.77 (2.45-3.20)	3.80 (3.36-4.38)	5.16 (4.55-5.98)	6.30 (5.51-7.35)	7.86 (6.66-9.48)	9.09 (7.54-11.2)	10.4 (8.39-13.1)	11.7 (9.21-15.1)	13.5 (10.2-18.3)	15.0 (11.0-20.9)
7-day	3.22 (2.85-3.71)	4.43 (3.91-5.11)	6.03 (5.32-6.98)	7.35 (6.43-8.58)	9.17 (7.76-11.1)	10.6 (8.78-13.0)	12.0 (9.75-15.2)	13.6 (10.7-17.6)	15.6 (11.8-21.1)	17.3 (12.6-24.1)
10-day	3.51 (3.11-4.05)	4.85 (4.28-5.59)	6.61 (5.83-7.65)	8.06 (7.05-9.41)	10.1 (8.51-12.1)	11.6 (9.62-14.3)	13.2 (10.7-16.6)	14.8 (11.7-19.2)	17.1 (12.9-23.0)	18.8 (13.8-26.3)
20-day	4.26 (3.77-4.91)	5.94 (5.25-6.86)	8.19 (7.22-9.48)	10.0 (8.79-11.7)	12.6 (10.7-15.2)	14.6 (12.1-18.0)	16.7 (13.5-21.0)	18.8 (14.9-24.4)	21.8 (16.5-29.4)	24.2 (17.7-33.7)
30-day	5.00 (4.43-5.77)	7.01 (6.19-8.09)	9.72 (8.57-11.2)	12.0 (10.5-14.0)	15.2 (12.8-18.3)	17.7 (14.6-21.7)	20.3 (16.4-25.5)	23.0 (18.1-29.8)	26.8 (20.3-36.2)	29.9 (21.9-41.7)
45-day	5.97 (5.29-6.89)	8.35 (7.38-9.64)	11.6 (10.2-13.4)	14.4 (12.6-16.8)	18.3 (15.5-22.1)	21.5 (17.8-26.5)	24.9 (20.1-31.3)	28.4 (22.4-36.8)	33.5 (25.4-45.2)	37.6 (27.5-52.5)
60-day	6.94 (6.14-8.00)	9.62 (8.50-11.1)	13.4 (11.8-15.5)	16.6 (14.5-19.3)	21.2 (18.0-25.6)	25.1 (20.8-30.8)	29.1 (23.6-36.7)	33.6 (26.4-43.5)	39.9 (30.2-53.8)	45.2 (33.0-63.0)

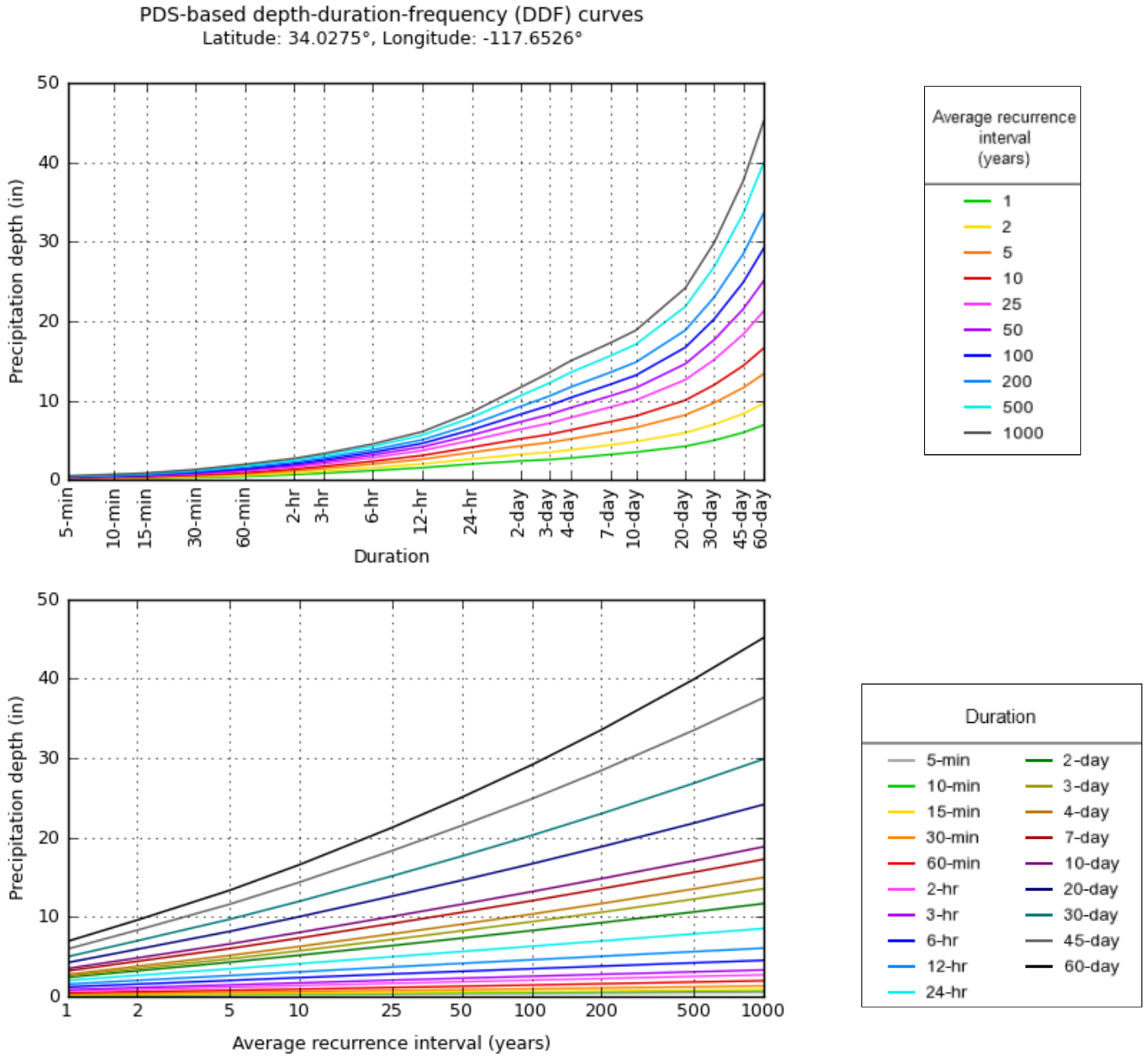
[1] Precipitation frequency (PF) estimates in this table are based on frequency analysis of partial duration series (PDS).

Numbers in parenthesis are PF estimates at lower and upper bounds of the 90% confidence interval. The probability that precipitation frequency estimates (for a given duration and average recurrence interval) will be greater than the upper bound (or less than the lower bound) is 5%. Estimates at upper bounds are not checked against probable maximum precipitation (PMP) estimates and may be higher than currently valid PMP values.

Please refer to NOAA Atlas 14 document for more information.

Back to Top

PF graphical



NOAA Atlas 14, Volume 6, Version 2

Created (GMT): Mon Mar 20 23:09:57 2023

ack to Top

ps & aerials

Small scale terrain



arge scale terrain



Large scale map



Large scale aerial



Back to Top

US Department of Commerce
National Oceanic and Atmospheric Administration
National Weather Service
National Water Center
1325 East West Highway
Silver Spring, MD 20910
Questions?: HDSC.Questions@noaa.gov

Disclaimer

APPENDIX 3

RATIONAL METHOD: PRE AND POST DEVELOPMENT (Q100-24HR & Q10-24HR) PARKWAY CULVERT CALCULATION

San Bernardino County Rational Hydrology Program

(Hydrology Manual Date - August 1986)

CIVILCADD/CIVILDESIGN Engineering Software, (c) 1989-2005 Version 7.1
Rational Hydrology Study Date: 04/19/23

RATIONAL, EUCLID AND WALNUT
100-YEAR EVENT
PRE CONSTRUCTION
FUSCOE ENGINEERING

Program License Serial Number 6049

********* Hydrology Study Control Information **********

Rational hydrology study storm event year is 100.0
Computed rainfall intensity:
Storm year = 100.00 1 hour rainfall = 1.440 (In.)
Slope used for rainfall intensity curve b = 0.6000
Soil antecedent moisture condition (AMC) = 2

++

Process from Point/Station 1.010 to Point/Station 1.020
**** INITIAL AREA EVALUATION ****

Soil classification AP and SCS values input by user
USER INPUT of soil data for subarea
SCS curve number for soil(AMC 2) = 95.00
Pervious ratio(Ap) = 0.0700 Max loss rate(Fm)= 0.007(In/Hr)
Initial subarea data:
Initial area flow distance = 898.000(Ft.)
Top (of initial area) elevation = 824.100(Ft.)
Bottom (of initial area) elevation = 812.000(Ft.)
Difference in elevation = 12.100(Ft.)
Slope = 0.01347 s(%)= 1.35
TC = k(0.292)*[(length^3)/(elevation change)]^0.2
Initial area time of concentration = 10.482 min.
Rainfall intensity = 4.102(In/Hr) for a 100.0 year storm
Effective runoff coefficient used for area (Q=KCIA) is C = 0.898
Subarea runoff = 25.062(CFS)
Total initial stream area = 6.800(Ac.)
Pervious area fraction = 0.070
Initial area Fm value = 0.007(In/Hr)

```
++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station        2.010 to Point/Station        2.020
**** INITIAL AREA EVALUATION ****
----------------------------------------------------------------------
Soil classification AP and SCS  values input by user
USER INPUT of soil data for subarea
SCS curve number for soil(AMC 2)  = 95.00
Pervious ratio(Ap) = 0.0500     Max loss rate(Fm)=     0.005(In/Hr)
Initial subarea data:
Initial area flow distance =   879.000(Ft.)
Top (of initial area) elevation =   817.000(Ft.)
Bottom (of initial area) elevation =   810.300(Ft.)
Difference in elevation =     6.700(Ft.)
Slope =    0.00762  s(%)=       0.76
TC = k(0.287)*[(length^3)/(elevation change)]^0.2
Initial area time of concentration =   11.450 min.
Rainfall intensity =      3.890(In/Hr) for a   100.0 year storm
Effective runoff coefficient used for area (Q=KCIA) is C = 0.899
Subarea runoff =      9.791(CFS)
Total initial stream area =        2.800(Ac.)
Pervious area fraction = 0.050
Initial area Fm value =    0.005(In/Hr)
End of computations, Total Study Area =            9.60 (Ac.)
The following figures may
be used for a unit hydrograph study of the same area.
Note: These figures do not consider reduced effective area
effects caused by confluences in the rational equation.

Area averaged pervious area fraction(Ap) = 0.064
Area averaged SCS curve number =  95.0
```

San Bernardino County Rational Hydrology Program

(Hydrology Manual Date - August 1986)

CIVILCADD/CIVILDESIGN Engineering Software, (c) 1989-2005 Version 7.1
Rational Hydrology Study Date: 04/25/23

RATIONAL, EUCLID AND WALNUT
100-YEAR EVENT
POST CONSTRUCTION
FUSCOE ENGINEERING

Program License Serial Number 6049

********* Hydrology Study Control Information **********

Rational hydrology study storm event year is 100.0
Computed rainfall intensity:
Storm year = 100.00 1 hour rainfall = 1.440 (In.)
Slope used for rainfall intensity curve b = 0.6000
Soil antecedent moisture condition (AMC) = 2

++

Process from Point/Station 1.010 to Point/Station 1.020
**** INITIAL AREA EVALUATION ****

APARTMENT subarea type
Decimal fraction soil group A = 0.480
Decimal fraction soil group B = 0.520
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.000
SCS curve number for soil(AMC 2) = 44.48
Pervious ratio(Ap) = 0.2000 Max loss rate(Fm)= 0.174(In/Hr)
Initial subarea data:
Initial area flow distance = 595.000(Ft.)
Top (of initial area) elevation = 821.000(Ft.)
Bottom (of initial area) elevation = 814.800(Ft.)
Difference in elevation = 6.200(Ft.)
Slope = 0.01042 s(%)= 1.04
TC = k(0.324)*[(length^3)/(elevation change)]^0.2
Initial area time of concentration = 10.394 min.
Rainfall intensity = 4.123(In/Hr) for a 100.0 year storm
Effective runoff coefficient used for area (Q=KCIA) is C = 0.862
Subarea runoff = 6.290(CFS)

```
Total initial stream area =        1.770(Ac.)
Pervious area fraction = 0.200
Initial area Fm value =    0.174(In/Hr)


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station        1.020 to Point/Station        1.030
**** PIPEFLOW TRAVEL TIME (User specified size) ****
______________________________________________________________________________
Upstream point/station elevation =   810.700(Ft.)
Downstream point/station elevation =   810.300(Ft.)
Pipe length  =    63.00(Ft.)   Manning's N = 0.013
No. of pipes = 1  Required pipe flow  =     6.290(CFS)
Given pipe size =     18.00(In.)
Calculated individual pipe flow  =     6.290(CFS)
Normal flow depth in pipe =   11.65(In.)
Flow top width inside pipe =   17.20(In.)
Critical Depth =   11.63(In.)
Pipe flow velocity =      5.20(Ft/s)
Travel time through pipe =    0.20 min.
Time of concentration (TC) =    10.60 min.


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station        1.030 to Point/Station        1.040
**** PIPEFLOW TRAVEL TIME (User specified size) ****
______________________________________________________________________________
Upstream point/station elevation =   809.000(Ft.)
Downstream point/station elevation =   806.300(Ft.)
Pipe length  =   346.00(Ft.)   Manning's N = 0.013
No. of pipes = 1  Required pipe flow  =     6.290(CFS)
Given pipe size =     18.00(In.)
Calculated individual pipe flow  =     6.290(CFS)
Normal flow depth in pipe =   10.86(In.)
Flow top width inside pipe =   17.61(In.)
Critical Depth =   11.63(In.)
Pipe flow velocity =      5.64(Ft/s)
Travel time through pipe =    1.02 min.
Time of concentration (TC) =    11.62 min.


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station        1.030 to Point/Station        1.040
**** CONFLUENCE OF MAIN STREAMS ****
______________________________________________________________________________
The following data inside Main Stream is listed:
In Main Stream number: 1
Stream flow area =      1.770(Ac.)
Runoff from this stream =      6.290(CFS)
Time of concentration =   11.62 min.
```

```
Rainfall intensity =     3.856(In/Hr)
Area averaged loss rate (Fm) =    0.1744(In/Hr)
Area averaged Pervious ratio (Ap) = 0.2000
Program is now starting with Main Stream No. 2


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station        2.010 to Point/Station        2.020
**** INITIAL AREA EVALUATION ****
________________________________________________________________________
APARTMENT subarea type
Decimal fraction soil group A = 0.000
Decimal fraction soil group B = 1.000
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.000
SCS curve number for soil(AMC 2)  = 56.00
Pervious ratio(Ap) = 0.2000     Max loss rate(Fm)=     0.147(In/Hr)
Initial subarea data:
Initial area flow distance =   376.000(Ft.)
Top (of initial area) elevation =   820.100(Ft.)
Bottom (of initial area) elevation =   815.600(Ft.)
Difference in elevation =     4.500(Ft.)
Slope =    0.01197  s(%)=       1.20
TC = k(0.324)*[(length^3)/(elevation change)]^0.2
Initial area time of concentration =    8.414 min.
Rainfall intensity =      4.680(In/Hr) for a   100.0 year storm
Effective runoff coefficient used for area (Q=KCIA) is C = 0.872
Subarea runoff =      5.957(CFS)
Total initial stream area =        1.460(Ac.)
Pervious area fraction = 0.200
Initial area Fm value =    0.147(In/Hr)


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station        2.020 to Point/Station        2.030
**** PIPEFLOW TRAVEL TIME (User specified size) ****
________________________________________________________________________
Upstream point/station elevation =   809.600(Ft.)
Downstream point/station elevation =   809.200(Ft.)
Pipe length  =    77.00(Ft.)   Manning's N = 0.013
No. of pipes = 1  Required pipe flow  =     5.957(CFS)
Given pipe size =     18.00(In.)
Calculated individual pipe flow  =     5.957(CFS)
Normal flow depth in pipe =   12.02(In.)
Flow top width inside pipe =   16.95(In.)
Critical Depth =   11.31(In.)
Pipe flow velocity =      4.74(Ft/s)
Travel time through pipe =    0.27 min.
Time of concentration (TC) =     8.68 min.
```

```
++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station        2.030 to Point/Station        2.040
**** PIPEFLOW TRAVEL TIME (User specified size) ****
______________________________________________________________________________
Upstream point/station elevation =   807.800(Ft.)
Downstream point/station elevation =   806.500(Ft.)
Pipe length  =   262.00(Ft.)   Manning's N = 0.013
No. of pipes = 1  Required pipe flow  =     5.957(CFS)
Given pipe size =     18.00(In.)
Calculated individual pipe flow  =     5.957(CFS)
Normal flow depth in pipe =   12.23(In.)
Flow top width inside pipe =   16.80(In.)
Critical Depth =   11.31(In.)
Pipe flow velocity =      4.66(Ft/s)
Travel time through pipe =    0.94 min.
Time of concentration (TC) =     9.62 min.


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station        2.030 to Point/Station        2.040
**** CONFLUENCE OF MINOR STREAMS ****
______________________________________________________________________________
Along Main Stream number: 2 in normal stream number 1
Stream flow area =      1.460(Ac.)
Runoff from this stream =      5.957(CFS)
Time of concentration =    9.62 min.
Rainfall intensity =     4.318(In/Hr)
Area averaged loss rate (Fm) =    0.1468(In/Hr)
Area averaged Pervious ratio (Ap) = 0.2000


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station        3.010 to Point/Station        3.020
**** INITIAL AREA EVALUATION ****
______________________________________________________________________________
APARTMENT subarea type
Decimal fraction soil group A = 0.000
Decimal fraction soil group B = 1.000
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.000
SCS curve number for soil(AMC 2)  = 56.00
Pervious ratio(Ap) = 0.2000     Max loss rate(Fm)=     0.147(In/Hr)
Initial subarea data:
Initial area flow distance =   293.000(Ft.)
Top (of initial area) elevation =   817.700(Ft.)
Bottom (of initial area) elevation =   815.100(Ft.)
Difference in elevation =     2.600(Ft.)
Slope =    0.00887  s(%)=       0.89
TC = k(0.324)*[(length^3)/(elevation change)]^0.2
```

```
Initial area time of concentration =    8.085 min.
Rainfall intensity =      4.793(In/Hr) for a   100.0 year storm
Effective runoff coefficient used for area (Q=KCIA) is C = 0.872
Subarea runoff =      6.273(CFS)
Total initial stream area =        1.500(Ac.)
Pervious area fraction = 0.200
Initial area Fm value =    0.147(In/Hr)


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station        3.020 to Point/Station        3.030
**** PIPEFLOW TRAVEL TIME (User specified size) ****
______________________________________________________________________________
Upstream point/station elevation =   810.100(Ft.)
Downstream point/station elevation =   809.200(Ft.)
Pipe length  =   181.00(Ft.)   Manning's N = 0.013
No. of pipes = 1  Required pipe flow  =     6.273(CFS)
Given pipe size =     18.00(In.)
Calculated individual pipe flow  =     6.273(CFS)
Normal flow depth in pipe =   12.70(In.)
Flow top width inside pipe =   16.41(In.)
Critical Depth =   11.62(In.)
Pipe flow velocity =      4.70(Ft/s)
Travel time through pipe =    0.64 min.
Time of concentration (TC) =     8.73 min.


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station        3.030 to Point/Station        2.040
**** PIPEFLOW TRAVEL TIME (User specified size) ****
______________________________________________________________________________
Upstream point/station elevation =   807.900(Ft.)
Downstream point/station elevation =   806.500(Ft.)
Pipe length  =    16.00(Ft.)   Manning's N = 0.013
No. of pipes = 1  Required pipe flow  =     6.273(CFS)
Given pipe size =     18.00(In.)
Calculated individual pipe flow  =     6.273(CFS)
Normal flow depth in pipe =    5.48(In.)
Flow top width inside pipe =   16.57(In.)
Critical Depth =   11.62(In.)
Pipe flow velocity =     13.76(Ft/s)
Travel time through pipe =    0.02 min.
Time of concentration (TC) =     8.75 min.


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station        3.030 to Point/Station        2.040
**** CONFLUENCE OF MINOR STREAMS ****
______________________________________________________________________________
Along Main Stream number: 2 in normal stream number 2
```

```
Stream flow area =      1.500(Ac.)
Runoff from this stream =      6.273(CFS)
Time of concentration =    8.75 min.
Rainfall intensity =     4.573(In/Hr)
Area averaged loss rate (Fm) =    0.1468(In/Hr)
Area averaged Pervious ratio (Ap) = 0.2000
Summary of stream data:

Stream Flow rate    Area    TC     Fm       Rainfall Intensity
 No.    (CFS)   (Ac.)       (min) (In/Hr)     (In/Hr)


1      5.96     1.460      9.62    0.147      4.318
2      6.27     1.500      8.75    0.147      4.573
Qmax(1) =
           1.000 *    1.000 *     5.957) +
           0.942 *    1.000 *     6.273) + =      11.869
Qmax(2) =
           1.061 *    0.909 *     5.957) +
           1.000 *    1.000 *     6.273) + =      12.018

Total of 2 streams to confluence:
Flow rates before confluence point:
       5.957       6.273
Maximum flow rates at confluence using above data:
       11.869       12.018
Area of streams before confluence:
        1.460        1.500
Effective area values after confluence:
        2.960        2.827
Results of confluence:
Total flow rate =     12.018(CFS)
Time of concentration =     8.746 min.
Effective stream area after confluence =      2.827(Ac.)
Study area average Pervious fraction(Ap) =  0.200
Study area average soil loss rate(Fm) =    0.147(In/Hr)
Study area total (this main stream) =       2.96(Ac.)


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station        2.040 to Point/Station        1.040
**** PIPEFLOW TRAVEL TIME (User specified size) ****
________________________________________________________________________
Upstream point/station elevation =   806.500(Ft.)
Downstream point/station elevation =   806.300(Ft.)
Pipe length  =    42.00(Ft.)   Manning's N = 0.013
No. of pipes = 1  Required pipe flow  =    12.018(CFS)
Given pipe size =     24.00(In.)
Calculated individual pipe flow  =    12.018(CFS)
Normal flow depth in pipe =   15.80(In.)
```

```
Flow top width inside pipe =   22.77(In.)
Critical Depth =   14.94(In.)
Pipe flow velocity =      5.48(Ft/s)
Travel time through pipe =    0.13 min.
Time of concentration (TC) =     8.87 min.


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station        2.040 to Point/Station        1.040
**** CONFLUENCE OF MAIN STREAMS ****
________________________________________________________________________
The following data inside Main Stream is listed:
In Main Stream number: 2
Stream flow area =      2.827(Ac.)
Runoff from this stream =     12.018(CFS)
Time of concentration =    8.87 min.
Rainfall intensity =     4.533(In/Hr)
Area averaged loss rate (Fm) =    0.1468(In/Hr)
Area averaged Pervious ratio (Ap) = 0.2000
Summary of stream data:

Stream Flow rate    Area    TC     Fm       Rainfall Intensity
 No.    (CFS)   (Ac.)       (min) (In/Hr)     (In/Hr)


1      6.29     1.770     11.62    0.174      3.856
2     12.02     2.827      8.87    0.147      4.533
Qmax(1) =
           1.000 *    1.000 *     6.290) +
           0.846 *    1.000 *    12.018) + =      16.453
Qmax(2) =
           1.184 *    0.764 *     6.290) +
           1.000 *    1.000 *    12.018) + =      17.705

Total of 2 main streams to confluence:
Flow rates before confluence point:
       7.290      13.018
Maximum flow rates at confluence using above data:
       16.453       17.705
Area of streams before confluence:
        1.770        2.827
Effective area values after confluence:
        4.597        4.179


Results of confluence:
Total flow rate =     17.705(CFS)
Time of concentration =     8.874 min.
Effective stream area after confluence  =      4.179(Ac.)
Study area average Pervious fraction(Ap) =  0.200
```

```
Study area average soil loss rate(Fm) =    0.157(In/Hr)
Study area total =       4.60(Ac.)


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station        1.040 to Point/Station        1.050
**** PIPEFLOW TRAVEL TIME (User specified size) ****
______________________________________________________________________________
Upstream point/station elevation =   806.300(Ft.)
Downstream point/station elevation =   805.800(Ft.)
Pipe length  =   100.00(Ft.)   Manning's N = 0.013
No. of pipes = 1  Required pipe flow  =    17.705(CFS)
Given pipe size =     30.00(In.)
Calculated individual pipe flow  =    17.705(CFS)
Normal flow depth in pipe =   16.92(In.)
Flow top width inside pipe =   29.75(In.)
Critical Depth =   17.09(In.)
Pipe flow velocity =      6.20(Ft/s)
Travel time through pipe =    0.27 min.
Time of concentration (TC) =     9.14 min.


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station        4.010 to Point/Station        4.020
**** INITIAL AREA EVALUATION ****
______________________________________________________________________________
APARTMENT subarea type
Decimal fraction soil group A = 0.000
Decimal fraction soil group B = 1.000
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.000
SCS curve number for soil(AMC 2)  = 56.00
Pervious ratio(Ap) = 0.2000     Max loss rate(Fm)=     0.147(In/Hr)
Initial subarea data:
Initial area flow distance =   641.000(Ft.)
Top (of initial area) elevation =   816.000(Ft.)
Bottom (of initial area) elevation =   809.400(Ft.)
Difference in elevation =     6.600(Ft.)
Slope =    0.01030  s(%)=       1.03
TC = k(0.324)*[(length^3)/(elevation change)]^0.2
Initial area time of concentration =   10.734 min.
Rainfall intensity =      4.044(In/Hr) for a   100.0 year storm
Effective runoff coefficient used for area (Q=KCIA) is C = 0.867
Subarea runoff =      4.630(CFS)
Total initial stream area =        1.320(Ac.)
Pervious area fraction = 0.200
Initial area Fm value =    0.147(In/Hr)


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
```

```
Process from Point/Station        5.010 to Point/Station        5.020
**** INITIAL AREA EVALUATION ****
____________________________________________________________________________
APARTMENT subarea type
Decimal fraction soil group A = 0.000
Decimal fraction soil group B = 1.000
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.000
SCS curve number for soil(AMC 2)  = 56.00
Pervious ratio(Ap) = 0.2000     Max loss rate(Fm)=     0.147(In/Hr)
Initial subarea data:
Initial area flow distance =   269.000(Ft.)
Top (of initial area) elevation =   813.700(Ft.)
Bottom (of initial area) elevation =   809.800(Ft.)
Difference in elevation =     3.900(Ft.)
Slope =    0.01450  s(%)=       1.45
TC = k(0.324)*[(length^3)/(elevation change)]^0.2
Initial area time of concentration =    7.082 min.
Rainfall intensity =      5.190(In/Hr) for a   100.0 year storm
Effective runoff coefficient used for area (Q=KCIA) is C = 0.875
Subarea runoff =      2.451(CFS)
Total initial stream area =        0.540(Ac.)
Pervious area fraction = 0.200
Initial area Fm value =    0.147(In/Hr)


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station        6.010 to Point/Station        6.020
**** INITIAL AREA EVALUATION ****
____________________________________________________________________________
APARTMENT subarea type
Decimal fraction soil group A = 0.000
Decimal fraction soil group B = 1.000
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.000
SCS curve number for soil(AMC 2)  = 56.00
Pervious ratio(Ap) = 0.2000     Max loss rate(Fm)=     0.147(In/Hr)
Initial subarea data:
Initial area flow distance =   269.000(Ft.)
Top (of initial area) elevation =   813.900(Ft.)
Bottom (of initial area) elevation =   810.200(Ft.)
Difference in elevation =     3.700(Ft.)
Slope =    0.01375  s(%)=       1.38
TC = k(0.324)*[(length^3)/(elevation change)]^0.2
Initial area time of concentration =    7.157 min.
Rainfall intensity =      5.157(In/Hr) for a   100.0 year storm
Effective runoff coefficient used for area (Q=KCIA) is C = 0.874
Subarea runoff =      1.849(CFS)
Total initial stream area =        0.410(Ac.)
Pervious area fraction = 0.200
```

```
Initial area Fm value =    0.147(In/Hr)


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station        7.010 to Point/Station        7.020
**** INITIAL AREA EVALUATION ****
------------------------------------------------------------------------------
APARTMENT subarea type
Decimal fraction soil group A = 0.000
Decimal fraction soil group B = 1.000
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.000
SCS curve number for soil(AMC 2)  = 56.00
Pervious ratio(Ap) = 0.2000     Max loss rate(Fm)=     0.147(In/Hr)
Initial subarea data:
Initial area flow distance =   284.000(Ft.)
Top (of initial area) elevation =   816.200(Ft.)
Bottom (of initial area) elevation =   810.700(Ft.)
Difference in elevation =     5.500(Ft.)
Slope =    0.01937  s(%)=       1.94
TC = k(0.324)*[(length^3)/(elevation change)]^0.2
Initial area time of concentration =    6.831 min.
Rainfall intensity =      5.304(In/Hr) for a   100.0 year storm
Effective runoff coefficient used for area (Q=KCIA) is C = 0.875
Subarea runoff =      4.363(CFS)
Total initial stream area =        0.940(Ac.)
Pervious area fraction = 0.200
Initial area Fm value =    0.147(In/Hr)


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station        8.010 to Point/Station        8.020
**** INITIAL AREA EVALUATION ****
------------------------------------------------------------------------------
APARTMENT subarea type
Decimal fraction soil group A = 0.000
Decimal fraction soil group B = 1.000
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.000
SCS curve number for soil(AMC 2)  = 56.00
Pervious ratio(Ap) = 0.2000     Max loss rate(Fm)=     0.147(In/Hr)
Initial subarea data:
Initial area flow distance =   204.000(Ft.)
Top (of initial area) elevation =   817.400(Ft.)
Bottom (of initial area) elevation =   814.900(Ft.)
Difference in elevation =     2.500(Ft.)
Slope =    0.01225  s(%)=       1.23
TC = k(0.324)*[(length^3)/(elevation change)]^0.2
Initial area time of concentration =    6.557 min.
Rainfall intensity =      5.435(In/Hr) for a   100.0 year storm
```

```
Effective runoff coefficient used for area (Q=KCIA) is C = 0.876
Subarea runoff =      3.284(CFS)
Total initial stream area =        0.690(Ac.)
Pervious area fraction = 0.200
Initial area Fm value =    0.147(In/Hr)


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station        8.020 to Point/Station        8.030
**** PIPEFLOW TRAVEL TIME (User specified size) ****
________________________________________________________________________
Upstream point/station elevation =   812.700(Ft.)
Downstream point/station elevation =   811.900(Ft.)
Pipe length  =   110.00(Ft.)   Manning's N = 0.013
No. of pipes = 1  Required pipe flow  =     3.284(CFS)
Given pipe size =     12.00(In.)
NOTE: Normal flow is pressure flow in user selected pipe size.
The approximate hydraulic grade line above the pipe invert is
     0.542(Ft.)  at the headworks or inlet of the pipe(s)
 Pipe friction loss =      0.934(Ft.)
 Minor friction loss =      0.407(Ft.)  K-factor =   1.50
Pipe flow velocity =      4.18(Ft/s)
Travel time through pipe =    0.44 min.
Time of concentration (TC) =     7.00 min.


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station        9.010 to Point/Station        9.020
**** INITIAL AREA EVALUATION ****
________________________________________________________________________
APARTMENT subarea type
Decimal fraction soil group A = 0.850
Decimal fraction soil group B = 0.150
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.000
SCS curve number for soil(AMC 2)  = 35.60
Pervious ratio(Ap) = 0.2000     Max loss rate(Fm)=     0.191(In/Hr)
Initial subarea data:
Initial area flow distance =   340.000(Ft.)
Top (of initial area) elevation =   824.000(Ft.)
Bottom (of initial area) elevation =   818.400(Ft.)
Difference in elevation =     5.600(Ft.)
Slope =    0.01647  s(%)=       1.65
TC = k(0.324)*[(length^3)/(elevation change)]^0.2
Initial area time of concentration =    7.582 min.
Rainfall intensity =      4.982(In/Hr) for a   100.0 year storm
Effective runoff coefficient used for area (Q=KCIA) is C = 0.866
Subarea runoff =      4.182(CFS)
Total initial stream area =        0.970(Ac.)
Pervious area fraction = 0.200
```

```
Initial area Fm value =    0.191(In/Hr)


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station        9.020 to Point/Station        9.030
**** PIPEFLOW TRAVEL TIME (User specified size) ****
______________________________________________________________________________
Upstream point/station elevation =   815.300(Ft.)
Downstream point/station elevation =   815.200(Ft.)
Pipe length  =    30.00(Ft.)   Manning's N = 0.013
No. of pipes = 1  Required pipe flow  =     4.182(CFS)
Given pipe size =     18.00(In.)
Calculated individual pipe flow  =     4.182(CFS)
Normal flow depth in pipe =   10.99(In.)
Flow top width inside pipe =   17.55(In.)
Critical Depth =    9.41(In.)
Pipe flow velocity =      3.70(Ft/s)
Travel time through pipe =    0.14 min.
Time of concentration (TC) =     7.72 min.


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station        9.030 to Point/Station        9.040
**** PIPEFLOW TRAVEL TIME (User specified size) ****
______________________________________________________________________________
Upstream point/station elevation =   813.800(Ft.)
Downstream point/station elevation =   813.600(Ft.)
Pipe length  =    49.00(Ft.)   Manning's N = 0.013
No. of pipes = 1  Required pipe flow  =     4.182(CFS)
Given pipe size =     18.00(In.)
Calculated individual pipe flow  =     4.182(CFS)
Normal flow depth in pipe =   10.29(In.)
Flow top width inside pipe =   17.81(In.)
Critical Depth =    9.41(In.)
Pipe flow velocity =      4.00(Ft/s)
Travel time through pipe =    0.20 min.
Time of concentration (TC) =     7.92 min.
End of computations, Total Study Area =            9.60 (Ac.)
The following figures may
be used for a unit hydrograph study of the same area.
Note: These figures do not consider reduced effective area
effects caused by confluences in the rational equation.

Area averaged pervious area fraction(Ap) = 0.200
Area averaged SCS curve number =  51.8
```

San Bernardino County Rational Hydrology Program

(Hydrology Manual Date - August 1986)

CIVILCADD/CIVILDESIGN Engineering Software, (c) 1989-2005 Version 7.1
Rational Hydrology Study Date: 04/26/23

RATIONAL, EUCLID AND WALNUT
10-YEAR EVENT
PRE CONSTRUCTION
FUSCOE ENGINEERING

Program License Serial Number 6049

********* Hydrology Study Control Information **********

Rational hydrology study storm event year is 10.0
Computed rainfall intensity:
Storm year = 10.00 1 hour rainfall = 0.930 (In.)
Slope used for rainfall intensity curve b = 0.6000
Soil antecedent moisture condition (AMC) = 2

++

Process from Point/Station 1.010 to Point/Station 1.020
**** INITIAL AREA EVALUATION ****

Soil classification AP and SCS values input by user
USER INPUT of soil data for subarea
SCS curve number for soil(AMC 2) = 95.00
Pervious ratio(Ap) = 0.0700 Max loss rate(Fm)= 0.007(In/Hr)
Initial subarea data:
Initial area flow distance = 898.000(Ft.)
Top (of initial area) elevation = 824.100(Ft.)
Bottom (of initial area) elevation = 812.000(Ft.)
Difference in elevation = 12.100(Ft.)
Slope = 0.01347 s(%)= 1.35
TC = k(0.292)*[(length^3)/(elevation change)]^0.2
Initial area time of concentration = 10.482 min.
Rainfall intensity = 2.649(In/Hr) for a 10.0 year storm
Effective runoff coefficient used for area (Q=KCIA) is C = 0.898
Subarea runoff = 16.171(CFS)
Total initial stream area = 6.800(Ac.)
Pervious area fraction = 0.070
Initial area Fm value = 0.007(In/Hr)

```
++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station        2.010 to Point/Station        2.020
**** INITIAL AREA EVALUATION ****
_____________________________________________________________________________
Soil classification AP and SCS  values input by user
USER INPUT of soil data for subarea
SCS curve number for soil(AMC 2)  = 95.00
Pervious ratio(Ap) = 0.0500     Max loss rate(Fm)=     0.005(In/Hr)
Initial subarea data:
Initial area flow distance =   879.000(Ft.)
Top (of initial area) elevation =   817.000(Ft.)
Bottom (of initial area) elevation =   810.300(Ft.)
Difference in elevation =     6.700(Ft.)
Slope =    0.00762  s(%)=       0.76
TC = k(0.287)*[(length^3)/(elevation change)]^0.2
Initial area time of concentration =   11.450 min.
Rainfall intensity =      2.512(In/Hr) for a    10.0 year storm
Effective runoff coefficient used for area (Q=KCIA) is C = 0.898
Subarea runoff =      6.319(CFS)
Total initial stream area =        2.800(Ac.)
Pervious area fraction = 0.050
Initial area Fm value =    0.005(In/Hr)
End of computations, Total Study Area =            9.60 (Ac.)
The following figures may
be used for a unit hydrograph study of the same area.
Note: These figures do not consider reduced effective area
effects caused by confluences in the rational equation.

Area averaged pervious area fraction(Ap) = 0.064
Area averaged SCS curve number =  95.0
```

San Bernardino County Rational Hydrology Program

(Hydrology Manual Date - August 1986)

CIVILCADD/CIVILDESIGN Engineering Software, (c) 1989-2005 Version 7.1
Rational Hydrology Study Date: 04/26/23

RATIONAL, EUCLID AND WALNUT
10-YEAR EVENT
POST CONSTRUCTION
FUSCOE ENGINEERING

Program License Serial Number 6049

********* Hydrology Study Control Information **********

Rational hydrology study storm event year is 10.0
Computed rainfall intensity:
Storm year = 10.00 1 hour rainfall = 0.930 (In.)
Slope used for rainfall intensity curve b = 0.6000
Soil antecedent moisture condition (AMC) = 2

++

Process from Point/Station 1.010 to Point/Station 1.020
**** INITIAL AREA EVALUATION ****

APARTMENT subarea type
Decimal fraction soil group A = 0.480
Decimal fraction soil group B = 0.520
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.000
SCS curve number for soil(AMC 2) = 44.48
Pervious ratio(Ap) = 0.2000 Max loss rate(Fm)= 0.174(In/Hr)
Initial subarea data:
Initial area flow distance = 595.000(Ft.)
Top (of initial area) elevation = 821.000(Ft.)
Bottom (of initial area) elevation = 814.800(Ft.)
Difference in elevation = 6.200(Ft.)
Slope = 0.01042 s(%)= 1.04
TC = k(0.324)*[(length^3)/(elevation change)]^0.2
Initial area time of concentration = 10.394 min.
Rainfall intensity = 2.663(In/Hr) for a 10.0 year storm
Effective runoff coefficient used for area (Q=KCIA) is C = 0.841
Subarea runoff = 3.964(CFS)

```
Total initial stream area =        1.770(Ac.)
Pervious area fraction = 0.200
Initial area Fm value =    0.174(In/Hr)


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station        1.020 to Point/Station        1.030
**** PIPEFLOW TRAVEL TIME (User specified size) ****
______________________________________________________________________________
Upstream point/station elevation =   810.700(Ft.)
Downstream point/station elevation =   810.300(Ft.)
Pipe length  =    63.00(Ft.)   Manning's N = 0.013
No. of pipes = 1  Required pipe flow  =     3.964(CFS)
Given pipe size =     18.00(In.)
Calculated individual pipe flow  =     3.964(CFS)
Normal flow depth in pipe =    8.72(In.)
Flow top width inside pipe =   17.99(In.)
Critical Depth =    9.14(In.)
Pipe flow velocity =      4.67(Ft/s)
Travel time through pipe =    0.22 min.
Time of concentration (TC) =    10.62 min.


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station        1.030 to Point/Station        1.040
**** PIPEFLOW TRAVEL TIME (User specified size) ****
______________________________________________________________________________
Upstream point/station elevation =   809.000(Ft.)
Downstream point/station elevation =   806.300(Ft.)
Pipe length  =   346.00(Ft.)   Manning's N = 0.013
No. of pipes = 1  Required pipe flow  =     3.964(CFS)
Given pipe size =     18.00(In.)
Calculated individual pipe flow  =     3.964(CFS)
Normal flow depth in pipe =    8.21(In.)
Flow top width inside pipe =   17.93(In.)
Critical Depth =    9.14(In.)
Pipe flow velocity =      5.04(Ft/s)
Travel time through pipe =    1.14 min.
Time of concentration (TC) =    11.76 min.


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station        1.030 to Point/Station        1.040
**** CONFLUENCE OF MAIN STREAMS ****
______________________________________________________________________________
The following data inside Main Stream is listed:
In Main Stream number: 1
Stream flow area =      1.770(Ac.)
Runoff from this stream =      3.964(CFS)
Time of concentration =   11.76 min.
```

```
Rainfall intensity =     2.472(In/Hr)
Area averaged loss rate (Fm) =    0.1744(In/Hr)
Area averaged Pervious ratio (Ap) = 0.2000
Program is now starting with Main Stream No. 2


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station        2.010 to Point/Station        2.020
**** INITIAL AREA EVALUATION ****
________________________________________________________________________
APARTMENT subarea type
Decimal fraction soil group A = 0.000
Decimal fraction soil group B = 1.000
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.000
SCS curve number for soil(AMC 2)  = 56.00
Pervious ratio(Ap) = 0.2000     Max loss rate(Fm)=     0.147(In/Hr)
Initial subarea data:
Initial area flow distance =   376.000(Ft.)
Top (of initial area) elevation =   820.100(Ft.)
Bottom (of initial area) elevation =   815.600(Ft.)
Difference in elevation =     4.500(Ft.)
Slope =    0.01197  s(%)=       1.20
TC = k(0.324)*[(length^3)/(elevation change)]^0.2
Initial area time of concentration =    8.414 min.
Rainfall intensity =      3.022(In/Hr) for a    10.0 year storm
Effective runoff coefficient used for area (Q=KCIA) is C = 0.856
Subarea runoff =      3.779(CFS)
Total initial stream area =        1.460(Ac.)
Pervious area fraction = 0.200
Initial area Fm value =    0.147(In/Hr)


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station        2.020 to Point/Station        2.030
**** PIPEFLOW TRAVEL TIME (User specified size) ****
________________________________________________________________________
Upstream point/station elevation =   809.600(Ft.)
Downstream point/station elevation =   809.200(Ft.)
Pipe length  =    77.00(Ft.)   Manning's N = 0.013
No. of pipes = 1  Required pipe flow  =     3.779(CFS)
Given pipe size =     18.00(In.)
Calculated individual pipe flow  =     3.779(CFS)
Normal flow depth in pipe =    8.99(In.)
Flow top width inside pipe =   18.00(In.)
Critical Depth =    8.92(In.)
Pipe flow velocity =      4.28(Ft/s)
Travel time through pipe =    0.30 min.
Time of concentration (TC) =     8.71 min.
```

```
++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station        2.030 to Point/Station        2.040
**** PIPEFLOW TRAVEL TIME (User specified size) ****
______________________________________________________________________________
Upstream point/station elevation =   807.800(Ft.)
Downstream point/station elevation =   806.500(Ft.)
Pipe length  =   262.00(Ft.)   Manning's N = 0.013
No. of pipes = 1  Required pipe flow  =     3.779(CFS)
Given pipe size =     18.00(In.)
Calculated individual pipe flow  =     3.779(CFS)
Normal flow depth in pipe =    9.12(In.)
Flow top width inside pipe =   18.00(In.)
Critical Depth =    8.92(In.)
Pipe flow velocity =      4.21(Ft/s)
Travel time through pipe =    1.04 min.
Time of concentration (TC) =     9.75 min.


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station        2.030 to Point/Station        2.040
**** CONFLUENCE OF MINOR STREAMS ****
______________________________________________________________________________
Along Main Stream number: 2 in normal stream number 1
Stream flow area =      1.460(Ac.)
Runoff from this stream =      3.779(CFS)
Time of concentration =    9.75 min.
Rainfall intensity =     2.767(In/Hr)
Area averaged loss rate (Fm) =    0.1468(In/Hr)
Area averaged Pervious ratio (Ap) = 0.2000


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station        3.010 to Point/Station        3.020
**** INITIAL AREA EVALUATION ****
______________________________________________________________________________
APARTMENT subarea type
Decimal fraction soil group A = 0.000
Decimal fraction soil group B = 1.000
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.000
SCS curve number for soil(AMC 2)  = 56.00
Pervious ratio(Ap) = 0.2000     Max loss rate(Fm)=     0.147(In/Hr)
Initial subarea data:
Initial area flow distance =   293.000(Ft.)
Top (of initial area) elevation =   817.700(Ft.)
Bottom (of initial area) elevation =   815.100(Ft.)
Difference in elevation =     2.600(Ft.)
Slope =    0.00887  s(%)=       0.89
TC = k(0.324)*[(length^3)/(elevation change)]^0.2
```

```
Initial area time of concentration =    8.085 min.
Rainfall intensity =      3.096(In/Hr) for a    10.0 year storm
Effective runoff coefficient used for area (Q=KCIA) is C = 0.857
Subarea runoff =      3.981(CFS)
Total initial stream area =        1.500(Ac.)
Pervious area fraction = 0.200
Initial area Fm value =    0.147(In/Hr)


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station        3.020 to Point/Station        3.030
**** PIPEFLOW TRAVEL TIME (User specified size) ****
______________________________________________________________________________
Upstream point/station elevation =   810.100(Ft.)
Downstream point/station elevation =   809.200(Ft.)
Pipe length  =   181.00(Ft.)   Manning's N = 0.013
No. of pipes = 1  Required pipe flow  =     3.981(CFS)
Given pipe size =     18.00(In.)
Calculated individual pipe flow  =     3.981(CFS)
Normal flow depth in pipe =    9.40(In.)
Flow top width inside pipe =   17.98(In.)
Critical Depth =    9.15(In.)
Pipe flow velocity =      4.27(Ft/s)
Travel time through pipe =    0.71 min.
Time of concentration (TC) =     8.79 min.


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station        3.030 to Point/Station        2.040
**** PIPEFLOW TRAVEL TIME (User specified size) ****
______________________________________________________________________________
Upstream point/station elevation =   807.900(Ft.)
Downstream point/station elevation =   806.500(Ft.)
Pipe length  =    16.00(Ft.)   Manning's N = 0.013
No. of pipes = 1  Required pipe flow  =     3.981(CFS)
Given pipe size =     18.00(In.)
Calculated individual pipe flow  =     3.981(CFS)
Normal flow depth in pipe =    4.35(In.)
Flow top width inside pipe =   15.41(In.)
Critical Depth =    9.15(In.)
Pipe flow velocity =     12.08(Ft/s)
Travel time through pipe =    0.02 min.
Time of concentration (TC) =     8.81 min.


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station        3.030 to Point/Station        2.040
**** CONFLUENCE OF MINOR STREAMS ****
______________________________________________________________________________
Along Main Stream number: 2 in normal stream number 2
```

```
Stream flow area =      1.500(Ac.)
Runoff from this stream =      3.981(CFS)
Time of concentration =    8.81 min.
Rainfall intensity =     2.940(In/Hr)
Area averaged loss rate (Fm) =    0.1468(In/Hr)
Area averaged Pervious ratio (Ap) = 0.2000
Summary of stream data:

Stream Flow rate    Area    TC     Fm       Rainfall Intensity
 No.    (CFS)   (Ac.)       (min) (In/Hr)     (In/Hr)


1      3.78     1.460      9.75    0.147      2.767
2      3.98     1.500      8.81    0.147      2.940
Qmax(1) =
           1.000 *    1.000 *     3.779) +
           0.938 *    1.000 *     3.981) + =       7.513
Qmax(2) =
           1.066 *    0.904 *     3.779) +
           1.000 *    1.000 *     3.981) + =       7.622

Total of 2 streams to confluence:
Flow rates before confluence point:
       3.779       3.981
Maximum flow rates at confluence using above data:
        7.513        7.622
Area of streams before confluence:
        1.460        1.500
Effective area values after confluence:
        2.960        2.820
Results of confluence:
Total flow rate =      7.622(CFS)
Time of concentration =     8.814 min.
Effective stream area after confluence =      2.820(Ac.)
Study area average Pervious fraction(Ap) =  0.200
Study area average soil loss rate(Fm) =    0.147(In/Hr)
Study area total (this main stream) =       2.96(Ac.)


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station        2.040 to Point/Station        1.040
**** PIPEFLOW TRAVEL TIME (User specified size) ****
________________________________________________________________________
Upstream point/station elevation =   806.500(Ft.)
Downstream point/station elevation =   806.300(Ft.)
Pipe length  =    42.00(Ft.)   Manning's N = 0.013
No. of pipes = 1  Required pipe flow  =     7.622(CFS)
Given pipe size =     24.00(In.)
Calculated individual pipe flow  =     7.622(CFS)
Normal flow depth in pipe =   11.84(In.)
```

```
Flow top width inside pipe =   24.00(In.)
Critical Depth =   11.78(In.)
Pipe flow velocity =      4.94(Ft/s)
Travel time through pipe =    0.14 min.
Time of concentration (TC) =     8.96 min.


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station        2.040 to Point/Station        1.040
**** CONFLUENCE OF MAIN STREAMS ****
________________________________________________________________________
The following data inside Main Stream is listed:
In Main Stream number: 2
Stream flow area =      2.820(Ac.)
Runoff from this stream =      7.622(CFS)
Time of concentration =    8.96 min.
Rainfall intensity =     2.912(In/Hr)
Area averaged loss rate (Fm) =    0.1468(In/Hr)
Area averaged Pervious ratio (Ap) = 0.2000
Summary of stream data:

Stream Flow rate    Area    TC     Fm       Rainfall Intensity
 No.    (CFS)   (Ac.)       (min) (In/Hr)     (In/Hr)


1      3.96     1.770     11.76    0.174      2.472
2      7.62     2.820      8.96    0.147      2.912
Qmax(1) =
           1.000 *    1.000 *     3.964) +
           0.841 *    1.000 *     7.622) + =      10.375
Qmax(2) =
           1.191 *    0.761 *     3.964) +
           1.000 *    1.000 *     7.622) + =      11.217

Total of 2 main streams to confluence:
Flow rates before confluence point:
       4.964       8.622
Maximum flow rates at confluence using above data:
       10.375       11.217
Area of streams before confluence:
        1.770        2.820
Effective area values after confluence:
        4.590        4.167


Results of confluence:
Total flow rate =     11.217(CFS)
Time of concentration =     8.955 min.
Effective stream area after confluence  =      4.167(Ac.)
Study area average Pervious fraction(Ap) =  0.200
```

```
Study area average soil loss rate(Fm) =    0.157(In/Hr)
Study area total =       4.59(Ac.)


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station        1.040 to Point/Station        1.050
**** PIPEFLOW TRAVEL TIME (User specified size) ****
________________________________________________________________________
Upstream point/station elevation =   806.300(Ft.)
Downstream point/station elevation =   805.800(Ft.)
Pipe length  =   100.00(Ft.)   Manning's N = 0.013
No. of pipes = 1  Required pipe flow  =    11.217(CFS)
Given pipe size =     30.00(In.)
Calculated individual pipe flow  =    11.217(CFS)
Normal flow depth in pipe =   12.95(In.)
Flow top width inside pipe =   29.72(In.)
Critical Depth =   13.45(In.)
Pipe flow velocity =      5.53(Ft/s)
Travel time through pipe =    0.30 min.
Time of concentration (TC) =     9.26 min.


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station        4.010 to Point/Station        4.020
**** INITIAL AREA EVALUATION ****
________________________________________________________________________
APARTMENT subarea type
Decimal fraction soil group A = 0.000
Decimal fraction soil group B = 1.000
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.000
SCS curve number for soil(AMC 2)  = 56.00
Pervious ratio(Ap) = 0.2000     Max loss rate(Fm)=     0.147(In/Hr)
Initial subarea data:
Initial area flow distance =   641.000(Ft.)
Top (of initial area) elevation =   816.000(Ft.)
Bottom (of initial area) elevation =   809.400(Ft.)
Difference in elevation =     6.600(Ft.)
Slope =    0.01030  s(%)=       1.03
TC = k(0.324)*[(length^3)/(elevation change)]^0.2
Initial area time of concentration =   10.734 min.
Rainfall intensity =      2.612(In/Hr) for a    10.0 year storm
Effective runoff coefficient used for area (Q=KCIA) is C = 0.849
Subarea runoff =      2.928(CFS)
Total initial stream area =        1.320(Ac.)
Pervious area fraction = 0.200
Initial area Fm value =    0.147(In/Hr)


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
```

```
Process from Point/Station        5.010 to Point/Station        5.020
**** INITIAL AREA EVALUATION ****
----------------------------------------------------------------------
APARTMENT subarea type
Decimal fraction soil group A = 0.000
Decimal fraction soil group B = 1.000
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.000
SCS curve number for soil(AMC 2)  = 56.00
Pervious ratio(Ap) = 0.2000     Max loss rate(Fm)=     0.147(In/Hr)
Initial subarea data:
Initial area flow distance =   269.000(Ft.)
Top (of initial area) elevation =   813.700(Ft.)
Bottom (of initial area) elevation =   809.800(Ft.)
Difference in elevation =     3.900(Ft.)
Slope =    0.01450  s(%)=       1.45
TC = k(0.324)*[(length^3)/(elevation change)]^0.2
Initial area time of concentration =    7.082 min.
Rainfall intensity =      3.352(In/Hr) for a    10.0 year storm
Effective runoff coefficient used for area (Q=KCIA) is C = 0.861
Subarea runoff =      1.558(CFS)
Total initial stream area =        0.540(Ac.)
Pervious area fraction = 0.200
Initial area Fm value =    0.147(In/Hr)


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station        6.010 to Point/Station        6.020
**** INITIAL AREA EVALUATION ****
----------------------------------------------------------------------
APARTMENT subarea type
Decimal fraction soil group A = 0.000
Decimal fraction soil group B = 1.000
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.000
SCS curve number for soil(AMC 2)  = 56.00
Pervious ratio(Ap) = 0.2000     Max loss rate(Fm)=     0.147(In/Hr)
Initial subarea data:
Initial area flow distance =   269.000(Ft.)
Top (of initial area) elevation =   813.900(Ft.)
Bottom (of initial area) elevation =   810.200(Ft.)
Difference in elevation =     3.700(Ft.)
Slope =    0.01375  s(%)=       1.38
TC = k(0.324)*[(length^3)/(elevation change)]^0.2
Initial area time of concentration =    7.157 min.
Rainfall intensity =      3.331(In/Hr) for a    10.0 year storm
Effective runoff coefficient used for area (Q=KCIA) is C = 0.860
Subarea runoff =      1.175(CFS)
Total initial stream area =        0.410(Ac.)
Pervious area fraction = 0.200
```

```
Initial area Fm value =    0.147(In/Hr)


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station        7.010 to Point/Station        7.020
**** INITIAL AREA EVALUATION ****
------------------------------------------------------------------------------
APARTMENT subarea type
Decimal fraction soil group A = 0.000
Decimal fraction soil group B = 1.000
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.000
SCS curve number for soil(AMC 2)  = 56.00
Pervious ratio(Ap) = 0.2000     Max loss rate(Fm)=     0.147(In/Hr)
Initial subarea data:
Initial area flow distance =   284.000(Ft.)
Top (of initial area) elevation =   816.200(Ft.)
Bottom (of initial area) elevation =   810.700(Ft.)
Difference in elevation =     5.500(Ft.)
Slope =    0.01937  s(%)=       1.94
TC = k(0.324)*[(length^3)/(elevation change)]^0.2
Initial area time of concentration =    6.831 min.
Rainfall intensity =      3.425(In/Hr) for a    10.0 year storm
Effective runoff coefficient used for area (Q=KCIA) is C = 0.861
Subarea runoff =      2.774(CFS)
Total initial stream area =        0.940(Ac.)
Pervious area fraction = 0.200
Initial area Fm value =    0.147(In/Hr)


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station        8.010 to Point/Station        8.020
**** INITIAL AREA EVALUATION ****
------------------------------------------------------------------------------
APARTMENT subarea type
Decimal fraction soil group A = 0.000
Decimal fraction soil group B = 1.000
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.000
SCS curve number for soil(AMC 2)  = 56.00
Pervious ratio(Ap) = 0.2000     Max loss rate(Fm)=     0.147(In/Hr)
Initial subarea data:
Initial area flow distance =   204.000(Ft.)
Top (of initial area) elevation =   817.400(Ft.)
Bottom (of initial area) elevation =   814.900(Ft.)
Difference in elevation =     2.500(Ft.)
Slope =    0.01225  s(%)=       1.23
TC = k(0.324)*[(length^3)/(elevation change)]^0.2
Initial area time of concentration =    6.557 min.
Rainfall intensity =      3.510(In/Hr) for a    10.0 year storm
```

```
Effective runoff coefficient used for area (Q=KCIA) is C = 0.862
Subarea runoff =      2.089(CFS)
Total initial stream area =        0.690(Ac.)
Pervious area fraction = 0.200
Initial area Fm value =    0.147(In/Hr)


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station        8.020 to Point/Station        8.030
**** PIPEFLOW TRAVEL TIME (User specified size) ****
________________________________________________________________________
Upstream point/station elevation =   812.700(Ft.)
Downstream point/station elevation =   811.900(Ft.)
Pipe length  =   110.00(Ft.)   Manning's N = 0.013
No. of pipes = 1  Required pipe flow  =     2.089(CFS)
Given pipe size =     12.00(In.)
Calculated individual pipe flow  =     2.089(CFS)
Normal flow depth in pipe =    7.31(In.)
Flow top width inside pipe =   11.71(In.)
Critical Depth =    7.41(In.)
Pipe flow velocity =      4.17(Ft/s)
Travel time through pipe =    0.44 min.
Time of concentration (TC) =     7.00 min.


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station        9.010 to Point/Station        9.020
**** INITIAL AREA EVALUATION ****
________________________________________________________________________
APARTMENT subarea type
Decimal fraction soil group A = 0.850
Decimal fraction soil group B = 0.150
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.000
SCS curve number for soil(AMC 2)  = 35.60
Pervious ratio(Ap) = 0.2000     Max loss rate(Fm)=     0.191(In/Hr)
Initial subarea data:
Initial area flow distance =   340.000(Ft.)
Top (of initial area) elevation =   824.000(Ft.)
Bottom (of initial area) elevation =   818.400(Ft.)
Difference in elevation =     5.600(Ft.)
Slope =    0.01647  s(%)=       1.65
TC = k(0.324)*[(length^3)/(elevation change)]^0.2
Initial area time of concentration =    7.582 min.
Rainfall intensity =      3.217(In/Hr) for a    10.0 year storm
Effective runoff coefficient used for area (Q=KCIA) is C = 0.847
Subarea runoff =      2.642(CFS)
Total initial stream area =        0.970(Ac.)
Pervious area fraction = 0.200
Initial area Fm value =    0.191(In/Hr)
```

```
++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station        9.020 to Point/Station        9.030
**** PIPEFLOW TRAVEL TIME (User specified size) ****
______________________________________________________________________________
Upstream point/station elevation =   815.300(Ft.)
Downstream point/station elevation =   815.200(Ft.)
Pipe length  =    30.00(Ft.)   Manning's N = 0.013
No. of pipes = 1  Required pipe flow  =     2.642(CFS)
Given pipe size =     18.00(In.)
Calculated individual pipe flow  =     2.642(CFS)
Normal flow depth in pipe =    8.31(In.)
Flow top width inside pipe =   17.95(In.)
Critical Depth =    7.38(In.)
Pipe flow velocity =      3.31(Ft/s)
Travel time through pipe =    0.15 min.
Time of concentration (TC) =     7.73 min.


++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station        9.030 to Point/Station        9.040
**** PIPEFLOW TRAVEL TIME (User specified size) ****
______________________________________________________________________________
Upstream point/station elevation =   813.800(Ft.)
Downstream point/station elevation =   813.600(Ft.)
Pipe length  =    49.00(Ft.)   Manning's N = 0.013
No. of pipes = 1  Required pipe flow  =     2.642(CFS)
Given pipe size =     18.00(In.)
Calculated individual pipe flow  =     2.642(CFS)
Normal flow depth in pipe =    7.85(In.)
Flow top width inside pipe =   17.85(In.)
Critical Depth =    7.38(In.)
Pipe flow velocity =      3.57(Ft/s)
Travel time through pipe =    0.23 min.
Time of concentration (TC) =     7.96 min.
End of computations, Total Study Area =            9.60 (Ac.)
The following figures may
be used for a unit hydrograph study of the same area.
Note: These figures do not consider reduced effective area
effects caused by confluences in the rational equation.

Area averaged pervious area fraction(Ap) = 0.200
Area averaged SCS curve number =  51.8
```

Worksheet for PARKWAY DRAIN-1

Project Description	
Friction Method	Manning Formula
Solve For	Full Flow Capacity

Input Data	
Roughness Coefficient	0.015
Channel Slope	0.020 ft/ft
Normal Depth	3.0 in
Height	0.3 ft
Bottom Width	6.00 ft
Discharge	5.11 cfs

Results	
Flow Area	1.5 ft²
Wetted Perimeter	12.5 ft
Hydraulic Radius	1.4 in
Top Width	6.00 ft
Critical Depth	3.0 in
Percent Full	100.0 %
Critical Slope	0.020 ft/ft
Velocity	3.41 ft/s
Velocity Head	0.18 ft
Specific Energy	0.43 ft
Froude Number	1.202
Discharge Full	5.11 cfs
Slope Full	0.020 ft/ft
Flow Type	Critical

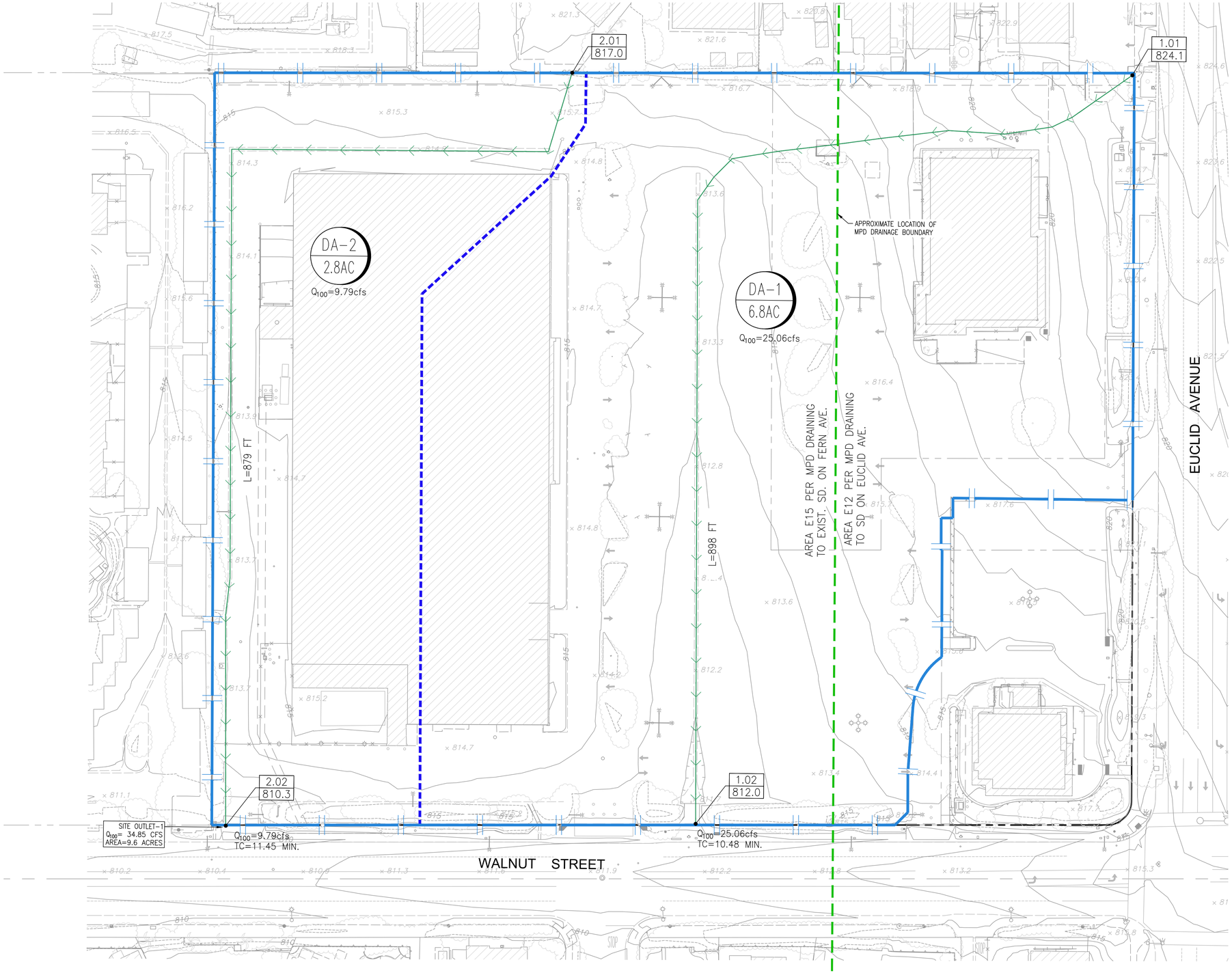
GVF Input Data	
Downstream Depth	0.0 in
Length	0.0 ft
Number Of Steps	0

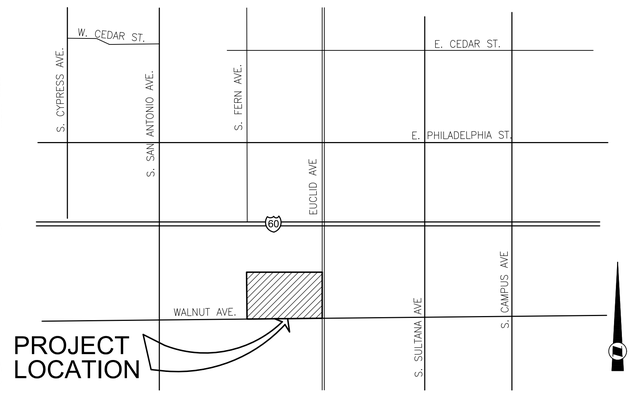
GVF Output Data	
Upstream Depth	0.0 in
Profile Description	N/A
Profile Headloss	0.00 ft
Average End Depth Over Rise	0.0 %
Normal Depth Over Rise	100.0 %
Downstream Velocity	Infinity ft/s
Upstream Velocity	Infinity ft/s
Normal Depth	3.0 in
Critical Depth	3.0 in
Channel Slope	0.020 ft/ft
Critical Slope	0.020 ft/ft

APPENDIX 4

HYDROLOGY MAPS:
PRE AND POST DEVELOPMENT PLANS

PRE DEVELOPMENT DRAINAGE MAP
WALNUT & EUCLID MIXED USE
ONTARIO, CA





VICINITY MAP
NOT TO SCALE

LEGEND

- PROJECT BOUNDARY
- DRAINAGE AREA BOUNDARY
- AREA-E15 / AREA-E12 — DRAINAGE BOUNDARY PER MASTER PLAN OF DRAINAGE (MPD)
- DA# / X AC (SUB-AREA (ACRES) / SUB AREA) — DRAINAGE AREA ID AND INFO.
- # / EL (NODE# / POINT ELEVATION) — NODE ID AND ELEVATION
- RUNOFF CONVEYANCE LINE (SURFACE)
- L=XXX' — RUNOFF CONVEYANCE LENGTH

PRE CONSTRUCTION FLOW CALCULATION		
DRAINAGE AREA ID	ACRE	Q100 (cfs)
DA-1	6.8	25.06
DA-2	2.8	9.79
TOTAL AT OUTLET -1 DRAINING TO SYSTEM "FERN-VII-1" PER MPD	9.6	34.85
TOTAL FLOW LEAVING SITE AT PRE CONSTRUCTION =	9.6	34.85

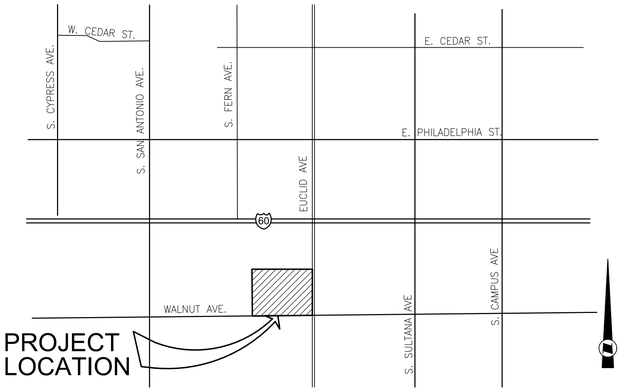
N

Scale: 1" = 40'
Exhibit Date:4-26-2023

PROJECT SITE
EUCLID AND WALNUT MIXED USE
NW CORNER OF E. EUCLID
AND WALNUT STREET
ONTARIO, CA

FUSCOE ENGINEERING
full circle thinking

POST DEVELOPMENT DRAINAGE MAP
WALNUT & EUCLID MIXED USE
ONTARIO, CA



VICINITY MAP
NOT TO SCALE

LEGEND

- PROJECT BOUNDARY
- DRAINAGE AREA BOUNDARY
- AREA–E15 / AREA–E12 — DRAINAGE BOUNDARY PER MASTER PLAN OF DRAINAGE (MPD)
- DA# / X AC / SUB AREA — SUB-AREA (ACRES); DRAINAGE AREA ID AND INFO.
- # / EL — NODE#, POINT ELEVATION; NODE ID AND ELEVATION
- RUNOFF CONVEYANCE LINE (SURFACE)
- RUNOFF CONVEYANCE LINE (SD PIPE)
- L=XXX' — RUNOFF CONVEYANCE LENGTH
- TEMPORARY UNDERGROUND STORAGE CHAMBER TO ATTENUATE ONSITE FLOODING
- MODULAR WETLAND TO MITIGATE PROJECT WATER QUALITY REQUIREMENTS

POST CONSTRUCTION FLOW CALCULATION							
DRAINAGE AREA ID	ACRE	Q100 (cfs)	Q100 (cfs) LEAVING SITE	DRAINAGE AREA ID	ACRE	Q100 (cfs)	Q100 (cfs) LEAVING SITE
DA-1 TO DA-3	4.73	17.71	5.11 *	DA-9	0.97	4.18	4.18
DA-4	1.32	4.63	4.63				
DA-5	0.54	2.45	2.45				
DA-6	0.41	1.85	1.85				
DA-7.1	0.75	3.44	3.44				
DA-7.2	0.19	0.92	0.92				
DA-8	0.69	3.28	3.28				
TOTAL AT OUTLET -1 DRAINING TOSYSTEM "FERN-VII-1" PER MPD	8.63	34.28	21.68	**TOTAL AT OUTLET -2 DRAINING TO SYSTEM "EULD-VII-1" PER MPD**	0.97	4.18	4.18
TOTAL FLOW LEAVING SITE AT POST CONSTRUCTION =	9.6		25.86				

* THE HIGHER FLOW 5.11 cfs IS TAKEN INTO CONSIDERATION. OUT OF FLOW CAPACITY OF THE PROPOSED PUMP SYSTEM (0.51 cfs) OR FLOW CAPACITY OF THE PARKWAY DRAIN–1 (5.11 cfs).

N

Scale: 1" = 40'
Exhibit Date: 4-26-2023

PROJECT SITE
EUCLID AND WALNUT MIXED USE
NW CORNER OF E. EUCLID
AND WALNUT STREET
ONTARIO, CA

FUSCOE ENGINEERING
full circle thinking

APPENDIX 5

UNIT HYDROGRAPH, ROUTING CALCULATION AND TEMPORARY DETENTION SYSTEM

U n i t H y d r o g r a p h A n a l y s i s

Copyright (c) CIVILCADD/CIVILDESIGN, 1989 - 2004, Version 7.0

Study date 04/25/23

++

San Bernardino County Synthetic Unit Hydrology Method
Manual date - August 1986

Program License Serial Number 6049

UNIT HYDROGRAPH, DRAIN-1
100-YEAR EVENT
POST CONSTRUCTION
EUCLID AND WALNUT

Storm Event Year = 100

Antecedent Moisture Condition = 2

English (in-lb) Input Units Used

English Rainfall Data (Inches) Input Values Used

English Units used in output format

Area averaged rainfall intensity isohyetal data:

Sub-Area (Ac.)	Duration (hours)	Isohyetal (In)
Rainfall data for year 100		
4.73	1	1.44
Rainfall data for year 100		
4.73	6	3.49
Rainfall data for year 100		
4.73	24	6.32

++

******** Area-averaged max loss rate, Fm ********

SCS curve No.(AMCII)	SCS curve NO.(AMC 2)	Area (Ac.)	Area Fraction	Fp(Fig C6) (In/Hr)	Ap (dec.)	Fm (In/Hr)
51.8	51.8	4.73	1.000	0.788	0.200	0.158

Area-averaged adjusted loss rate Fm (In/Hr) = 0.158

********* Area-Averaged low loss rate fraction, Yb **********

Area (Ac.)	Area Fract	SCS CN (AMC2)	SCS CN (AMC2)	S	Pervious Yield Fr
0.95	0.200	51.8	51.8	9.31	0.229
3.78	0.800	98.0	98.0	0.20	0.962

Area-averaged catchment yield fraction, Y = 0.816
Area-averaged low loss fraction, Yb = 0.184
User entry of time of concentration = 0.145 (hours)
++
Watershed area = 4.73(Ac.)
Catchment Lag time = 0.116 hours
Unit interval = 5.000 minutes
Unit interval percentage of lag time = 71.8391
Hydrograph baseflow = 0.00(CFS)
Average maximum watershed loss rate(Fm) = 0.158(In/Hr)
Average low loss rate fraction (Yb) = 0.184 (decimal)
VALLEY DEVELOPED S-Graph Selected
Computed peak 5-minute rainfall = 0.533(In)
Computed peak 30-minute rainfall = 1.091(In)
Specified peak 1-hour rainfall = 1.440(In)
Computed peak 3-hour rainfall = 2.478(In)
Specified peak 6-hour rainfall = 3.490(In)
Specified peak 24-hour rainfall = 6.320(In)

Rainfall depth area reduction factors:
Using a total area of 4.73(Ac.) (Ref: fig. E-4)

5-minute factor = 1.000 Adjusted rainfall = 0.533(In)
30-minute factor = 1.000 Adjusted rainfall = 1.091(In)
1-hour factor = 1.000 Adjusted rainfall = 1.440(In)
3-hour factor = 1.000 Adjusted rainfall = 2.478(In)
6-hour factor = 1.000 Adjusted rainfall = 3.490(In)
24-hour factor = 1.000 Adjusted rainfall = 6.320(In)

U n i t H y d r o g r a p h
++

Interval Number	'S' Graph Mean values	Unit Hydrograph ((CFS))
	(K = 57.20 (CFS))	
1	9.222	5.275
2	55.464	26.452
3	90.385	19.976
4	98.145	4.439
5	100.000	1.061

Peak Unit Number	Adjusted mass rainfall (In)	Unit rainfall (In)
1	0.5328	0.5328
2	0.7031	0.1702
3	0.8269	0.1238
4	0.9277	0.1008
5	1.0143	0.0866
6	1.0911	0.0767
7	1.1605	0.0694
8	1.2241	0.0637
9	1.2832	0.0591
10	1.3384	0.0552
11	1.3904	0.0520
12	1.4397	0.0492
13	1.4978	0.0581
14	1.5537	0.0559
15	1.6075	0.0539
16	1.6597	0.0521
17	1.7101	0.0505
18	1.7591	0.0490
19	1.8068	0.0476
20	1.8532	0.0464
21	1.8984	0.0452
22	1.9426	0.0442
23	1.9857	0.0432
24	2.0279	0.0422
25	2.0692	0.0413
26	2.1097	0.0405
27	2.1495	0.0397
28	2.1885	0.0390
29	2.2267	0.0383
30	2.2644	0.0376
31	2.3014	0.0370
32	2.3378	0.0364
33	2.3736	0.0358
34	2.4089	0.0353
35	2.4436	0.0348
36	2.4779	0.0343
37	2.5117	0.0338

38	2.5450	0.0333
39	2.5779	0.0329
40	2.6103	0.0324
41	2.6423	0.0320
42	2.6740	0.0316
43	2.7053	0.0313
44	2.7362	0.0309
45	2.7667	0.0306
46	2.7969	0.0302
47	2.8268	0.0299
48	2.8564	0.0296
49	2.8856	0.0292
50	2.9146	0.0289
51	2.9432	0.0287
52	2.9716	0.0284
53	2.9997	0.0281
54	3.0275	0.0278
55	3.0551	0.0276
56	3.0824	0.0273
57	3.1095	0.0271
58	3.1363	0.0268
59	3.1629	0.0266
60	3.1893	0.0264
61	3.2155	0.0262
62	3.2414	0.0259
63	3.2671	0.0257
64	3.2926	0.0255
65	3.3180	0.0253
66	3.3431	0.0251
67	3.3680	0.0249
68	3.3928	0.0247
69	3.4173	0.0246
70	3.4417	0.0244
71	3.4659	0.0242
72	3.4899	0.0240
73	3.5106	0.0207
74	3.5311	0.0205
75	3.5515	0.0204
76	3.5717	0.0202
77	3.5918	0.0201
78	3.6117	0.0199
79	3.6314	0.0198
80	3.6511	0.0196
81	3.6705	0.0195
82	3.6899	0.0193
83	3.7091	0.0192
84	3.7282	0.0191
85	3.7471	0.0189
86	3.7659	0.0188
87	3.7846	0.0187

88	3.8032	0.0186
89	3.8217	0.0185
90	3.8400	0.0183
91	3.8582	0.0182
92	3.8763	0.0181
93	3.8943	0.0180
94	3.9122	0.0179
95	3.9300	0.0178
96	3.9476	0.0177
97	3.9652	0.0176
98	3.9827	0.0175
99	4.0000	0.0174
100	4.0173	0.0173
101	4.0344	0.0172
102	4.0515	0.0171
103	4.0685	0.0170
104	4.0853	0.0169
105	4.1021	0.0168
106	4.1188	0.0167
107	4.1354	0.0166
108	4.1519	0.0165
109	4.1683	0.0164
110	4.1847	0.0163
111	4.2009	0.0163
112	4.2171	0.0162
113	4.2332	0.0161
114	4.2492	0.0160
115	4.2651	0.0159
116	4.2810	0.0158
117	4.2967	0.0158
118	4.3124	0.0157
119	4.3281	0.0156
120	4.3436	0.0155
121	4.3591	0.0155
122	4.3745	0.0154
123	4.3898	0.0153
124	4.4050	0.0153
125	4.4202	0.0152
126	4.4353	0.0151
127	4.4504	0.0150
128	4.4653	0.0150
129	4.4803	0.0149
130	4.4951	0.0148
131	4.5099	0.0148
132	4.5246	0.0147
133	4.5392	0.0147
134	4.5538	0.0146
135	4.5684	0.0145
136	4.5828	0.0145
137	4.5972	0.0144

138	4.6116	0.0143
139	4.6259	0.0143
140	4.6401	0.0142
141	4.6543	0.0142
142	4.6684	0.0141
143	4.6824	0.0141
144	4.6964	0.0140
145	4.7104	0.0139
146	4.7242	0.0139
147	4.7381	0.0138
148	4.7519	0.0138
149	4.7656	0.0137
150	4.7793	0.0137
151	4.7929	0.0136
152	4.8065	0.0136
153	4.8200	0.0135
154	4.8334	0.0135
155	4.8469	0.0134
156	4.8602	0.0134
157	4.8736	0.0133
158	4.8868	0.0133
159	4.9001	0.0132
160	4.9132	0.0132
161	4.9264	0.0131
162	4.9394	0.0131
163	4.9525	0.0130
164	4.9655	0.0130
165	4.9784	0.0129
166	4.9913	0.0129
167	5.0042	0.0129
168	5.0170	0.0128
169	5.0298	0.0128
170	5.0425	0.0127
171	5.0552	0.0127
172	5.0678	0.0126
173	5.0804	0.0126
174	5.0930	0.0126
175	5.1055	0.0125
176	5.1180	0.0125
177	5.1304	0.0124
178	5.1428	0.0124
179	5.1552	0.0124
180	5.1675	0.0123
181	5.1798	0.0123
182	5.1920	0.0122
183	5.2042	0.0122
184	5.2164	0.0122
185	5.2285	0.0121
186	5.2406	0.0121
187	5.2526	0.0121

188	5.2646	0.0120
189	5.2766	0.0120
190	5.2886	0.0119
191	5.3005	0.0119
192	5.3123	0.0119
193	5.3242	0.0118
194	5.3360	0.0118
195	5.3477	0.0118
196	5.3595	0.0117
197	5.3712	0.0117
198	5.3828	0.0117
199	5.3944	0.0116
200	5.4060	0.0116
201	5.4176	0.0116
202	5.4291	0.0115
203	5.4406	0.0115
204	5.4521	0.0115
205	5.4635	0.0114
206	5.4749	0.0114
207	5.4863	0.0114
208	5.4976	0.0113
209	5.5089	0.0113
210	5.5202	0.0113
211	5.5315	0.0112
212	5.5427	0.0112
213	5.5539	0.0112
214	5.5650	0.0112
215	5.5761	0.0111
216	5.5872	0.0111
217	5.5983	0.0111
218	5.6093	0.0110
219	5.6203	0.0110
220	5.6313	0.0110
221	5.6423	0.0110
222	5.6532	0.0109
223	5.6641	0.0109
224	5.6749	0.0109
225	5.6858	0.0108
226	5.6966	0.0108
227	5.7074	0.0108
228	5.7181	0.0108
229	5.7289	0.0107
230	5.7396	0.0107
231	5.7502	0.0107
232	5.7609	0.0106
233	5.7715	0.0106
234	5.7821	0.0106
235	5.7927	0.0106
236	5.8032	0.0105
237	5.8138	0.0105

238	5.8243	0.0105
239	5.8347	0.0105
240	5.8452	0.0104
241	5.8556	0.0104
242	5.8660	0.0104
243	5.8764	0.0104
244	5.8867	0.0103
245	5.8970	0.0103
246	5.9073	0.0103
247	5.9176	0.0103
248	5.9278	0.0103
249	5.9381	0.0102
250	5.9483	0.0102
251	5.9585	0.0102
252	5.9686	0.0102
253	5.9787	0.0101
254	5.9889	0.0101
255	5.9989	0.0101
256	6.0090	0.0101
257	6.0191	0.0100
258	6.0291	0.0100
259	6.0391	0.0100
260	6.0491	0.0100
261	6.0590	0.0100
262	6.0689	0.0099
263	6.0789	0.0099
264	6.0887	0.0099
265	6.0986	0.0099
266	6.1085	0.0098
267	6.1183	0.0098
268	6.1281	0.0098
269	6.1379	0.0098
270	6.1476	0.0098
271	6.1574	0.0097
272	6.1671	0.0097
273	6.1768	0.0097
274	6.1865	0.0097
275	6.1961	0.0097
276	6.2058	0.0096
277	6.2154	0.0096
278	6.2250	0.0096
279	6.2346	0.0096
280	6.2442	0.0096
281	6.2537	0.0095
282	6.2632	0.0095
283	6.2727	0.0095
284	6.2822	0.0095
285	6.2917	0.0095
286	6.3011	0.0094
287	6.3106	0.0094

288 6.3200 0.0094

Unit Period (number)	Unit Rainfall (In)	Unit Soil-Loss (In)	Effective Rainfall (In)
1	0.0094	0.0017	0.0077
2	0.0094	0.0017	0.0077
3	0.0095	0.0017	0.0077
4	0.0095	0.0017	0.0077
5	0.0095	0.0018	0.0078
6	0.0095	0.0018	0.0078
7	0.0096	0.0018	0.0078
8	0.0096	0.0018	0.0078
9	0.0096	0.0018	0.0079
10	0.0097	0.0018	0.0079
11	0.0097	0.0018	0.0079
12	0.0097	0.0018	0.0079
13	0.0098	0.0018	0.0080
14	0.0098	0.0018	0.0080
15	0.0098	0.0018	0.0080
16	0.0098	0.0018	0.0080
17	0.0099	0.0018	0.0081
18	0.0099	0.0018	0.0081
19	0.0100	0.0018	0.0081
20	0.0100	0.0018	0.0081
21	0.0100	0.0018	0.0082
22	0.0100	0.0019	0.0082
23	0.0101	0.0019	0.0082
24	0.0101	0.0019	0.0082
25	0.0102	0.0019	0.0083
26	0.0102	0.0019	0.0083
27	0.0102	0.0019	0.0083
28	0.0103	0.0019	0.0084
29	0.0103	0.0019	0.0084
30	0.0103	0.0019	0.0084
31	0.0104	0.0019	0.0085
32	0.0104	0.0019	0.0085
33	0.0104	0.0019	0.0085
34	0.0105	0.0019	0.0085
35	0.0105	0.0019	0.0086
36	0.0105	0.0019	0.0086
37	0.0106	0.0020	0.0086
38	0.0106	0.0020	0.0087
39	0.0107	0.0020	0.0087
40	0.0107	0.0020	0.0087
41	0.0108	0.0020	0.0088
42	0.0108	0.0020	0.0088
43	0.0108	0.0020	0.0088
44	0.0109	0.0020	0.0089

45	0.0109	0.0020	0.0089
46	0.0110	0.0020	0.0089
47	0.0110	0.0020	0.0090
48	0.0110	0.0020	0.0090
49	0.0111	0.0020	0.0090
50	0.0111	0.0021	0.0091
51	0.0112	0.0021	0.0091
52	0.0112	0.0021	0.0091
53	0.0113	0.0021	0.0092
54	0.0113	0.0021	0.0092
55	0.0114	0.0021	0.0093
56	0.0114	0.0021	0.0093
57	0.0115	0.0021	0.0093
58	0.0115	0.0021	0.0094
59	0.0116	0.0021	0.0094
60	0.0116	0.0021	0.0095
61	0.0117	0.0022	0.0095
62	0.0117	0.0022	0.0095
63	0.0118	0.0022	0.0096
64	0.0118	0.0022	0.0096
65	0.0119	0.0022	0.0097
66	0.0119	0.0022	0.0097
67	0.0120	0.0022	0.0098
68	0.0120	0.0022	0.0098
69	0.0121	0.0022	0.0099
70	0.0121	0.0022	0.0099
71	0.0122	0.0023	0.0100
72	0.0122	0.0023	0.0100
73	0.0123	0.0023	0.0100
74	0.0124	0.0023	0.0101
75	0.0124	0.0023	0.0101
76	0.0125	0.0023	0.0102
77	0.0126	0.0023	0.0102
78	0.0126	0.0023	0.0103
79	0.0127	0.0023	0.0103
80	0.0127	0.0023	0.0104
81	0.0128	0.0024	0.0105
82	0.0129	0.0024	0.0105
83	0.0129	0.0024	0.0106
84	0.0130	0.0024	0.0106
85	0.0131	0.0024	0.0107
86	0.0131	0.0024	0.0107
87	0.0132	0.0024	0.0108
88	0.0133	0.0024	0.0108
89	0.0134	0.0025	0.0109
90	0.0134	0.0025	0.0109
91	0.0135	0.0025	0.0110
92	0.0136	0.0025	0.0111
93	0.0137	0.0025	0.0112
94	0.0137	0.0025	0.0112

95	0.0138	0.0026	0.0113
96	0.0139	0.0026	0.0113
97	0.0140	0.0026	0.0114
98	0.0141	0.0026	0.0115
99	0.0142	0.0026	0.0116
100	0.0142	0.0026	0.0116
101	0.0143	0.0026	0.0117
102	0.0144	0.0027	0.0117
103	0.0145	0.0027	0.0118
104	0.0146	0.0027	0.0119
105	0.0147	0.0027	0.0120
106	0.0148	0.0027	0.0121
107	0.0149	0.0028	0.0122
108	0.0150	0.0028	0.0122
109	0.0151	0.0028	0.0123
110	0.0152	0.0028	0.0124
111	0.0153	0.0028	0.0125
112	0.0154	0.0028	0.0126
113	0.0155	0.0029	0.0127
114	0.0156	0.0029	0.0127
115	0.0158	0.0029	0.0129
116	0.0158	0.0029	0.0129
117	0.0160	0.0030	0.0131
118	0.0161	0.0030	0.0131
119	0.0163	0.0030	0.0133
120	0.0163	0.0030	0.0133
121	0.0165	0.0030	0.0135
122	0.0166	0.0031	0.0135
123	0.0168	0.0031	0.0137
124	0.0169	0.0031	0.0138
125	0.0171	0.0031	0.0139
126	0.0172	0.0032	0.0140
127	0.0174	0.0032	0.0142
128	0.0175	0.0032	0.0142
129	0.0177	0.0033	0.0144
130	0.0178	0.0033	0.0145
131	0.0180	0.0033	0.0147
132	0.0181	0.0033	0.0148
133	0.0183	0.0034	0.0150
134	0.0185	0.0034	0.0150
135	0.0187	0.0034	0.0152
136	0.0188	0.0035	0.0153
137	0.0191	0.0035	0.0156
138	0.0192	0.0035	0.0157
139	0.0195	0.0036	0.0159
140	0.0196	0.0036	0.0160
141	0.0199	0.0037	0.0162
142	0.0201	0.0037	0.0164
143	0.0204	0.0038	0.0166
144	0.0205	0.0038	0.0167

145	0.0240	0.0044	0.0196
146	0.0242	0.0045	0.0197
147	0.0246	0.0045	0.0200
148	0.0247	0.0046	0.0202
149	0.0251	0.0046	0.0205
150	0.0253	0.0047	0.0206
151	0.0257	0.0047	0.0210
152	0.0259	0.0048	0.0212
153	0.0264	0.0049	0.0215
154	0.0266	0.0049	0.0217
155	0.0271	0.0050	0.0221
156	0.0273	0.0050	0.0223
157	0.0278	0.0051	0.0227
158	0.0281	0.0052	0.0229
159	0.0287	0.0053	0.0234
160	0.0289	0.0053	0.0236
161	0.0296	0.0055	0.0241
162	0.0299	0.0055	0.0244
163	0.0306	0.0056	0.0249
164	0.0309	0.0057	0.0252
165	0.0316	0.0058	0.0258
166	0.0320	0.0059	0.0261
167	0.0329	0.0061	0.0268
168	0.0333	0.0061	0.0272
169	0.0343	0.0063	0.0279
170	0.0348	0.0064	0.0283
171	0.0358	0.0066	0.0292
172	0.0364	0.0067	0.0297
173	0.0376	0.0069	0.0307
174	0.0383	0.0071	0.0312
175	0.0397	0.0073	0.0324
176	0.0405	0.0075	0.0330
177	0.0422	0.0078	0.0344
178	0.0432	0.0080	0.0352
179	0.0452	0.0083	0.0369
180	0.0464	0.0086	0.0378
181	0.0490	0.0090	0.0400
182	0.0505	0.0093	0.0412
183	0.0539	0.0099	0.0440
184	0.0559	0.0103	0.0456
185	0.0492	0.0091	0.0402
186	0.0520	0.0096	0.0424
187	0.0591	0.0109	0.0482
188	0.0637	0.0117	0.0519
189	0.0767	0.0131	0.0636
190	0.0866	0.0131	0.0735
191	0.1238	0.0131	0.1107
192	0.1702	0.0131	0.1571
193	0.5328	0.0131	0.5197
194	0.1008	0.0131	0.0877

195	0.0694	0.0128	0.0566
196	0.0552	0.0102	0.0450
197	0.0581	0.0107	0.0474
198	0.0521	0.0096	0.0425
199	0.0476	0.0088	0.0389
200	0.0442	0.0081	0.0360
201	0.0413	0.0076	0.0337
202	0.0390	0.0072	0.0318
203	0.0370	0.0068	0.0302
204	0.0353	0.0065	0.0288
205	0.0338	0.0062	0.0275
206	0.0324	0.0060	0.0265
207	0.0313	0.0058	0.0255
208	0.0302	0.0056	0.0246
209	0.0292	0.0054	0.0239
210	0.0284	0.0052	0.0231
211	0.0276	0.0051	0.0225
212	0.0268	0.0050	0.0219
213	0.0262	0.0048	0.0213
214	0.0255	0.0047	0.0208
215	0.0249	0.0046	0.0203
216	0.0244	0.0045	0.0199
217	0.0207	0.0038	0.0169
218	0.0202	0.0037	0.0165
219	0.0198	0.0036	0.0161
220	0.0193	0.0036	0.0158
221	0.0189	0.0035	0.0155
222	0.0186	0.0034	0.0151
223	0.0182	0.0034	0.0149
224	0.0179	0.0033	0.0146
225	0.0176	0.0032	0.0143
226	0.0173	0.0032	0.0141
227	0.0170	0.0031	0.0138
228	0.0167	0.0031	0.0136
229	0.0164	0.0030	0.0134
230	0.0162	0.0030	0.0132
231	0.0159	0.0029	0.0130
232	0.0157	0.0029	0.0128
233	0.0155	0.0029	0.0126
234	0.0153	0.0028	0.0124
235	0.0150	0.0028	0.0123
236	0.0148	0.0027	0.0121
237	0.0147	0.0027	0.0119
238	0.0145	0.0027	0.0118
239	0.0143	0.0026	0.0116
240	0.0141	0.0026	0.0115
241	0.0139	0.0026	0.0114
242	0.0138	0.0025	0.0112
243	0.0136	0.0025	0.0111
244	0.0135	0.0025	0.0110

245	0.0133	0.0025	0.0109
246	0.0132	0.0024	0.0107
247	0.0130	0.0024	0.0106
248	0.0129	0.0024	0.0105
249	0.0128	0.0024	0.0104
250	0.0126	0.0023	0.0103
251	0.0125	0.0023	0.0102
252	0.0124	0.0023	0.0101
253	0.0123	0.0023	0.0100
254	0.0122	0.0022	0.0099
255	0.0121	0.0022	0.0098
256	0.0119	0.0022	0.0097
257	0.0118	0.0022	0.0097
258	0.0117	0.0022	0.0096
259	0.0116	0.0021	0.0095
260	0.0115	0.0021	0.0094
261	0.0114	0.0021	0.0093
262	0.0113	0.0021	0.0092
263	0.0112	0.0021	0.0092
264	0.0112	0.0021	0.0091
265	0.0111	0.0020	0.0090
266	0.0110	0.0020	0.0090
267	0.0109	0.0020	0.0089
268	0.0108	0.0020	0.0088
269	0.0107	0.0020	0.0088
270	0.0106	0.0020	0.0087
271	0.0106	0.0020	0.0086
272	0.0105	0.0019	0.0086
273	0.0104	0.0019	0.0085
274	0.0103	0.0019	0.0084
275	0.0103	0.0019	0.0084
276	0.0102	0.0019	0.0083
277	0.0101	0.0019	0.0083
278	0.0101	0.0019	0.0082
279	0.0100	0.0018	0.0082
280	0.0099	0.0018	0.0081
281	0.0099	0.0018	0.0080
282	0.0098	0.0018	0.0080
283	0.0097	0.0018	0.0079
284	0.0097	0.0018	0.0079
285	0.0096	0.0018	0.0078
286	0.0096	0.0018	0.0078
287	0.0095	0.0018	0.0078
288	0.0094	0.0017	0.0077

Total soil rain loss = 1.04(In)
Total effective rainfall = 5.28(In)
Peak flow rate in flood hydrograph = 17.92(CFS)

++

24 - H O U R S T O R M

R u n o f f H y d r o g r a p h

Hydrograph in 5 Minute intervals ((CFS))

Time(h+m)	Volume Ac.Ft	Q(CFS)	0	5.0	10.0	15.0	20.0
0+ 5	0.0003	0.04	Q				
0+10	0.0020	0.24	Q				
0+15	0.0047	0.40	Q				
0+20	0.0077	0.43	Q				
0+25	0.0107	0.44	Q				
0+30	0.0138	0.44	Q				
0+35	0.0168	0.44	Q				
0+40	0.0199	0.45	Q				
0+45	0.0230	0.45	Q				
0+50	0.0261	0.45	Q				
0+55	0.0292	0.45	Q				
1+ 0	0.0323	0.45	Q				
1+ 5	0.0354	0.45	Q				
1+10	0.0385	0.45	Q				
1+15	0.0417	0.46	Q				
1+20	0.0448	0.46	Q				
1+25	0.0480	0.46	Q				
1+30	0.0512	0.46	Q				
1+35	0.0543	0.46	QV				
1+40	0.0575	0.46	QV				
1+45	0.0607	0.46	QV				
1+50	0.0640	0.47	QV				
1+55	0.0672	0.47	QV				
2+ 0	0.0704	0.47	QV				
2+ 5	0.0737	0.47	QV				
2+10	0.0769	0.47	QV				
2+15	0.0802	0.47	QV				
2+20	0.0835	0.48	QV				
2+25	0.0868	0.48	QV				
2+30	0.0901	0.48	QV				
2+35	0.0934	0.48	QV				
2+40	0.0967	0.48	QV				
2+45	0.1000	0.48	QV				
2+50	0.1034	0.49	QV				
2+55	0.1067	0.49	Q V				
3+ 0	0.1101	0.49	Q V				
3+ 5	0.1135	0.49	Q V				
3+10	0.1169	0.49	Q V				
3+15	0.1203	0.50	Q V				
3+20	0.1237	0.50	Q V				
3+25	0.1272	0.50	Q V				

```
3+30       0.1306      0.50  |QV       |          |          |          |
3+35       0.1341      0.50  |QV       |          |          |          |
3+40       0.1375      0.50  |QV       |          |          |          |
3+45       0.1410      0.51  |QV       |          |          |          |
3+50       0.1445      0.51  |QV       |          |          |          |
3+55       0.1480      0.51  |QV       |          |          |          |
4+ 0       0.1516      0.51  |QV       |          |          |          |
4+ 5       0.1551      0.51  |QV       |          |          |          |
4+10       0.1587      0.52  |Q V      |          |          |          |
4+15       0.1622      0.52  |Q V      |          |          |          |
4+20       0.1658      0.52  |Q V      |          |          |          |
4+25       0.1694      0.52  |Q V      |          |          |          |
4+30       0.1730      0.52  |Q V      |          |          |          |
4+35       0.1767      0.53  |Q V      |          |          |          |
4+40       0.1803      0.53  |Q V      |          |          |          |
4+45       0.1840      0.53  |Q V      |          |          |          |
4+50       0.1876      0.53  |Q V      |          |          |          |
4+55       0.1913      0.54  |Q V      |          |          |          |
5+ 0       0.1950      0.54  |Q V      |          |          |          |
5+ 5       0.1987      0.54  |Q V      |          |          |          |
5+10       0.2025      0.54  |Q V      |          |          |          |
5+15       0.2062      0.54  |Q V      |          |          |          |
5+20       0.2100      0.55  |Q  V     |          |          |          |
5+25       0.2138      0.55  |Q  V     |          |          |          |
5+30       0.2176      0.55  |Q  V     |          |          |          |
5+35       0.2214      0.55  |Q  V     |          |          |          |
5+40       0.2253      0.56  |Q  V     |          |          |          |
5+45       0.2291      0.56  |Q  V     |          |          |          |
5+50       0.2330      0.56  |Q  V     |          |          |          |
5+55       0.2369      0.56  |Q  V     |          |          |          |
6+ 0       0.2408      0.57  |Q  V     |          |          |          |
6+ 5       0.2447      0.57  |Q  V     |          |          |          |
6+10       0.2487      0.57  |Q  V     |          |          |          |
6+15       0.2526      0.58  |Q  V     |          |          |          |
6+20       0.2566      0.58  |Q  V     |          |          |          |
6+25       0.2606      0.58  |Q   V    |          |          |          |
6+30       0.2646      0.58  |Q   V    |          |          |          |
6+35       0.2687      0.59  |Q   V    |          |          |          |
6+40       0.2727      0.59  |Q   V    |          |          |          |
6+45       0.2768      0.59  |Q   V    |          |          |          |
6+50       0.2809      0.60  |Q   V    |          |          |          |
6+55       0.2850      0.60  |Q   V    |          |          |          |
7+ 0       0.2892      0.60  |Q   V    |          |          |          |
7+ 5       0.2934      0.61  |Q   V    |          |          |          |
7+10       0.2975      0.61  |Q   V    |          |          |          |
7+15       0.3018      0.61  |Q   V    |          |          |          |
7+20       0.3060      0.61  |Q   V    |          |          |          |
7+25       0.3102      0.62  |Q   V    |          |          |          |
7+30       0.3145      0.62  |Q    V   |          |          |          |
7+35       0.3188      0.62  |Q    V   |          |          |          |
```

```
 7+40       0.3232      0.63  |Q    V   |          |          |          |
 7+45       0.3275      0.63  |Q    V   |          |          |          |
 7+50       0.3319      0.64  |Q    V   |          |          |          |
 7+55       0.3363      0.64  |Q    V   |          |          |          |
 8+ 0       0.3407      0.64  |Q    V   |          |          |          |
 8+ 5       0.3452      0.65  |Q    V   |          |          |          |
 8+10       0.3497      0.65  |Q    V   |          |          |          |
 8+15       0.3542      0.65  |Q    V   |          |          |          |
 8+20       0.3587      0.66  |Q    V   |          |          |          |
 8+25       0.3633      0.66  |Q    V   |          |          |          |
 8+30       0.3679      0.67  |Q     V  |          |          |          |
 8+35       0.3725      0.67  |Q     V  |          |          |          |
 8+40       0.3771      0.68  |Q     V  |          |          |          |
 8+45       0.3818      0.68  |Q     V  |          |          |          |
 8+50       0.3865      0.68  |Q     V  |          |          |          |
 8+55       0.3912      0.69  |Q     V  |          |          |          |
 9+ 0       0.3960      0.69  |Q     V  |          |          |          |
 9+ 5       0.4008      0.70  |Q     V  |          |          |          |
 9+10       0.4057      0.70  |Q     V  |          |          |          |
 9+15       0.4105      0.71  |Q     V  |          |          |          |
 9+20       0.4154      0.71  |Q     V  |          |          |          |
 9+25       0.4204      0.72  |Q      V |          |          |          |
 9+30       0.4253      0.72  |Q      V |          |          |          |
 9+35       0.4303      0.73  |Q      V |          |          |          |
 9+40       0.4354      0.73  |Q      V |          |          |          |
 9+45       0.4405      0.74  |Q      V |          |          |          |
 9+50       0.4456      0.74  |Q      V |          |          |          |
 9+55       0.4507      0.75  |Q      V |          |          |          |
10+ 0       0.4559      0.75  |Q      V |          |          |          |
10+ 5       0.4612      0.76  |Q      V |          |          |          |
10+10       0.4665      0.77  |Q      V |          |          |          |
10+15       0.4718      0.77  |Q       V|          |          |          |
10+20       0.4771      0.78  |Q       V|          |          |          |
10+25       0.4825      0.79  |Q       V|          |          |          |
10+30       0.4880      0.79  |Q       V|          |          |          |
10+35       0.4935      0.80  |Q       V|          |          |          |
10+40       0.4990      0.81  |Q       V|          |          |          |
10+45       0.5046      0.81  |Q       V|          |          |          |
10+50       0.5103      0.82  |Q       V|          |          |          |
10+55       0.5160      0.83  |Q       V|          |          |          |
11+ 0       0.5217      0.83  |Q        V          |          |          |
11+ 5       0.5275      0.84  |Q        V          |          |          |
11+10       0.5334      0.85  |Q        V          |          |          |
11+15       0.5393      0.86  |Q        V          |          |          |
11+20       0.5453      0.87  |Q        V          |          |          |
11+25       0.5513      0.88  |Q        V          |          |          |
11+30       0.5574      0.88  |Q        V          |          |          |
11+35       0.5635      0.89  |Q        V          |          |          |
11+40       0.5698      0.90  |Q        V          |          |          |
11+45       0.5760      0.91  |Q         |V         |          |          |
```

```
11+50       0.5824      0.92  |Q        |V        |         |         |
11+55       0.5888      0.93  |Q        |V        |         |         |
12+ 0       0.5953      0.94  |Q        |V        |         |         |
12+ 5       0.6020      0.97  |Q        |V        |         |         |
12+10       0.6092      1.05  | Q       |V        |         |         |
12+15       0.6168      1.11  | Q       |V        |         |         |
12+20       0.6247      1.14  | Q       | V       |         |         |
12+25       0.6326      1.15  | Q       | V       |         |         |
12+30       0.6406      1.16  | Q       | V       |         |         |
12+35       0.6487      1.18  | Q       | V       |         |         |
12+40       0.6569      1.19  | Q       | V       |         |         |
12+45       0.6652      1.21  | Q       | V       |         |         |
12+50       0.6736      1.22  | Q       | V       |         |         |
12+55       0.6821      1.24  | Q       |  V      |         |         |
13+ 0       0.6908      1.25  | Q       |  V      |         |         |
13+ 5       0.6995      1.27  | Q       |  V      |         |         |
13+10       0.7084      1.29  | Q       |  V      |         |         |
13+15       0.7174      1.31  | Q       |  V      |         |         |
13+20       0.7265      1.32  | Q       |  V      |         |         |
13+25       0.7357      1.34  | Q       |   V     |         |         |
13+30       0.7452      1.37  | Q       |   V     |         |         |
13+35       0.7547      1.39  | Q       |   V     |         |         |
13+40       0.7644      1.41  | Q       |   V     |         |         |
13+45       0.7743      1.43  | Q       |   V     |         |         |
13+50       0.7844      1.46  | Q       |    V    |         |         |
13+55       0.7946      1.49  | Q       |    V    |         |         |
14+ 0       0.8050      1.52  |  Q      |    V    |         |         |
14+ 5       0.8157      1.54  |  Q      |    V    |         |         |
14+10       0.8265      1.58  |  Q      |    V    |         |         |
14+15       0.8376      1.61  |  Q      |     V   |         |         |
14+20       0.8490      1.65  |  Q      |     V   |         |         |
14+25       0.8606      1.69  |  Q      |     V   |         |         |
14+30       0.8725      1.73  |  Q      |     V   |         |         |
14+35       0.8847      1.77  |  Q      |      V  |         |         |
14+40       0.8973      1.82  |  Q      |      V  |         |         |
14+45       0.9102      1.87  |  Q      |      V  |         |         |
14+50       0.9235      1.93  |  Q      |      V  |         |         |
14+55       0.9372      1.99  |  Q      |       V |         |         |
15+ 0       0.9515      2.07  |   Q     |       V |         |         |
15+ 5       0.9662      2.14  |   Q     |       V |         |         |
15+10       0.9816      2.23  |   Q     |       V |         |         |
15+15       0.9976      2.33  |   Q     |        V|         |         |
15+20       1.0144      2.44  |   Q     |        V|         |         |
15+25       1.0318      2.52  |    Q    |        V|         |         |
15+30       1.0485      2.44  |   Q     |         V         |         |
15+35       1.0653      2.43  |   Q     |         V         |         |
15+40       1.0833      2.62  |    Q    |         V         |         |
15+45       1.1033      2.90  |    Q    |         |V        |         |
15+50       1.1265      3.37  |     Q   |         |V        |         |
15+55       1.1546      4.08  |       Q |         | V       |         |
```

```
16+ 0       1.1929      5.56  |          |Q         | V        |          |
16+ 5       1.2583      9.50  |          |         Q|   V      |          |
16+10       1.3817     17.92  |          |          |     V    |    Q     |
16+15       1.4769     13.82  |          |          |      QV  |          |
16+20       1.5179      5.96  |          |Q         |        V |          |
16+25       1.5421      3.51  |       Q  |          |        V |          |
16+30       1.5609      2.72  |    Q     |          |          V          |
16+35       1.5783      2.54  |    Q     |          |          V          |
16+40       1.5943      2.32  |   Q      |          |          V          |
16+45       1.6091      2.15  |   Q      |          |          V          |
16+50       1.6229      2.00  |  Q       |          |          |V         |
16+55       1.6358      1.87  |  Q       |          |          |V         |
17+ 0       1.6480      1.77  |  Q       |          |          |V         |
17+ 5       1.6596      1.69  |  Q       |          |          |V         |
17+10       1.6707      1.61  |  Q       |          |          | V        |
17+15       1.6813      1.54  |  Q       |          |          | V        |
17+20       1.6916      1.49  | Q        |          |          | V        |
17+25       1.7014      1.43  | Q        |          |          | V        |
17+30       1.7110      1.39  | Q        |          |          | V        |
17+35       1.7202      1.34  | Q        |          |          |  V       |
17+40       1.7292      1.30  | Q        |          |          |  V       |
17+45       1.7380      1.27  | Q        |          |          |  V       |
17+50       1.7465      1.24  | Q        |          |          |  V       |
17+55       1.7548      1.20  | Q        |          |          |  V       |
18+ 0       1.7629      1.18  | Q        |          |          |  V       |
18+ 5       1.7707      1.14  | Q        |          |          |   V      |
18+10       1.7779      1.04  | Q        |          |          |   V      |
18+15       1.7845      0.97  |Q         |          |          |   V      |
18+20       1.7910      0.93  |Q         |          |          |   V      |
18+25       1.7973      0.91  |Q         |          |          |   V      |
18+30       1.8034      0.89  |Q         |          |          |   V      |
18+35       1.8094      0.87  |Q         |          |          |   V      |
18+40       1.8153      0.86  |Q         |          |          |   V      |
18+45       1.8211      0.84  |Q         |          |          |    V     |
18+50       1.8268      0.83  |Q         |          |          |    V     |
18+55       1.8324      0.81  |Q         |          |          |    V     |
19+ 0       1.8379      0.80  |Q         |          |          |    V     |
19+ 5       1.8433      0.78  |Q         |          |          |    V     |
19+10       1.8486      0.77  |Q         |          |          |    V     |
19+15       1.8539      0.76  |Q         |          |          |    V     |
19+20       1.8590      0.75  |Q         |          |          |    V     |
19+25       1.8641      0.74  |Q         |          |          |    V     |
19+30       1.8691      0.73  |Q         |          |          |    V     |
19+35       1.8740      0.72  |Q         |          |          |     V    |
19+40       1.8789      0.71  |Q         |          |          |     V    |
19+45       1.8837      0.70  |Q         |          |          |     V    |
19+50       1.8884      0.69  |Q         |          |          |     V    |
19+55       1.8931      0.68  |Q         |          |          |     V    |
20+ 0       1.8977      0.67  |Q         |          |          |     V    |
20+ 5       1.9023      0.66  |Q         |          |          |     V    |
```

```
20+10       1.9068      0.65  |Q        |         |         |     V   |
20+15       1.9112      0.65  |Q        |         |         |     V   |
20+20       1.9156      0.64  |Q        |         |         |     V   |
20+25       1.9200      0.63  |Q        |         |         |     V   |
20+30       1.9243      0.62  |Q        |         |         |      V  |
20+35       1.9286      0.62  |Q        |         |         |      V  |
20+40       1.9328      0.61  |Q        |         |         |      V  |
20+45       1.9369      0.60  |Q        |         |         |      V  |
20+50       1.9411      0.60  |Q        |         |         |      V  |
20+55       1.9451      0.59  |Q        |         |         |      V  |
21+ 0       1.9492      0.59  |Q        |         |         |      V  |
21+ 5       1.9532      0.58  |Q        |         |         |      V  |
21+10       1.9571      0.58  |Q        |         |         |      V  |
21+15       1.9611      0.57  |Q        |         |         |      V  |
21+20       1.9650      0.56  |Q        |         |         |      V  |
21+25       1.9688      0.56  |Q        |         |         |      V  |
21+30       1.9726      0.55  |Q        |         |         |      V  |
21+35       1.9764      0.55  |Q        |         |         |       V |
21+40       1.9802      0.54  |Q        |         |         |       V |
21+45       1.9839      0.54  |Q        |         |         |       V |
21+50       1.9876      0.54  |Q        |         |         |       V |
21+55       1.9912      0.53  |Q        |         |         |       V |
22+ 0       1.9949      0.53  |Q        |         |         |       V |
22+ 5       1.9985      0.52  |Q        |         |         |       V |
22+10       2.0020      0.52  |Q        |         |         |       V |
22+15       2.0056      0.51  |Q        |         |         |       V |
22+20       2.0091      0.51  |Q        |         |         |       V |
22+25       2.0126      0.51  |Q        |         |         |       V |
22+30       2.0160      0.50  |Q        |         |         |       V |
22+35       2.0195      0.50  Q         |         |         |       V |
22+40       2.0229      0.49  Q         |         |         |       V |
22+45       2.0262      0.49  Q         |         |         |       V |
22+50       2.0296      0.49  Q         |         |         |        V|
22+55       2.0329      0.48  Q         |         |         |        V|
23+ 0       2.0363      0.48  Q         |         |         |        V|
23+ 5       2.0395      0.48  Q         |         |         |        V|
23+10       2.0428      0.47  Q         |         |         |        V|
23+15       2.0461      0.47  Q         |         |         |        V|
23+20       2.0493      0.47  Q         |         |         |        V|
23+25       2.0525      0.46  Q         |         |         |        V|
23+30       2.0557      0.46  Q         |         |         |        V|
23+35       2.0588      0.46  Q         |         |         |        V|
23+40       2.0620      0.46  Q         |         |         |        V|
23+45       2.0651      0.45  Q         |         |         |        V|
23+50       2.0682      0.45  Q         |         |         |        V|
23+55       2.0713      0.45  Q         |         |         |        V|
24+ 0       2.0743      0.44  Q         |         |         |        V|
24+ 5       2.0771      0.40  Q         |         |         |        V|
24+10       2.0784      0.20  Q         |         |         |        V|
24+15       2.0787      0.04  Q         |         |         |        V|
```

```
   24+20       2.0788      0.01  Q         |         |         |        V|
-------------------------------------------------------------------------
```

FLOOD HYDROGRAPH ROUTING PROGRAM
Copyright (c) CIVILCADD/CIVILDESIGN, 1989 - 2005
Study date: 04/25/23

ROUTING CALCULATION
DA-1 TO DA-3
PUMP CAPACITY 0.51 CFS
EUCLID AND WALNUT

Program License Serial Number 6049

********** HYDROGRAPH INFORMATION **********

From study/file name: 424027UHPOST1.rte
**********HYDROGRAPH DATA**********
Number of intervals = 292
Time interval = 5.0 (Min.)
Maximum/Peak flow rate = 17.918 (CFS)
Total volume = 2.079 (Ac.Ft)

Status of hydrographs being held in storage

	Stream 1	Stream 2	Stream 3	Stream 4	Stream 5
Peak (CFS)	0.000	0.000	0.000	0.000	0.000
Vol (Ac.Ft)	0.000	0.000	0.000	0.000	0.000

****

++
Process from Point/Station 1.050 to Point/Station 1.060
**** FLOWBY BASIN ROUTING OR SPLIT FLOW ****
_____
All flow in excess of 0.51(CFS) is diverted
into stream number 1
Total volume of excess flow diverted into flowby
basin (stream number 1) is 1.08(Ac.Ft)
++
P R I N T O F S T O R M
R u n o f f H y d r o g r a p h

Hydrograph in 5 Minute intervals (CFS)

Time(h+m)	Volume(Ac.Ft)	Q(CFS)	0	0.1	0.3	0.4	0.5
0+ 5	0.0003	0.04	V Q	|	|	|	|
0+10	0.0020	0.24	V	|	Q|	|	|
0+15	0.0047	0.40	V	|	|	|	Q |
0+20	0.0077	0.43	V	|	|	|	Q |
0+25	0.0107	0.44	V	|	|	|	Q |
0+30	0.0138	0.44	V	|	|	|	Q |
0+35	0.0168	0.44	V	|	|	|	Q |
0+40	0.0199	0.45	V	|	|	|	Q |
0+45	0.0230	0.45	V	|	|	|	Q |
0+50	0.0261	0.45	V	|	|	|	Q |
0+55	0.0292	0.45	|V	|	|	|	Q |
1+ 0	0.0323	0.45	|V	|	|	|	Q |
1+ 5	0.0354	0.45	|V	|	|	|	Q |
1+10	0.0385	0.45	|V	|	|	|	Q |
1+15	0.0417	0.46	|V	|	|	|	Q |
1+20	0.0448	0.46	|V	|	|	|	Q |
1+25	0.0480	0.46	|V	|	|	|	Q |
1+30	0.0512	0.46	| V	|	|	|	Q |
1+35	0.0543	0.46	| V	|	|	|	Q |
1+40	0.0575	0.46	| V	|	|	|	Q |
1+45	0.0607	0.46	| V	|	|	|	Q |
1+50	0.0640	0.47	| V	|	|	|	Q |
1+55	0.0672	0.47	| V	|	|	|	Q |
2+ 0	0.0704	0.47	| V	|	|	|	Q |
2+ 5	0.0737	0.47	| V	|	|	|	Q |
2+10	0.0769	0.47	| V	|	|	|	Q |
2+15	0.0802	0.47	| V	|	|	|	Q |
2+20	0.0835	0.48	| V	|	|	|	Q |
2+25	0.0868	0.48	| V	|	|	|	Q |
2+30	0.0901	0.48	| V	|	|	|	Q |
2+35	0.0934	0.48	| V	|	|	|	Q |
2+40	0.0967	0.48	| V	|	|	|	Q |
2+45	0.1000	0.48	| V	|	|	|	Q |
2+50	0.1034	0.49	| V	|	|	|	Q |
2+55	0.1067	0.49	| V	|	|	|	Q |
3+ 0	0.1101	0.49	| V	|	|	|	Q |
3+ 5	0.1135	0.49	| V	|	|	|	Q |
3+10	0.1169	0.49	| V	|	|	|	Q |
3+15	0.1203	0.50	| V	|	|	|	Q |
3+20	0.1237	0.50	| V	|	|	|	Q |
3+25	0.1272	0.50	| V	|	|	|	Q|
3+30	0.1306	0.50	| V	|	|	|	Q|
3+35	0.1341	0.50	| V	|	|	|	Q|
3+40	0.1375	0.50	| V	|	|	|	Q|
3+45	0.1410	0.51	| V	|	|	|	Q|
3+50	0.1445	0.51	| V	|	|	|	Q|
3+55	0.1480	0.51	| V	|	|	|	Q
4+ 0	0.1516	0.51	| V	|	|	|	Q

```
4+ 5       0.1551      0.51  |     V   |         |         |         Q
4+10       0.1586      0.51  |     V   |         |         |         Q
4+15       0.1621      0.51  |     V   |         |         |         Q
4+20       0.1656      0.51  |     V   |         |         |         Q
4+25       0.1691      0.51  |     V   |         |         |         Q
4+30       0.1726      0.51  |     V   |         |         |         Q
4+35       0.1761      0.51  |      V  |         |         |         Q
4+40       0.1797      0.51  |      V  |         |         |         Q
4+45       0.1832      0.51  |      V  |         |         |         Q
4+50       0.1867      0.51  |      V  |         |         |         Q
4+55       0.1902      0.51  |      V  |         |         |         Q
5+ 0       0.1937      0.51  |      V  |         |         |         Q
5+ 5       0.1972      0.51  |      V  |         |         |         Q
5+10       0.2007      0.51  |       V |         |         |         Q
5+15       0.2042      0.51  |       V |         |         |         Q
5+20       0.2077      0.51  |       V |         |         |         Q
5+25       0.2113      0.51  |       V |         |         |         Q
5+30       0.2148      0.51  |       V |         |         |         Q
5+35       0.2183      0.51  |       V |         |         |         Q
5+40       0.2218      0.51  |       V |         |         |         Q
5+45       0.2253      0.51  |        V|         |         |         Q
5+50       0.2288      0.51  |        V|         |         |         Q
5+55       0.2323      0.51  |        V|         |         |         Q
6+ 0       0.2358      0.51  |        V|         |         |         Q
6+ 5       0.2394      0.51  |        V|         |         |         Q
6+10       0.2429      0.51  |        V|         |         |         Q
6+15       0.2464      0.51  |        V|         |         |         Q
6+20       0.2499      0.51  |         V         |         |         Q
6+25       0.2534      0.51  |         V         |         |         Q
6+30       0.2569      0.51  |         V         |         |         Q
6+35       0.2604      0.51  |         V         |         |         Q
6+40       0.2639      0.51  |         V         |         |         Q
6+45       0.2675      0.51  |         V         |         |         Q
6+50       0.2710      0.51  |         V         |         |         Q
6+55       0.2745      0.51  |          V        |         |         Q
7+ 0       0.2780      0.51  |         |V        |         |         Q
7+ 5       0.2815      0.51  |         |V        |         |         Q
7+10       0.2850      0.51  |         |V        |         |         Q
7+15       0.2885      0.51  |         |V        |         |         Q
7+20       0.2920      0.51  |         |V        |         |         Q
7+25       0.2956      0.51  |         |V        |         |         Q
7+30       0.2991      0.51  |         | V       |         |         Q
7+35       0.3026      0.51  |         | V       |         |         Q
7+40       0.3061      0.51  |         | V       |         |         Q
7+45       0.3096      0.51  |         | V       |         |         Q
7+50       0.3131      0.51  |         | V       |         |         Q
7+55       0.3166      0.51  |         | V       |         |         Q
8+ 0       0.3201      0.51  |         | V       |         |         Q
8+ 5       0.3237      0.51  |         |  V      |         |         Q
8+10       0.3272      0.51  |         |  V      |         |         Q
```

8+15	0.3307	0.51	|	| V	|	|	Q
8+20	0.3342	0.51	|	| V	|	|	Q
8+25	0.3377	0.51	|	| V	|	|	Q
8+30	0.3412	0.51	|	| V	|	|	Q
8+35	0.3447	0.51	|	| V	|	|	Q
8+40	0.3482	0.51	|	| V	|	|	Q
8+45	0.3518	0.51	|	| V	|	|	Q
8+50	0.3553	0.51	|	| V	|	|	Q
8+55	0.3588	0.51	|	| V	|	|	Q
9+ 0	0.3623	0.51	|	| V	|	|	Q
9+ 5	0.3658	0.51	|	| V	|	|	Q
9+10	0.3693	0.51	|	| V	|	|	Q
9+15	0.3728	0.51	|	| V	|	|	Q
9+20	0.3763	0.51	|	| V	|	|	Q
9+25	0.3799	0.51	|	| V	|	|	Q
9+30	0.3834	0.51	|	| V	|	|	Q
9+35	0.3869	0.51	|	| V	|	|	Q
9+40	0.3904	0.51	|	| V	|	|	Q
9+45	0.3939	0.51	|	| V	|	|	Q
9+50	0.3974	0.51	|	| V	|	|	Q
9+55	0.4009	0.51	|	| V	|	|	Q
10+ 0	0.4044	0.51	|	| V	|	|	Q
10+ 5	0.4080	0.51	|	| V	|	|	Q
10+10	0.4115	0.51	|	| V	|	|	Q
10+15	0.4150	0.51	|	| V	|	|	Q
10+20	0.4185	0.51	|	| V	|	|	Q
10+25	0.4220	0.51	|	| V	|	|	Q
10+30	0.4255	0.51	|	| V	|	|	Q
10+35	0.4290	0.51	|	| V	|	|	Q
10+40	0.4325	0.51	|	| V	|	|	Q
10+45	0.4361	0.51	|	| V	|	|	Q
10+50	0.4396	0.51	|	| V	|	|	Q
10+55	0.4431	0.51	|	| V	|	|	Q
11+ 0	0.4466	0.51	|	| V	|	|	Q
11+ 5	0.4501	0.51	|	| V	|	|	Q
11+10	0.4536	0.51	|	| V	|	|	Q
11+15	0.4571	0.51	|	| V	|	|	Q
11+20	0.4606	0.51	|	| V	|	|	Q
11+25	0.4642	0.51	|	| V	|	|	Q
11+30	0.4677	0.51	|	| V	|	|	Q
11+35	0.4712	0.51	|	| V	|	|	Q
11+40	0.4747	0.51	|	| V	|	|	Q
11+45	0.4782	0.51	|	| V	|	|	Q
11+50	0.4817	0.51	|	| V	|	|	Q
11+55	0.4852	0.51	|	| V	|	|	Q
12+ 0	0.4887	0.51	|	| V	|	|	Q
12+ 5	0.4923	0.51	|	| V	|	|	Q
12+10	0.4958	0.51	|	| V	|	|	Q
12+15	0.4993	0.51	|	| V	|	|	Q
12+20	0.5028	0.51	|	| V	|	|	Q

```
12+25       0.5063      0.51  |         |         V         |         Q
12+30       0.5098      0.51  |         |         V         |         Q
12+35       0.5133      0.51  |         |         V         |         Q
12+40       0.5168      0.51  |         |         V         |         Q
12+45       0.5204      0.51  |         |         V         |         Q
12+50       0.5239      0.51  |         |          V        |         Q
12+55       0.5274      0.51  |         |         |V        |         Q
13+ 0       0.5309      0.51  |         |         |V        |         Q
13+ 5       0.5344      0.51  |         |         |V        |         Q
13+10       0.5379      0.51  |         |         |V        |         Q
13+15       0.5414      0.51  |         |         |V        |         Q
13+20       0.5449      0.51  |         |         |V        |         Q
13+25       0.5485      0.51  |         |         | V       |         Q
13+30       0.5520      0.51  |         |         | V       |         Q
13+35       0.5555      0.51  |         |         | V       |         Q
13+40       0.5590      0.51  |         |         | V       |         Q
13+45       0.5625      0.51  |         |         | V       |         Q
13+50       0.5660      0.51  |         |         | V       |         Q
13+55       0.5695      0.51  |         |         | V       |         Q
14+ 0       0.5730      0.51  |         |         |  V      |         Q
14+ 5       0.5766      0.51  |         |         |  V      |         Q
14+10       0.5801      0.51  |         |         |  V      |         Q
14+15       0.5836      0.51  |         |         |  V      |         Q
14+20       0.5871      0.51  |         |         |  V      |         Q
14+25       0.5906      0.51  |         |         |  V      |         Q
14+30       0.5941      0.51  |         |         |  V      |         Q
14+35       0.5976      0.51  |         |         |   V     |         Q
14+40       0.6011      0.51  |         |         |   V     |         Q
14+45       0.6047      0.51  |         |         |   V     |         Q
14+50       0.6082      0.51  |         |         |   V     |         Q
14+55       0.6117      0.51  |         |         |   V     |         Q
15+ 0       0.6152      0.51  |         |         |   V     |         Q
15+ 5       0.6187      0.51  |         |         |   V     |         Q
15+10       0.6222      0.51  |         |         |    V    |         Q
15+15       0.6257      0.51  |         |         |    V    |         Q
15+20       0.6292      0.51  |         |         |    V    |         Q
15+25       0.6327      0.51  |         |         |    V    |         Q
15+30       0.6363      0.51  |         |         |    V    |         Q
15+35       0.6398      0.51  |         |         |    V    |         Q
15+40       0.6433      0.51  |         |         |    V    |         Q
15+45       0.6468      0.51  |         |         |     V   |         Q
15+50       0.6503      0.51  |         |         |     V   |         Q
15+55       0.6538      0.51  |         |         |     V   |         Q
16+ 0       0.6573      0.51  |         |         |     V   |         Q
16+ 5       0.6608      0.51  |         |         |     V   |         Q
16+10       0.6644      0.51  |         |         |     V   |         Q
16+15       0.6679      0.51  |         |         |     V   |         Q
16+20       0.6714      0.51  |         |         |      V  |         Q
16+25       0.6749      0.51  |         |         |      V  |         Q
16+30       0.6784      0.51  |         |         |      V  |         Q
```

```
16+35       0.6819      0.51  |         |         |      V  |         Q
16+40       0.6854      0.51  |         |         |      V  |         Q
16+45       0.6889      0.51  |         |         |      V  |         Q
16+50       0.6925      0.51  |         |         |      V  |         Q
16+55       0.6960      0.51  |         |         |       V |         Q
17+ 0       0.6995      0.51  |         |         |       V |         Q
17+ 5       0.7030      0.51  |         |         |       V |         Q
17+10       0.7065      0.51  |         |         |       V |         Q
17+15       0.7100      0.51  |         |         |       V |         Q
17+20       0.7135      0.51  |         |         |       V |         Q
17+25       0.7170      0.51  |         |         |       V |         Q
17+30       0.7206      0.51  |         |         |       V |         Q
17+35       0.7241      0.51  |         |         |        V|         Q
17+40       0.7276      0.51  |         |         |        V|         Q
17+45       0.7311      0.51  |         |         |        V|         Q
17+50       0.7346      0.51  |         |         |        V|         Q
17+55       0.7381      0.51  |         |         |        V|         Q
18+ 0       0.7416      0.51  |         |         |        V|         Q
18+ 5       0.7451      0.51  |         |         |        V|         Q
18+10       0.7487      0.51  |         |         |         V         Q
18+15       0.7522      0.51  |         |         |         V         Q
18+20       0.7557      0.51  |         |         |         V         Q
18+25       0.7592      0.51  |         |         |         V         Q
18+30       0.7627      0.51  |         |         |         V         Q
18+35       0.7662      0.51  |         |         |         V         Q
18+40       0.7697      0.51  |         |         |         V         Q
18+45       0.7732      0.51  |         |         |          |V        Q
18+50       0.7768      0.51  |         |         |          |V        Q
18+55       0.7803      0.51  |         |         |          |V        Q
19+ 0       0.7838      0.51  |         |         |          |V        Q
19+ 5       0.7873      0.51  |         |         |          |V        Q
19+10       0.7908      0.51  |         |         |          |V        Q
19+15       0.7943      0.51  |         |         |          |V        Q
19+20       0.7978      0.51  |         |         |          | V       Q
19+25       0.8013      0.51  |         |         |          | V       Q
19+30       0.8049      0.51  |         |         |          | V       Q
19+35       0.8084      0.51  |         |         |          | V       Q
19+40       0.8119      0.51  |         |         |          | V       Q
19+45       0.8154      0.51  |         |         |          | V       Q
19+50       0.8189      0.51  |         |         |          | V       Q
19+55       0.8224      0.51  |         |         |          |  V      Q
20+ 0       0.8259      0.51  |         |         |          |  V      Q
20+ 5       0.8294      0.51  |         |         |          |  V      Q
20+10       0.8330      0.51  |         |         |          |  V      Q
20+15       0.8365      0.51  |         |         |          |  V      Q
20+20       0.8400      0.51  |         |         |          |  V      Q
20+25       0.8435      0.51  |         |         |          |  V      Q
20+30       0.8470      0.51  |         |         |          |   V     Q
20+35       0.8505      0.51  |         |         |          |   V     Q
20+40       0.8540      0.51  |         |         |          |   V     Q
```

```
   20+45       0.8575      0.51  |          |          |          |   V     Q
   20+50       0.8611      0.51  |          |          |          |   V     Q
   20+55       0.8646      0.51  |          |          |          |   V     Q
   21+ 0       0.8681      0.51  |          |          |          |   V     Q
   21+ 5       0.8716      0.51  |          |          |          |    V    Q
   21+10       0.8751      0.51  |          |          |          |    V    Q
   21+15       0.8786      0.51  |          |          |          |    V    Q
   21+20       0.8821      0.51  |          |          |          |    V    Q
   21+25       0.8856      0.51  |          |          |          |    V    Q
   21+30       0.8892      0.51  |          |          |          |    V    Q
   21+35       0.8927      0.51  |          |          |          |    V    Q
   21+40       0.8962      0.51  |          |          |          |     V   Q
   21+45       0.8997      0.51  |          |          |          |     V   Q
   21+50       0.9032      0.51  |          |          |          |     V   Q
   21+55       0.9067      0.51  |          |          |          |     V   Q
   22+ 0       0.9102      0.51  |          |          |          |     V   Q
   22+ 5       0.9137      0.51  |          |          |          |     V   Q
   22+10       0.9173      0.51  |          |          |          |     V   Q
   22+15       0.9208      0.51  |          |          |          |      V  Q
   22+20       0.9243      0.51  |          |          |          |      V  Q
   22+25       0.9278      0.51  |          |          |          |      V Q|
   22+30       0.9312      0.50  |          |          |          |      V Q|
   22+35       0.9347      0.50  |          |          |          |      V Q|
   22+40       0.9381      0.49  |          |          |          |      VQ |
   22+45       0.9414      0.49  |          |          |          |      VQ |
   22+50       0.9448      0.49  |          |          |          |       Q |
   22+55       0.9481      0.48  |          |          |          |      QV |
   23+ 0       0.9515      0.48  |          |          |          |      QV |
   23+ 5       0.9547      0.48  |          |          |          |      QV |
   23+10       0.9580      0.47  |          |          |          |      QV |
   23+15       0.9613      0.47  |          |          |          |     Q V |
   23+20       0.9645      0.47  |          |          |          |     Q V |
   23+25       0.9677      0.46  |          |          |          |     Q V |
   23+30       0.9709      0.46  |          |          |          |     Q  V|
   23+35       0.9740      0.46  |          |          |          |    Q   V|
   23+40       0.9772      0.46  |          |          |          |    Q   V|
   23+45       0.9803      0.45  |          |          |          |    Q   V|
   23+50       0.9834      0.45  |          |          |          |    Q   V|
   23+55       0.9865      0.45  |          |          |          |    Q   V|
   24+ 0       0.9895      0.44  |          |          |          |   Q    V|
   24+ 5       0.9923      0.40  |          |          |          |Q       V|
   24+10       0.9936      0.20  |          |    Q     |          |        V|
   24+15       0.9939      0.04  |  Q       |          |          |        V|
   24+20       0.9940      0.01  Q          |          |          |        V|
--------------------------------------------------------------------------
      ****************************HYDROGRAPH DATA****************************
                    Number of intervals =   292
                    Time interval =    5.0 (Min.)
                    Maximum/Peak flow rate =        0.510 (CFS)
                    Total volume =       0.994 (Ac.Ft)
```

Status of hydrographs being held in storage

	Stream 1	Stream 2	Stream 3	Stream 4	Stream 5
Peak (CFS)	17.408	0.000	0.000	0.000	0.000
Vol (Ac.Ft)	1.085	0.000	0.000	0.000	0.000

****

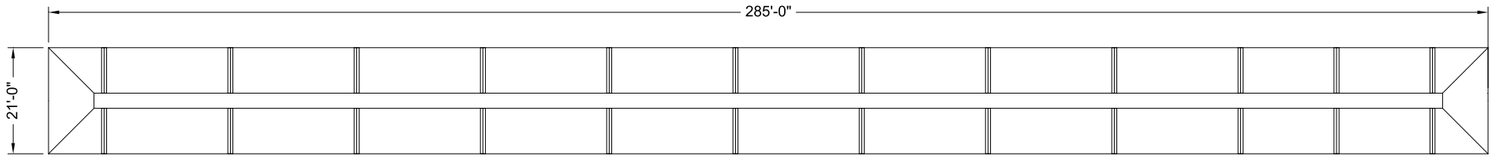
PROJECT SUMMARY

CALCULATION DETAILS
- LOADING = HS20/HS25
- APPROX. LINEAR FOOTAGE = 576 LF

STORAGE SUMMARY
- STORAGE VOLUME REQUIRED = 48,000 CF
- PIPE STORAGE VOLUME = 36,644 CF
- BACKFILL STORAGE VOLUME = 11,433 CF
- TOTAL STORAGE PROVIDED = 48,077 CF

PIPE DETAILS
- DIAMETER = 108"
- CORRUGATION = 5x1
- GAGE = 14
- COATING = ALT2
- WALL TYPE = PERFORATED
- BARREL SPACING = 36"

BACKFILL DETAILS
- WIDTH AT ENDS = 12"
- ABOVE PIPE = 12"
- WIDTH AT SIDES = 12"
- BELOW PIPE = 6"



NOTES

- ALL RISER AND STUB DIMENSIONS ARE TO CENTERLINE. ALL ELEVATIONS, DIMENSIONS, AND LOCATIONS OF RISERS AND INLETS, SHALL BE VERIFIED BY THE ENGINEER OF RECORD PRIOR TO RELEASING FOR FABRICATION.
- ALL FITTINGS AND REINFORCEMENT COMPLY WITH ASTM A998.
- ALL RISERS AND STUBS ARE $2\frac{2}{3}$" x $\frac{1}{2}$" CORRUGATION AND 16 GAGE UNLESS OTHERWISE NOTED.
- RISERS TO BE FIELD TRIMMED TO GRADE.
- QUANTITY OF PIPE SHOWN DOES NOT PROVIDE EXTRA PIPE FOR CONNECTING THE SYSTEM TO EXISTING PIPE OR DRAINAGE STRUCTURES. OUR SYSTEM AS DETAILED PROVIDES NOMINAL INLET AND/OR OUTLET PIPE STUB FOR CONNECTION TO EXISTING DRAINAGE FACILITIES. IF ADDITIONAL PIPE IS NEEDED IT IS THE RESPONSIBILITY OF THE CONTRACTOR.
- BAND TYPE TO BE DETERMINED UPON FINAL DESIGN.
- THE PROJECT SUMMARY IS REFLECTIVE OF THE DYODS DESIGN, QUANTITIES ARE APPROX. AND SHOULD BE VERIFIED UPON FINAL DESIGN AND APPROVAL. FOR EXAMPLE, TOTAL EXCAVATION DOES NOT CONSIDER ALL VARIABLES SUCH AS SHORING AND ONLY ACCOUNTS FOR MATERIAL WITHIN THE ESTIMATED EXCAVATION FOOTPRINT.
- THESE DRAWINGS ARE FOR CONCEPTUAL PURPOSES AND DO NOT REFLECT ANY LOCAL PREFERENCES OR REGULATIONS. PLEASE CONTACT YOUR LOCAL CONTECH REP FOR MODIFICATIONS.

ASSEMBLY
SCALE: 1" = 30'

C:\EXPORTS\TEMPLATES\CMP_V8.DWG 10/18/2019 10:02 AM

The design and information shown on this drawing is provided as a service to the project owner, engineer and contractor by Contech Engineered Solutions LLC ("Contech"). Neither this drawing, nor any part thereof, may be used, reproduced or modified in any manner without the prior written consent of Contech. Failure to comply is done at the user's own risk and Contech expressly disclaims any liability or responsibility for such use.

If discrepancies between the supplied information upon which the drawing is based and actual field conditions are encountered as site work progresses, these discrepancies must be reported to Contech immediately for re-evaluation of the design. Contech accepts no liability for designs based on missing, incomplete or inaccurate information supplied by others.

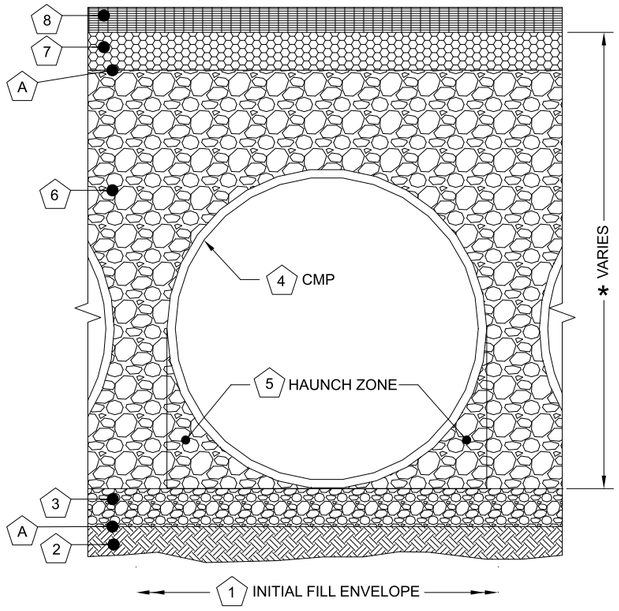
DATE	REVISION DESCRIPTION	BY

CONTECH® ENGINEERED SOLUTIONS LLC
www.ContechES.com
9025 Centre Pointe Dr., Suite 400, West Chester, OH 45069
800-338-1122 513-645-7000 513-645-7993 FAX

CONTECH® CMP DETENTION SYSTEMS
CONTECH DYODS DRAWING

DYO30787 Euclid and Walnut
Underground Detention
Ontario, CA
DETENTION SYSTEM

PROJECT No.:	SEQ. No.:	DATE:
20769	30787	4/26/2023
DESIGNED: DYO	DRAWN: DYO	
CHECKED: DYO	APPROVED: DYO	
SHEET NO.:		



	Infiltration Systems - CMP Infiltration & CMP Perforated Drainage Pipe			
	Material Location	Description	Material Designation	Designation
8	Rigid or Flexible Pavement (if applicable)			
7	Road Base (if applicable			
A	Geotextile Layer	Non-Woven Geotextile	CONTECH C-40 or C-45	Engineer Decision for consideration to prevent soil migration into varying soil types. Wrap the trench only.
6	Backfill	Infiltration pipe systems have a pipe perforation sized of 3/8" diameter. An open graded, free draining stone, with a particle size of ½" – 2 ½" diameter is recommended.	AASHTO M 145-A-1 or AASHTO M 43 - 3, 4	Material shall be worked into the pipe haunches by means of shovel-slicing, rodding, air-tamper, vibratory rod, or other effective methods. Compaction of all placed fill material is necessary and shall be considered adequate when no further yielding of the material is observed under the compactor, or under foot, and the Project Engineer or his representative is satisfied with the level of compaction"
3	Bedding Stone	Well graded granular bedding material w/maximum particle size of 3"	AASHTO M43 - 3,357,4,467, 5, 56, 57	For soil aggregates larger than 3/8" a dedicated bedding layer is not required for CMP. Pipe may be placed on the trench bottom comprised of native suitable well graded & granular material. For Arch pipes it is recommended to be shaped to a relatively flat bottom or fine-grade the foundation to a slight v-shape. Soil aggregates less than 3/8" and unsuitable material should be over-excavated and re-placed with a 4"-6" layer of well graded & granular stone per the material designation.
A	Geotextile Layer	None	None	Contech does not recommend geotextiles be placed under the invert of Infiltration systems due to the propensity for geotextiles to clog over time.
*	Note: The listed AASHTO designations are for gradation only. The stone must also be angular and clean.			

1 MINIMUM WIDTH DEPENDS ON SITE CONDITIONS AND ENGINEERING JUDGEMENT.

FOUNDATION/BEDDING PREPARATION

2 PRIOR TO PLACING THE BEDDING, THE FOUNDATION MUST BE CONSTRUCTED TO A UNIFORM AND STABLE GRADE. IN THE EVENT THAT UNSUITABLE FOUNDATION MATERIALS ARE ENCOUNTERED DURING EXCAVATION, THEY SHALL BE REMOVED AND BROUGHT BACK TO THE GRADE WITH A FILL MATERIAL AS APPROVED BY THE ENGINEER.

5 HAUNCH ZONE MATERIAL SHALL BE PLACED AND UNIFORMLY COMPACTED WITHOUT SOFT SPOTS.

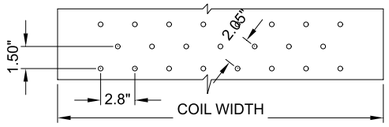
BACKFILL

MATERIAL SHALL BE PLACED IN 8"-10" MAXIMUM LIFTS. INADEQUATE COMPACTION CAN LEAD TO EXCESSIVE DEFLECTIONS WITHIN THE SYSTEM AND SETTLEMENT OF THE SOILS OVER THE SYSTEM. BACKFILL SHALL BE PLACED SUCH THAT THERE IS NO MORE THAN A TWO-LIFT DIFFERENTIAL BETWEEN THE SIDES OF ANY PIPE IN THE SYSTEM AT ALL TIMES DURING THE BACKFILL PROCESS. BACKFILL SHALL BE ADVANCED ALONG THE LENGTH OF THE SYSTEM AT THE SAME RATE TO AVOID DIFFERENTIAL LOADING ON ANY PIPES IN THE SYSTEM.

EQUIPMENT USED TO PLACE AND COMPACT THE BACKFILL SHALL BE OF A SIZE AND TYPE SO AS NOT TO DISTORT, DAMAGE, OR DISPLACE THE PIPE. ATTENTION MUST BE GIVEN TO PROVIDING ADEQUATE MINIMUM COVER FOR SUCH EQUIPMENT. MAINTAIN BALANCED LOADING ON ALL PIPES IN THE SYSTEM DURING ALL SUCH OPERATIONS.

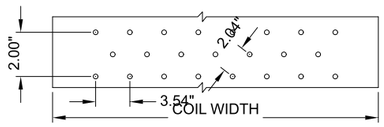
OTHER ALTERNATE BACKFILL MATERIAL MAY BE ALLOWED DEPENDING ON SITE SPECIFIC CONDITIONS. REFER TO TYPICAL BACKFILL DETAIL FOR MATERIAL REQUIRED.

2 2/3" x 1/2" CORRUGATION - STEEL AND ALUMINUM CMP EDGE SPACING EQUAL ON BOTH SIDES



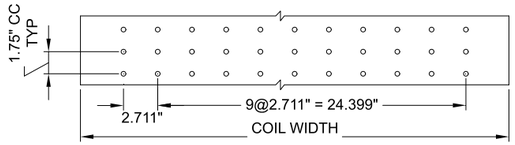
OPEN AREA = 3.76 SQ IN/SQ FT

3" x 1" CORRUGATION - STEEL AND ALUMINUM CMP (COIL PROVIDED FROM CONTECH LANTANA, FL PLANT)



OPEN AREA = 4.16 SQ IN/SQ FT

5" x 1" CORRUGATION - STEEL ONLY
EDGE SPACING EQUAL ON BOTH SIDES



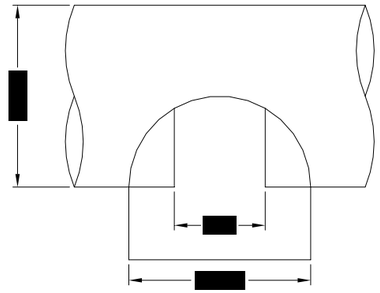
OPEN AREA = 3.33 SQ IN/SQ FT

NOTES:

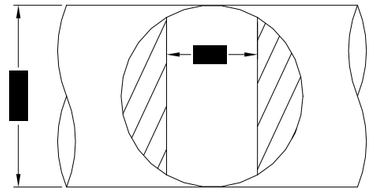
1. PERFORATIONS MEET AASHTO AND ASTM SPECIFICATIONS.
2. PERFORATION OPEN AREA PER SQUARE FOOT OF PIPE IS BASED ON THE NOMINAL DIAMETER AND LENGTH OF PIPE.
3. ALL DIMENSIONS ARE SUBJECT TO MANUFACTURING TOLERANCES.
4. ALL HOLES ⌀3/8".

TYPICAL PERFORATION DETAIL

SCALE: N.T.S.



PLAN

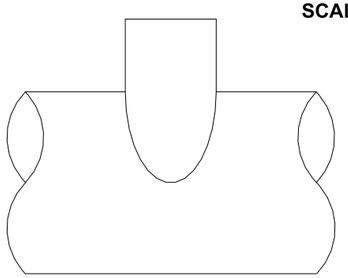


FRONT

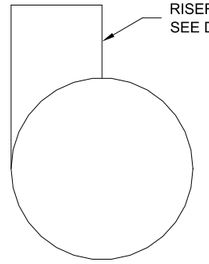
TYPICAL MANWAY DETAIL

SCALE: N.T.S.

NOTE:
MANWAY DETAIL APPLICABLE FOR CMP SYSTEMS WITH DIAMETERS 48" AND LARGER. MANWAYS MAY BE REQUIRED ON SMALLER SYSTEMS DEPENDING ON ACTUAL SITE SPECIFIC CONDITIONS.



ELEVATION

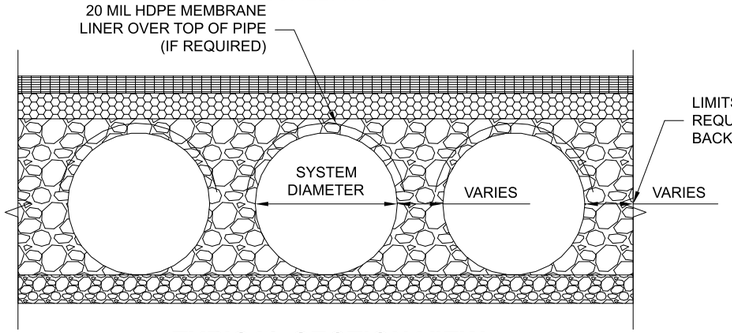


END

TYPICAL RISER DETAIL

SCALE: N.T.S.

NOTE:
LADDERS ARE OPTIONAL AND ARE NOT REQUIRED FOR ALL SYSTEMS.



TYPICAL SECTION VIEW

LINER OVER ROWS
SCALE: N.T.S.

NOTE: IF SALTING AGENTS FOR SNOW AND ICE REMOVAL ARE USED ON OR NEAR THE PROJECT, AN HDPE MEMBRANE LINER IS RECOMMENDED WITH THE SYSTEM. THE IMPERMEABLE LINER IS INTENDED TO HELP PROTECT THE SYSTEM FROM THE POTENTIAL ADVERSE EFFECTS THAT MAY RESULT FROM A CHANGE IN THE SURROUNDING ENVIRONMENT OVER A PERIOD OF TIME. PLEASE REFER TO THE CORRUGATED METAL PIPE DETENTION DESIGN GUIDE FOR ADDITIONAL INFORMATION.

The design and information shown on this drawing is provided as a service to the project owner, engineer and contractor by Contech Engineered Solutions LLC ("Contech"). Neither this drawing, nor any part thereof, may be used, reproduced or modified in any manner without the prior written consent of Contech. Failure to comply is done at the user's own risk and Contech expressly disclaims any liability or responsibility for such use.

If discrepancies between the supplied information upon which the drawing is based and actual field conditions are encountered as site work progresses, these discrepancies must be reported to Contech immediately for re-evaluation of the design. Contech accepts no liability for designs based on missing, incomplete or inaccurate information supplied by others.

DATE	REVISION DESCRIPTION	BY

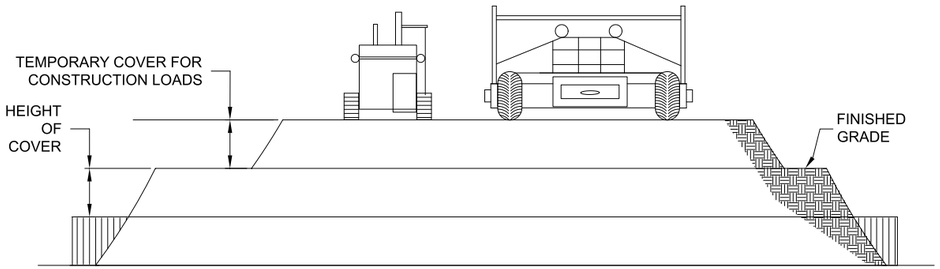
CONTECH ENGINEERED SOLUTIONS LLC
www.ContechES.com
9025 Centre Pointe Dr., Suite 400, West Chester, OH 45069
800-338-1122 513-645-7000 513-645-7993 FAX

CONTECH CMP DETENTION SYSTEMS
CONTECH DYODS DRAWING

DYO30787 Euclid and Walnut
Underground Detention
Ontario, CA
DETENTION SYSTEM

PROJECT No.:	SEQ. No.:	DATE:
20769	30787	4/26/2023
DESIGNED: DYO	DRAWN: DYO	
CHECKED: DYO	APPROVED: DYO	
SHEET NO.:		

C:\EXPORTS\TEMPLATES\CMP_V8.DWG 10/18/2019 10:02 AM



CONSTRUCTION LOADS

FOR TEMPORARY CONSTRUCTION VEHICLE LOADS, AN EXTRA AMOUNT OF COMPACTED COVER MAY BE REQUIRED OVER THE TOP OF THE PIPE. THE HEIGHT-OF-COVER SHALL MEET THE MINIMUM REQUIREMENTS SHOWN IN THE TABLE BELOW. THE USE OF HEAVY CONSTRUCTION EQUIPMENT NECESSITATES GREATER PROTECTION FOR THE PIPE THAN FINISHED GRADE COVER MINIMUMS FOR NORMAL HIGHWAY TRAFFIC.

PIPE SPAN, INCHES	AXLE LOADS (kips)			
	18-50	50-75	75-110	110-150
	MINIMUM COVER (FT)			
12-42	2.0	2.5	3.0	3.0
48-72	3.0	3.0	3.5	4.0
78-120	3.0	3.5	4.0	4.0
126-144	3.5	4.0	4.5	4.5

*MINIMUM COVER MAY VARY, DEPENDING ON LOCAL CONDITIONS. THE CONTRACTOR MUST PROVIDE THE ADDITIONAL COVER REQUIRED TO AVOID DAMAGE TO THE PIPE. MINIMUM COVER IS MEASURED FROM THE TOP OF THE PIPE TO THE TOP OF THE MAINTAINED CONSTRUCTION ROADWAY SURFACE.

CONSTRUCTION LOADING DIAGRAM

SCALE: N.T.S.

SPECIFICATION FOR DESIGNED DETENTION SYSTEM:

SCOPE
THIS SPECIFICATION COVERS THE MANUFACTURE AND INSTALLATION OF THE DESIGNED DETENTION SYSTEM DETAILED IN THE PROJECT PLANS.

MATERIAL
THE MATERIAL SHALL CONFORM TO THE APPLICABLE REQUIREMENTS LISTED BELOW:

ALUMINIZED TYPE 2 STEEL COILS SHALL CONFORM TO THE REQUIREMENTS OF AASHTO M-274 OR ASTM A-92.

THE GALVANIZED STEEL COILS SHALL CONFORM TO THE REQUIREMENTS OF AASHTO M-218 OR ASTM A-929.

THE POLYMER COATED STEEL COILS SHALL CONFORM TO THE REQUIREMENTS OF AASHTO M-246 OR ASTM A-742.

THE ALUMINUM COILS SHALL CONFORM TO THE APPLICABLE OF AASHTO M-197 OR ASTM B-744.

CONSTRUCTION LOADS
CONSTRUCTION LOADS MAY BE HIGHER THAN FINAL LOADS. FOLLOW THE MANUFACTURER'S OR NCSPA GUIDELINES.

PIPE
THE PIPE SHALL BE MANUFACTURED IN ACCORDANCE TO THE APPLICABLE REQUIREMENTS LISTED BELOW:

ALUMINIZED TYPE 2: AASHTO M-36 OR ASTM A-760

GALVANIZED: AASHTO M-36 OR ASTM A-760

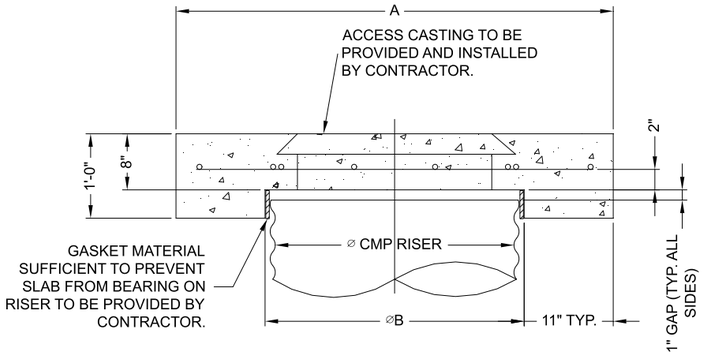
APPLICABLE POLYMER COATED: AASHTO M-245 OR ASTM A-762

ALUMINUM: AASHTO M-196 OR ASTM B-745

APPLICABLE
HANDLING AND ASSEMBLY
SHALL BE IN ACCORDANCE WITH NCSP'S (NATIONAL CORRUGATED STEEL PIPE ASSOCIATION) FOR ALUMINIZED TYPE 2, GALVANIZED OR POLYMER COATED STEEL. SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS FOR ALUMINUM PIPE.
REQUIREMENTS
INSTALLATION
SHALL BE IN ACCORDANCE WITH AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES, SECTION 26, DIVISION II DIVISION II OR ASTM A-798 (FOR ALUMINIZED TYPE 2, GALVANIZED OR POLYMER COATED STEEL) OR ASTM B-788 (FOR ALUMINUM PIPE) AND IN CONFORMANCE WITH THE PROJECT PLANS AND SPECIFICATIONS. IF THERE ARE ANY INCONSISTENCIES OR CONFLICTS THE CONTRACTOR SHOULD DISCUSS AND RESOLVE WITH THE SITE ENGINEER.

IT IS ALWAYS THE RESPONSIBILITY OF THE CONTRACTOR TO FOLLOW OSHA GUIDELINES FOR SAFE PRACTICES.

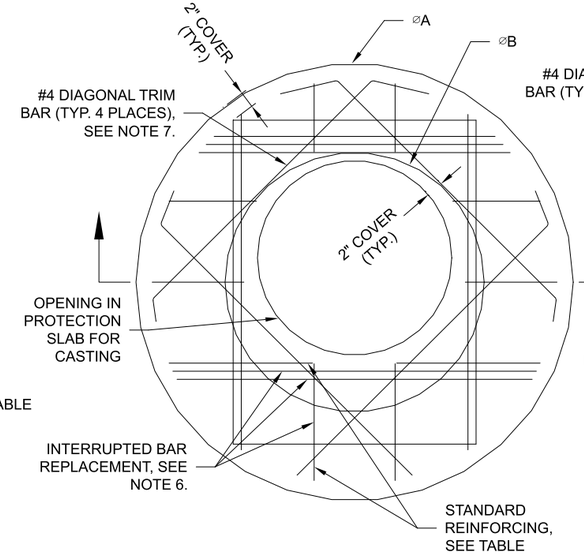
NOTE:
THESE DRAWINGS ARE FOR CONCEPTUAL PURPOSES AND DO NOT REFLECT ANY LOCAL PREFERENCES OR REGULATIONS. PLEASE CONTACT YOUR LOCAL CONTECH REP FOR MODIFICATIONS.



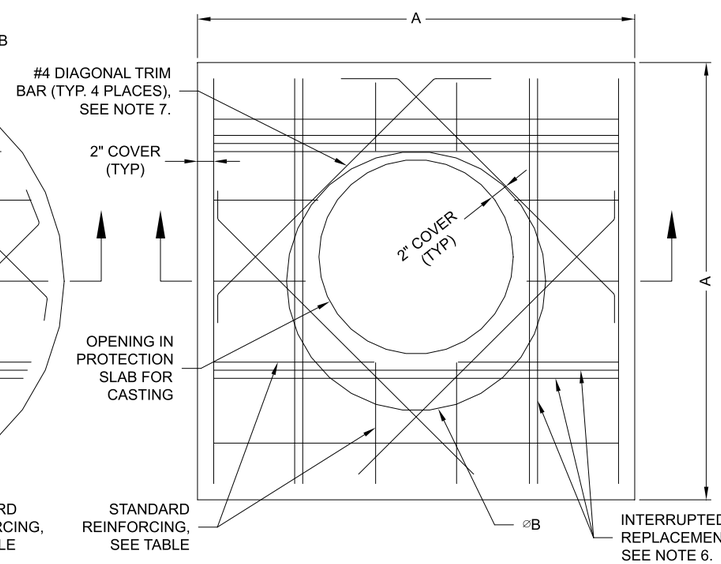
SECTION VIEW

REINFORCING TABLE				
⌀ CMP RISER	A	⌀ B	REINFORCING	**BEARING PRESSURE (PSF)
24"	⌀ 4' 4'X4'	26"	#5 @ 12" OCEW #5 @ 12" OCEW	2,410 1,780
30"	⌀ 4'-6" 4'-6" X 4'-6"	32"	#5 @ 12" OCEW #5 @ 12" OCEW	2,120 1,530
36"	⌀ 5' 5' X 5'	38"	#5 @ 10" OCEW #5 @ 10" OCEW	1,890 1,350
42"	⌀ 5'-6" 5'-6" X 5'-6"	44"	#5 @ 10" OCEW #5 @ 9" OCEW	1,720 1,210
48"	⌀ 6' 6' X 6'	50"	#5 @ 9" OCEW #5 @ 8" OCEW	1,600 1,100

** ASSUMED SOIL BEARING CAPACITY



ROUND OPTION PLAN VIEW



SQUARE OPTION PLAN VIEW

NOTES:

1. DESIGN IN ACCORDANCE WITH AASHTO, 17th EDITION.
2. DESIGN LOAD HS25.
3. EARTH COVER = 1' MAX.
4. CONCRETE STRENGTH = 3,500 psi
5. REINFORCING STEEL = ASTM A615, GRADE 60.
6. PROVIDE ADDITIONAL REINFORCING AROUND OPENINGS EQUAL TO THE BARS INTERRUPTED, HALF EACH SIDE. ADDITIONAL BARS TO BE IN THE SAME PLANE.
7. TRIM OPENING WITH DIAGONAL #4 BARS, EXTEND BARS A MINIMUM OF 12" BEYOND OPENING, BEND BARS AS REQUIRED TO MAINTAIN BAR COVER.
8. PROTECTION SLAB AND ALL MATERIALS TO BE PROVIDED AND INSTALLED BY CONTRACTOR.
9. DETAIL DESIGN BY DELTA ENGINEERING, BINGHAMTON, NY.

MANHOLE CAP DETAIL

SCALE: N.T.S.

The design and information shown on this drawing is provided as a service to the project owner, engineer and contractor by Contech Engineered Solutions LLC ("Contech"). Neither this drawing, nor any part thereof, may be used, reproduced or modified in any manner without the prior written consent of Contech. Failure to comply is done at the user's own risk and Contech expressly disclaims any liability or responsibility for such use.

If discrepancies between the supplied information upon which the drawing is based and actual field conditions are encountered as site work progresses, these discrepancies must be reported to Contech immediately for re-evaluation of the design. Contech accepts no liability for designs based on missing, incomplete or inaccurate information supplied by others.

DATE	REVISION DESCRIPTION	BY

CONTECH® ENGINEERED SOLUTIONS LLC
www.ContechES.com
9025 Centre Pointe Dr., Suite 400, West Chester, OH 45069
800-338-1122 513-645-7000 513-645-7993 FAX

CONTECH® CMP DETENTION SYSTEMS
CONTECH DYODS DRAWING

DYO30787 Euclid and Walnut
Underground Detention
Ontario, CA
DETENTION SYSTEM

PROJECT No.:	SEQ. No.:	DATE:
20769	30787	4/26/2023
DESIGNED: DYO	DRAWN: DYO	
CHECKED: DYO	APPROVED: DYO	
SHEET NO.:		

C:\EXPORTS\TEMPLATES\CMP_V8.DWG 10/18/2019 10:02 AM

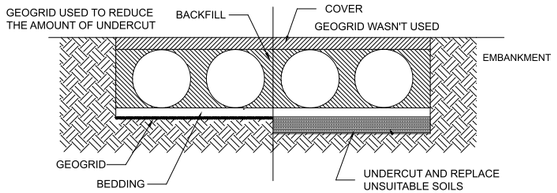
CMP DETENTION INSTALLATION GUIDE

PROPER INSTALLATION OF A FLEXIBLE UNDERGROUND DETENTION SYSTEM WILL ENSURE LONG-TERM PERFORMANCE. THE CONFIGURATION OF THESE SYSTEMS OFTEN REQUIRES SPECIAL CONSTRUCTION PRACTICES THAT DIFFER FROM CONVENTIONAL FLEXIBLE PIPE CONSTRUCTION. CONTECH ENGINEERED SOLUTIONS STRONGLY SUGGESTS SCHEDULING A PRE-CONSTRUCTION MEETING WITH YOUR LOCAL SALES ENGINEER TO DETERMINE IF ADDITIONAL MEASURES, NOT COVERED IN THIS GUIDE, ARE APPROPRIATE FOR YOUR SITE.

FOUNDATION

CONSTRUCT A FOUNDATION THAT CAN SUPPORT THE DESIGN LOADING APPLIED BY THE PIPE AND ADJACENT BACKFILL WEIGHT AS WELL AS MAINTAIN ITS INTEGRITY DURING CONSTRUCTION.

IF SOFT OR UNSUITABLE SOILS ARE ENCOUNTERED, REMOVE THE POOR SOILS DOWN TO A SUITABLE DEPTH AND THEN BUILD UP TO THE APPROPRIATE ELEVATION WITH A COMPETENT BACKFILL MATERIAL. THE STRUCTURAL FILL MATERIAL GRADATION SHOULD NOT ALLOW THE MIGRATION OF FINES, WHICH CAN CAUSE SETTLEMENT OF THE DETENTION SYSTEM OR PAVEMENT ABOVE. IF THE STRUCTURAL FILL MATERIAL IS NOT COMPATIBLE WITH THE UNDERLYING SOILS AN ENGINEERING FABRIC SHOULD BE USED AS A SEPARATOR. IN SOME CASES, USING A STIFF REINFORCING GEOGRID REDUCES OVER EXCAVATION AND REPLACEMENT FILL QUANTITIES.

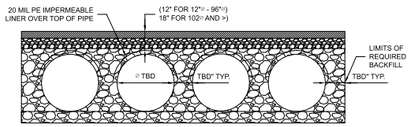


GRADE THE FOUNDATION SUBGRADE TO A UNIFORM OR SLIGHTLY SLOPING GRADE. IF THE SUBGRADE IS CLAY OR RELATIVELY NON-POROUS AND THE CONSTRUCTION SEQUENCE WILL LAST FOR AN EXTENDED PERIOD OF TIME, IT IS BEST TO SLOPE THE GRADE TO ONE END OF THE SYSTEM. THIS WILL ALLOW EXCESS WATER TO DRAIN QUICKLY, PREVENTING SATURATION OF THE SUBGRADE.

GEOMEMBRANE BARRIER

A SITE'S RESISTIVITY MAY CHANGE OVER TIME WHEN VARIOUS TYPES OF SALTING AGENTS ARE USED, SUCH AS ROAD SALTS FOR DEICING AGENTS. IF SALTING AGENTS ARE USED ON OR NEAR THE PROJECT SITE, A GEOMEMBRANE BARRIER IS RECOMMENDED WITH THE SYSTEM. THE GEOMEMBRANE LINER IS INTENDED TO HELP PROTECT THE SYSTEM FROM THE POTENTIAL ADVERSE EFFECTS THAT MAY RESULT FROM THE USE OF SUCH AGENTS INCLUDING PREMATURE CORROSION AND REDUCED ACTUAL SERVICE LIFE.

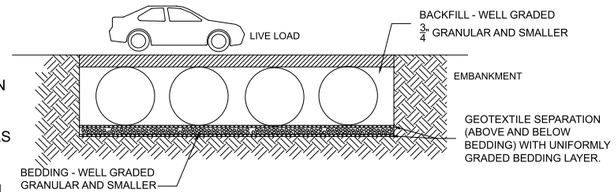
THE PROJECT'S ENGINEER OF RECORD IS TO EVALUATE WHETHER SALTING AGENTS WILL BE USED ON OR NEAR THE PROJECT SITE, AND USE HIS/HER BEST JUDGEMENT TO DETERMINE IF ANY ADDITIONAL PROTECTIVE MEASURES ARE REQUIRED. BELOW IS A TYPICAL DETAIL SHOWING THE PLACEMENT OF A GEOMEMBRANE BARRIER FOR PROJECTS WHERE SALTING AGENTS ARE USED ON OR NEAR THE PROJECT SITE.



IN-SITU TRENCH WALL

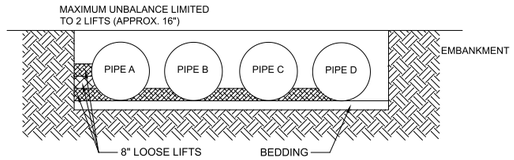
IF EXCAVATION IS REQUIRED, THE TRENCH WALL NEEDS TO BE CAPABLE OF SUPPORTING THE LOAD THAT THE PIPE SHEDS AS THE SYSTEM IS LOADED. IF SOILS ARE NOT CAPABLE OF SUPPORTING THESE LOADS, THE PIPE CAN DEFLECT. PERFORM A SIMPLE SOIL PRESSURE CHECK USING THE APPLIED LOADS TO DETERMINE THE LIMITS OF EXCAVATION BEYOND THE SPRING LINE OF THE OUTER MOST PIPES.

IN MOST CASES THE REQUIREMENTS FOR A SAFE WORK ENVIRONMENT AND PROPER BACKFILL PLACEMENT AND COMPACTION TAKE CARE OF THIS CONCERN.



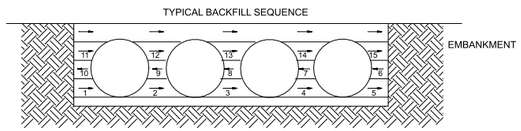
BACKFILL PLACEMENT

MATERIAL SHALL BE WORKED INTO THE PIPE HAUNCHES BY MEANS OF SHOVEL-SLICING, RODDING, AIR TAMPER, VIBRATORY ROD, OR OTHER EFFECTIVE METHODS.

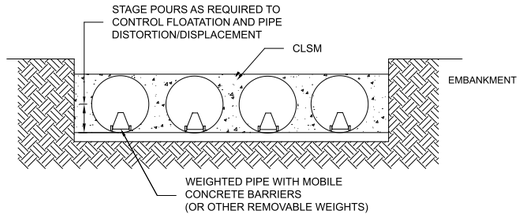


IF AASHTO T99 PROCEDURES ARE DETERMINED INFEASIBLE BY THE GEOTECHNICAL ENGINEER OF RECORD, COMPACTION IS CONSIDERED ADEQUATE WHEN NO FURTHER YIELDING OF THE MATERIAL IS OBSERVED UNDER THE COMPACTOR, OR UNDER FOOT, AND THE GEOTECHNICAL ENGINEER OF RECORD (OR REPRESENTATIVE THEREOF) IS SATISFIED WITH THE LEVEL OF COMPACTION.

FOR LARGE SYSTEMS, CONVEYOR SYSTEMS, BACKHOES WITH LONG REACHES OR DRAGLINES WITH STONE BUCKETS MAY BE USED TO PLACE BACKFILL. ONCE MINIMUM COVER FOR CONSTRUCTION LOADING ACROSS THE ENTIRE WIDTH OF THE SYSTEM IS REACHED, ADVANCE THE EQUIPMENT TO THE END OF THE RECENTLY PLACED FILL, AND BEGIN THE SEQUENCE AGAIN UNTIL THE SYSTEM IS COMPLETELY BACKFILLED. THIS TYPE OF CONSTRUCTION SEQUENCE PROVIDES ROOM FOR STOCKPILED BACKFILL DIRECTLY BEHIND THE BACKHOE, AS WELL AS THE MOVEMENT OF CONSTRUCTION TRAFFIC. MATERIAL STOCKPILES ON TOP OF THE BACKFILLED DETENTION SYSTEM SHOULD BE LIMITED TO 8- TO 10-FEET HIGH AND MUST PROVIDE BALANCED LOADING ACROSS ALL BARRELS. TO DETERMINE THE PROPER COVER OVER THE PIPES TO ALLOW THE MOVEMENT OF CONSTRUCTION EQUIPMENT SEE TABLE 1, OR CONTACT YOUR LOCAL CONTECH SALES ENGINEER.



WHEN FLOWABLE FILL IS USED, YOU MUST PREVENT PIPE FLOATATION. TYPICALLY, SMALL LIFTS ARE PLACED BETWEEN THE PIPES AND THEN ALLOWED TO SET-UP PRIOR TO THE PLACEMENT OF THE NEXT LIFT. THE ALLOWABLE THICKNESS OF THE CLSM LIFT IS A FUNCTION OF A PROPER BALANCE BETWEEN THE UPLIFT FORCE OF THE CLSM, THE OPPOSING WEIGHT OF THE PIPE, AND THE EFFECT OF OTHER RESTRAINING MEASURES. THE PIPE CAN CARRY LIMITED FLUID PRESSURE WITHOUT PIPE DISTORTION OR DISPLACEMENT, WHICH ALSO AFFECTS THE CLSM LIFT THICKNESS. YOUR LOCAL CONTECH SALES ENGINEER CAN HELP DETERMINE THE PROPER LIFT THICKNESS.

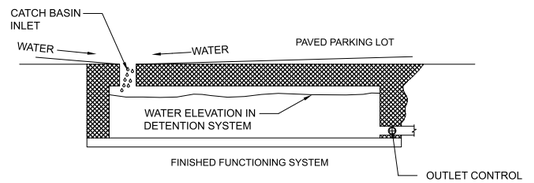


CONSTRUCTION LOADING

TYPICALLY, THE MINIMUM COVER SPECIFIED FOR A PROJECT ASSUMES H-20 LIVE LOAD. BECAUSE CONSTRUCTION LOADS OFTEN EXCEED DESIGN LIVE LOADS, INCREASED TEMPORARY MINIMUM COVER REQUIREMENTS ARE NECESSARY. SINCE CONSTRUCTION EQUIPMENT VARIES FROM JOB TO JOB, IT IS BEST TO ADDRESS EQUIPMENT SPECIFIC MINIMUM COVER REQUIREMENTS WITH YOUR LOCAL CONTECH SALES ENGINEER DURING YOUR PRE-CONSTRUCTION MEETING.

ADDITIONAL CONSIDERATIONS

BECAUSE MOST SYSTEMS ARE CONSTRUCTED BELOW-GRADE, RAINFALL CAN RAPIDLY FILL THE EXCAVATION; POTENTIALLY CAUSING FLOATATION AND MOVEMENT OF THE PREVIOUSLY PLACED PIPES. TO HELP MITIGATE POTENTIAL PROBLEMS, IT IS BEST TO START THE INSTALLATION AT THE DOWNSTREAM END WITH THE OUTLET ALREADY CONSTRUCTED TO ALLOW A ROUTE FOR THE WATER TO ESCAPE. TEMPORARY DIVERSION MEASURES MAY BE REQUIRED FOR HIGH FLOWS DUE TO THE RESTRICTED NATURE OF THE OUTLET PIPE.



CMP DETENTION SYSTEM INSPECTION AND MAINTENANCE

UNDERGROUND STORMWATER DETENTION AND INFILTRATION SYSTEMS MUST BE INSPECTED AND MAINTAINED AT REGULAR INTERVALS FOR PURPOSES OF PERFORMANCE AND LONGEVITY.

INSPECTION

INSPECTION IS THE KEY TO EFFECTIVE MAINTENANCE OF CMP DETENTION SYSTEMS AND IS EASILY PERFORMED. CONTECH RECOMMENDS ONGOING, ANNUAL INSPECTIONS. SITES WITH HIGH TRASH LOAD OR SMALL OUTLET CONTROL ORIFICES MAY NEED MORE FREQUENT INSPECTIONS. THE RATE AT WHICH THE SYSTEM COLLECTS POLLUTANTS WILL DEPEND MORE ON SITE SPECIFIC ACTIVITIES RATHER THAN THE SIZE OR CONFIGURATION OF THE SYSTEM.

INSPECTIONS SHOULD BE PERFORMED MORE OFTEN IN EQUIPMENT WASHDOWN AREAS, IN CLIMATES WHERE SANDING AND/OR SALTING OPERATIONS TAKE PLACE, AND IN OTHER VARIOUS INSTANCES IN WHICH ONE WOULD EXPECT HIGHER ACCUMULATIONS OF SEDIMENT OR ABRASIVE/ CORROSIVE CONDITIONS. A RECORD OF EACH INSPECTION IS TO BE MAINTAINED FOR THE LIFE OF THE SYSTEM

MAINTENANCE

CMP DETENTION SYSTEMS SHOULD BE CLEANED WHEN AN INSPECTION REVEALS ACCUMULATED SEDIMENT OR TRASH IS CLOGGING THE DISCHARGE ORIFICE.

ACCUMULATED SEDIMENT AND TRASH CAN TYPICALLY BE EVACUATED THROUGH THE MANHOLE OVER THE OUTLET ORIFICE. IF MAINTENANCE IS NOT PERFORMED AS RECOMMENDED, SEDIMENT AND TRASH MAY ACCUMULATE IN FRONT OF THE OUTLET ORIFICE. MANHOLE COVERS SHOULD BE SECURELY SEATED FOLLOWING CLEANING ACTIVITIES. CONTECH SUGGESTS THAT ALL SYSTEMS BE DESIGNED WITH AN ACCESS/INSPECTION MANHOLE SITUATED AT OR NEAR THE INLET AND THE OUTLET ORIFICE. SHOULD IT BE NECESSARY TO GET INSIDE THE SYSTEM TO PERFORM MAINTENANCE ACTIVITIES, ALL APPROPRIATE PRECAUTIONS REGARDING CONFINED SPACE ENTRY AND OSHA REGULATIONS SHOULD BE FOLLOWED.

ANNUAL INSPECTIONS ARE BEST PRACTICE FOR ALL UNDERGROUND SYSTEMS. DURING THIS INSPECTION, IF EVIDENCE OF SALTING/DE-ICING AGENTS IS OBSERVED WITHIN THE SYSTEM, IT IS BEST PRACTICE FOR THE SYSTEM TO BE RINSED, INCLUDING ABOVE THE SPRING LINE SOON AFTER THE SPRING THAW AS PART OF THE MAINTENANCE PROGRAM FOR THE SYSTEM.

MAINTAINING AN UNDERGROUND DETENTION OR INFILTRATION SYSTEM IS EASIEST WHEN THERE IS NO FLOW ENTERING THE SYSTEM. FOR THIS REASON, IT IS A GOOD IDEA TO SCHEDULE THE CLEANOUT DURING DRY WEATHER.

THE FOREGOING INSPECTION AND MAINTENANCE EFFORTS HELP ENSURE UNDERGROUND PIPE SYSTEMS USED FOR STORMWATER STORAGE CONTINUE TO FUNCTION AS INTENDED BY IDENTIFYING RECOMMENDED REGULAR INSPECTION AND MAINTENANCE PRACTICES. INSPECTION AND MAINTENANCE RELATED TO THE STRUCTURAL INTEGRITY OF THE PIPE OR THE SOUNDNESS OF PIPE JOINT CONNECTIONS IS BEYOND THE SCOPE OF THIS GUIDE.

C:\EXPORTS\TEMPLATES\CMP_V8.DWG 10/18/2019 10:02 AM

The design and information shown on this drawing is provided as a service to the project owner, engineer and contractor by Contech Engineered Solutions LLC ("Contech"). Neither this drawing, nor any part thereof, may be used, reproduced or modified in any manner without the prior written consent of Contech. Failure to comply is done at the user's own risk and Contech expressly disclaims any liability or responsibility for such use.

If discrepancies between the supplied information upon which the drawing is based and actual field conditions are encountered as site work progresses, these discrepancies must be reported to Contech immediately for re-evaluation of the design. Contech accepts no liability for designs based on missing, incomplete or inaccurate information supplied by others.

DATE	REVISION DESCRIPTION	BY

CONTECH ENGINEERED SOLUTIONS LLC
www.ContechES.com
9025 Centre Pointe Dr., Suite 400, West Chester, OH 45069
800-338-1122 513-645-7000 513-645-7993 FAX

CONTECH CMP DETENTION SYSTEMS
CONTECH DYODS DRAWING

DYO30787 Euclid and Walnut
Underground Detention
Ontario, CA
DETENTION SYSTEM

PROJECT No.:	SEQ. No.:	DATE:
20769	30787	4/26/2023
DESIGNED: DYO	DRAWN: DYO	
CHECKED: DYO	APPROVED: DYO	
SHEET NO.:		

APPENDIX 6

SUPPORTING DOCUMENT (MPD MAP)

HYDROLOGY MAP
OLD MODEL COLONY–WEST

CITY OF ONTARIO
MASTER PLAN OF DRAINAGE

MARCH 2012

REVISIONS

HUNSAKER & ASSOCIATES
IRVINE, INC.
PLANNING ▪ ENGINEERING ▪ SURVEYING
Three Hughes ▪ Irvine, CA 92618 ▪ PH: (949) 583-1010 ▪ FX: (949) 583-0759

DATED: 7/10/2012 2:49 PM

1 OF 3

F:\0641\Engineering\SY_SD Master Plan\Rpt_SD Master Plan\HYDROLOGY MAPS\HYDROLOGY MAP-OMC-ALL.dwg

LEGEND

- COUNTY LIMITS
- CITY LIMITS
- X" / XXXX-X-X — PLANNED STORM DRAIN, SIZE AND LINE ID
- DRAINAGE AREA BOUNDARY
- DRAINAGE SYSTEM BOUNDARY
- MINOR DRAINAGE BOUNDARY
- (X) — EXISTING CITY STORM DRAIN AND SIZE (IN INCHES)
- EXISTING CITY OPEN CHANNEL
- EXISTING COUNTY OPEN CHANNEL
- (X) — EXISTING COUNTY STORM DRAIN AND SIZE (IN INCHES)
- EXISTING CALTRANS STORM DRAIN
- (X) / X" — EXISTING NEIGHBORING CITIES STORM DRAIN AND SIZE (IN INCHES)
- FUTURE NEIGHBORING CITIES STORM DRAIN AND SIZE
- EXISTING DETENTION BASIN
- X — DRAINAGE AREA #

DRAINAGE SYSTEM NAME — WLKR - XII - 3 — SYSTEM IDENTIFICATION
DRAINAGE AREA NUMBER — LINE NUMBER

X / X.X — AREA DESIGNATION / AREA ACREAGE (IN ACRES)

Q_{10} =861.0cfs
Q_{25} =981.1cfs
Q_{100}=1213.7cfs
833.9 AC
NODE 350

PEAK FLOW RATE
AREA (IN ACRES)
NODE NO.

SCALE: 1" = 900'

900 450 0 900 2700
GRAPHIC SCALE 1"=900'

APPENDIX 7

SOILS REPORT

GEOTECHNICAL EXPLORATION REPORT
PROPOSED EUCLID AND WALNUT MIXED-USE DEVELOPMENT
112 WALNUT STREET, 2502 AND 2530 EUCLID AVENUE ONTARIO, CALIFORNIA

Prepared For

LEGACY/COLLIER RESIDENTIAL, LLC
5154 CALIFORNIA AVENUE
IRVINE, CALIFORNIA 92617

Prepared By

LEIGHTON AND ASSOCIATES, INC.
17781 COWAN
IRVINE, CALIFORNIA 92614

Project No. 13493.001

May 13, 2022

May 13, 2022

Project No. 13493.001

Legacy/Collier Residential, LLC
5154 California Avenue
Irvine, California 92617

Attention: Mr. David Pinto

Subject: Geotechnical Exploration Report
Proposed "Euclid and Walnut Mixed Use" Development
112 Walnut Street, 2502 and 2530 Euclid Avenue
Ontario, San Bernardino County, California

In accordance with our March 30, 2022 proposal, Leighton and Associates, Inc. submits this geotechnical engineering report for the proposed Euclid and Walnut Mixed-Use Development located at 112 Walnut Street, 2502 and 2530 Euclid Avenue in the City of Ontario, California. The purpose of our study was to evaluate the subsurface soil and groundwater conditions at the site to provide geotechnical recommendations for the design and construction of the proposed concept as currently planned. The results of our exploration, findings, conclusions and recommendations are presented in this report.

The recommendations presented in this report are considered to be preliminary and subject to revision based upon the limited information regarding the proposed development. Upon review of project design concept plans, revision to the recommendations may be considered necessary. In addition, revision to design recommendations may be necessary upon review by the local building official or their designated, third party technical reviewer.

We sincerely appreciate the opportunity to be of service to you. If you have any questions or if we can be of further service, please contact us at ***(866) LEIGHTON***; directly at the phone extensions or e-mail as listed below.

Respectfully submitted,

LEIGHTON AND ASSOCIATES, INC.

PROFESSIONAL GEOLOGIST
ERIC M. HOLLIDAY
No. 9219
STATE OF CALIFORNIA

REGISTERED PROFESSIONAL ENGINEER
JOHN E. HAERTLE
No. 2352
GEOTECHNICAL
STATE OF CALIFORNIA

Eric M. Holliday, PG, 9219
Senior Project Geologist
Ext 4252, eholliday@leightongroup.com

John E. Haertle, PE, GE 2352
Principal Engineer
Ext: 4268, jhaertle@leightongroup.com

EMH/JEH/ lr

TABLE OF CONTENTS

Section **Page**

1.0 INTRODUCTION 1

1.1 Site Description 1
1.2 Proposed Development 1

1.2.1 Structural Loads 2
1.2.2 Finish Floor Elevations 2
1.2.3 Pavement 2
1.2.4 Ancillary Improvements 3

1.3 Purpose and Scope 3

2.0 GEOTECHNICAL FINDINGS 6

2.1 Regional Geologic Setting 6
2.2 Surficial Geology 6
2.3 Subsurface Soil Conditions 6

2.3.1 Undocumented Artificial Fill (Afu) 7
2.3.2 Quaternary-Aged Young Alluvial Fan Deposits (Qyf) 7

2.4 Engineering Properties 7

2.4.1 Expansive Soil Characteristics 7
2.4.2 Soil Corrosivity 8
2.4.3 Soil Compressibility 8
2.4.4 Shear Strength 9
2.4.5 Excavation Characteristics 9

2.5 Groundwater Conditions 9
2.6 Infiltration 10

3.0 SEISMIC AND GEOLOGIC HAZARDS 12

3.1 Surface Fault Rupture 12
3.2 Regional Faulting 12
3.3 Strong Ground Shaking 12
3.4 Liquefaction Potential 14
3.5 Seismically-Induced Settlement 14
3.6 Lateral Spreading 15
3.7 Earthquake-Induced Landsliding 16
3.8 Flooding 16
3.9 Seiches and Tsunamis 16
3.10 Methane 17

4.0 FINDINGS AND CONCLUSIONS 18

5.0 GEOTECHNICAL DESIGN RECOMMENDATIONS 19

5.1 Earthwork 19
5.1.1 Site Preparation 20
5.1.2 Removals and Overexcavations 20
5.1.3 Subgrade Preparation 21
5.1.4 Fill Placement and Compaction 22
5.1.5 Shrinkage and Bulking 22
5.1.6 Reuse of Concrete and Asphalt Rubble 23
5.2 Foundation Design 24
5.2.1 Vertical Load Bearing Capacity 24
5.2.2 Lateral Load Resistance 25
5.2.3 Settlement Estimate 26
5.3 Slab-on-Grade Floors 26
5.4 Temporary Excavations 27
5.5 Trench Backfill 28
5.6 Soil Corrosivity 29
5.7 Cement Type 30
5.8 Elevator Pit Wall Design 31
5.9 Pavements 31
5.9.1 Pavement Subgrades 31
5.9.2 Hot Mix Asphalt (HMA) Pavement Sections 31
5.9.3 Portland Cement Concrete (PCC) Pavements 33
5.10 Concrete Flatwork and Exterior Slabs 33
Surface 34
5.11 Drainage 34
5.12 Additional Geotechnical Services 35
6.0 LIMITATIONS 36
7.0 REFERENCES 38

Tables

Table 1 – Measured (Unfactored) Infiltration Rate 10
Table 2 – 2019 CBC Based Ground Motion Parameters (Mapped Values) 13
Table 3 – Seismically-Induced Settlement - MCE_G Seismic Event 15
Table 4 – Soil Corrosivity as a Function of Resistivity 29
Table 5 – Summary of Corrosivity Testing 30
Table 6 – Asphalt Pavement Sections 32

Attachments

Important Information About Your Geotechnical Engineering Report Rear of Text

Figure 1 – Site Location Map Rear of Text
Figure 2 – Geotechnical Map Rear of Text
Figure 3 – Regional Geology Map Rear of Text
Figure 4 – Regional Fault Map and Historical Seismicity Map Rear of Text
Figure 5 – Flood Hazard Zone Map Rear of Text
Figure 6 – Dam Inundation Map Rear of Text
Figure 7 – Retaining Wall Backfill and Subdrain Detail (EI≤50) Rear of Text

Appendix A – Exploration Logs
Appendix B – Percolation Test Data
Appendix C – Laboratory Test Results
Appendix D – General Earthworks and Grading Recommendations

1.0 INTRODUCTION

1.1 Site Description

The project site is a rectangular parcel of land, approximately 10.6-acres in size, located at the northwest corner of Walnut Street and Euclid Avenue in the city of Ontario, California. The site consists of the properties located at the street addresses of 112 W. Walnut Street, and 2502 and 2530 S. Euclid Avenue. The site is bordered by Euclid Avenue on the east, Walnut Street to the south, and residential development on the west and north. The southeastern region of the property is occupied by an existing Carl's Jr. restaurant. The site location (latitude 34.0275°, longitude -117.6524°) and immediate vicinity are shown on Figure 1, *Site Location Map.*

Based on visual site reconnaissance and review of the *Alta/NSPS Land Title Survey* prepared by Hillwig-Goodrow Inc., the site is currently occupied by a large rectangular-shaped structure formerly used as a K-Mart store located in the western portion of the site, and a strip mall retail development in the northeast region. The remainder of the site was generally paved with asphalt concrete and served as the parking lot for the development. The property is relatively flat, generally level with the adjacent roadways with site elevations (EL.) ranging from approximately EL. +823 feet above mean sea level (msl) in the northeastern region to approximately EL. +812 feet msl in the southwest region.

Based on review of historic aerial photographs (NETR, 2021), the project site appears to have a similar configuration dating back to at least 1985. The strip mall located in the northeast corner of the site was constructed between 1980 and 1985 and the K-Mart and Carl's Jr. structures were constructed at some point between 1966 and 1980. Prior to at least 1966, the site seems to have been used for agricultural purposes.

1.2 Proposed Development

Our understanding of the proposed development is based on review of the *Euclid and Walnut Mixed Use Site Plan* Options A and B, Scale 1" = 100', dated March 10, 2022, prepared by AO Architects (AOA, 2022). The development conceptually consists of two options for a proposed mixed-use development with 3- to 4-story residential and commercial structures:

- Option A includes a total of 346 residential units in 8 structures with 5,000 square feet of commercial development. In the Option A development scheme it appears the existing Carl's Jr. restaurant in the southeast corner of the site will remain.
- Option B consists of full-site development with 376 residential units in 10 structures with 11,400 square feet of commercial development.

We understand the current preferred option for development is Option A and, therefore, is the development scheme that serves as the basis for the geotechnical recommendations presented in this report. Ancillary improvements will include pavement for vehicle access and parking, landscaping, utility infrastructure, and flatwork.

1.2.1 Structural Loads

Information regarding total building height, finish floor elevations, and proposed loading conditions were not readily available at the time of this report. However, we understand that subterranean levels are not currently planned. Based upon the type of development planned for project site and our experience with similar developments, the buildings have been assumed to consist of wood frame structures supported by load bearing wall and isolated columns. Structural loads have been assumed to be a maximum of 3 kips per lineal foot for bearing walls and 40 kips for columns, Should additional design information become available, it should be provided to Leighton for review.

1.2.2 Finish Floor Elevations

The finish first floor elevations of the proposed structures have been assumed to be within 1 to 2 feet of existing grade with floor elevations established or minimize cut and fill required on site. The actual quantity of cut and fill will be dependent upon the actual floor elevations determined by the project civil engineer and the quantity of overexcavation required to prepare building pad areas.

1.2.3 Pavement

Pavements proposed for the development are expected to be primarily subjected to automobiles and occasional heavy truck traffic. Pavement

recommendations have been based upon a Traffic Index of 4.0 for automobile parking stalls; 5.0 for general purpose drive aisles; and 6.0 for areas subject to heavy trucks. Pavement recommendations have been based upon a twenty-year design life.

1.2.4 Ancillary Improvements

Based on email correspondence with Mr. Steve Ellis with Fuscoe Engineering, Inc., we understand preliminary infiltration system design is considering an invert depth of 15 feet below ground surface (bgs) along the southern property line.

1.3 Purpose and Scope

The purpose of our geotechnical exploration was to evaluate the subsurface conditions at the site relative to the proposed development concept and provide geotechnical recommendations to aid in the design and construction for the project as currently planned. The scope of this geotechnical exploration included the following tasks:

- *Background Review* – We reviewed readily available in-house geotechnical reports, literature, aerial photographs, and maps relevant to the site. We evaluated geological hazards and potential geotechnical issues that may significantly impact the site. The documents reviewed are listed in Section 7.0.

- *Pre-Field Exploration Activities* – A site visit was performed by a member of our technical staff to mark the proposed exploration locations. Underground Service Alert (USA) was notified to identify and mark the locations of existing underground utilities prior to our subsurface exploration.

- *Field Exploration* – Our subsurface exploration was performed on April 6, 2022 and included drilling, logging, and sampling of five (5) hollow-stem auger borings (designated LB-1 through LB-5) to approximate depths ranging from 25 to 51½ feet below the existing ground surface (bgs). One (1) additional boring (designated LP-2) was drilled to an approximate depth of 20 feet bgs for subsequent percolation testing. To supplement the hollow-stem auger borings, four (4) Cone Penetrometer Test (CPT) soundings (designated CPT-1 through CPT-4) were advanced to depths of approximately 50 feet bgs. The approximate locations of the explorations are shown on Figure 2, *Geotechnical Map.* The boring and CPT logs are presented in Appendix A, *Exploration Logs.*

During drilling of the hollow-stem auger borings both bulk and drive samples were obtained from the borings for geotechnical laboratory testing. Driven ring samples were collected from the borings using a Modified California ring-lined sampler conducted in accordance with ASTM Test Method D 3550. Representative samples were also collected by conducting the Standard Penetration Test (SPT) within the borings in accordance with ASTM Test Method D 1586. Samples were collected at 5-foot intervals throughout the depth of exploration. In both test methods, the sampler is driven below the bottom of the borehole by a 140-pound weight (hammer) free-falling 30 inches. The drilling rig was equipped with an automatic hammer to provide greater consistency in the drop height and striking frequency. The number of blows to drive the sampler the final 12-inches of the 18-inch drive interval is termed the "blowcount" or SPT N-value. The N-values provide a measure of relative density in granular (non-cohesive) soils and comparative consistency in cohesive soils. The number of blows per 6 inches of penetration was recorded on the boring logs included in Appendix A, *Exploration Logs*.

The borings were logged in the field by a geologist from our firm. Each soil sample collected was reviewed and described in accordance with the Unified Soil Classification System (USCS). The samples were sealed and packaged for transportation to our laboratory. After completion of drilling, the borings were backfilled with soil cuttings and patched with cold-mix asphalt concrete at the surface.

- *Percolation Testing* – Boring LB-4 /LP-1 and LP-2 were converted to temporary percolation test wells upon completion of drilling and sampling. The test wells consisted of 2-inch diameter slotted (0.020") PVC well casing surrounded by #3 Monterey Sand placed in the annulus of the borehole within the test zone. In-situ percolation testing was performed in general accordance with the County of San Bernardino guidelines. The results of the percolation testing are presented in Appendix B, *Percolation Test Data*. Additional details regarding the field percolation tests and results are presented in Section 2.4.1, *Infiltration*. Upon completion of the percolation testing, the well casing was removed from each boring and the borings were backfilled with soil cuttings and patched at the surface with cold-mix asphalt concrete to match existing site conditions.

- *Laboratory Testing* – Laboratory tests were performed on selected soil samples obtained from the borings during our field exploration. The laboratory testing

program was designed to evaluate the physical and engineering characteristics of the onsite soil. Tests performed during this exploration included:

- In- situ Moisture Content and Dry Density (ASTM D2216 and ASTM D2937);
- Atterberg Limits (ASTM D 4318)
- Direct Shear (ASTM D 3080)
- Consolidation (ASTM D 2435);
- One Dimensional Swell or Settlement (ASTM D 4546)
- Maximum Dry Density (ASTM D 1557);
- Particle Size Distribution (ASTM D 6913);
- Expansion Index (ASTM D 4829);
- R-value (DOT CA Test 301)
- Sand Equivalent Test (DOT CA Test 217); and
- Corrosivity Suite – pH, Sulfate, Chloride, and Resistivity (California Test Methods 417, 422, and 532/643).

Results of the in-situ moisture content and dry density testing are presented on the boring logs in Appendix A. Other laboratory test results are presented in Appendix C, *Laboratory Test Results*

- *Engineering Analysis* – The data obtained from our background review and field exploration were evaluated and analyzed to develop recommendations for the proposed development.
- *Report Preparation* – This report presents our findings, conclusions, and recommendations for the proposed development.

2.0 GEOTECHNICAL FINDINGS

2.1 Regional Geologic Setting

The project site is located in the Chino Basin in the northern portion of the Peninsular Ranges geomorphic province of California. Major structural features surround this region, including the Cucamonga fault and the San Gabriel Mountains to the north, the Chino fault and Puente/Chino Hills to the west, and the San Jacinto fault to the east. This is an area of large-scale crustal disturbance as the relatively northwestward moving Peninsular Ranges province collides with the Transverse Ranges province (San Gabriel Mountains) to the north. Several active and potentially active faults have been mapped in the region and are believed to accommodate compression associated with this collision. The Sierra Madre fault, a major structural feature along the southern flank of the San Gabriel Mountains, is located approximately 8.3 miles north of the site. This fault, as well as other faults in the region, has the potential for generating strong ground motions at the project site. Further discussion of faulting relative to the site is provided in Section 3.0, Seismic and Geologic Hazards.

The site is located in an area underlain by thick accumulations of alluvial sand, silt, gravel, cobbles, and boulders eroded from the mountains and deposited in the site vicinity by the Santa Ana River and smaller tributaries such as the San Antonio Creek and Cucamonga Creek (Morton and Miller, 2006; Dibblee, 2002).

2.2 Surficial Geology

The Quaternary age deposits that cover the floor and margins of the Chino Basin are composed primarily of unconsolidated recent (Holocene) young alluvial fan deposits consisting predominately of sands and gravels derived from the surrounding mountains and hills with finer clays and silts deposited into the basin over the broad floodplain. The surficial geologic units mapped in the vicinity of the project site are shown on Figure 3, *Regional Geology Map*.

2.3 Subsurface Soil Conditions

Based on our subsurface explorations, the site is underlain by a relatively thin mantle of undocumented artificial fill materials (Afu) overlying Quaternary-aged (Holocene) young alluvial fan deposits (Qyf).

A general description of the encountered soils is presented as follows:

2.3.1 Undocumented Artificial Fill (Afu)

The artificial fill encountered in our borings extended to a depth of approximately 5 feet below grade and likely associated with the existing site improvements. In general, the encountered fill soils consist primarily of sandy silt and silty sand. Localized thicker accumulations of fill materials may be present between explored locations, particularly beneath the existing buildings.

2.3.2 Quaternary-Aged Young Alluvial Fan Deposits (Qyf)

Below the mantle of artificial fill material, Quaternary-aged young alluvial fan deposits were encountered in the borings to the maximum depth explored (approximately 51½ feet). As encountered, this younger alluvial unit consists of stiff to very stiff sandy silt, silty clay, and clay; interbedded with medium dense to dense silty sand, sand with silt, and sand with gravel. Although relatively variable across the site, in general, fine-grained material is more prevalent in the upper 15 to 25 feet with coarser grained material becoming more frequent at depths of 25 feet or greater.

Detailed descriptions of the subsurface soils encountered in the borings are presented on the logs included in Appendix A. The locations of the borings are shown on Figure 2, *Geotechnical Location Map.*

2.4 Engineering Properties

The results of laboratory testing are presented in Appendix C of this report. Discussion regarding select engineering properties of these soils are described in the following sections based upon the results of the laboratory testing program.

2.4.1 Expansive Soil Characteristics

Expansive soils contain significant amounts of clay particles that swell considerably when wetted and which shrink when dried. Foundations constructed on these soils are subject to uplifting forces caused by the swelling. Without proper mitigation measures, heaving and cracking of both building foundations and slabs-on-grade could result.

One (1) near-surface bulk soil sample collected from Boring LB-1 was tested for expansion potential. The test results indicate an Expansion Index (EI) value of 18, corresponding to a "Very Low" expansion potential. The Expansion Index laboratory test results are included in Appendix C of this report.

Variance in expansion potential of onsite soil is anticipated; therefore, additional testing is recommended upon completion of site grading and excavation to confirm the expansion potential presented in this report. For purposes of this report and based upon visual characterization of alluvial materials at approximate foundation depth, low expansion potential of site materials may be considered to support design and verified upon completion of earthwork grading.

2.4.2 Soil Corrosivity

One (1) near-surface bulk soil sample collected from Boring LB-3 was tested for corrosivity to assess corrosion potential to buried concrete. The chemical analysis test results for the onsite soil from our geotechnical exploration are included in Appendix C of this report.

The test results indicate a soluble sulfate concentration of 266 parts per million (ppm), chloride content of 40 ppm, pH 7.92, and a minimum resistivity value of 1,335 ohm-cm.

The results of the resistivity tests indicate the underlying soil is severely corrosive to buried ferrous metals per ASTM STP 1013. Based on the measured water-soluble sulfate contents from the soil samples, concrete in contact with the soil is expected to have negligible exposure to sulfate attack per ACI 318 (ACI, 2014). The samples tested for water-soluble chloride content indicate a low potential for corrosion of steel in concrete due to the chloride content of the soil.

2.4.3 Soil Compressibility

Three (3) samples of the onsite soils recovered from the borings were subjected to consolidation testing to evaluate the compressibility of these materials under assumed loads representative of anticipated structural bearing stresses. The results of testing indicate these soils exhibit a low

compressibility potential. The results of testing are presented in Appendix C.

2.4.4 Shear Strength

Evaluation of the shear strength characteristics of the soils included laboratory direct shear testing. The results of testing are included in Appendix C that provide values of angle of internal friction (ø) and cohesion (c) for use in geotechnical analysis.

2.4.5 Excavation Characteristics

Based on our subsurface explorations performed at the site and our experience from grading jobs in the vicinity of the site, we anticipate the onsite artificial fill and alluvial materials can generally be excavated using conventional excavation equipment in good operating condition.

The soils within the planned excavation depths are variable, and locally consist of layers that contain granular, unconsolidated soils with little or no cementation and few fines. These materials are prone to cave in or collapse in unshored excavations. See Section 5.4, *Temporary Excavations* for additional information on soil type and excavation characteristics.

2.5 Groundwater Conditions

Groundwater was not encountered during our subsurface exploration to the maximum depth of 51.5 feet bgs. Based on review of the *Chino Basin Optimum Basin Management Plan 2008 State of the Basin Report* (Wildermuth, 2009), groundwater depth at the site is anticipated to be on the order of approximately 225 feet bgs. Review of available information from the California Department of Water Resources (DWR, 2022) for a nearby groundwater monitoring well located approximately 1.8 miles northwest of the project site (State Well # 01S07W29A001S) indicates the shallowest groundwater level measured for a monitoring period between October 1959 and September 2021 was approximately 214 feet bgs in 1959; with the most recent groundwater levels documented to be on the order of 250 feet bgs.

Based on these findings, groundwater is not expected to pose a constraint during or after construction. Fluctuations of the groundwater level, localized zones of perched water, and an increase in soil moisture, should be anticipated during and

following the rainy seasons or periods of locally intense rainfall or storm water runoff, or from stormwater infiltration.

2.6 Infiltration

Percolation testing was performed in temporary wells installed within borings LB-4/LP-1 and LP-2 located in the southern region of the site with test zone at depths of 17 to 22 feet bgs and 15 to 20 feet bgs, respectively. The percolation tests were conducted in general accordance with the *San Bernardino County Technical Guidance Document (TGD) for Water Quality Management Plans* (2013). Results of the percolation testing are presented in Appendix B. The test locations and tested depth intervals are shown on Figure 2.

A boring percolation test is useful for field measurements of the infiltration rate of soils, and is suited for testing when the design depth of the infiltration device is deeper than current existing grades, especially in areas where it is difficult to dig test pits, or where the depths of these test pits would be considerably deep. At the subject site, testing consisted of advancing the borings to the anticipated depth for the invert of the proposed infiltration devices.

The *Percolation Test Procedure* (falling-head test method) as outlined in the County Guidelines was implemented at each percolation test well location. The infiltration rate was calculated by dividing the rate of discharge by the infiltration surface area, or flow area. The volume of discharge was calculated by adding the total volume of water that dropped within the PVC pipe and within the annulus, and incorporating a porosity reduction factor to account for the porosity of the annulus material. The flow area was based on the average water height within the test well.

Detailed results of the field testing data and measured infiltration rate for the test well are presented in Appendix B. The test results are summarized in the table below:

Table 1 – Measured (Unfactored) Infiltration Rate

Test Well Designation	Approximate Depth of Test Zone (feet bgs)	Measured Infiltration Rate (inches per hour)
LB-4/LP-1	17 to 22	0.32
LP-2	15 to 20	0.69

Based on the results of our field percolation testing that was performed at the site, the measured (unfactored) infiltration rates for the two (2) tests performed were 0.32 inches per hour (LB-4/LP-1) and 0.69 inches per hour (LP-2), respectively. According to the *San Bernardino County Technical Guidance Document (TGD) for Water Quality Management Plans* (2013), the measured infiltration rate at both test well locations technically exceeds the minimum feasibility criteria of 0.3 inch per hour. However, implementation of a minimum factor of safety of 2.0 as required for the design infiltration rate indicates the depth and location tested for LB-4/LP-1 is considered infeasible for infiltration.

In consideration of the general greater prevalence of coarse-grained material at the site below depths of 25 feet or deeper, a more feasible infiltration rate may be achieved in percolation testing performed at depths greater than those tested during this exploration.

3.0 SEISMIC AND GEOLOGIC HAZARDS

Depending upon the geographic location and geologic setting of a particular site in southern California, seismic-related hazards can include surface fault rupture; strong ground shaking; seismically-induced landslides; liquefaction and associated effects such as settlement and/or lateral spreading; and seiches, tsunamis and/or flooding depending upon the proximity of bodies of water. The following sections discuss each of these hazards and potential effect upon this site.

3.1 Surface Fault Rupture

Known surface faults in the region are mapped on Figure 4, *Regional Surface Fault and Historical Seismicity Map*. Review of available literature indicates that no known active faults have been mapped across the site, and the site is **not** located within a currently established *Alquist-Priolo Earthquake Fault Zone* (Bryant and Hart, 2007). Therefore, a surface fault rupture hazard evaluation is not mandated for this site. Given an absence of known faults, potential risk for surface fault rupture at this site is low.

3.2 Regional Faulting

The location of the closest active faults to the site was evaluated using the United States Geological Survey (USGS) Earthquake Hazards Program National Seismic Hazard Maps (USGS, 2008b). The closest active faults to the site with the potential for surface fault rupture are the Chino fault, San Jose fault, Cucamonga fault and Sierra Madre fault, located approximately 4.7 miles, 6.0 miles, 7.9 miles and 8.3 miles from the site, respectively. The San Andreas fault, which is the largest active fault in California, is approximately 20.3 miles northeast of the site on the north side of the San Gabriel Mountains. As discussed, major regional faults with surface expression in proximity to the site are shown on Figure 4, *Regional Fault and Historic Seismicity Map*.

3.3 Strong Ground Shaking

The principal seismic hazard to the site is ground shaking resulting from an earthquake occurring along any of several major active and potentially active faults in southern California (Figure 4). The intensity of ground shaking at a given location depends primarily upon the earthquake magnitude, the distance from the source, and the site response characteristics. Accordingly, design of the project should be performed in accordance with all applicable current codes and standards

utilizing the appropriate seismic design parameters to reduce seismic risk as defined by California Geological Survey (CGS) Chapter 2 of Special Publication 117A (CGS, 2008). The 2019 edition of the California Building Code (CBC) is the current edition of the code. Through compliance with these regulatory requirements and the utilization of appropriate seismic design parameters selected by the design professionals, potential effects relating to seismic shaking can be reduced.

The following code-based seismic parameters should be considered for design under the 2019 CBC:

Table 2 – 2019 CBC Based Ground Motion Parameters (Mapped Values)

Categorization/Coefficient	Code-Based
Site Latitude	34.0275°
Site Longitude	-117.6523°
Site Class	D
Mapped Spectral Response Acceleration at Short Period (0.2 sec), S_S	1.5 g
Mapped Spectral Response Acceleration at Long Period (1 sec), S_1	0.579 g
Short Period (0.2 sec) Site Coefficient, F_a	1.0
Long Period (1 sec) Site Coefficient, F_v	1.72*
Adjusted Spectral Response Acceleration at Short Period (0.2 sec), S_{MS}	1.5 g
Adjusted Spectral Response Acceleration at Long Period (1 sec), S_{M1}	0.996*
Design Spectral Response Acceleration at Short Period (0.2 sec), S_{DS}	1.0 g
Design Spectral Response Acceleration at Long Period (1 sec), S_{D1}	0.664*
Site Coefficient for Peak Ground Acceleration, F_{PGA}	1.1
Peak Ground Acceleration adjusted for Site Class effects, PGA_M	0.644 g

1. All were derived from the ASCE 7 Hazard Tool web page: https://asce7hazardtool.online/
2. All coefficients in units of g (spectral acceleration)
3. *Requires C_s calculation, see *Note* below.

Based on Table 1613.2.3(2) of the 2019 CBC, the long period site coefficient (F_v) should be determined in accordance with Section 11.4.8 of ASCE 7-16 since the mapped spectral response acceleration at 1 second is greater than 0.2g for Site Class D. In accordance with Section 11.4.8 of ASCE 7-16, a site-specific seismic analysis is required; however, the values provided herein may be utilized if design

is performed in accordance with exception (2) in Section 11.4.8 of ASCE 7-16, with special requirements for the seismic response coefficient (Cs) as noted below. The project structural engineer should review the seismic parameters.

Note: Long period coefficient (Fv) of 1.7 may be utilized for calculation of Ts, provided that the value of the Seismic Response Coefficient (Cs) is determined by Equation 12.8-2 for values of the fundamental period of the building (T) less than or equal to 1.5Ts, and taken as 1.5 times the value computed in accordance with either equation 12.8-3 for T greater than 1.5 Ts and less than or equal to T_L or equation 12.8-4 for T greater than T_L.

3.4 Liquefaction Potential

The term liquefaction is generally referenced to loss of strength and stiffness in soils due to build-up of pore water pressure when subject to cyclic or monotonic loading. Both sandy and clayey soils are susceptible to loss of strength and stiffness. Because of the difference in strength characteristic and methods for evaluating strength loss potential for granular and clayey soils, the term liquefaction is used for granular soils while cyclic softening is used for fine-grained soils (i.e. clays and plastic silts).

In general, adverse effects of liquefaction or cyclic softening include excessive ground settlement, loss of bearing support for structural foundations, and seismically-induced lateral ground deformations such as lateral spreading. Depending upon the relative thickness of the liquefied strata with respect to overlying non-liquefiable soils, other potentially adverse effects such as ground oscillation and ground fissuring may occur.

As regionally mapped on the California Geological Survey *Earthquake Zones of Required Investigation (EZRIM) for the Ontario Quadrangle* (CGS, 200) and shown on Figure 4, *Seismic Hazard Zone Map*, the site is **not** within an area potentially susceptible to liquefaction. In addition, review of the San Bernardino County *Geologic Hazard Overlays* map FH27C (2010), the project site is not located within a County liquefaction susceptibility zone. The historically shallowest groundwater level recorded by DWR near the site is 214 feet bgs and the recent recorded depth to groundwater is greater than 200 feet bgs. Based on these findings, liquefaction is not considered a hazard at the site.

3.5 Seismically-Induced Settlement

Seismically-induced settlement consists of dynamic settlement of unsaturated soil (above groundwater) and liquefaction-induced settlement (below groundwater).

These settlements occur primarily within low density sandy soil due to reduction in volume during and shortly after an earthquake event.

As previously discussed, the site is not considered susceptible to the occurrence of liquefaction. Therefore, seismically-induced settlement will consist solely of densification of non-saturated soils upon exposure to strong ground shaking. Evaluation of the potential for such seismically-induced settlements to occur was performed for the Geomean Maximum Considered Event (MCE_G) and the associated ground motion that corresponds to a 2,475 year average return period (ARP) for the CPT soundings that were advanced to a depth of 50 feet below grade. The results of the analysis are presented below:

Table 3 – Seismically-Induced Settlement - MCE_G Seismic Event

Design Scenario		CPT I.D.	Settlement (inches)		
PGA	M_W		Liquefaction[1]	Non-Liquefaction[2]	Total
0.64	6.78	CPT-1	No Liquefaction	0.23	0.23
		CPT-2	No Liquefaction	0.09	0.09
		CPT-3A	No Liquefaction	0.16	0.16
		CPT-4	No Liquefaction	0.45	0.45

Notes: (1) Liquefaction-induced settlement; Design Groundwater below depth of 50 feet

(2) Non-liquefaction induced ("dry sand") settlement

The results of the analysis indicated the magnitude of seismically-induced settlement under the MCE_G scenario will be less than ½ to 1 inch. Based on the general consistency in soil conditions as depicted by the test borings conducted at the site, the differential settlement is estimated to be approximately ½ inch over a distance of at least 40 feet, which results in an angular distortion less than 0.0021 in./in., which is anticipated to be within tolerable levels for structural design.

3.6 Lateral Spreading

Liquefaction may also cause lateral spreading. For lateral spreading to occur, the liquefiable zone must be continuous, unconstrained laterally, and free to move along gently sloping ground toward an unconfined area. Since the site is relatively flat and constrained laterally and liquefaction is not considered a hazard at the site, earthquake-induced lateral spreading is also not considered a hazard at the site.

3.7 Earthquake-Induced Landsliding

As regionally mapped on the California Geological Survey *Earthquake Zones of Required Investigation for the Torrance Quadrangle* (CGS, March 25, 1999) and shown on Figure 4, *Seismic Hazard Zone Map*, the site is **not** located within an area potentially susceptible to liquefaction (CGS, 2000a). Review of the San Bernardino County *Geologic Hazard Overlays* map FH27C (2010) indicates the project site is not located within a County landslide susceptibility zone. The project site is relatively flat with no significant slopes on or immediately adjacent. It is our opinion that seismically-induced landsliding is not considered a hazard at the site.

3.8 Flooding

According to a Federal Emergency Management Agency (FEMA) flood insurance rate map (FEMA, 2015), the project site is located within a flood hazard area identified as "Zone X", which is defined as an area of minimal flood hazard. Regionally, storm runoff flow is generally directed to the southwest. As shown on Figure 5, *Flood Hazard Zone Map*, the site is **not** located within a 100-year or 500-year flood hazard zone.

Earthquake-induced flooding can be caused by failure of dams or other water-retaining structures as a result of earthquakes. As shown on Figure 6, *Dam Inundation Map*, the site **is** mapped within an inundation zone associated with San Antonio Dam. Catastrophic failure of this dam is expected to be a very unlikely event in that dam safety regulations exist and are enforced by the DOSD, Army Corps of Engineers and Department of Water Resources. Inspectors may require dam owners to perform work, maintenance or implement controls if issues are found with the safety of the dam. Due to the location and distance of the site from San Antonio Dam, along with the unlikely failure of the dam, the potential for earthquake-induced flooding to occur due to a failure of this dam is considered low.

3.9 Seiches and Tsunamis

Seiches are large waves generated in enclosed bodies of water in response to ground shaking. Tsunamis are waves generated in large bodies of water by fault displacement or major ground movement. Based on the absence of an enclosed water body near the site and the inland location of the site, seiche and tsunami risks at the site are considered negligible.

3.10 Methane

Based on review of State of California Geologic Energy Management Division (CalGEM) records, the project site is not located within an oil field boundary (CalGEM, 2021). The nearest documented oil well to the site is located approximately 0.6 miles southwest of the site (API# 0407100083; Donald B. Lamont, Donald B. Lamont Lease, Well No. 1) and is reported as a plugged dry hole (CalGEM, 2021). Based on these findings, the potential for methane hazard at the site is low.

4.0 FINDINGS AND CONCLUSIONS

No evidence of adverse geological or geotechnical hazards was noted at the site that will preclude the development of the project as currently planned. Presented below is a summary of findings based upon the results of our geotechnical exploration of the site. Geotechnical recommendations for design and construction are presented in Section 4.0 of this report.

- The potential for surface fault rupture is considered to be low since the site is not located in a designated Alquist-Priolo Earthquake Fault Zone.

- The site may be subjected to strong ground shaking during the design life of the proposed development due to the proximity of several active faults in the vicinity of the site. The Chino fault, located approximately 4.7 miles southwest of the site is the nearest active fault to the site with a potential for surface rupture and generation of strong ground shaking. However, strong ground shaking may occur at the site due to seismic activity on one of a number of faults in the area.

- The site is **not** located within an area shown as susceptible to liquefaction according to the CGS *Earthquake Zones of Required Investigation Map* for the Ontario Quadrangle or the San Bernardino County *Geologic Hazard Overlays* map FH27C. Given the lack of shallow groundwater underlying the site, the potential for liquefaction is considered low.

- Groundwater was not encountered to the maximum depth explored of 51½ feet bgs. Recent nearby groundwater levels as documented by the California Department of Water Resources indicate the depth to groundwater is likely on the order of greater than 200 feet bgs. Groundwater is not anticipated to be a constraint to site grading or construction.

- At a minimum, development of the site for support of the proposed mixed-use development should include overexcavation and recompaction of the existing artificial fill materials as well as a portion of the underlying native soils to develop a layer of structural compacted fill to provide foundation support.

- The results of the infiltration testing performed at the site indicate stormwater infiltration is marginally feasible based on the tested locations and depths.

- The proposed structures may be supported by a shallow foundation system supported on structural compacted fill underlain by suitable bearing native soils.

5.0 GEOTECHNICAL DESIGN RECOMMENDATIONS

Based upon this study, we conclude that the proposed development for the subject site is feasible from a geotechnical standpoint, provided that the recommendations presented in this report are properly incorporated in design and construction. Geotechnical recommendations for the proposed development are presented in the following sections and are intended to provide sufficient geotechnical information to develop the project plans in accordance with 2019 CBC requirements. The following recommendations may be superseded by more restrictive requirements of the architect, structural engineer, and/or local building official.

The recommendations below are based upon the exhibited geotechnical engineering properties of the soils and their anticipated response both during and after construction. The recommendations are also based upon proper field observation and testing during construction. The project geotechnical engineer should be notified of suspected variances in field conditions to determine the effect upon the recommendations subsequently presented. These recommendations are considered minimal and may be superseded by more restrictive requirements of the civil and structural engineers, the City of Ontario, the County of San Bernardino and other governing agencies.

Leighton should review the grading plans, foundation plans and project specifications as they become available to verify that the recommendations presented in this report have been incorporated into the plans for this project.

5.1 Earthwork

All site grading should be performed in accordance with the project specifications that are prepared by the appropriate design professional. The guide specifications presented in Appendix D, General Earthwork and Grading Recommendations may be used as a guideline in developing the project specifications.

Earthwork and grading operations are recommended to be observed and appropriate testing be performed by representatives of the geotechnical engineer to verify that the site is properly prepared, the selected fill materials are satisfactory, and that placement and compaction of fills has been performed in accordance with our recommendations and the project specifications.

5.1.1 Site Preparation

Initial preparation of the site should include demolition and removal of the existing facility from the project site including all foundations, slabs and underground structures. Existing utilities not planned for reuse with the proposed development should be either removed in their entirety, properly abandoned in-place, or rerouted around the development area to preserve their function. Disposal of all debris and remnants of the existing development should be performed in accordance with the type of material and local regulations.

The existing development includes a relatively large paved parking lot that consists of asphalt concrete. Based upon the conditions encountered at the test boring locations, the thickness of the existing asphalt concrete ranged from 2½ to 5 inches underlain by base course that ranged from 3 to 12 inches in thickness. Reuse of the pavement with the proposed development will require consideration of proposed finish grades and the need to construct an asphalt overlay to prolong the service life of the pavement. Recommendations for reuse of the pavement can be provided upon request. However, for purposes of this report, the existing pavement is assumed to not be salvaged for reuse and will be removed from the site. If properly processed during demolition and removal, the pavement may be reused as the base course for construction of new pavement.

Upon completion of demolition and site clearing activities, the soils should be carefully observed for the removal of all unsuitable deposits. All undocumented fill or man-made debris, unsuitable native soils and former foundation remnants should be excavated and removed from the proposed building/structure footprint prior to fill placement.

5.1.2 Removals and Overexcavations

The recommended depths of overexcavation presented below have been based upon the assumed structural loads and the recommended allowable bearing pressure. The actual depth recommended for preparation of foundation areas may be revised depending upon the actual footing sizes that result from structural design of the foundations. Consequently, the recommendations for building pad preparation/overexcavation should be reviewed by the geotechnical engineer as foundation design proceeds.

To provide uniform foundation support and reduce the potential for excessive static settlement, all existing undocumented fill and any unsuitable soil, as deemed by the geotechnical engineer, should be removed to expose suitable native soils and replaced as engineered fill below the proposed building and other structural improvements. Based on our field explorations, we estimate removals of existing undocumented fill will be approximately 5 feet below existing grade across most of the site. Localized areas are anticipated to require deeper removals, in particular beneath the existing buildings and in areas of existing utilities.

Removals should be performed such that all undocumented fill is removed and replaced as engineered fill. In addition, overexcavations should be performed such that a minimum of 4 feet of engineered fill is established below the proposed building foundation elements and the at-grade slabs of the buildings. The lateral extent of overexcavation beyond foundations should be equal to the depth of overexcavation below the proposed foundations as measured at the excavation subgrade.

The depth of overexcavation in non-structural areas planned for new pavement construction is recommended to be 2 feet below the current grade or planned subgrade elevation to develop a suitable bearing subgrade for pavement support. Deeper overexcavations in localized areas may be recommended during grading by a representative of the geotechnical engineer depending on observed subsurface conditions.

5.1.3 Subgrade Preparation

All excavation bottoms or removal bottoms should be observed by a representative of the geotechnical engineer prior to placement of fill or other improvements to determine that geotechnically suitable soil is exposed. Excavation bottoms observed to be suitable for fill placement or other improvements should be scarified to a depth of at least 8 inches, moisture-conditioned as necessary to achieve a moisture content of at least 2 percentage points above the optimum moisture content, and then compacted to a minimum of 90 percent of the maximum dry density as determined by ASTM Test Method D 1557 (Modified Proctor).

5.1.4 Fill Placement and Compaction

The onsite soil, free of organic material, cobbles, boulders, rubble, and rock less than 3 inches in largest dimension, is suitable to be used as structural fill. All fill soil should be placed in loose lifts no greater than 8 inches in thickness, moisture-conditioned as necessary to a moisture content 1 to 2 percentage points above optimum moisture content and compacted using proper equipment to the minimum standard as noted below, unless stated otherwise in the specific sections.

- Fill soil should be moisture-conditioned and compacted to a minimum of 90 percent relative compaction as determined by ASTM Test Method D1557.
- Subgrade exposures should be moisture-conditioned and compacted to a minimum of 90 percent relative compaction as determined by ASTM Test Method D1557
- Base course material should be compacted to a minimum of 95 percent relative compaction.
- Utility trench backfill is discussed in Section 5.5.

Material imported to the site for use as fill should be reviewed and approved by the geotechnical engineer prior to import to the site and placement as fill. Imported soils should be very low in expansion potential (EI less than 20); non-corrosive to metals and concrete; and be free of hazardous substances.

When grading is interrupted by heavy rains, fill operations should not be resumed until the moisture content and the dry density of the placed fill are satisfactory.

5.1.5 Shrinkage and Bulking

The change in volume of excavated and recompacted soil varies according to soil type and location. This volume change is represented as a percentage increase (bulking) or decrease (shrinkage) in volume of fill after removal and recompaction. Field and laboratory data used in our calculations included laboratory-measured maximum dry density for the

general soil type encountered at the subject site, the measured in-place densities of near surface soils encountered and our experience.

Earthwork operations are generally anticipated to be limited to soils to a depth of 5 to 6 feet below current grade with some additional overexcavation in localized areas of the site where unsuitable bearing/very loose relative density soils may be encountered in the southern to southwestern region of the site. Data regarding the in-place density of the near surface soils could not be collected due to the manner in which field exploration was encountered whereby the soils to a depth of 5 feet at the boring locations were pre-drilled by use of a hand auger to protect against damaging buried utilities. Therefore, earthwork quantities (shrinkage/bulking) are primarily based upon experience with similar materials at other project sites and the limited available data from soils recovered from a depth of 6 feet.

On a preliminary basis, the existing fill materials requiring removal and recompaction are anticipated to exhibit volume shrinkage on the order of of 10 to 15 percent. The estimated shrinkage does not include material losses due to removal of organic material or other unsuitable bearing materials (debris, rubble, oversize material greater than 6-inches) and the actual shrinkage that occurs during grading may vary throughout the site.

5.1.6 Reuse of Concrete and Asphalt Rubble

If encountered during site clearing and/or during preparation activities, construction rubble (i.e., Portland cement concrete and asphalt concrete) may be incorporated in the proposed development. For use as structural fill, the processed material should be crushed to develop a relatively well-graded mixture with a maximum particle size of 3-inch nominal diameter. Concrete rubble should be free of rebar and processed asphalt pavement rubble may be used if mixed with the existing base course (where present). Processed material may be used as structural fill if uniformly mixed with onsite soils in proportion of 1 part processed material to 3 parts soil. For use as pavement base course, rubble should be crushed to satisfy gradation requirements of Section 200-2.4 of the *Standard Specifications for Public Works Construction,* (SSPWC, “Greenbook”). Such materials must be free of and segregated from any hazardous materials and/or organic material of any kind.

5.2 Foundation Design

Preparation of the building areas should be performed as described in Section 5.1 of this report. Upon completion of building pad preparation, the soils that will provide support of the foundations are expected to consist of properly moisture-conditioned structural compacted fill that exhibits very low to low expansion potential underlain by suitable bearing native soils.

5.2.1 Vertical Load Bearing Capacity

The proposed structures are recommended to be supported by a shallow foundation system in which continuous strip footings are used for wall support and isolated square pad footings for column support. Footings to support the proposed buildings are recommended to be designed for a maximum net allowable soil bearing pressure of 2,500 pounds per square foot (psf) for continuous strip footings for wall support and 3,000 psf for isolated square pad footings for column support.

The foundations for ancillary structures separate from the proposed buildings are recommend to be designed for a maximum 2,000 pounds per square foot (psf) for continuous strip footings for wall support and 2,500 psf for isolated square pad footings for column support. The recommended bearing pressures assume the foundations will be supported by a layer of structural compacted fill that is a minimum 2 feet in thickness below foundations and extends laterally distance of at least 2 feet beyond the edges of the foundations.

The allowable bearing values may be increased by one-third when considering short-term seismic or wind loads. The recommended bearing pressure is net so the unit weight of concrete may be assumed to be 50 pcf when calculating the component of load demand due to foundation weight; the weight of soil backfill can be neglected when determining the downward loads.

The recommended allowable bearing pressures stated above have been based upon specific minimum footing sizes and embedment depths:

- Minimum widths for foundations are recommended to be 18 inches for continuous strip footings and 24 inches for square pad footings.

- Minimum footing embedment depth for the isolated exterior footings and the footings for the exterior walls is recommended to be 18 inches.
- The minimum embedment depth for interior footings is recommended to be 18 inches.
- The minimum embedment depth for ancillary structures is 18 inches below adjacent subgrade elevation.

The depth of embedment should be determined from the finish subgrade elevation adjacent to the building for the perimeter footings and the finish pad grade within the structure for interior footings. Additional foundation embedment depth may be considered for foundations located close to property lines to protect foundations from being undermined due future excavation that may be performed on the adjacent properties.

Determination of the minimum steel reinforcement requirements of the continuous strip and isolated square pad footings should be performed by the structural engineer.

The foundation bearing soils are recommended to be evaluated by the geotechnical engineer prior to placing reinforcing steel. Evaluation is intended to verify suitable bearing conditions to support the footings and the footing excavations are generally in compliance with foundation plans.

5.2.2 Lateral Load Resistance

Lateral loads may be resisted by friction acting along the bottoms of the footings and passive resistance of the soil adjacent to the vertical sides of the foundations provided the foundations are poured neat against properly compacted fill or undisturbed native soils. Resistance to lateral load may be calculated on the basis of an allowable frictional coefficient of 0.30 and allowable passive resistance equal to an equivalent fluid density of 250 pounds-per-cubic-foot (pcf) to a maximum of 2,500 psf. No reduction will be needed to any of the above two components for computing the total resistance to lateral loads. The use of passive resistance in lateral load analysis requires the foundations to be cast against vertical, undisturbed trench walls or any voids along the footing be backfilled with structural compacted fill.

5.2.3 Settlement Estimate

Estimated post-construction total and differential settlement under the assumed loading conditions and preparation of the building areas as described in this report are estimated to be on the order of 1 inch and ½ inch, respectively. The differential settlement is expected to occur over a minimum span of 30 feet, thereby resulting in an angular distortion less than 0.002, which is expected to be within tolerable limits for the proposed structures.

Settlement is a function of footing size and contact bearing pressure. As a result, differential settlement can be expected between adjacent columns or walls where a large differential loading condition exists. Leighton should review the settlement estimates when final foundation plans and loads for the proposed structures become available.

5.3 Slab-on-Grade Floors

Upon completion of the recommended building pad preparation, the subgrades of the slabs supported on grade are anticipated to consist of newly placed structural compacted fill, which is generally expected to consist of the existing soils that have been overexcavated and recompacted under engineering controlled conditions.

Based upon the anticipated subgrade conditions, the floor slabs of the proposed buildings that will be supported on grade may be designed and constructed as a mat on elastic foundation using a modulus of subgrade reaction (k_{v1}) of 100 pounds per cubic inch (pci). These slabs are recommended to be a minimum of 4 inches in thickness and include No. 3 rebar placed at center of the slab at 18 inches on-center in each direction based on geotechnical considerations. Increase in the slab thickness and/or reinforcing may be necessary due to structural engineering considerations as determined by the structural engineer.

The slabs may are recommended to be underlain by a minimum 4-inch thick coarse granular material to serve as a working mat during construction and serve as a capillary moisture break.

Interior slabs-on-grade are recommended to be underlain by a synthetic sheeting to serve as a retarder to moisture vapor transmission in areas where moisture-sensitive floor coverings are used (such as vinyl, tile, or carpet) or storage areas

for personal possessions. Prior to installing the synthetic sheeting, the exposed subgrade surface should be clear of all extruding rock and gravel that could damage the sheeting. The sheeting should be evaluated for the presence of punctures or tears by the installer prior to pouring concrete. Installation of the sheeting should include proper overlap and taping of seams.

Appropriate synthetic sheeting should be determined by others qualified in evaluating and mitigating moisture vapor transmission through concrete slabs. Our firm does not practice in the field of moisture vapor transmission evaluation, since this is not specifically a geotechnical issue. Therefore, we recommend that a qualified person, such as the flooring subcontractor and/or structural engineer, be consulted with to evaluate the general and specific moisture vapor transmission paths and any impact on the proposed construction with respect to the storage facility and retail areas. That person should provide recommendations for mitigation of the potential adverse effects of moisture vapor transmission on various components of the structures as deemed appropriate.

Care should be taken to avoid slab curling if slabs are poured in hot weather. Frequent construction joints should be provided to minimize the potential for cracking. Slabs should be designed and constructed as promulgated by the Portland Cement Association (PCA). Prior to the slab pour, all utility trenches should be properly backfilled and compacted. Differential settlement of this material could result in movement and distress to hardscape and other improvements. The need to repair cracks, etc. should be anticipated.

5.4 Temporary Excavations

All temporary excavations, including utility trenches, retaining wall excavations, and other excavations should be performed in accordance with project plans, specifications and all Occupational Safety and Health Administration (OSHA) requirements.

Temporary excavations should be treated in accordance with the State of California version of OSHA excavation regulations, Construction Safety Orders for Excavation General Requirements, Article 6, Section 1541, effective October 1, 1995. The sides of excavations should be shored or sloped in accordance with OSHA regulations. OSHA allows the sides of unbraced excavations, up to a maximum height of 20 feet, to be cut to a ¾H:1V (horizontal:vertical) slope for Type A soils, 1H:1V for Type B soils, and 1½H:1V for Type C soils. Onsite sandy soils

are to be considered Type C soils which are subject to collapse in shallow unbraced excavations (i.e., approximately 3 to 4 feet in vertical height).

OSHA regulations are applicable in areas with no restriction of surrounding ground deformations. Shoring should be designed for areas with deformation restrictions. The soil type should be verified or revised based on geotechnical observation and testing during construction, as soil classifications may vary over short horizontal distances.

Typical cantilever shoring should be designed based on an active fluid pressure of 38 pcf, assuming level ground above the shoring. If excavations are braced at the top and at specific design intervals, the active pressure may then be approximated by a rectangular soil pressure distribution with the pressure per foot of width equal to 25***H*** psf, where ***H*** is equal to the depth of the excavation being shored.

Heavy construction loads, such as those resulting from stockpiles and heavy machinery, should be kept a minimum distance equivalent to the excavation height or 5 feet, whichever is greater, from the excavation unless the excavation is shored and these surcharges are considered in the design of the shoring system. Excavations that extend below an imaginary plane inclined at 45 degrees below the edge of any adjacent existing site foundation should be properly shored to maintain support of the adjacent structures.

5.5 Trench Backfill

Utility trenches should be backfilled with compacted fill in accordance with Sections 306-1.2 and 306-1.3 of the *Standard Specifications for Public Works Construction,* (SSPWC, “Greenbook”), 2018 Edition. Utility trenches can be backfilled with onsite material free of rubble, debris, organic and oversized material up to 3 inches in largest dimension. Prior to backfilling trenches, pipes should be bedded in and covered with either:

- **Granular Bedding:** a) ½-inch open grade aggregate; or b) a uniform sand material with a Sand Equivalent (SE) greater than or equal to (≥) 30, passing the No. 4 U.S. Standard Sieve (or as specified by the pipe manufacturer). Testing to evaluate the Sand Equivalent (SE) of representative samples of the near surface soils indicated SE values below 30, thereby indicating the on-site soils may not be suitable for reuse in this manner.

- **CLSM:** Controlled Low Strength Material (CLSM) conforming to Section 201-6 of the SSPWC. CLSM bedding should be placed to 1 foot (0.3 m) over the top of the conduit, and vibrated.

Pipe bedding should extend at least 4 inches below the pipeline invert and at least 12 inches over the top of the pipeline. The bedding and shading sand is recommended to be densified in place by vibratory, lightweight compaction equipment. Jetting or hydro-consolidation may be suitable for this project site where utility trenches will be underlain by the silty sands, typically present in the upper 5 to 10 feet.

Trench backfill over the pipe bedding zone may consist of native and clean fill soils. All backfill should be placed in thin lifts (appropriate for the type of compaction equipment), moisture conditioned above optimum, and mechanically compacted to at least 90 percent relative compaction, relative to the ASTM D 1557 laboratory maximum density.

5.6 Soil Corrosivity

In general, soil resistivity, which is a measure of how easily electrical current flows through soils, is the most influential factor for corrosion to ferrous metals. The following table presents an approximate relationship between soil resistivity and soil corrosiveness.

Table 4 – Soil Corrosivity as a Function of Resistivity

Soil Resistivity (ohm-cm)	Classification of Soil Corrosiveness
0 to 900	Very severe corrosion
900 to 2,300	Severely corrosive
2,300 to 5,000	Moderately corrosive
5,000 to 10,000	Mildly corrosive
10,000 to >100,000	Very mildly corrosive
Note: [1] ASTM STP 1013 titled *Effects of Soil Characteristics on Corrosion* (February, 1989).	

In addition to resistivity, the concentration of chloride ions can also be used to evaluate corrosive potential to steel, either in the form of reinforcement protected by concrete cover or plain steel substructures, such as steel pipes. As a general guideline, the chloride threshold adopted by Caltrans is a concentration of 500 ppm

or greater as determined by California Test 532. Concentrations of chloride ions above the stated concentration or other characteristics such as soil resistivity or redox potential may warrant special corrosion protection measures. The results of corrosivity testing are summarized in the following table.

Table 5 – Summary of Corrosivity Testing

Test Parameter	Test Results LB-3 @ 0'-5'	General Classification of Hazard
Water-Soluble Sulfate in Soil (ppm)	260	Negligible sulfate exposure to buried concrete
Water-Soluble Chloride in Soil (ppm)	40	Non-corrosive to buried reinforced concrete
pH	7.92	Moderately alkaline
Minimum Resistivity (saturated, ohm-cm)	1,335	Severely corrosive to buried ferrous pipes

The results of the resistivity tests indicate the underlying soil is moderately corrosive to buried ferrous metals per ASTM STP 1013. The samples tested for water-soluble chloride content indicate a low potential for corrosion of steel in concrete due to the chloride content of the soil.

Based on the test results, ferrous pipes buried in moist to wet site earth materials should be avoided by using high-density polyethylene (HDPE), polyvinyl chloride (PVC) and/or other non-ferrous pipe when possible provided the pipe walls possess sufficient strength for the embedment and external loading to which the pipe will be subjected. Ferrous pipe can also be protected by polyethylene bags, tape or coatings, di-electric fittings or other means to separate pipe from on-site soils. If buried ferrous pipes are planned for this site, further corrosivity testing of soil samples should be performed upon completion of rough grading and specific corrosion protection measures should be recommended by a qualified corrosion engineer.

5.7 Cement Type

In general, soil environments that are detrimental to concrete have high concentrations of soluble sulfates and/or pH values of less than 5.5. Section 4.3 of ACI 318 (ACI, 2014) provides specific guidelines for the concrete mix-design when the soluble sulfate content of the soil exceeds 0.1 percent by weight or 1,000 parts per million (ppm).

The results of laboratory testing indicated concentrations of soluble sulfate less than 0.1 percent. The test results indicate a sulfate Exposure Class designation of "S0" appears to be appropriate for the project site based upon criteria presented in ACI 318. However, if the concrete is expected to be in contact with reclaimed water, Type V cement and a water/cement ratio of 0.45 should be used. Samples should be collected from the compacted fill subgrade upon completion of grading to confirm the initial findings of this exploration.

5.8 Elevator Pit Wall Design

The proposed development is not expected to include new earth retaining structures due to the generally level topographic relief of the site and no below grade levels associated with the buildings. However, in consideration that the buildings will be multi-stories in height, the buildings are anticipated to include elevators. In the anticipation that elevator equipment will include below-grade pits to house the mechanical workings, design of the pit walls should include provisions to resist the lateral load of the adjacent soils. Based on the recommended building pad parathion and the anticipated soil conditions, design of the pit walls is recommended to be based upon an equivalent lateral earth pressure of 60 psf per foot of retained height.

5.9 Pavements

5.9.1 Pavement Subgrades

The pavement subgrades should be prepared as described in Section 5.1 of this report. In accordance with the recommendations, preparation of the subgrade within the areas of new pavement construction are recommended to be overexcavated to a depth of 2 feet below the current grade or planned subgrade elevation, or to the depth of undocumented fill whichever is greater, to allow placement of a minimum of 2 feet of structural fill to develop a suitable bearing subgrade for pavement support.

5.9.2 Hot Mix Asphalt (HMA) Pavement Sections

Asphalt pavements are anticipated to be feasible for the proposed development. Based on the anticipated subgrade conditions and the results of laboratory testing conducted on one bulk sample of the near surface soils

(LB-1), the following recommendations for pavement design have been based upon a design R-value of 30 for the anticipated subgrade. R-value tests should be performed upon completion of grading to verify the design value is appropriate for the actual subgrade conditions. Based on the design procedures outlined in the current Caltrans Highway Design Manual and using an R-value of 78 for the pavement base course, the following flexible pavement sections may be used for Traffic Index values that correspond to various levels of vehicle traffic.

Table 6 – Asphalt Pavement Sections

Traffic Index	Asphalt Concrete (inches)	Base Course (inches)	
		CAB	CMB
4 or less	3	5	6
5.0	3	6	7
6.0	4	7	8

Notes: CAB – Crushed Aggregate Base Course; Caltrans Class 2, Section 26 or SSPWC Section 200-2.2

CMB – Crushed Miscellaneous Base Course; SSPWC Section 200-2.4

The asphalt concrete should conform to the specifications outlined in Section 203-6 of the Standard Specifications for Public Works Construction (SSPWC, a.k.a. “Greenbook”), and asphalt concrete construction methods should meet the requirements of Section 302-5 of the Green Book.

The base course should conform to requirements of Section 26 of State of California Department of Transportation Standard Specifications (Caltrans), latest edition, or meet the specifications for untreated base as defined in Section 200-2.2 of the SSPWC (Greenbook). As an alternate, the base course may comply with the specifications for Crushed Miscellaneous Base per SSPWC Section 200-2.4 with an appropriate increase in thickness.

Prior to placement of the base course, the subgrade soil should be processed to a minimum depth of 8 inches, moisture-conditioned to 1 to 2 percent above optimum moisture content, and recompacted to a minimum of 95 percent relative compaction. Base course should be placed in thin lifts, moisture conditioned, as necessary, and compacted to a minimum of 95 percent relative compaction (ASTM D1557).

5.9.3 Portland Cement Concrete (PCC) Pavements

Portland cement concrete is recommended for areas of the development subjected to large loads and truck loading/unloading areas. In such areas, a minimum 6-inch thick Portland Concrete Cement (PCC) pavement section reinforced is recommended. Reinforcement is recommended to consist of No. 4 rebar at a maximum on-center spaced at 16 inches in each direction. The recommended PCC pavement section was based on the procedures described in the *Guide for Design and Construction of Concrete Parking Lots by the American Concrete Inst*itute (ACI 330R-08).

All PCC pavements should have a minimum 28-day concrete compressive strength of 3,000 pounds-per-square-inch (psi). The reinforcement should be evaluated by the civil/structural engineer to accommodate any additional structural loading requirements. Control joints are recommended to be installed at a maximum on-center spacing of 12 feet for 6-inch thick slabs, and should form square panels.

Concrete pavement may be underlain by a minimum 4-inch thick layer of compacted granular base to serve as a leveling mat for construction and to assist in load transfer at construction joints.

Integral curbs should be used at the perimeter of PCC pavement. Longitudinal joints should be avoided near curbs and gutters. Use of concrete cutoff or edge barriers should be considered at the perimeter of common parking or driveway areas when abutting either open (unfinished) or landscaped areas.

5.10 Concrete Flatwork and Exterior Slabs

Exterior concrete slabs-on-grade should have a minimum thickness of 4 inches. Common Type II cement should be adequate for concrete flatwork not exposed to recycled water. Type V cement and a water:cement ratio of 0.45 should be used for concrete exposed to recycled water.

Concrete flatwork should be placed on compacted fill. If this material has been disturbed or dried out, the subgrade soil to a depth of 12 inches should be moisture conditioned to 1 to 2 percent above optimum moisture content and recompacted to minimum 90 percent relative compaction.

Exterior concrete driveways, ramps, curbs, gutters, sidewalks often crack. Inclusion of joints at frequent intervals and reinforcement will help control the locations of the cracks, and thus reduce the unsightly appearance. Construction or weakened plane joints should be spaced at intervals of 6 feet or less for sidewalks, curbs and gutters. The spacing may be increased to 10 feet for ramps and driveways. If cracking occurs, repairs may be needed to mitigate the trip hazard and/or improve the appearance.

Minor cracking of concrete after curing due to expansion, drying and shrinkage is normal and should be expected. However, cracking is often aggravated by a high water-to-cement ratio, high concrete temperature at the time of placement, small nominal aggregate size, and rapid moisture loss due to hot, dry, and/or windy weather conditions during placement and curing. Cracking due to temperature and moisture fluctuations can also be expected.

The use of low-slump concrete or low water/cement ratios can reduce the potential for shrinkage cracking. Inclusion of joints at frequent intervals and reinforcement will help control the locations of the cracks, and thus improve aesthetics. Control joints should be spaced at intervals no more than 10 feet. If cracking occurs, repairs may be needed to mitigate the trip hazard and/or improve the appearance.

Slab cracking and/or uneven slab surfaces may result due to the presence of fill if the fill is left in place below the slabs. Slab distortion may result in tripping hazards. Standard methods to mitigate trip hazards include the following:

- Saw Cutting
- Grinding
- Patching and ramping
- Removing and replacement

A regular maintenance program should be implemented to mitigate trip hazards and comply with safety requirements.

5.11 Surface Drainage

Positive drainage of surface water away from structures is very important. Water should not be allowed to pond adjacent to buildings or new site improvements. Positive drainage may be accomplished by providing drainage away at a minimum of 2 percent for earthen surfaces for a lateral distance of at least five feet and further maintained by a swale or drainage path at a gradient of at least 1 percent.

Where necessary, drainage paths may be shortened by the use of area drains and collector pipes. Eave gutters are recommended and should reduce water infiltration into the subgrade materials. Downspouts should be connected to appropriate outlet devices.
Irrigation of landscaping should be controlled to maintain, as much as possible, consistent moisture content sufficient to provide healthy plant growth without over watering.

5.12 Additional Geotechnical Services

Leighton should review the grading plans, foundation plans, and specifications when they are available to verify that the recommendations presented in this report have been properly interpreted and incorporated.

Geotechnical observation and testing should be provided during the following activities:

- Grading and excavation of the site;
- Subgrade Preparation;
- Compaction of all fill materials;
- Utility trench backfilling and compaction;
- Footing excavation and slab-on-grade preparation;
- Pavement subgrade and base preparation;
- Placement of asphalt concrete and/or concrete; and
- When conditions are encountered on site that are not consistent with the conditions described in this report.

6.0 LIMITATIONS

This report was prepared using the degree of care and skill ordinarily exercised, under similar circumstances, by reputable geotechnical consultants practicing at this time in San Bernardino County. We do not make any warranty, either express or implied.

As in many projects, conditions revealed in excavations may be at variance with preliminary findings. If this occurs, the changed conditions must be evaluated by the geotechnical consultant and additional recommendations be developed as needed.

The identification and testing of hazardous, toxic or contaminated materials was outside the scope of Leighton's work. Should such materials be encountered at any time, or their existence be suspected, all measures stipulated in local, County, State and Federal regulations, as applicable, should be implemented.

This report is issued with the understanding that it is the responsibility of the owner, or of his representative, to ensure that the information and recommendations contained herein are brought to the attention of the necessary design consultants for the project and incorporated into the plans; and that the necessary steps are taken to see that the contractors carry out such recommendations in the field.

Changes in the conditions of a property can occur with the passage of time, whether due to natural processes or the work of man on the subject or adjacent properties. In addition, changes in standards of practice may occur from legislation or the broadening of knowledge. Accordingly, the findings of this report may at some future time be invalidated wholly or partially by changes outside Leighton’s control.

The conclusions and recommendations in this report are based in part upon data that were obtained from a necessarily limited number of observations, site visits, excavations, samples and tests. Such information can be obtained only with respect to the specific locations explored, and therefore may not completely define all subsurface conditions throughout the site. The nature of many sites is that differing geotechnical or geological conditions can occur within small distances and under varying climatic conditions. Furthermore, changes in subsurface conditions can and do occur over time. Therefore, the findings, conclusions and recommendations presented in this report can be relied upon only if Leighton has the opportunity to perform additional investigation of the site, finalize and complete the conclusions and recommendations presented in this report, and finally to observe the subsurface conditions during grading and construction of the project, in order to verify that our preliminary findings are representative of the site.

This report is intended only for the use of Legacy/Collier Residential, LLC and its design consultants, and only as related expressly to evaluation of the feasibility of developing the subject site with the proposed development and for preliminary planning and design.

If parties other than Leighton are engaged to provide construction geotechnical services, they must be notified that they will be required to assume complete responsibility for the geotechnical phase of the project by concurring with the findings and recommendations in this report or by providing alternative recommendations.

Any persons using this report for bidding or construction purposes should perform such independent explorations as they deem necessary to satisfy themselves as to the surface and subsurface conditions to be encountered and the procedures to be used in the performance of work on the subject site.

7.0 REFERENCES

American Concrete Institute (ACI), 2014, Building Code Requirements for Structural Concrete (ACI 318-14) and Commentary, an ACI Standard, reported by ACI Committee 318.

American Society of Civil Engineers (ASCE), 2017, Minimum Design Loads for Buildings and Other Structures, ASCE/SEI 7-16, with Supplement 1, Effective December 12, 2018.

Bray, J.D. and Sancio, R.B., 2006, Assessment of the Liquefaction Susceptibility of Fine-Grained Soils, Journal of Geotechnical and Geoenvironmental Engineering, American Society of Civil Engineers, September 2006, V. 132, No. 9, pp. 1165-1177.

Bryant, W.A., and Hart, E.W., 2007, Fault Rupture Hazard Zones in California, Alquist-Priolo Earthquake Fault Zoning Act with Index to Earthquake Zones Maps, Department of Conservation, California Geological Survey, Special Publication 42, 2007 Interim Revision.

California Building Standards Commission, 2019, 2019 California Building Code (CBC), California Code of Regulations, Title 24, Part 2, Volume 2 of 2, Based on 2018 International Building Code, Effective January 1, 2020.

California Department of Conservation, Geologic Energy Management Division (CalGEM), 2021, Interactive Wellfinder Website, https://maps.conservation.ca.gov/doggr/wellfinder/

California Geological Survey (CGS; formerly California Division of Mines and Geology, CDMG), 2000a, Seismic Hazards Zones, Ontario Quadrangle, Official Map Released November 17, 2000.

———, 2000b, Seismic Hazard Zone Report for the Ontario 7.5-Minute Quadrangle, Los Angeles County, California, Seismic Hazard Zone Report No. 040.

_____, 2000c, CD-ROM containing digital images of Official Maps of Alquist-Priolo Earthquake Fault Zones that affect the Southern Region, DMG CD 2000-003 2000.

_____, 2008, Special Publication 117A, Guidelines for Evaluating and Mitigating Seismic Hazards in California.

_____, 2018, Earthquake Fault Zones, A Guide for Government Agencies, Property Owners / Developers, and Geoscience Practitioners for Assessing Fault Rupture Hazards in California, Special Publication 42, Revised 2018.

San Bernardino County, 2010, Land Use Services, General Plan, Geologic Hazard Overlays, map FH27 C – Ontario, scale 1:14,400, dated march 9, 2010.

_____, 2013, Technical Guidance Document for Water Quality Management Plans, Prepared by CDM Smith, Inc. for the County of San Bernardino Areawide Stormwater Program, dated June 7, 2013.

Dibblee, T.W. Jr., 2002, Geologic Map of the San Dimas and Ontario Quadrangles, Los Angeles and San Bernardino Counties, California, Dibblee Geological Foundation Map No. DF-91.

Federal Emergency Management Agency, 2015, Flood Insurance Rate Map, City of Ontario, Map Number 06071C8620H, dated August 8, 2008.

Jennings, C.W., 2010, Fault Activity Map of California, California Geological Survey, Geologic Data Map No. 6, map scale 1:750,000.

Morton D.M., and Miller, F.K., 2006, Geologic Map of the San Bernardino and Santa Ana, 30' x 60' Quadrangles, California, USGS Open File Report 2006-1217.

Nationwide Environmental Title Research, LLC (NETR), 2021, Historic Aerials by NETR Online, website: http://www.historicaerials.com/aerials.

United States Geological Survey (USGS), 2018, Ontario Quadrangle, California, 7.5 Minute Series Topographic Map, map scale 1:24,000.

_____, 2008a, Unified Hazard Tool for Deaggregations, https://earthquake.usgs.gov/hazards/interactive/

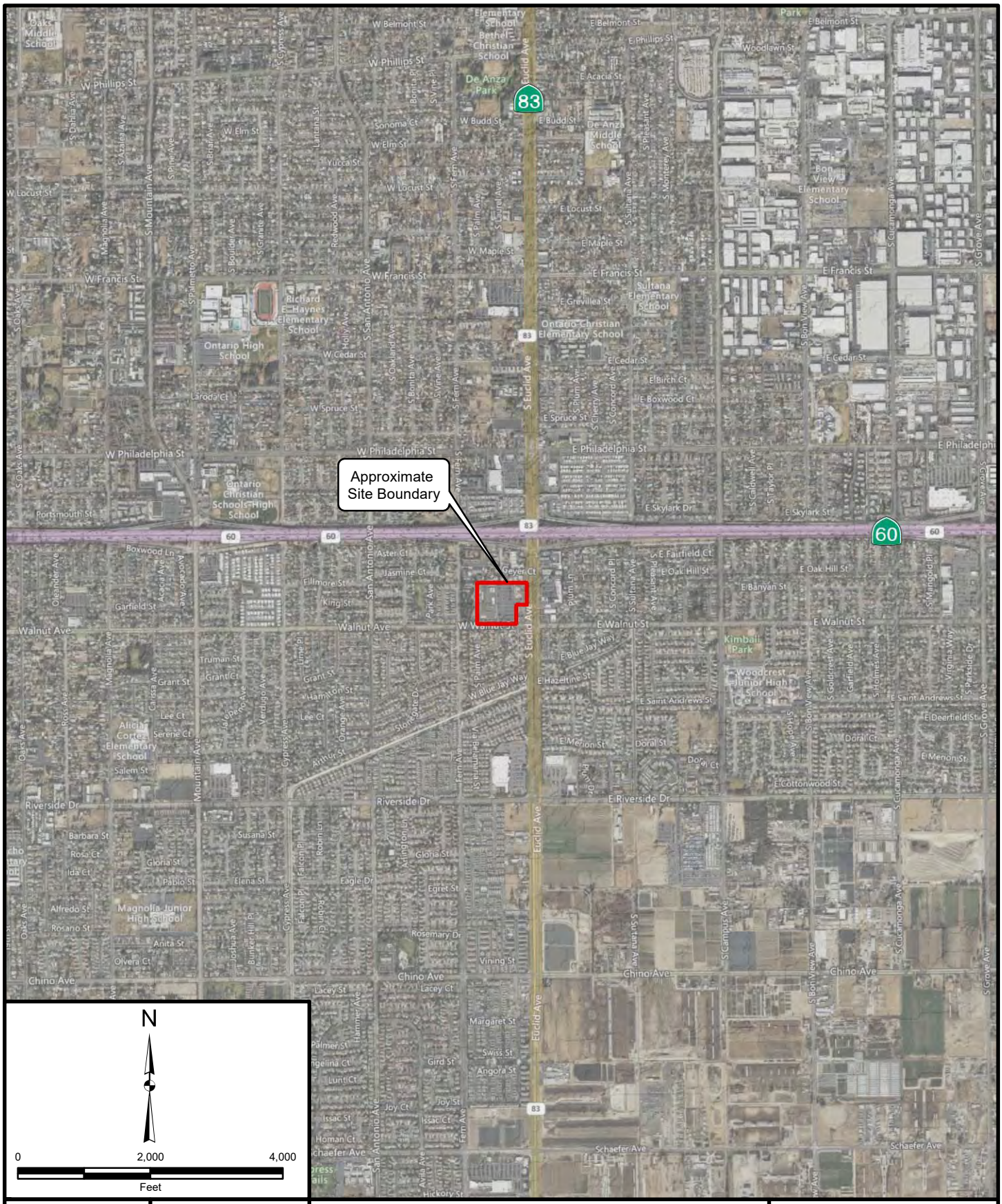
_____, 2008b, National Seismic Hazard Maps – Fault Parameters, https://earthquake.usgs.gov/cfusion/hazfaults_2008_search/query_main.cfm

_____, 2021a, Interactive Fault Map, http://earthquake.usgs.gov/hazards/qfaults/map/

_____, 2021b, Interactive Geologic Map, http://ngmdb.usgs.gov/maps/MapView/

Wildermuth Environmental, Inc., 2009, Chino Basin Optimum Basin Management Program, 2008 State of the Basin Report, Final Report, Prepared for Chino Basin Watermaster, dated November, 2009.

FIGURES



Project: 13493.001	Eng/Geol: JEH/EMH
Scale:1 " = 2,000 '	Date: May 2022

Reference: © 2022 Microsoft Corporation © 2022 Maxar ©CNES (2022) Distribution Airbus

SITE LOCATION MAP

Proposed Euclid and Walnut Mixed-Use Development
2502 and 2530 S. Euclid Avenue
Ontario, California

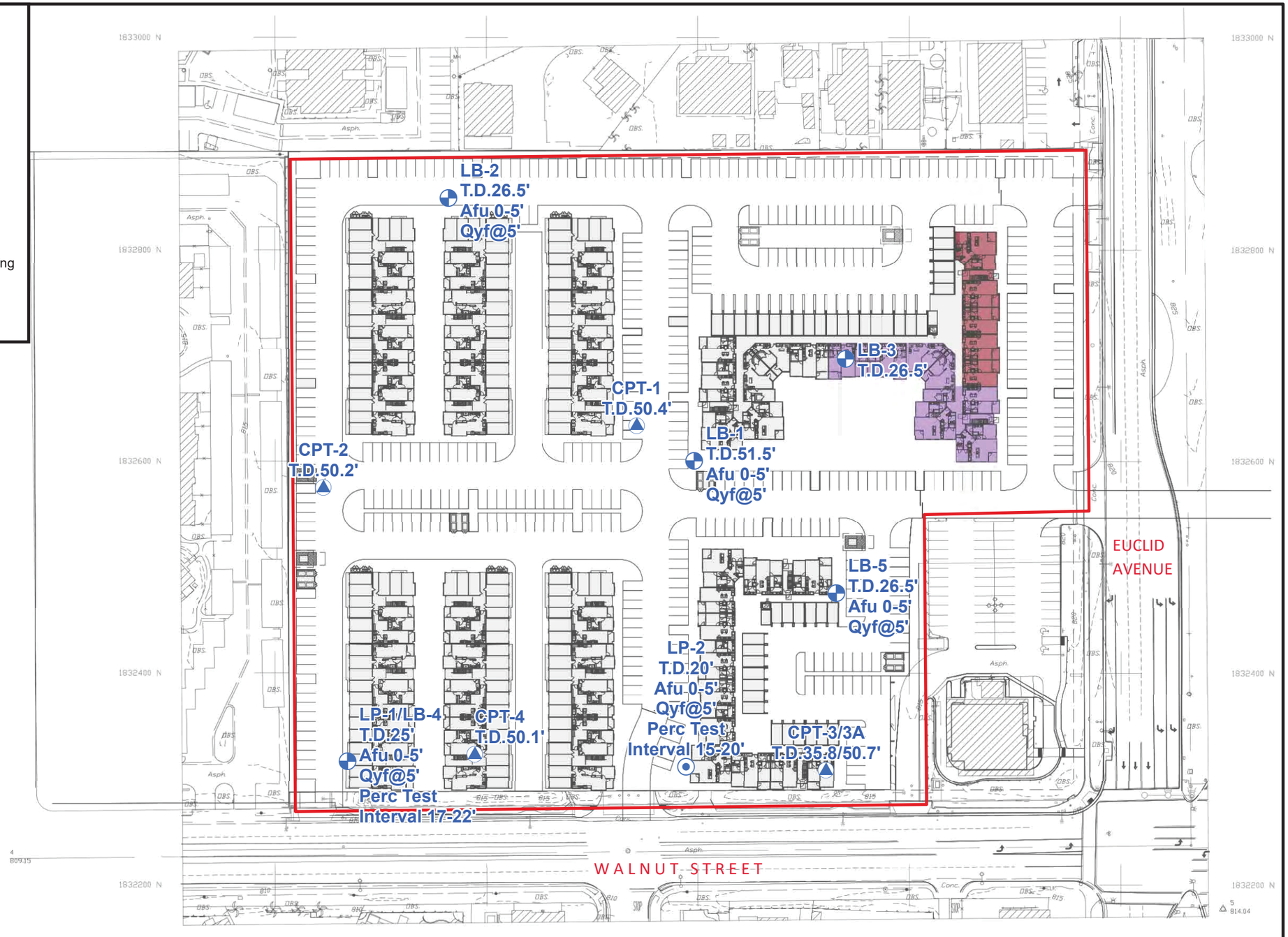
FIGURE 1

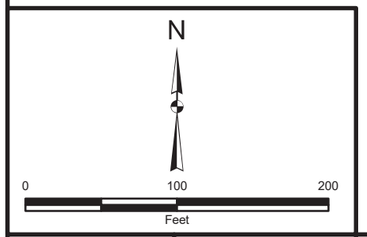
Leighton

Map Saved as J:\Drafting\13493\001\Maps\13493-001_F01_SLM_2022-04-19.mxd on 4/14/2022 2:00:06 PM Author: KVM (btran)

LEGEND

Afu	Artificial Fill
Qyf	Quaternary Young Alluvial Fan Deposits
LB-5	Approximate location of hollow-stem auger boring showing total depth (T.D.) and depth to earth units in feet below ground surface.
LP-2	Approximate location of percolation test well showing percolation test interval in feet below ground surface.
CPT-4	Approximate location of cone penetrometer test sounding showing total depth (T.D.) in feet below ground surface
	Approximate Site Boundary





Project: 13493.001	Eng/Geol: JEH/EMH
Scale:1 " = 100 '	Date: May 2022

Base Map: Option A Site Plan, Euclid and Walnut Mixed Use
Sheet 01, Dated: 03/10/2022
by AO Architecture Design Relationships

GEOTECHNICAL MAP

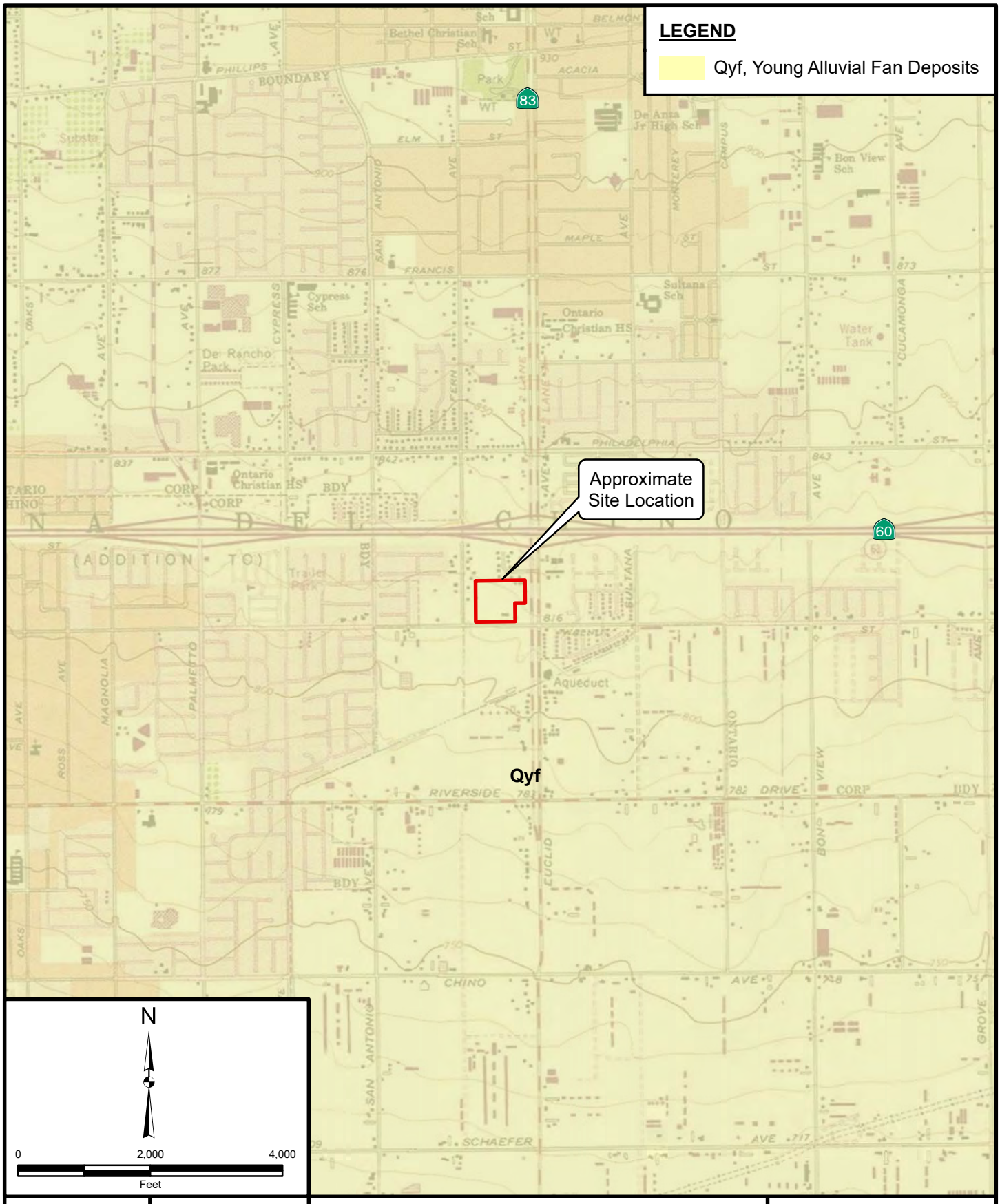
Proposed Euclid and Walnut Mixed-Use Development
2502 and 2530 S. Euclid Avenue
Ontario, California

FIGURE 2

Leighton

3336

Map Saved as J:\Drafting\13493\001\Maps\13493-001_F02_GM_2022-04-20.mxd on 4/19/2022 11:14:24 AM Author: KVM (btran)



Project: 13493.001	Eng/Geol: JEH/EMH
Scale:1 " = 2,000 '	Date: May 2022

Basemap: USGS Topo Map Service from Esri, 2021
Reference: USGS Geologic Map of the Sotuthern California GIS Compilation by CGS, Lancaster, et al., 2012

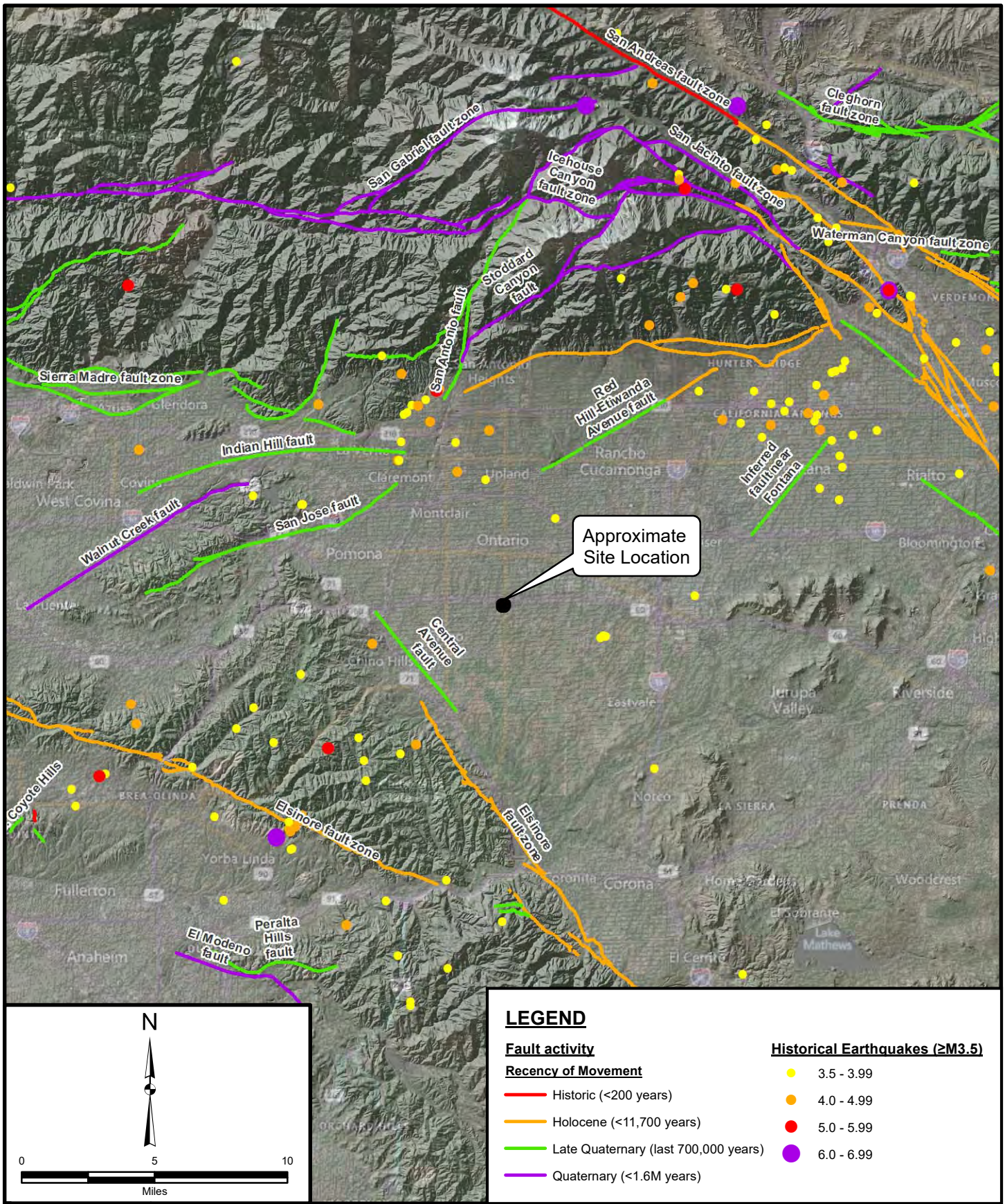
REGIONAL GEOLOGY MAP

Proposed Euclid and
Walnut Mixed-Use Development
2502 and 2530 S. Euclid Avenue
Ontario, California

FIGURE 3

Leighton

Map Saved as J:\Drafting\13493\001\Maps\13493-001_F03_RGM_2022-04-19.mxd on 4/14/2022 2:02:07 PM Author: KVM (btran)



LEGEND

Fault activity

Recency of Movement

- Historic (<200 years)
- Holocene (<11,700 years)
- Late Quaternary (last 700,000 years)
- Quaternary (<1.6M years)

Historical Earthquakes (≥M3.5)

- 3.5 - 3.99
- 4.0 - 4.99
- 5.0 - 5.99
- 6.0 - 6.99

Project: 13493.001	Eng/Geol: JEH/EMH
Scale: 1 " = 5 miles	Date: May 2022

Base Map: ESRI ArcGIS Online 2022
Reference: maps.conservation.ca.gov

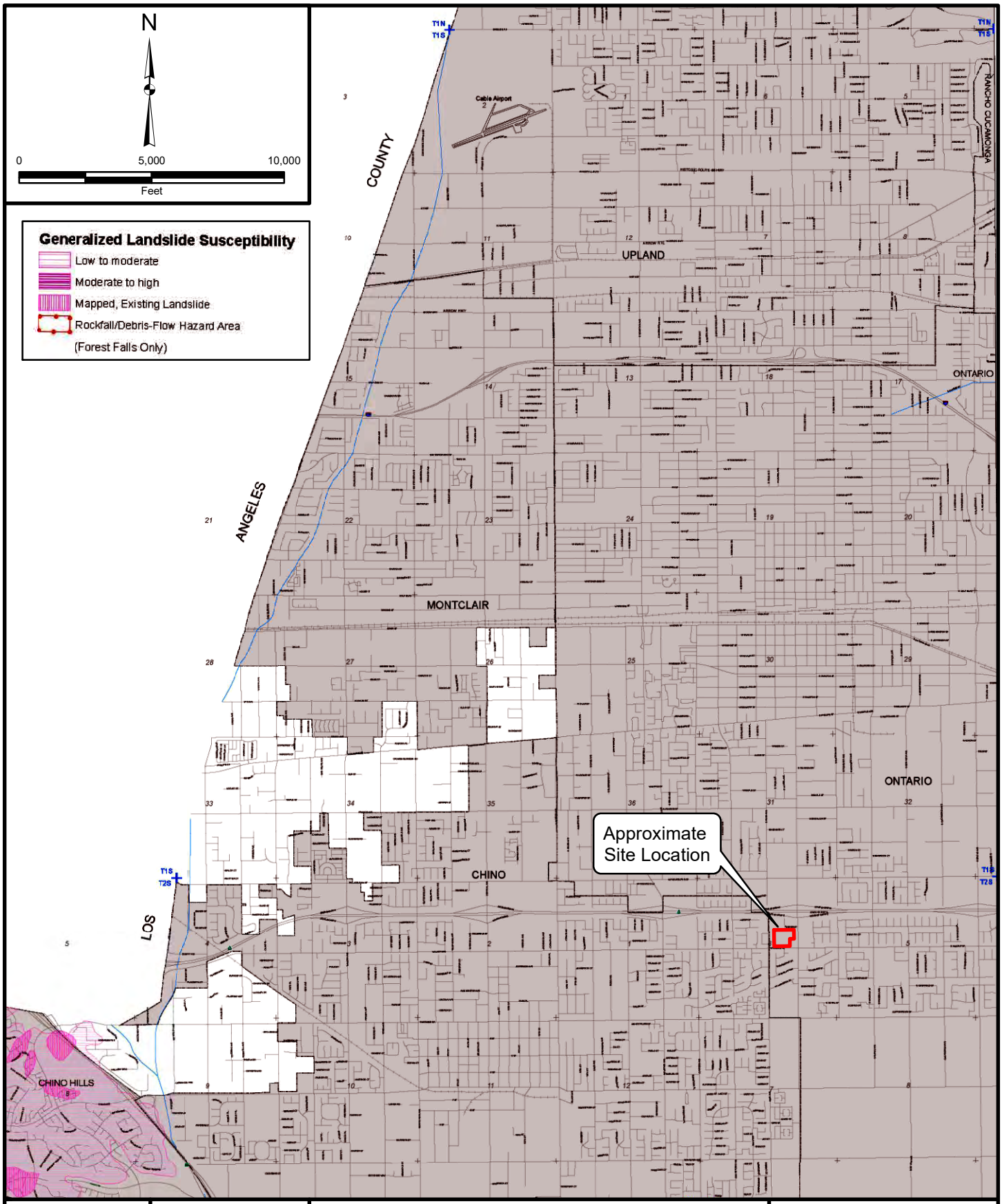
REGIONAL FAULTS AND HISTORIC SEISMICITY MAP

Proposed Euclid and Walnut Mixed-Use Development
2502 and 2530 S. Euclid Avenue
Ontario, California

FIGURE 4

Leighton

Map Saved as J:\Drafting\13493\001\Maps\13493-001_F04_RFHSM_2022-04-19.mxd on 4/14/2022 2:03:52 PM Author: KVM (btran)



Project: 13493.001	Eng/Geol: JEH/EMH
Scale: 1 " = 5,000 '	Date: May 2022

Base Map: San Bernardino County Land Use Plan General Plan, Geologic Hazard Overlays, FH27 C Ontario

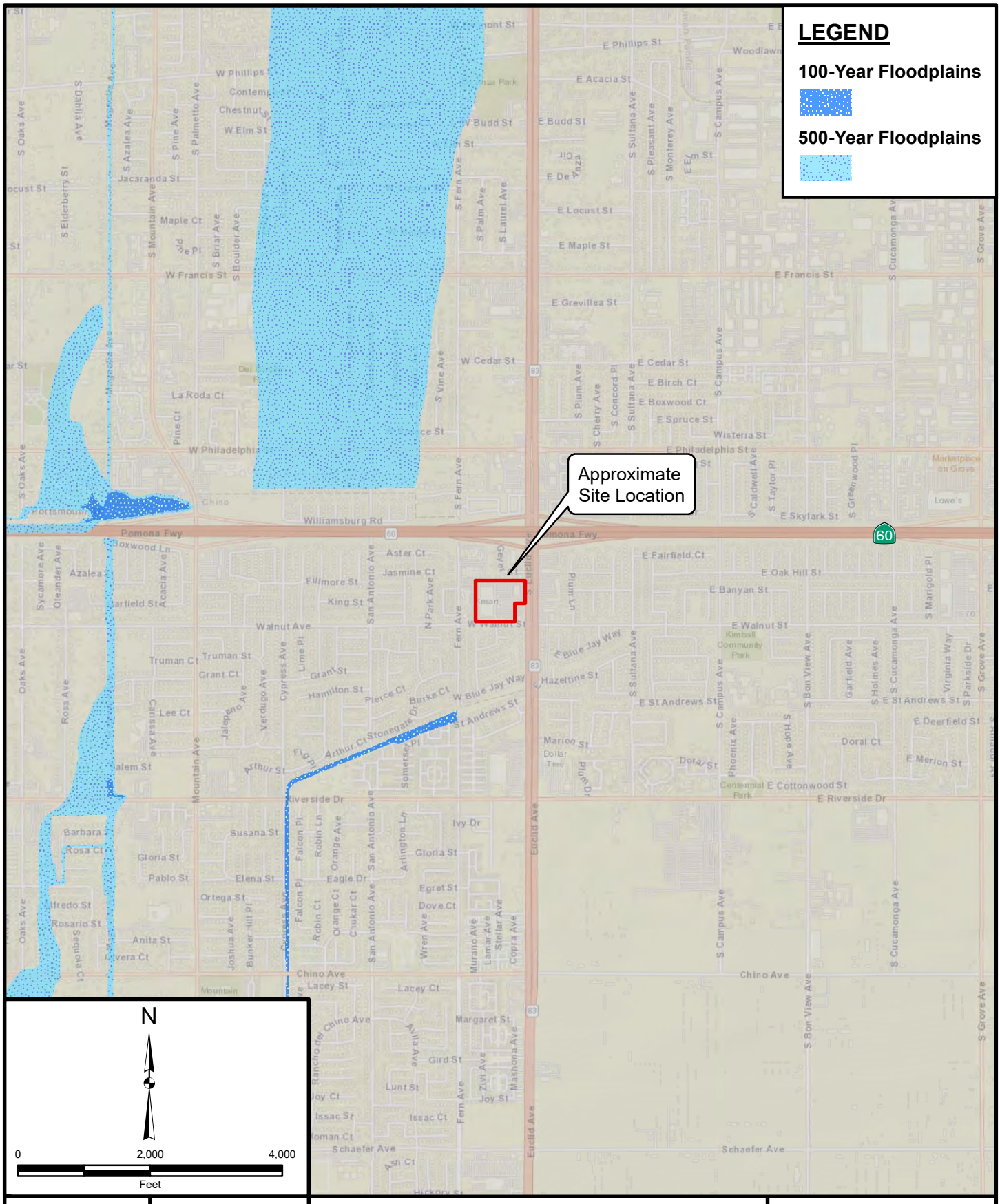
SEISMIC HAZARD MAP

Proposed Euclid and Walnut Mixed-Use Development
2502 and 2530 S. Euclid Avenue
Ontario, California

FIGURE 5

Leighton

Map Saved as J:\Drafting\13493\001\Maps\13493-001_F05_SHM_2022-04-20.mxd on 4/20/2022 1:12:49 PM Author: KVM (btran)



Project: 13493.001	Eng/Geol: JEH/EMH
Scale:1 " = 2,000 '	Date: May 2022
Base Map: ESRI ArcGIS Online 2022 Reference: FEMA, DWR	

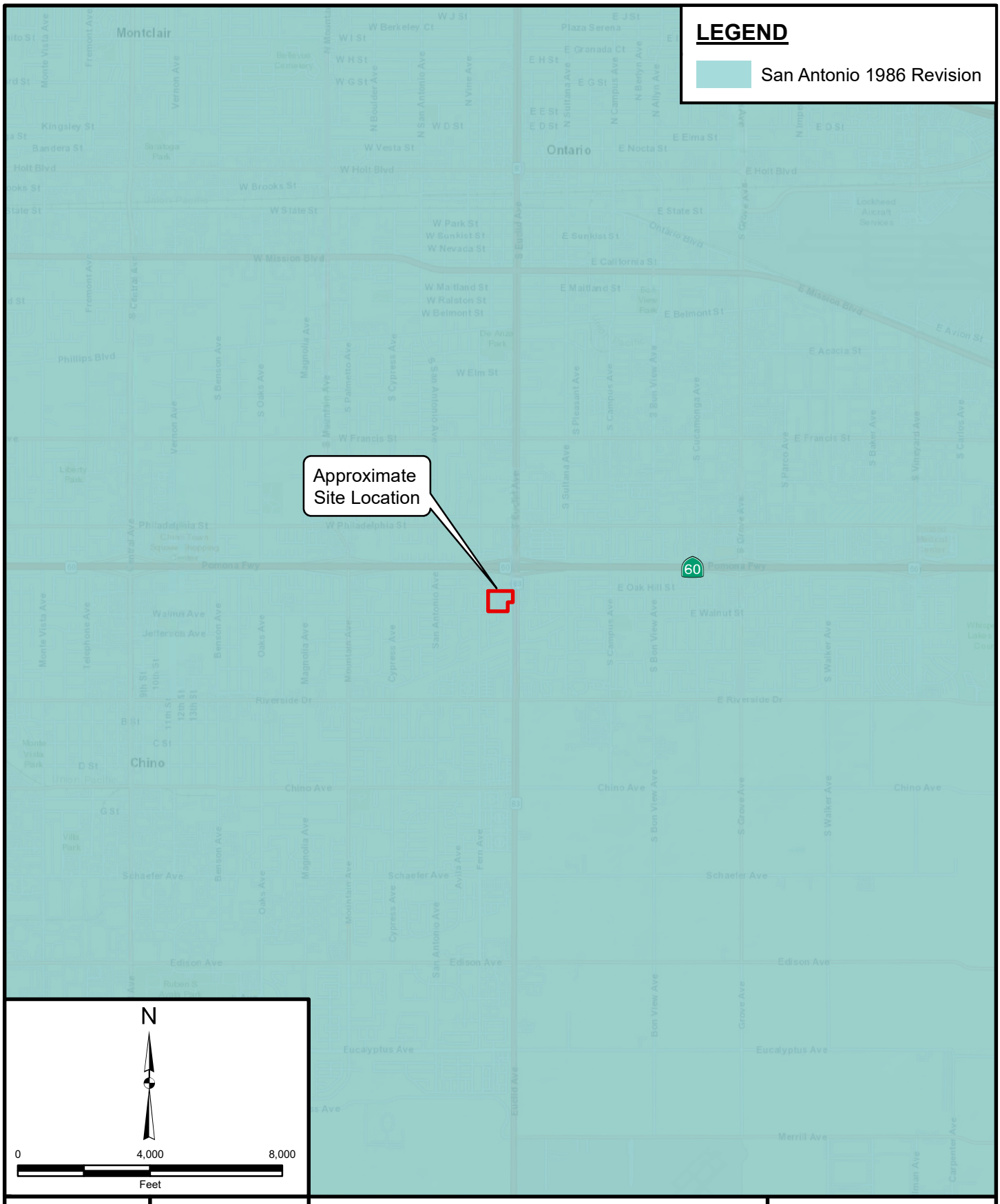
FLOOD HAZARD ZONE MAP

Proposed Euclid and
Walnut Mixed-Use Development
2502 and 2530 S. Euclid Avenue
Ontario, California

FIGURE 6

Leighton

Map Saved as J:\Drafting\13493\001\Maps\13493-001_F06_FHM_2022-04-19.mxd on 4/14/2022 2:10:26 PM Author: KVM (btran)



Project: 13493.001	Eng/Geol: JEH/EMH
Scale:1 " = 4,000 '	Date:May 2022

Base Map: ESRI ArcGIS Online 2022
Reference: FEMA, DWR

DAM INUNDATION MAP

Proposed Euclid and
Walnut Mixed-Use Development
2502 and 2530 S. Euclid Avenue
Ontario, California

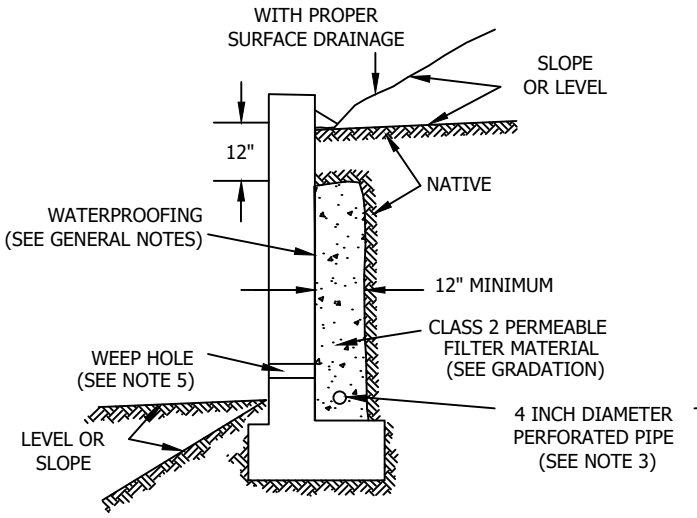
FIGURE 7

Leighton

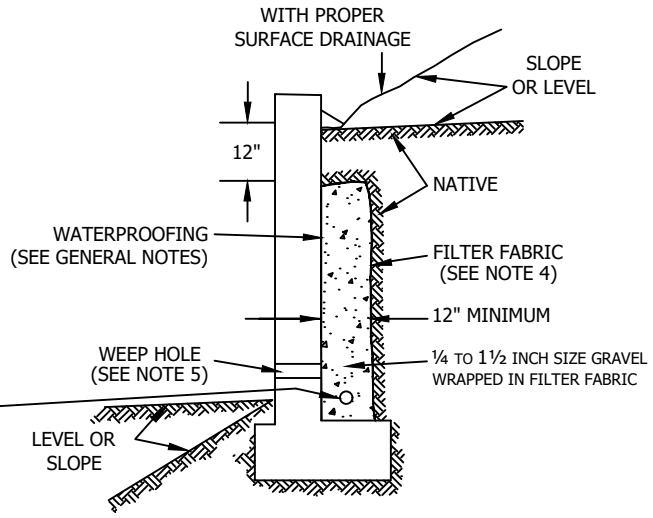
Map Saved as J:\Drafting\13493\001\Maps\13493-001_F07_DIM_2022-04-19.mxd on 4/14/2022 2:17:09 PM Author: KVM (btran)

SUBDRAIN OPTIONS AND BACKFILL WHEN NATIVE MATERIAL HAS EXPANSION INDEX OF ≤50

OPTION 1: PIPE SURROUNDED WITH CLASS 2 PERMEABLE MATERIAL



OPTION 2: GRAVEL WRAPPED IN FILTER FABRIC



Class 2 Filter Permeable Material Gradation
Per Caltrans Specifications

Sieve Size	Percent Passing
1"	100
3/4"	90-100
3/8"	40-100
No. 4	25-40
No. 8	18-33
No. 30	5-15
No. 50	0-7
No. 200	0-3

GENERAL NOTES:

* Waterproofing should be provided where moisture nuisance problem through the wall is undesirable.
* Water proofing of the walls is not under purview of the geotechnical engineer
* All drains should have a gradient of 1 percent minimum
*Outlet portion of the subdrain should have a 4-inch diameter solid pipe discharged into a suitable disposal area designed by the project engineer. The subdrain pipe should be accessible for maintenance (rodding)
*Other subdrain backfill options are subject to the review by the geotechnical engineer and modification of design parameters.

Notes:
1) Sand should have a sand equivalent of 30 or greater and may be densified by water jetting.
2) 1 Cu. ft. per ft. of 1/4- to 1 1/2-inch size gravel wrapped in filter fabric
3) Pipe type should be ASTM D1527 Acrylonitrile Butadiene Styrene (ABS) SDR35 or ASTM D1785 Polyvinyl Chloride plastic (PVC), Schedule 40, Armco A2000 PVC, or approved equivalent. Pipe should be installed with perforations down. Perforations should be 3/8 inch in diameter placed at the ends of a 120-degree arc in two rows at 3-inch on center (staggered)
4) Filter fabric should be Mirafi 140NC or approved equivalent.
5) Weephole should be 3-inch minimum diameter and provided at 10-foot maximum intervals. If exposure is permitted, weepholes should be located 12 inches above finished grade. If exposure is not permitted such as for a wall adjacent to a sidewalk/curb, a pipe under the sidewalk to be discharged through the curb face or equivalent should be provided. For a basement-type wall, a proper subdrain outlet system should be provided.
6) Retaining wall plans should be reviewed and approved by the geotechnical engineer.
7) Walls over six feet in height are subject to a special review by the geotechnical engineer and modifications to the above requirements.

RETAINING WALL BACKFILL AND SUBDRAIN DETAIL FOR WALLS 6 FEET OR LESS IN HEIGHT

WHEN NATIVE MATERIAL HAS EXPANSION INDEX OF ≤50

Leighton

FIGURE 8

3342

v:\autocad files\TEMPLATES\STANDARD-FIGURES\WALL-STANDARD-FIGURES.DWG (09-02-21 9:07:35AM) Plotted by bbain

APPENDIX A

EXPLORATION LOGS

GEOTECHNICAL BORING LOG LB-1

Project No.	13493.001	**Date Drilled**	4-6-22
Project	Legacy-Collier, Proposed Residential Development	**Logged By**	BTM
Drilling Co.	Martini Drilling, Corp.	**Hole Diameter**	8"
Drilling Method	Hollow Stem Auger - 140lb - Autohammer - 30" Drop	**Ground Elevation**	805'
Location	See Figure 2 - *Geotechnical Map*	**Sampled By**	BTM

Elevation Feet	Depth Feet	Graphic Log (N S)	Attitudes	Sample No.	Bulk Driven	Blows Per 6 Inches	Dry Density pcf	Moisture Content, %	Soil Class. (U.S.C.S.)	SOIL DESCRIPTION	Type of Tests
										This Soil Description applies only to a location of the exploration at the time of sampling. Subsurface conditions may differ at other locations and may change with time. The description is a simplification of the actual conditions encountered. Transitions between soil types may be gradual.	
805	0									@Surface: 2.5 -inches Asphalt Concrete over 4.5 -inches Base	
				B-1					ML-SM	**Artificial Fill, undocumented (Afu)** @0.58': Sandy SILT, olive brown, moist, low plasticity, very fine to fine sand, slightly micaceous; grades to Silty SAND, medium brown, moist, very fine to fine sand, slightly micaceous @ ~4'	EI, RV
800	5			R-1		4 7 9			ML/CL	<Quaternary-Aged Young Alluvial Deposits (Qyf) **@5': Silty CLAY, stiff, olive brown, moist, low plasticity, iron oxidation staining, slightly micaceous, few fine sand** **PP=2.50 TSF)>>**	CN
				R-2		7 11 13	95	9	ML-SM	@7.5': Sandy SILT, very stiff, medium olive brown, moist, very fine sand, low plasticity, slightly micaceous, slightly laminated; grades to Clayey SILT with sand, grayish brown, moist, low plasticity, iron oxidation staining, slightly micaceous, few fine sand	
795	10			R-3		4 9 15	89	31	CL-ML	@10': Silty CLAY, very stiff, gray, moist, low to medium plasticity, iron oxidation staining/veins, few fine sand, trace subrounded gravel, slightly laminated PP>4.5 TSF	
790	15			R-4		4 8 12	112	16		@15': Silty CLAY, stiff, medium brown, moist, medium plasticity, iron oxidation staining, slightly micaceous; grades to Sandy CLAY, medium brown, moist, medium plasticity, very fine to fine sand, slightly micaceous, iron oxidation staining PP=4.25 TSF	
785	20			R-5		8 18 22	120	12	SC	@20': Clayey SAND, medium dense, mottled medium brown to orange, low plasticity, predominately fine sand, little medium sand, slightly micaceous, slightly laminated, trace fine subrounded gravel PP>4.50 TSF	
780	25			R-6		12 16 27			SP	@25': SAND with Silt, medium dense, yellowish brown, slightly moist, predominately fine sand, poorly-graded, little medium sand, slightly micaceous	CO
775	30										

SAMPLE TYPES:

B	BULK SAMPLE
C	CORE SAMPLE
G	GRAB SAMPLE
R	RING SAMPLE
S	SPLIT SPOON SAMPLE
T	TUBE SAMPLE

TYPE OF TESTS:

-200	% FINES PASSING	DS	DIRECT SHEAR	SA	SIEVE ANALYSIS
AL	ATTERBERG LIMITS	EI	EXPANSION INDEX	SE	SAND EQUIVALENT
CN	CONSOLIDATION	H	HYDROMETER	SG	SPECIFIC GRAVITY
CO	COLLAPSE	MD	MAXIMUM DENSITY	UC	UNCONFINED COMPRESSIVE STRENGTH
CR	CORROSION	PP	POCKET PENETROMETER		
CU	UNDRAINED TRIAXIAL	RV	R VALUE		

Leighton

*** * * This log is a part of a report by Leighton and should not be used as a stand-alone document. * * ***

GEOTECHNICAL BORING LOG LB-1

Project No.	13493.001	**Date Drilled**	4-6-22
Project	Legacy-Collier, Proposed Residential Development	**Logged By**	BTM
Drilling Co.	Martini Drilling, Corp.	**Hole Diameter**	8"
Drilling Method	Hollow Stem Auger - 140lb - Autohammer - 30" Drop	**Ground Elevation**	805'
Location	See Figure 2 - *Geotechnical Map*	**Sampled By**	BTM

Elevation Feet	Depth Feet	Graphic Log (N / S)	Attitudes	Sample No. (Bulk / Driven)	Blows Per 6 Inches	Dry Density pcf	Moisture Content, %	Soil Class. (U.S.C.S.)	SOIL DESCRIPTION	Type of Tests
775	30			S-7	9 12 14		4		@30': SAND with gravel, medium dense, orange brown, slightly moist, fine to coarse sand, few fine subrounded gravel, slightly micaceous	
770	35			R-8	11 24 50/4"				@35': SAND with Silt, Very dense, yellowish brown, predominately fine sand, little medium to coarse sand, poorly graded, few fine subangular to subrounded gravel	CO
765	40			S-9	8 12 19		4		@40': SAND, dense, medium brown, slightly moist, predominately fine sand, little medium to coarse sand, trace to few fine subangular to subrounded gravel, slightly micaceous	
760	45			R-10	47 50/3"	115	2		@45': Very dense, medium brown to orange brown, few fine subrounded gravel	
755	50			S-11	35 39 50/4"		3		@50': Very dense, little subrounded granitic gravel	
750	55								**Total Depth: 51.5' bgs** **No groundwater encountered during drilling** **Backfilled with soil cuttings** **Patched with cold-mix asphalt concrete**	
745	60									

This Soil Description applies only to a location of the exploration at the time of sampling. Subsurface conditions may differ at other locations and may change with time. The description is a simplification of the actual conditions encountered. Transitions between soil types may be gradual.

SAMPLE TYPES:
- B BULK SAMPLE
- C CORE SAMPLE
- G GRAB SAMPLE
- R RING SAMPLE
- S SPLIT SPOON SAMPLE
- T TUBE SAMPLE

TYPE OF TESTS:
- -200 % FINES PASSING
- AL ATTERBERG LIMITS
- CN CONSOLIDATION
- CO COLLAPSE
- CR CORROSION
- CU UNDRAINED TRIAXIAL
- DS DIRECT SHEAR
- EI EXPANSION INDEX
- H HYDROMETER
- MD MAXIMUM DENSITY
- PP POCKET PENETROMETER
- RV R VALUE
- SA SIEVE ANALYSIS
- SE SAND EQUIVALENT
- SG SPECIFIC GRAVITY
- UC UNCONFINED COMPRESSIVE STRENGTH

Leighton

*** This log is a part of a report by Leighton and should not be used as a stand-alone document. ***

GEOTECHNICAL BORING LOG LB-2

Project No.	13493.001	**Date Drilled**	4-6-22
Project	Legacy-Collier, Proposed Residential Development	**Logged By**	BTM
Drilling Co.	Martini Drilling, Corp.	**Hole Diameter**	8"
Drilling Method	Hollow Stem Auger - 140lb - Autohammer - 30" Drop	**Ground Elevation**	807'
Location	See Figure 2 - *Geotechnical Map*	**Sampled By**	BTM

Elevation Feet	Depth Feet	Graphic Log	Attitudes	Sample No.	Bulk / Driven	Blows Per 6 Inches	Dry Density pcf	Moisture Content, %	Soil Class. (U.S.C.S.)	SOIL DESCRIPTION	Type of Tests
		N S								*This Soil Description applies only to a location of the exploration at the time of sampling. Subsurface conditions may differ at other locations and may change with time. The description is a simplification of the actual conditions encountered. Transitions between soil types may be gradual.*	
	0									@Surface: 4 -inches Asphalt Concrete over 5 -inches Base	
805				B-1					ML-SM	**Artificial Fill, undocumented (Afu)** @0.75': Sandy SILT, olive brown, moist, low plasticity, very fine sand, slightly micaceous, some debris (asphalt)	DS, MD, SE
	5			R-1		3 8 16			ML-SM	<Quaternary-Aged Young Alluvial Deposits (Qyf) **@5': Clayey SAND, medium dense, olive gray, very moist, low plasticity, very fine to fine sand, slightly micaceous, pinhole pores; grades to Silty SAND with gravel, light to medium brown, predominately fine sand, few medium sand, fine subangular granitic gravel)>>**	CN
800				R-2		6 11 11	101	3	SP	@7.5': SAND, medium dense, grayish brown, moist, very fine to fine sand, slightly micaceous, little iron oxidation staining	
	10			R-3		4 8 12			CL/SM	@10': CLAY, stiff, olive gray, moist, lean, low plasticity, extensive iron oxidation staining, few very fine sand, slightly micaceous; grades to Silty SAND, light orange brown, very fine sand, slightly micaceous	CN, AL
795											
	15			R-4		10 10 11	103	4	SP-ML	@15': SAND with silt, medium dense, light gray, slightly moist, very fine to fine sand, micaceous; interbedded with Clayey SILT, medium brown, moist, low plasticity, laminated, iron oxidation staining	
790											
	20			R-5		7 11 17	112	16	ML-SM CL-SC	@20': Sandy SILT, very stiff, medium brown, moist, low plasticity, very fine sand, micaceous; grades to Sandy CLAY, medium brown, moist, low plasticity, very fine to fine sand, trace subrounded gravel	
785										PP = 3.50	
	25			R-6		10 15 24	108	10	SP	@25': Sandy CLAY, very stiff, medium brown, moist, low plasticity, very fine to fine sand, micaceous, some silt	
780										PP > 4.50 TSF @26': SAND with silt, orange brown, dry to slightly moist, very fine to fine sand, few medium sand, slightly micaceous	
	30									**Total Depth: 26.5' bgs** **No groundwater encountered during drilling** **Backfilled with soil cuttings**	

SAMPLE TYPES:

B	BULK SAMPLE
C	CORE SAMPLE
G	GRAB SAMPLE
R	RING SAMPLE
S	SPLIT SPOON SAMPLE
T	TUBE SAMPLE

TYPE OF TESTS:

-200	% FINES PASSING	DS	DIRECT SHEAR	SA	SIEVE ANALYSIS
AL	ATTERBERG LIMITS	EI	EXPANSION INDEX	SE	SAND EQUIVALENT
CN	CONSOLIDATION	H	HYDROMETER	SG	SPECIFIC GRAVITY
CO	COLLAPSE	MD	MAXIMUM DENSITY	UC	UNCONFINED COMPRESSIVE STRENGTH
CR	CORROSION	PP	POCKET PENETROMETER		
CU	UNDRAINED TRIAXIAL	RV	R VALUE		

Leighton

*** * * This log is a part of a report by Leighton and should not be used as a stand-alone document. * * ***

GEOTECHNICAL BORING LOG LB-2

Project No.	13493.001	**Date Drilled**	4-6-22
Project	Legacy-Collier, Proposed Residential Development	**Logged By**	BTM
Drilling Co.	Martini Drilling, Corp.	**Hole Diameter**	8"
Drilling Method	Hollow Stem Auger - 140lb - Autohammer - 30" Drop	**Ground Elevation**	807'
Location	See Figure 2 - *Geotechnical Map*	**Sampled By**	BTM

Elevation Feet	Depth Feet	Graphic Log (N / S)	Attitudes	Sample No. (Bulk / Driven)	Blows Per 6 Inches	Dry Density pcf	Moisture Content, %	Soil Class. (U.S.C.S.)	SOIL DESCRIPTION	Type of Tests
	30								**Patched with cold-mix asphalt concrete**	
775										
	35									
770										
	40									
765										
	45									
760										
	50									
755										
	55									
750										
	60									

This Soil Description applies only to a location of the exploration at the time of sampling. Subsurface conditions may differ at other locations and may change with time. The description is a simplification of the actual conditions encountered. Transitions between soil types may be gradual.

SAMPLE TYPES:

- B BULK SAMPLE
- C CORE SAMPLE
- G GRAB SAMPLE
- R RING SAMPLE
- S SPLIT SPOON SAMPLE
- T TUBE SAMPLE

TYPE OF TESTS:

- -200 % FINES PASSING
- AL ATTERBERG LIMITS
- CN CONSOLIDATION
- CO COLLAPSE
- CR CORROSION
- CU UNDRAINED TRIAXIAL
- DS DIRECT SHEAR
- EI EXPANSION INDEX
- H HYDROMETER
- MD MAXIMUM DENSITY
- PP POCKET PENETROMETER
- RV R VALUE
- SA SIEVE ANALYSIS
- SE SAND EQUIVALENT
- SG SPECIFIC GRAVITY
- UC UNCONFINED COMPRESSIVE STRENGTH

Leighton

*** This log is a part of a report by Leighton and should not be used as a stand-alone document. ***

GEOTECHNICAL BORING LOG LB-3

Project No.	13493.001	**Date Drilled**	4-6-22
Project	Legacy-Collier, Proposed Residential Development	**Logged By**	BTM
Drilling Co.	Martini Drilling, Corp.	**Hole Diameter**	8"
Drilling Method	Hollow Stem Auger - 140lb - Autohammer - 30" Drop	**Ground Elevation**	808'
Location	See Figure 2 - *Geotechnical Map*	**Sampled By**	BTM

Elevation Feet	Depth Feet	Graphic Log (N S)	Attitudes	Sample No.	Bulk / Driven	Blows Per 6 Inches	Dry Density pcf	Moisture Content, %	Soil Class. (U.S.C.S.)	SOIL DESCRIPTION	Type of Tests
	0									@Surface: 3.5 -inches Asphalt Concrete over 12 -inches Base	
805				B-1					SM	**Artificial Fill, undocumented (Afu)** @1.3': Silty SAND, olive brown, slightly moist, very fine to fine sand, few medium sand, trace coarse sand, non-plastic, few debris (asphalt)	CR, MD
	5			R-1		7 9 11	111	8	SM	<Quaternary-Aged Young Alluvial Deposits (Qyf) **@5': Silty SAND, medium dense, medium brown, moist, very fine to fine sand, slightly laminated, slightly micaceous)>>**	
800				R-2		7 12 15			CL-SC	@7.5': Silty SAND, medium dense, olive, slightly moist, fine sand, low plasticity, iron oxidation staining, carbonate veins; grades to SAND, yellowish brown, slightly moist, very fine to fine sand	DS
	10			R-3		10 16 26	90	26	CL	@10': Silty CLAY, very stiff, grayish brown, slightly moist, low to medium plasticity, trace very fine sand, iron oxidation staining PP > 4.50 TSF	
795											
	15			R-4		5 9 17	87	35		@15': Very stiff, slightly laminated PP = 4.25 TSF	
790											
	20			R-5		12 16 27	122	12	SC	@20': Clayey SAND, medium dense, orange brown, slightly moist, low plasticity, fine sand, trace medium to coarse sand, slightly laminated, iron oxidation staining PP = 4.50 TSF	
785											
	25			R-6		7 10 17	114	14		@25': Medium dense, higher sand content, pinhole pores PP > 4.50 TSF	
780										**Total Depth: 26.5' bgs** **No groundwater encountered during drilling** **Backfilled with soil cuttings** **Patched with cold-mix asphalt concrete**	
	30										

SAMPLE TYPES:

- B BULK SAMPLE
- C CORE SAMPLE
- G GRAB SAMPLE
- R RING SAMPLE
- S SPLIT SPOON SAMPLE
- T TUBE SAMPLE

TYPE OF TESTS:

- -200 % FINES PASSING
- AL ATTERBERG LIMITS
- CN CONSOLIDATION
- CO COLLAPSE
- CR CORROSION
- CU UNDRAINED TRIAXIAL
- DS DIRECT SHEAR
- EI EXPANSION INDEX
- H HYDROMETER
- MD MAXIMUM DENSITY
- PP POCKET PENETROMETER
- RV R VALUE
- SA SIEVE ANALYSIS
- SE SAND EQUIVALENT
- SG SPECIFIC GRAVITY
- UC UNCONFINED COMPRESSIVE STRENGTH

Leighton

*** This log is a part of a report by Leighton and should not be used as a stand-alone document. ***

GEOTECHNICAL BORING LOG LB-5

Project No.	13493.001	**Date Drilled**	4-6-22
Project	Legacy-Collier, Proposed Residential Development	**Logged By**	BTM
Drilling Co.	Martini Drilling, Corp.	**Hole Diameter**	8"
Drilling Method	Hollow Stem Auger - 140lb - Autohammer - 30" Drop	**Ground Elevation**	807'
Location	See Figure 2 - *Geotechnical Map*	**Sampled By**	BTM

Elevation Feet	Depth Feet	Graphic Log (N / S)	Attitudes	Sample No. (Bulk / Driven)	Blows Per 6 Inches	Dry Density pcf	Moisture Content, %	Soil Class. (U.S.C.S.)	SOIL DESCRIPTION	Type of Tests
									This Soil Description applies only to a location of the exploration at the time of sampling. Subsurface conditions may differ at other locations and may change with time. The description is a simplification of the actual conditions encountered. Transitions between soil types may be gradual.	
	0								@Surface: 5 -inches Asphalt Concrete over 3 -inches Base	
805				B-1				SM	**Artificial Fill, undocumented (Afu)** @0.67': Silty SAND, olive brown, slightly moist, very fine to fine sand, few medium sand, trace coarse sand, trace debris (asphalt)	SE
	5			R-1	5 7 9			SM-ML	<Quaternary-Aged Young Alluvial Deposits (Qyf) **@5': Silty SAND, medium dense, medium brown, slightly moist, very fine to fine sand, trace coarse sand, nonplastic, slightly micaceous; grades to Sandy SILT, yellowish brown, slightly moist, very fine sand, no to low plasticity, slightly micaceous)>>**	
800				R-2	9 16 16			ML-SM	@7.5': Sandy SILT, very stiff, grayish brown, slightly moist, very fine sand, low plasticity, iron oxidation staining; grades to Sandy SILT, yellowish brown	
	10			R-3	6 11 16			CL-ML	@10': Silty CLAY, very stiff, grayish brown to tan, moist, low plasticity, slightly laminated, trace very fine sand; grades to SAND, tan to yellowish brown, slightly moist, very fine to fine sand, slightly micaceous	
795										
	15			R-4	5 10 21				@15': Silty CLAY, very stiff, grayish brown, moist, low to medium plasticity, iron oxidation staining, some very fine to fine sand, slightly laminated	
790										
	20			R-5	6 9 19				@20': Very stiff, few to little very fine to fine sand, slightly laminated	
785										
	25			R-6	10 18 28			SC	@25': Clayey SAND, dense, olive brown, moist, predominately fine sand, trace to few medium to coarse sand, low plasticity, slightly micaceous; grades to orange, iron oxidation stained Clayey SAND, slightly laminated	
780									**Total Depth: 26.5' bgs** **No groundwater encountered during drilling** **Backfilled with soil cuttings** **Patched with cold-mix asphalt concrete**	
	30									

SAMPLE TYPES:

B	BULK SAMPLE
C	CORE SAMPLE
G	GRAB SAMPLE
R	RING SAMPLE
S	SPLIT SPOON SAMPLE
T	TUBE SAMPLE

TYPE OF TESTS:

-200	% FINES PASSING	DS	DIRECT SHEAR	SA	SIEVE ANALYSIS
AL	ATTERBERG LIMITS	EI	EXPANSION INDEX	SE	SAND EQUIVALENT
CN	CONSOLIDATION	H	HYDROMETER	SG	SPECIFIC GRAVITY
CO	COLLAPSE	MD	MAXIMUM DENSITY	UC	UNCONFINED COMPRESSIVE STRENGTH
CR	CORROSION	PP	POCKET PENETROMETER		
CU	UNDRAINED TRIAXIAL	RV	R VALUE		

Leighton

*** This log is a part of a report by Leighton and should not be used as a stand-alone document. ***

GEOTECHNICAL BORING LOG LP-1

Project No.	13493.001	**Date Drilled**	4-6-22
Project	Legacy-Collier, Proposed Residential Development	**Logged By**	BTM
Drilling Co.	Martini Drilling, Corp.	**Hole Diameter**	8"
Drilling Method	Hollow Stem Auger - 140lb - Autohammer - 30" Drop	**Ground Elevation**	805'
Location	See Figure 2 - *Geotechnical Map*	**Sampled By**	BTM

Elevation Feet	Depth Feet	Graphic Log	Attitudes	Sample No.	Bulk / Driven	Blows Per 6 Inches	Dry Density pcf	Moisture Content, %	Soil Class. (U.S.C.S.)	SOIL DESCRIPTION	Type of Tests
										This Soil Description applies only to a location of the exploration at the time of sampling. Subsurface conditions may differ at other locations and may change with time. The description is a simplification of the actual conditions encountered. Transitions between soil types may be gradual.	
805	0	N S								@Surface: 3 -inches Asphalt Concrete over 7 -inches Base	
				B-1					ML-SM	**Artificial Fill, undocumented (Afu)** @0.83': Sandy SILT, olive brown, moist, low plasticity, very fine sand, slightly micaceous; grades to Silty SAND, medium brown, moist, very fine to fine sand, trace medium sand, slightly micaceous @ ~4'	
800	5			S-1		2 2 2			SM-ML	**Quaternary-Aged Young Alluvial Deposits (Qyf)** @5': Silty SAND, very loose, medium brown, moist, very fine to fine sand, slightly micaceous, nonplastic	
795	10			S-2		2 3 4			ML-CL	@10': Clayey Sandy SILT, medium stiff, moist, low plasticity, very fine sand, slightly micaceous; grades to Silty CLAY with sand, gray, moist, low to medium plasticity, very fine sand, micaceous, extensive iron oxidation staining	
790	15			R-3		6 9 11	104	5	SP	@15': Silty SAND, medium dense, grayish brown, slightly moist, prodominately fine sand, some clay, trace medium to coarse sand, trace fine subrounded gravel, slightly micaceous	, SA
				R-4		8 13 21	119	12	SM	@18.5': Sandy SILT, very stiff, olive brown, slightly moist, low plasticity, very fine to fine sand, iron oxidation staining, slightly micaceous PP > 4.50 TSF	, SA
785	20			S-5		5 6 7			ML-SM	@23.5': Sandy CLAY, stiff to medium dense, orange mottled with brown, low plasticity, very fine to fine sand, slightly micaceous	SA
780	25									**Total Depth: 25' bgs** **No groundwater encountered during drilling** **Temporary percolation well installed; screened from 17 - 22' bgs** **Upon completion of percolation testing, boring was backfilled with soil cuttings and patched with cold-mix asphalt**	
775	30										

SAMPLE TYPES:

- B BULK SAMPLE
- C CORE SAMPLE
- G GRAB SAMPLE
- R RING SAMPLE
- S SPLIT SPOON SAMPLE
- T TUBE SAMPLE

TYPE OF TESTS:

- -200 % FINES PASSING
- AL ATTERBERG LIMITS
- CN CONSOLIDATION
- CO COLLAPSE
- CR CORROSION
- CU UNDRAINED TRIAXIAL
- DS DIRECT SHEAR
- EI EXPANSION INDEX
- H HYDROMETER
- MD MAXIMUM DENSITY
- PP POCKET PENETROMETER
- RV R VALUE
- SA SIEVE ANALYSIS
- SE SAND EQUIVALENT
- SG SPECIFIC GRAVITY
- UC UNCONFINED COMPRESSIVE STRENGTH

Leighton

*** This log is a part of a report by Leighton and should not be used as a stand-alone document. ***

GEOTECHNICAL BORING LOG LP-2

Project No.	13493.001	**Date Drilled**	4-6-22
Project	Legacy-Collier, Proposed Residential Development	**Logged By**	BTM
Drilling Co.	Martini Drilling, Corp.	**Hole Diameter**	8"
Drilling Method	Hollow Stem Auger - 140lb - Autohammer - 30" Drop	**Ground Elevation**	804'
Location	See Figure 2 - *Geotechnical Map*	**Sampled By**	BTM

Elevation Feet	Depth Feet	Graphic Log	Attitudes	Sample No.	Bulk / Driven	Blows Per 6 Inches	Dry Density pcf	Moisture Content, %	Soil Class. (U.S.C.S.)	SOIL DESCRIPTION	Type of Tests
		N S								*This Soil Description applies only to a location of the exploration at the time of sampling. Subsurface conditions may differ at other locations and may change with time. The description is a simplification of the actual conditions encountered. Transitions between soil types may be gradual.*	
	0									@Surface: 3.5 -inches Asphalt Concrete over 4 -inches Base	
				B-1					SM-ML	**Artificial Fill, undocumented (Afu)** @0.62': Silty SAND to Sandy SILT, olive brown, slightly moist, very fine to fine sand, low to no plasticity, slightly micaceous	
800											
	5			S-1		4 2 2			SM	<Quaternary-Aged Young Alluvial Deposits (Qyf) **@5': Silty SAND, very loose, medium to dark brown, moist, very fine to fine sand, trace coarse sand to fine subrounded gravel)>>**	
795											
	10			S-2		2 2 3			ML/CL	@10': Sandy SILT, medium stiff, mottled with gray and light brown, slightly moist, low plasticity, very fine sand, slightly micaceous; grades to Silty CLAY, grayish brown, moist, low to medium plasticity, iron oxidation staining, laminated	
790											
	15			R-3		4 6 9	91	25		@15': Silty CLAY, stiff, olive brown, moist, low plasticity, very fine sand, slightly micaceous, laminated, iron oxidation staining	, SA
785				R-4		12 16 26	115	7	SM	@18.5': Silty SAND, medium dense, olive brown, moist, very fine to fine sand, low to no plasticity, little iron oxidation staining, trace pinhole pores	, SA
	20										
										Total Depth: 20' bgs **No groundwater encountered during drilling** **Temporary percolation well installed; screened from 15 - 20' bgs** **Upon completion of percolation testing, boring was backfilled with soil cuttings and patched with cold-mix asphalt**	
780											
	25										
775											
	30										

SAMPLE TYPES:

B	BULK SAMPLE
C	CORE SAMPLE
G	GRAB SAMPLE
R	RING SAMPLE
S	SPLIT SPOON SAMPLE
T	TUBE SAMPLE

TYPE OF TESTS:

-200	% FINES PASSING	DS	DIRECT SHEAR	SA	SIEVE ANALYSIS
AL	ATTERBERG LIMITS	EI	EXPANSION INDEX	SE	SAND EQUIVALENT
CN	CONSOLIDATION	H	HYDROMETER	SG	SPECIFIC GRAVITY
CO	COLLAPSE	MD	MAXIMUM DENSITY	UC	UNCONFINED COMPRESSIVE STRENGTH
CR	CORROSION	PP	POCKET PENETROMETER		
CU	UNDRAINED TRIAXIAL	RV	R VALUE		

Leighton

*** * * This log is a part of a report by Leighton and should not be used as a stand-alone document. * * ***

SUMMARY

OF

CONE PENETRATION TEST DATA

Project:

Legacy-Ontario
2530 W. Walnut Street
Ontario, CA
April 7, 2022

Prepared for:

Mr. Eric Holliday
Leighton & Associates
17781 Cowan
Irvine, CA 92614-6009
Office (800) 253-4567 / Fax (949) 250-1114

Prepared by:

KEHOE TESTING & ENGINEERING
5415 Industrial Drive
Huntington Beach, CA 92649-1518
Office (714) 901-7270 / Fax (714) 901-7289
www.kehoetesting.com

TABLE OF CONTENTS

1. **INTRODUCTION**
2. **SUMMARY OF FIELD WORK**
3. **FIELD EQUIPMENT & PROCEDURES**
4. **CONE PENETRATION TEST DATA & INTERPRETATION**

APPENDIX

- CPT Plots
- CPT Classification/Soil Behavior Chart
- Summary of Shear Wave Velocities
- CPT Data Files (sent via email)

SUMMARY
OF
CONE PENETRATION TEST DATA

1. INTRODUCTION

This report presents the results of a Cone Penetration Test (CPT) program carried out for the Legacy-Ontario project located at 2530 W. Walnut Street in Ontario, California. The work was performed by Kehoe Testing & Engineering (KTE) on April 7, 2022. The scope of work was performed as directed by Leighton & Associates personnel.

2. SUMMARY OF FIELD WORK

The fieldwork consisted of performing CPT soundings at five locations to determine the soil lithology. A summary is provided in **TABLE 2.1**.

LOCATION	DEPTH OF CPT (ft)	COMMENTS/NOTES:
CPT-1	50	
CPT-2	50	
CPT-3	35	Refusal
CPT-3A	50	
LB-4	50	

TABLE 2.1 - Summary of CPT Soundings

3. FIELD EQUIPMENT & PROCEDURES

The CPT soundings were carried out by **KTE** using an integrated electronic cone system manufactured by Vertek. The CPT soundings were performed in accordance with ASTM standards (D5778). The cone penetrometers were pushed using a 30-ton CPT rig. The cone used during the program was a 15 cm^2 cone with a cone net area ratio of 0.83. The following parameters were recorded at approximately 2.5 cm depth intervals:

- Cone Resistance (qc)
- Sleeve Friction (fs)
- Dynamic Pore Pressure (u)
- Inclination
- Penetration Speed

At location CPT-1, shear wave measurements were obtained at approximately 5-foot intervals. The shear wave is generated using an air-actuated hammer, which is located inside the front jack of the CPT rig. The cone has a triaxial geophone, which recorded the shear wave signal generated by the air hammer.

The above parameters were recorded and viewed in real time using a laptop computer. Data is stored at the KTE office for up to 2 years for future analysis and reference. A complete set of baseline readings was taken prior to each sounding to determine temperature shifts and any zero load offsets. Monitoring base line readings ensures that the cone electronics are operating properly.

4. CONE PENETRATION TEST DATA & INTERPRETATION

The Cone Penetration Test data is presented in graphical form in the attached Appendix. These plots were generated using the CPeT-IT program. Penetration depths are referenced to ground surface. The soil behavior type on the CPT plots is derived from the attached CPT SBT plot (Robertson, "Interpretation of Cone Penetration Test…", 2009) and presents major soil lithologic changes. The stratigraphic interpretation is based on relationships between cone resistance (qc), sleeve friction (fs), and penetration pore pressure (u). The friction ratio (Rf), which is sleeve friction divided by cone resistance, is a calculated parameter that is used along with cone resistance to infer soil behavior type. Generally, cohesive soils (clays) have high friction ratios, low cone resistance and generate excess pore water pressures. Cohesionless soils (sands) have lower friction ratios, high cone bearing and generate little (or negative) excess pore water pressures.

The CPT data files have also been provided. These files can be imported in CPeT-IT (software by GeoLogismiki) and other programs to calculate various geotechnical parameters.

It should be noted that it is not always possible to clearly identify a soil type based on qc, fs and u. In these situations, experience, judgement and an assessment of the pore pressure data should be used to infer the soil behavior type.

If you have any questions regarding this information, please do not hesitate to call our office at (714) 901-7270.

Sincerely,

KEHOE TESTING & ENGINEERING



Steven P. Kehoe
President

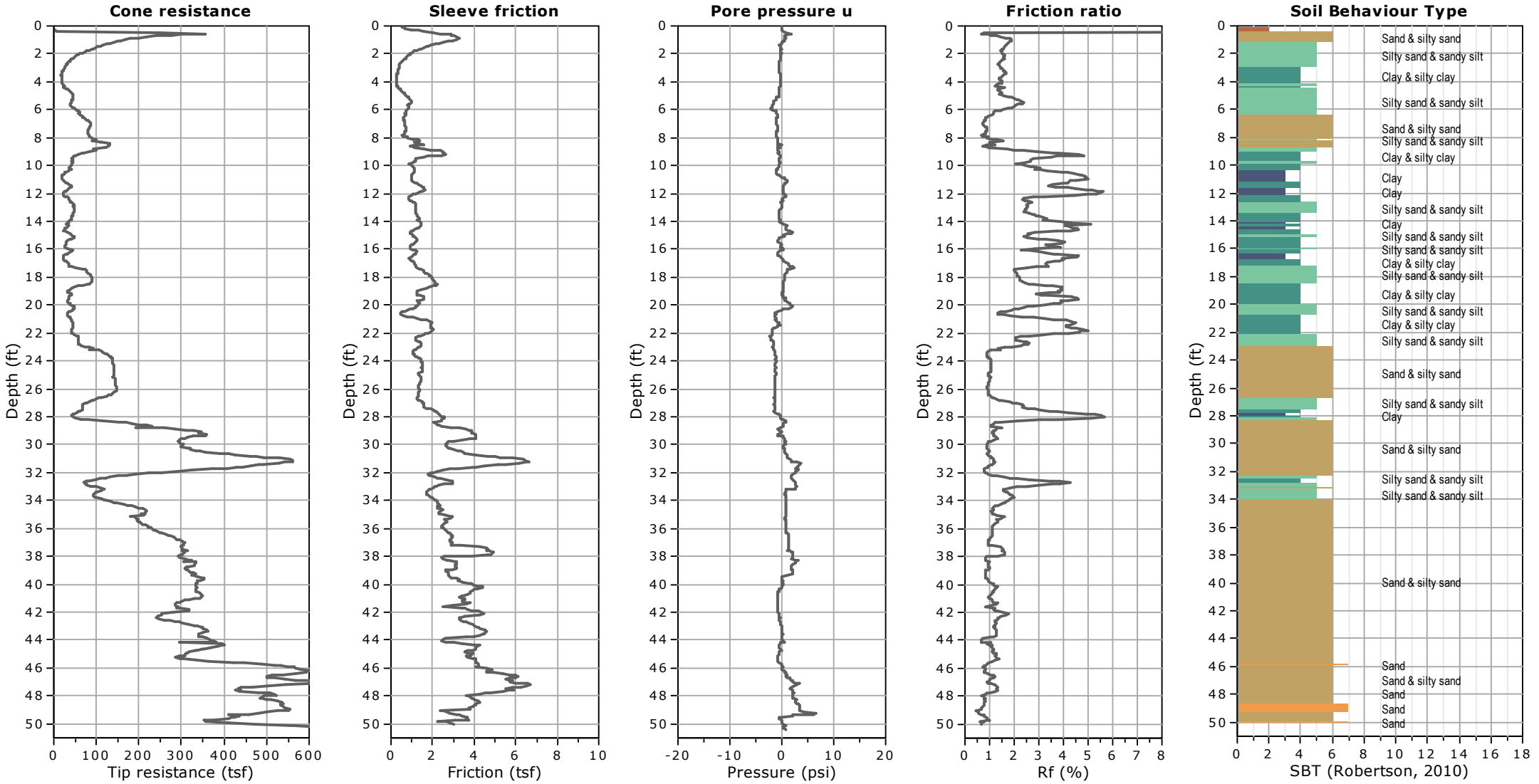
04/14/22-kd-4039

APPENDIX

Kehoe Testing and Engineering
714-901-7270
steve@kehoetesting.com
www.kehoetesting.com

Project: **Leighton & Associates / Legacy**
Location: **2530 W. Walnut St, Ontario, CA**

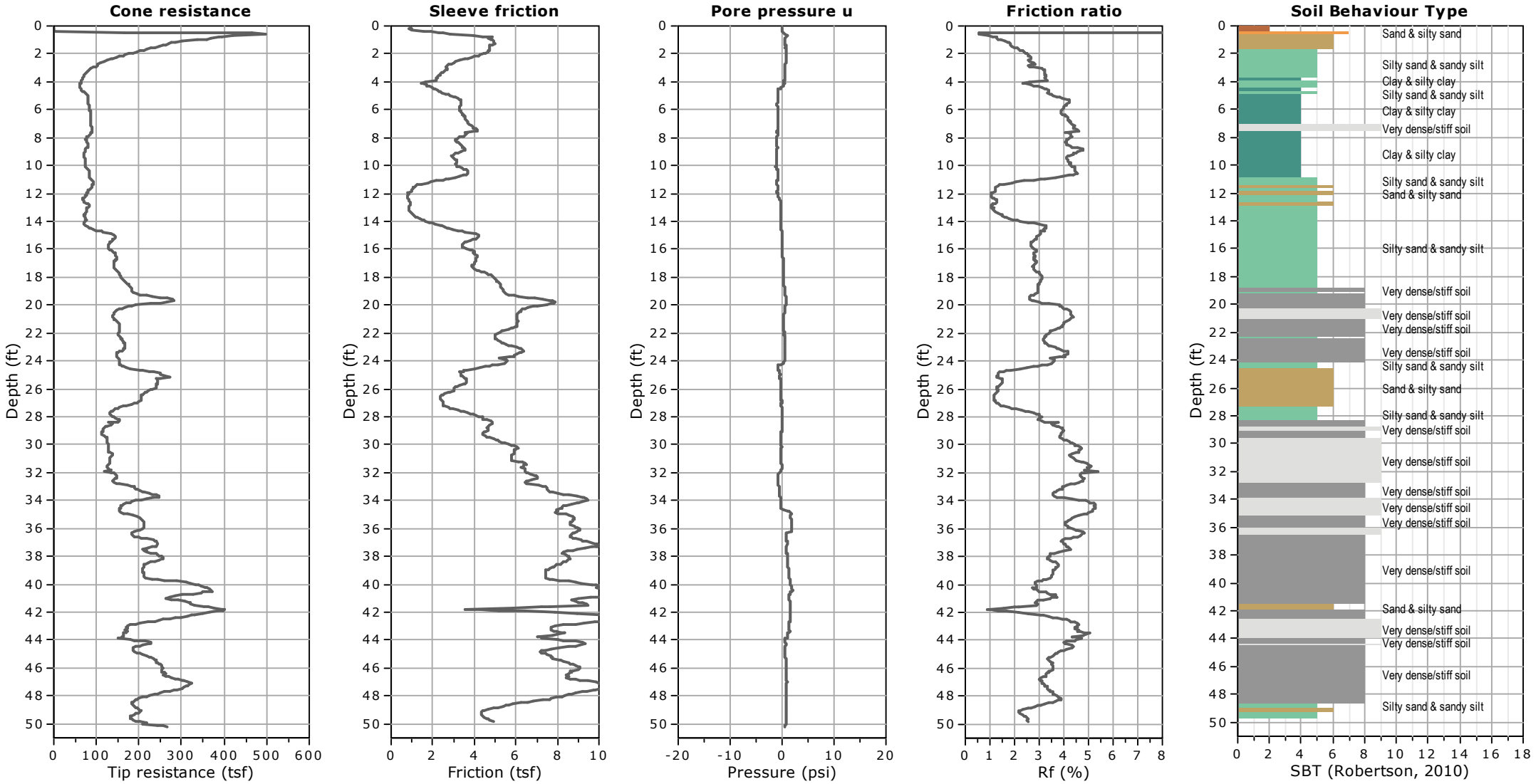
CPT-1
Total depth: 50.40 ft, Date: 4/7/2022



Kehoe Testing and Engineering
714-901-7270
steve@kehoetesting.com
www.kehoetesting.com

Project: **Leighton & Associates / Legacy**
Location: **2530 W. Walnut St, Ontario, CA**

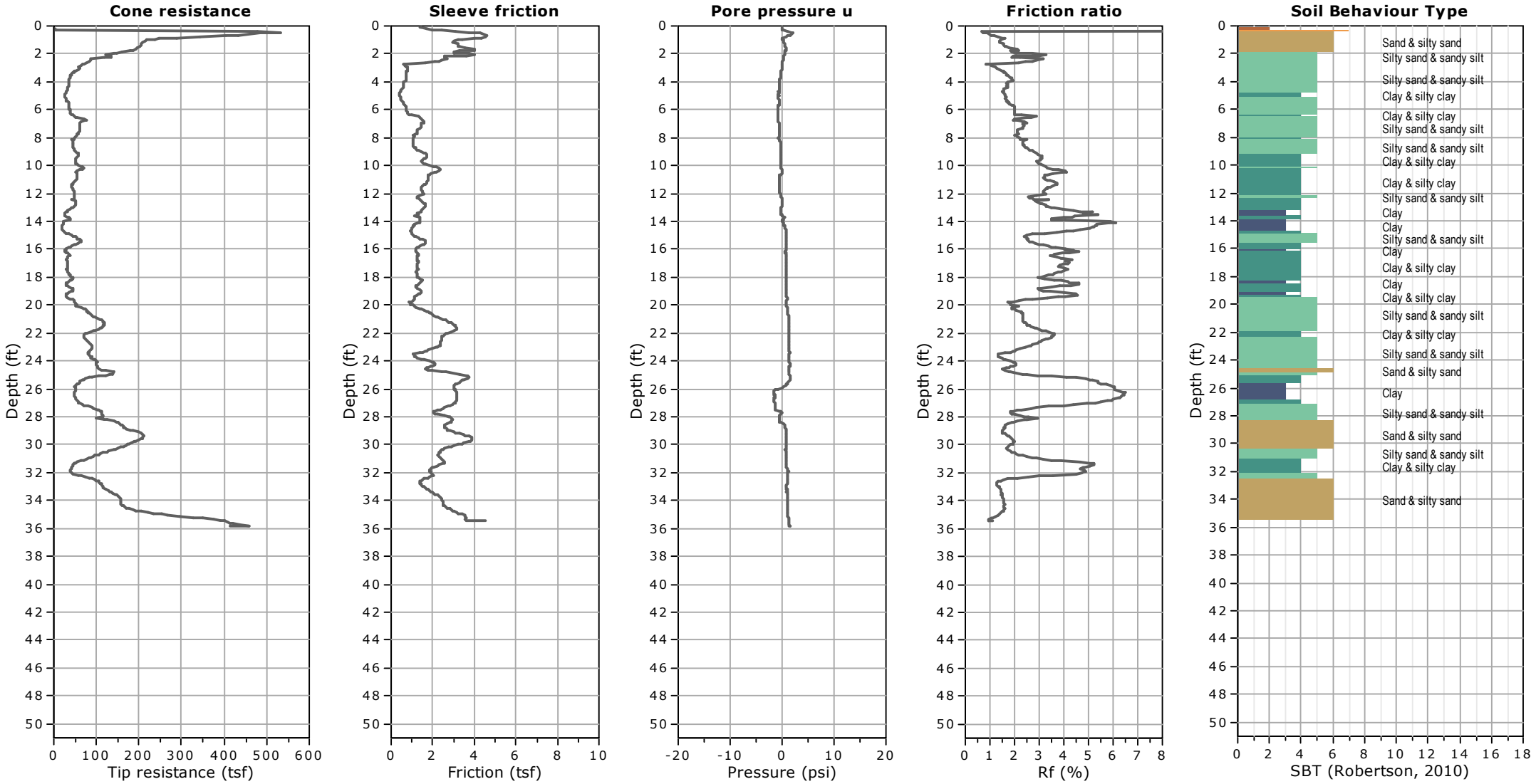
CPT-2
Total depth: 50.20 ft, Date: 4/7/2022



Kehoe Testing and Engineering
714-901-7270
steve@kehoetesting.com
www.kehoetesting.com

Project: **Leighton & Associates / Legacy**
Location: **2530 W. Walnut St, Ontario, CA**

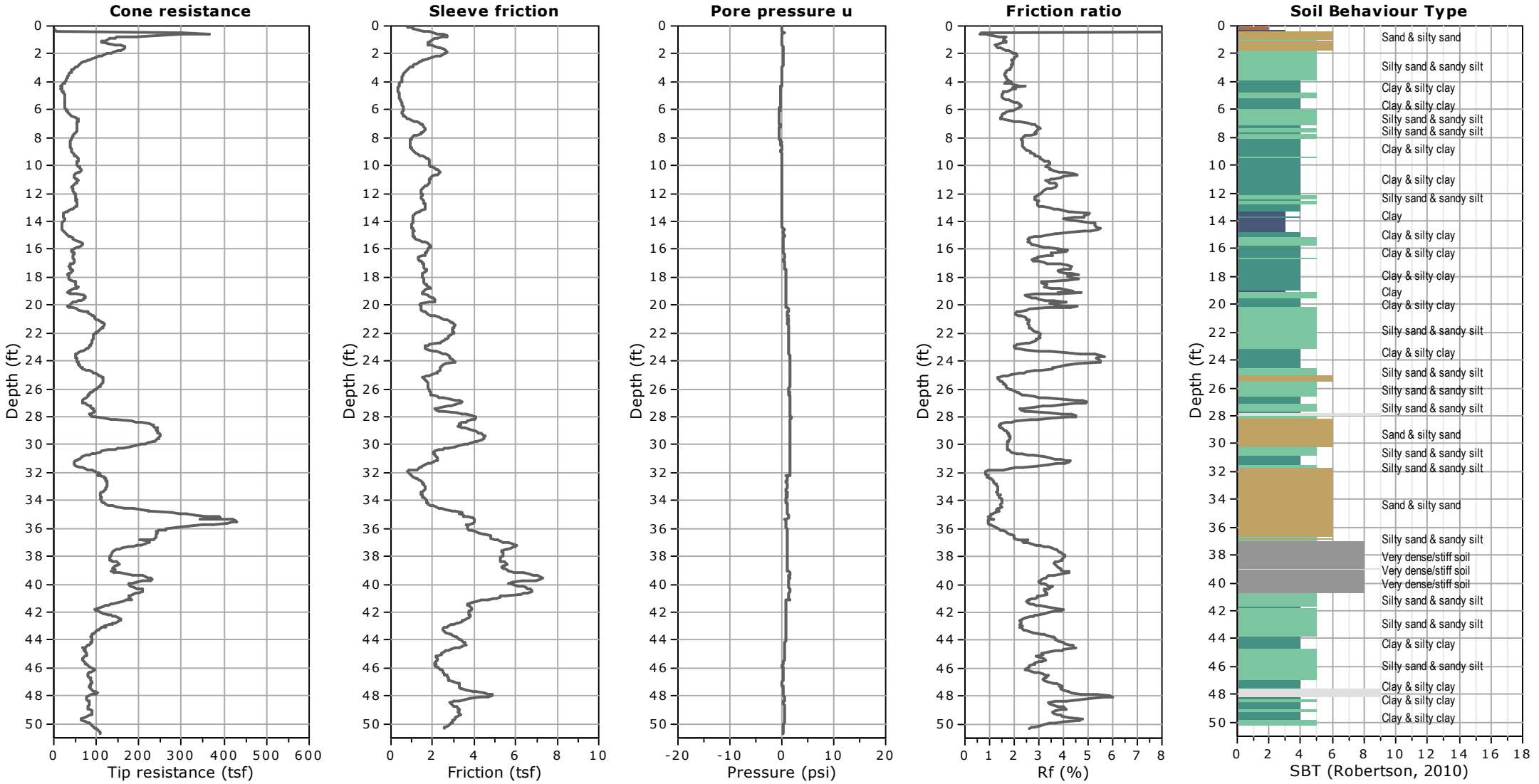
CPT-3
Total depth: 35.84 ft, Date: 4/7/2022



Kehoe Testing and Engineering
714-901-7270
steve@kehoetesting.com
www.kehoetesting.com

Project: **Leighton & Associates / Legacy**
Location: **2530 W. Walnut St, Ontario, CA**

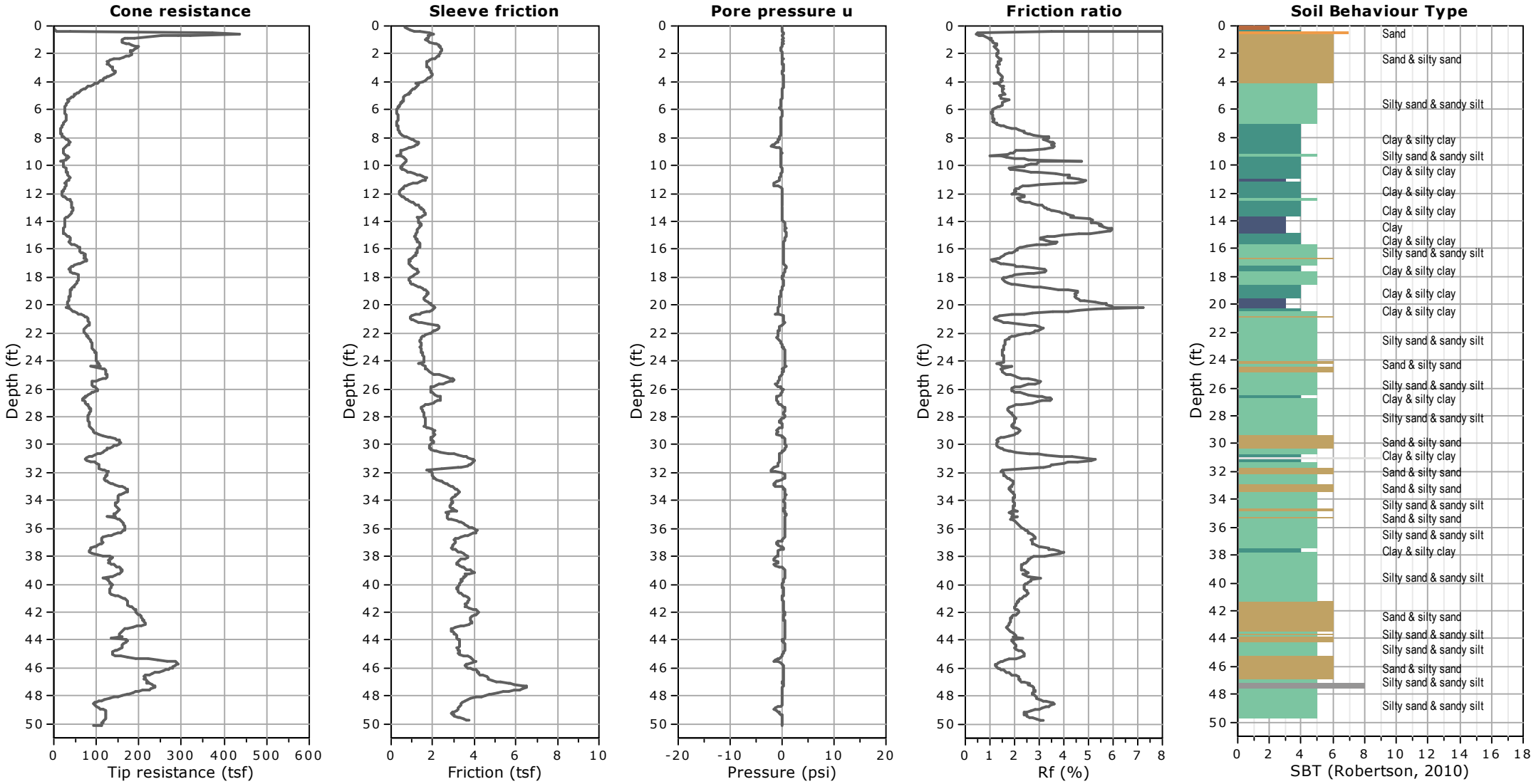
CPT-3A
Total depth: 50.66 ft, Date: 4/7/2022



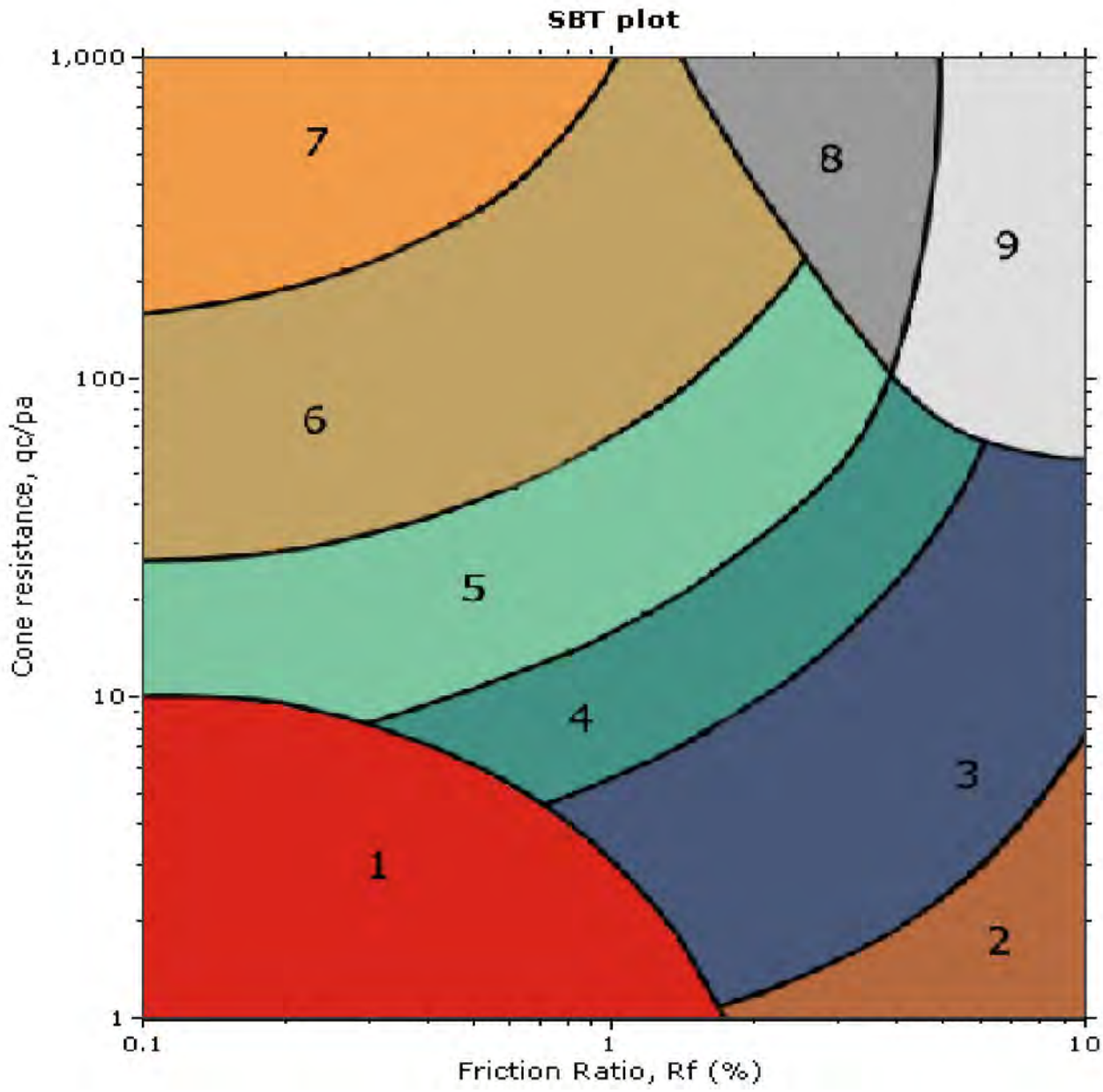
Kehoe Testing and Engineering
714-901-7270
steve@kehoetesting.com
www.kehoetesting.com

Project: **Leighton & Associates / Legacy**
Location: **2530 W. Walnut St, Ontario, CA**

LB-4
Total depth: 50.14 ft, Date: 4/7/2022



Kehoe Testing and Engineering
714-901-7270
rich@kehoetesting.com
www.kehoetesting.com



SBT legend

1. Sensitive fine grained
2. Organic material
3. Clay to silty clay
4. Clayey silt to silty clay
5. Silty sand to sandy silt
6. Clean sand to silty sand
7. Gravely sand to sand
8. Very stiff sand to clayey sand
9. Very stiff fine grained

Leighton & Associates
Legacy
Ontario, CA

CPT Shear Wave Measurements

Location	Tip Depth (ft)	Geophone Depth (ft)	Travel Distance (ft)	S-Wave Arrival (msec)	S-Wave Velocity from Surface (ft/sec)	Interval S-Wave Velocity (ft/sec)
CPT-1	5.09	4.09	4.55	4.80	949	
	10.14	9.14	9.36	10.26	912	880
	15.03	14.03	14.17	16.16	877	816
	20.01	19.01	19.11	21.42	892	940
	25.10	24.10	24.18	26.42	915	1014
	30.05	29.05	29.12	31.16	934	1041
	35.07	34.07	34.13	36.20	943	994
	40.03	39.03	39.08	40.12	974	1263
	45.14	44.14	44.19	44.64	990	1129
	50.03	49.03	49.07	48.80	1006	1174

Shear Wave Source Offset - 2 ft

S-Wave Velocity from Surface = Travel Distance/S-Wave Arrival
Interval S-Wave Velocity = (Travel Dist2-Travel Dist1)/(Time2-Time1)

APPENDIX B

PERCOLATION TEST DATA

Boring Percolation Test Data Sheet

Project Number:	13493.001	**Test Hole Number:**	LP-1
Project Name:	Legacy - Collier	**Date Excavated:**	4/6/2022
Earth Description:	Alluvium	**Date Tested:**	4/7/2022
Liquid Description:	Tap water	**Depth of boring (ft):**	23.5
Tested By:	LFO/KD	**Radius of boring (in):**	4
Time Interval Standard		**Radius of casing (in):**	1
Start Time for Pre-Soak:	8:34	**Length of slotted of casing (ft):**	5
Start Time for Standard:	9:31	**Depth to Initial Water Depth (ft):**	16.9
Standard Time Interval	25	**Porosity of Annulus Material, *n* :**	0.35
Between Readings, mins:	10	**Bentonite Plug at Bottom:** No	

Percolation Data

Reading	Time	Time Interval, Δt (min.)	Initial/Final Depth to Water (ft.)	Initial/Final Water Height, H_0/H_f (in.)	Total Water Drop, Δd (in.)	Percolation Rate (min./in.)	Infiltration Rate (in./hr.)
1	8:34	25	16.93	78.8	8.2	3.06	0.20
	8:59		17.61	70.7			
2	9:04	25	16.99	78.1	7.4	3.36	0.18
	9:29		17.61	70.7			
3	9:31	10	16.94	78.7	5.9	1.70	0.35
	9:41		17.43	72.8			
4	9:43	10	17.00	78.0	5.0	1.98	0.30
	9:53		17.42	73.0			
5	9:55	10	17.00	78.0	5.3	1.89	0.32
	10:05		17.44	72.7			
6	10:06	10	17.00	78.0	5.3	1.89	0.32
	10:16		17.44	72.7			
7	10:18	10	17.00	78.0	5.4	1.85	0.33
	10:28		17.45	72.6			
8	10:30	10	17.00	78.0	5.3	1.89	0.32
	10:40		17.44	72.7			

Infiltration Rate (I) = Discharge Volume/Surface Area of Test Section/Time Interval

Infiltration Rate, I (Last Reading) = **0.32** **in./hr.**

Boring Percolation Test Data Sheet

Project Number:	13493.001	**Test Hole Number:**	LP-2	
Project Name:	Legacy - Collier	**Date Excavated:**	4/6/2022	
Earth Description:	Alluvium	**Date Tested:**	4/7/2022	
Liquid Description:	Tap water	**Depth of boring (ft):**	20	
Tested By:	LFO/KD	**Radius of boring (in):**	4	
Time Interval Standard		**Radius of casing (in):**	1	
Start Time for Pre-Soak:	7:25	**Length of slotted of casing (ft):**		5
Start Time for Standard:	8:27	**Depth to Initial Water Depth (ft):**		15.05
Standard Time Interval	25	**Porosity of Annulus Material, *n* :**		0.35
Between Readings, mins:	10	**Bentonite Plug at Bottom:** No		

Percolation Data

Reading	Time	Time Interval, Δt (min.)	Initial/Final Depth to Water (ft.)	Initial/Final Water Height, H_0/H_f (in.)	Total Water Drop, Δd (in.)	Percolation Rate (min./in.)	Infiltration Rate (in./hr.)
1	7:25	25	15.05	59.4	0.1	208.33	0.00
	7:50		15.06	59.3			
2	7:55	25	15.20	57.6	16.2	1.54	0.59
	8:20		16.55	41.4			
3	8:27	10	15.08	59.0	8.0	1.24	0.66
	8:37		15.75	51.0			
4	8:39	10	15.05	59.4	8.8	1.14	0.72
	8:49		15.78	50.6			
5	8:56	10	15.08	59.0	8.0	1.24	0.66
	9:06		15.75	51.0			
6	9:08	10	15.08	59.0	5.0	1.98	0.40
	9:18		15.50	54.0			
7	9:21	10	15.08	59.0	8.4	1.19	0.69
	9:31		15.78	50.6			
8	9:34	10	15.08	59.0	8.4	1.19	0.69
	9:44		15.78	50.6			

Infiltration Rate (I) = Discharge Volume/Surface Area of Test Section/Time Interval

Infiltration Rate, I (Last Reading) = **0.69** **in./hr.**

APPENDIX C

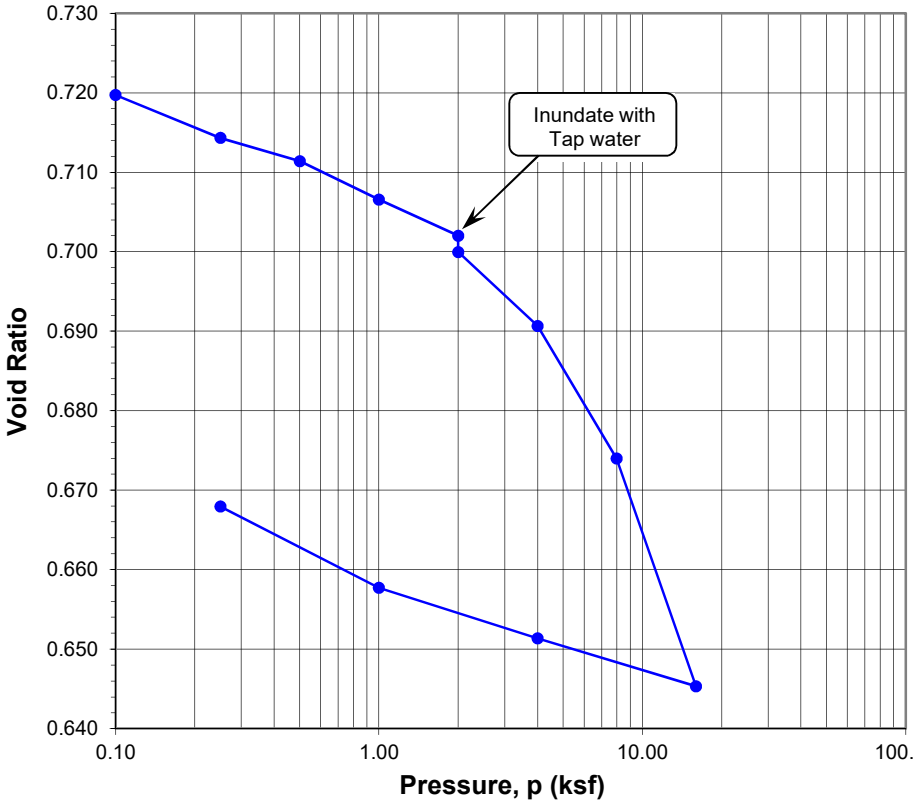
LABORATORY TEST RESULTS

ONE-DIMENSIONAL CONSOLIDATION PROPERTIES of SOILS

ASTM D 2435

Project Name:	Legacy-Collier, Proposed Euclid & Walnut Mixed-Use, Ontario CA	Tested By: GB/JD	Date: 04/13/22
Project No.:	13493.001	Checked By: A. Santos	Date: 04/26/22
Boring No.:	LB-1	Depth (ft.): 5.0	
Sample No.:	R-1	Sample Type: Ring	
Soil Identification:	Olive silty clay (CL-ML)		

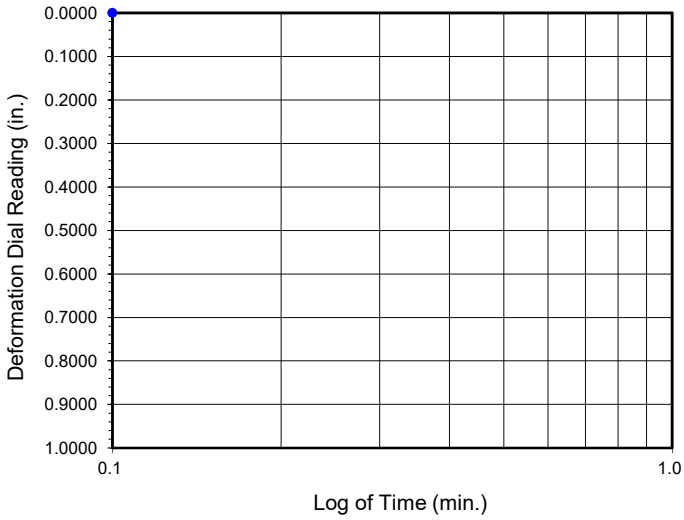
Sample Diameter (in.):	2.415
Sample Thickness (in.):	1.000
Weight of Sample + ring (g):	185.47
Weight of Ring (g):	45.70
Height after consol. (in.):	0.9695
Before Test	
Wt. of Wet Sample+Cont. (g):	169.15
Wt. of Dry Sample+Cont. (g):	153.14
Weight of Container (g):	65.19
Initial Moisture Content (%)	18.2
Initial Dry Density (pcf)	98.3
Initial Saturation (%):	68
Initial Vertical Reading (in.)	0.0773
After Test	
Wt. of Wet Sample+Cont. (g):	254.24
Wt. of Dry Sample+Cont. (g):	229.01
Weight of Container (g):	59.14
Final Moisture Content (%)	20.32
Final Dry Density (pcf):	106.5
Final Saturation (%):	94
Final Vertical Reading (in.)	0.1103
Specific Gravity (assumed):	2.71
Water Density (pcf):	62.43

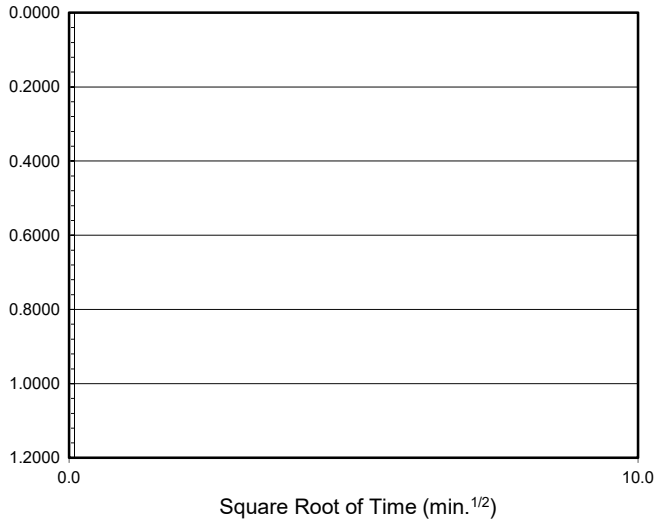


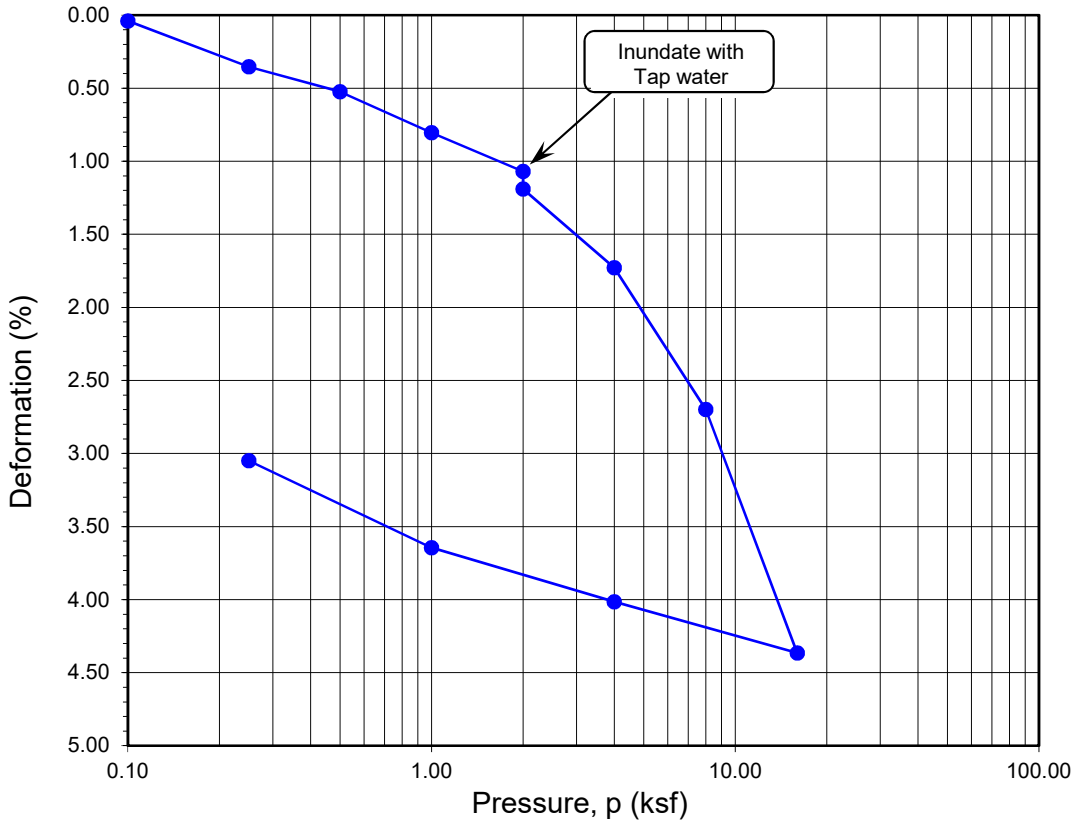
Pressure (p) (ksf)	Final Reading (in.)	Apparent Thickness (in.)	Load Compliance (%)	Deformation % of Sample Thickness	Void Ratio	Corrected Deformation (%)
0.10	0.0777	0.9996	0.00	0.04	0.720	0.04
0.25	0.0812	0.9962	0.03	0.39	0.714	0.36
0.50	0.0834	0.9940	0.08	0.61	0.711	0.53
1.00	0.0869	0.9905	0.15	0.95	0.707	0.80
2.00	0.0905	0.9868	0.25	1.32	0.702	1.07
2.00	0.0917	0.9856	0.25	1.44	0.700	1.19
4.00	0.0982	0.9791	0.36	2.09	0.691	1.73
8.00	0.1092	0.9681	0.49	3.19	0.674	2.70
16.00	0.1274	0.9500	0.64	5.01	0.645	4.37
4.00	0.1222	0.9552	0.47	4.49	0.651	4.02
1.00	0.1172	0.9602	0.34	3.99	0.658	3.65
0.25	0.1103	0.9670	0.25	3.30	0.668	3.05

Time Readings				
Date	Time	Elapsed Time (min)	Square Root of Time	Dial Rdgs. (in.)

Time Readings







Boring No.	Sample No.	Depth (ft.)	Moisture Content (%)		Dry Density (pcf)		Void Ratio		Degree of Saturation (%)	
			Initial	Final	Initial	Final	Initial	Final	Initial	Final
LB-1	**R-1**	**5**	**18.2**	**20.3**	**98.3**	**106.5**	**0.720**	**0.668**	**68**	**94**

Soil Identification: Olive silty clay (CL-ML)

Leighton

ONE-DIMENSIONAL CONSOLIDATION PROPERTIES of SOILS
ASTM D 2435

Project No.: 13493.001

Legacy-Collier, Proposed Euclid & Walnut Mixed-Use, Ontario CA

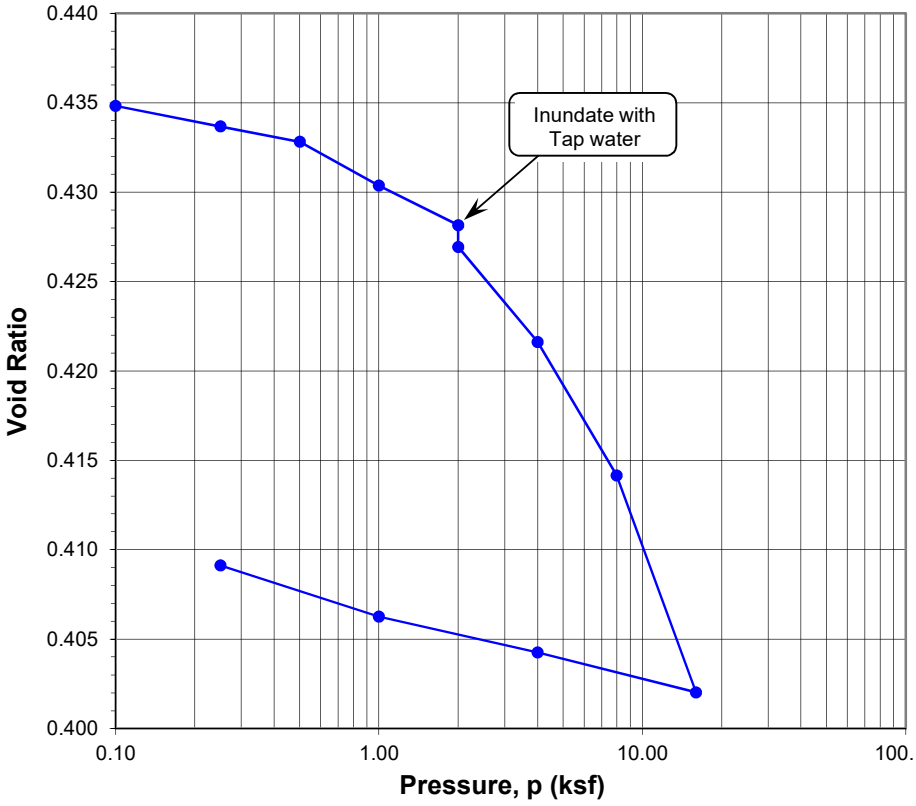
04-22

ONE-DIMENSIONAL CONSOLIDATION PROPERTIES of SOILS

ASTM D 2435

Project Name:	Legacy-Collier, Proposed Euclid & Walnut Mixed-Use, Ontario CA	Tested By: GB/JD	Date: 04/13/22
Project No.:	13493.001	Checked By: A. Santos	Date: 04/26/22
Boring No.:	LB-2	Depth (ft.): 5.0	
Sample No.:	R-1	Sample Type: Ring	
Soil Identification:	Olive gray silty, clayey sand (SC-SM)		

Sample Diameter (in.):	2.415
Sample Thickness (in.):	1.000
Weight of Sample + ring (g):	199.47
Weight of Ring (g):	44.89
Height after consol. (in.):	0.9819
Before Test	
Wt. of Wet Sample+Cont. (g):	189.19
Wt. of Dry Sample+Cont. (g):	178.43
Weight of Container (g):	59.52
Initial Moisture Content (%)	9.0
Initial Dry Density (pcf)	117.9
Initial Saturation (%):	56
Initial Vertical Reading (in.)	0.0958
After Test	
Wt. of Wet Sample+Cont. (g):	269.21
Wt. of Dry Sample+Cont. (g):	253.05
Weight of Container (g):	66.12
Final Moisture Content (%)	11.38
Final Dry Density (pcf):	120.3
Final Saturation (%):	76
Final Vertical Reading (in.)	0.1178
Specific Gravity (assumed):	2.71
Water Density (pcf):	62.43

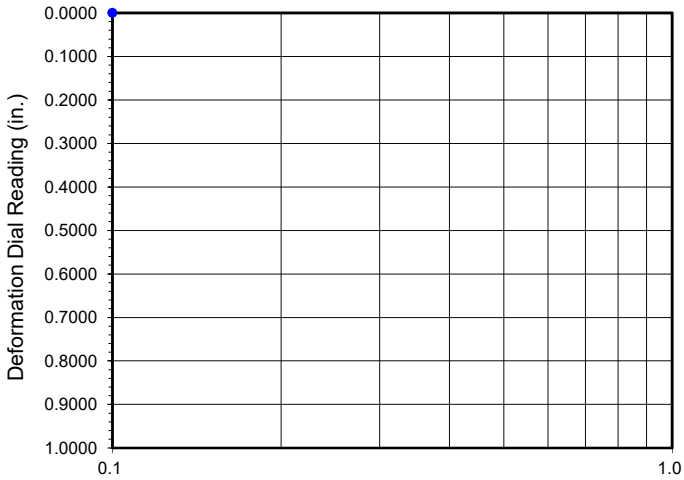


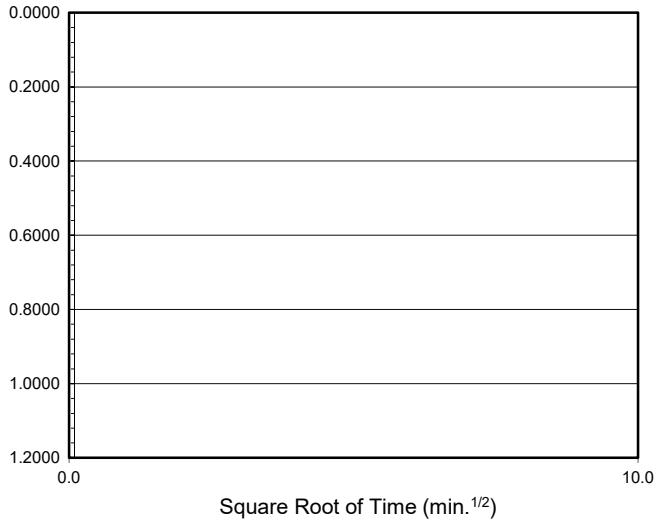
Pressure (p) (ksf)	Final Reading (in.)	Apparent Thickness (in.)	Load Compliance (%)	Deformation % of Sample Thickness	Void Ratio	Corrected Deformation (%)
0.10	0.0960	0.9998	0.00	0.02	0.435	0.02
0.25	0.0974	0.9984	0.06	0.16	0.434	0.10
0.50	0.0988	0.9970	0.14	0.30	0.433	0.16
1.00	0.1015	0.9943	0.24	0.57	0.430	0.33
2.00	0.1043	0.9916	0.36	0.84	0.428	0.48
2.00	0.1051	0.9907	0.36	0.93	0.427	0.57
4.00	0.1102	0.9856	0.50	1.44	0.422	0.94
8.00	0.1170	0.9788	0.66	2.12	0.414	1.46
16.00	0.1275	0.9684	0.86	3.17	0.402	2.31
4.00	0.1240	0.9718	0.67	2.82	0.404	2.15
1.00	0.1210	0.9748	0.51	2.52	0.406	2.01
0.25	0.1178	0.9780	0.39	2.20	0.409	1.81

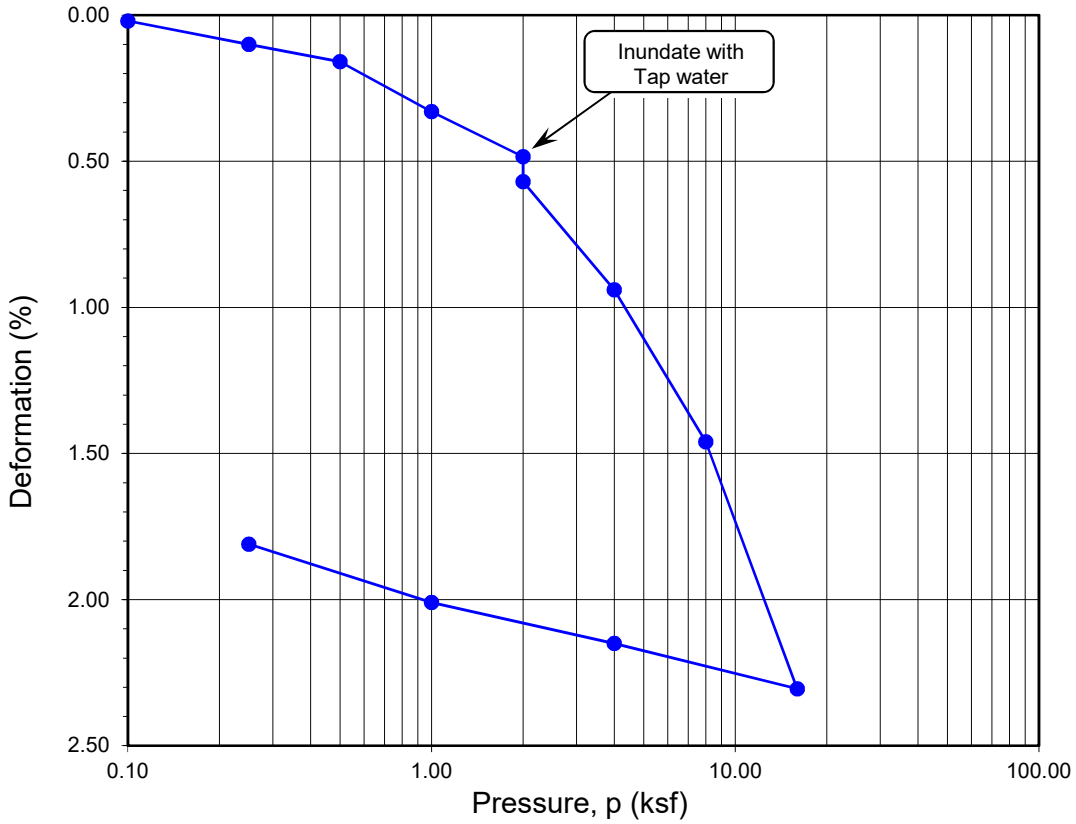
Time Readings				
Date	Time	Elapsed Time (min)	Square Root of Time	Dial Rdgs. (in.)

3370

Time Readings







Boring No.	Sample No.	Depth (ft.)	Moisture Content (%)		Dry Density (pcf)		Void Ratio		Degree of Saturation (%)	
			Initial	Final	Initial	Final	Initial	Final	Initial	Final
LB-2	**R-1**	**5**	**9.0**	**11.4**	**117.9**	**120.3**	**0.435**	**0.409**	**56**	**76**

Soil Identification: Olive gray silty, clayey sand (SC-SM)

Leighton

ONE-DIMENSIONAL CONSOLIDATION PROPERTIES of SOILS
ASTM D 2435

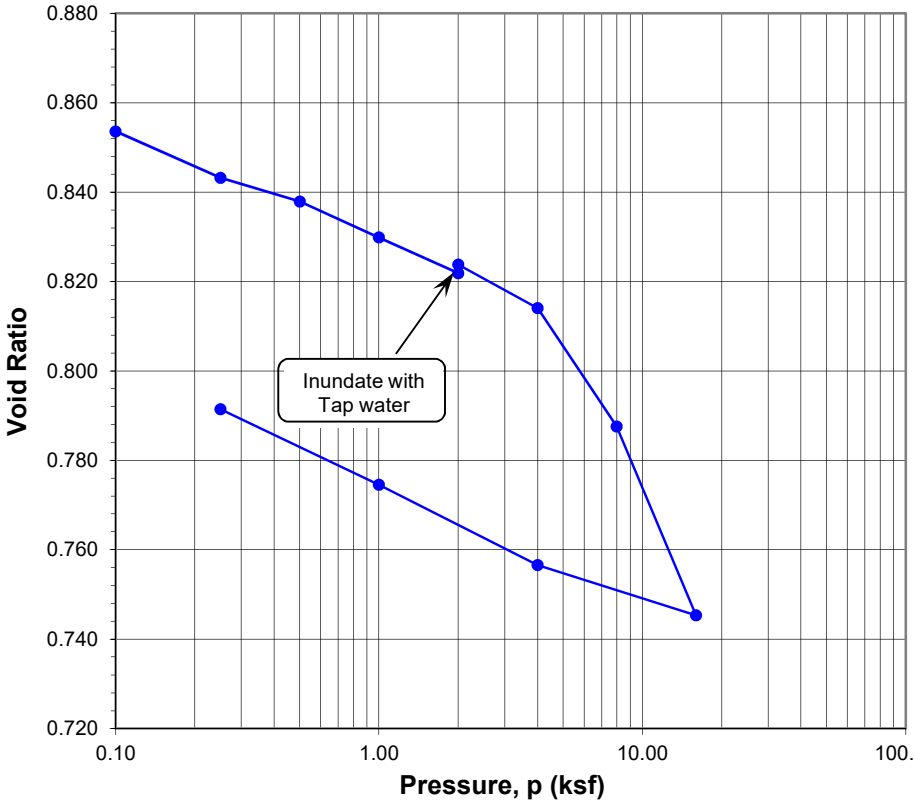
Project No.: 13493.001
Legacy-Collier, Proposed Euclid & Walnut Mixed-Use, Ontario CA
04-22

ONE-DIMENSIONAL CONSOLIDATION PROPERTIES of SOILS

ASTM D 2435

Project Name:	Legacy-Collier, Proposed Euclid & Walnut Mixed-Use, Ontario CA	Tested By: GB/JD	Date: 04/13/22
Project No.:	13493.001	Checked By: A. Santos	Date: 04/26/22
Boring No.:	LB-2	Depth (ft.): 10.0	
Sample No.:	R-3	Sample Type: Ring	
Soil Identification:	Olive gray lean clay (CL)		

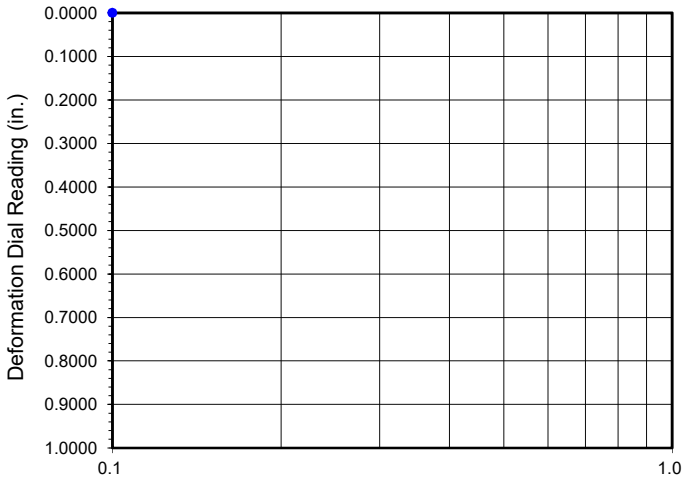
Sample Diameter (in.):	2.415
Sample Thickness (in.):	1.000
Weight of Sample + ring (g):	193.07
Weight of Ring (g):	45.55
Height after consol. (in.):	0.9656
Before Test	
Wt. of Wet Sample+Cont. (g):	263.34
Wt. of Dry Sample+Cont. (g):	214.46
Weight of Container (g):	55.13
Initial Moisture Content (%)	30.7
Initial Dry Density (pcf)	93.9
Initial Saturation (%):	100
Initial Vertical Reading (in.)	0.0902
After Test	
Wt. of Wet Sample+Cont. (g):	253.11
Wt. of Dry Sample+Cont. (g):	222.45
Weight of Container (g):	61.21
Final Moisture Content (%)	26.50
Final Dry Density (pcf):	99.6
Final Saturation (%):	99
Final Vertical Reading (in.)	0.1293
Specific Gravity (assumed):	2.79
Water Density (pcf):	62.43

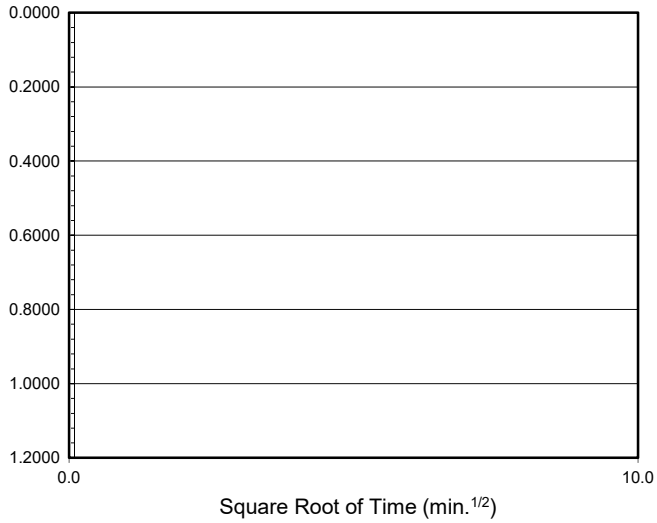


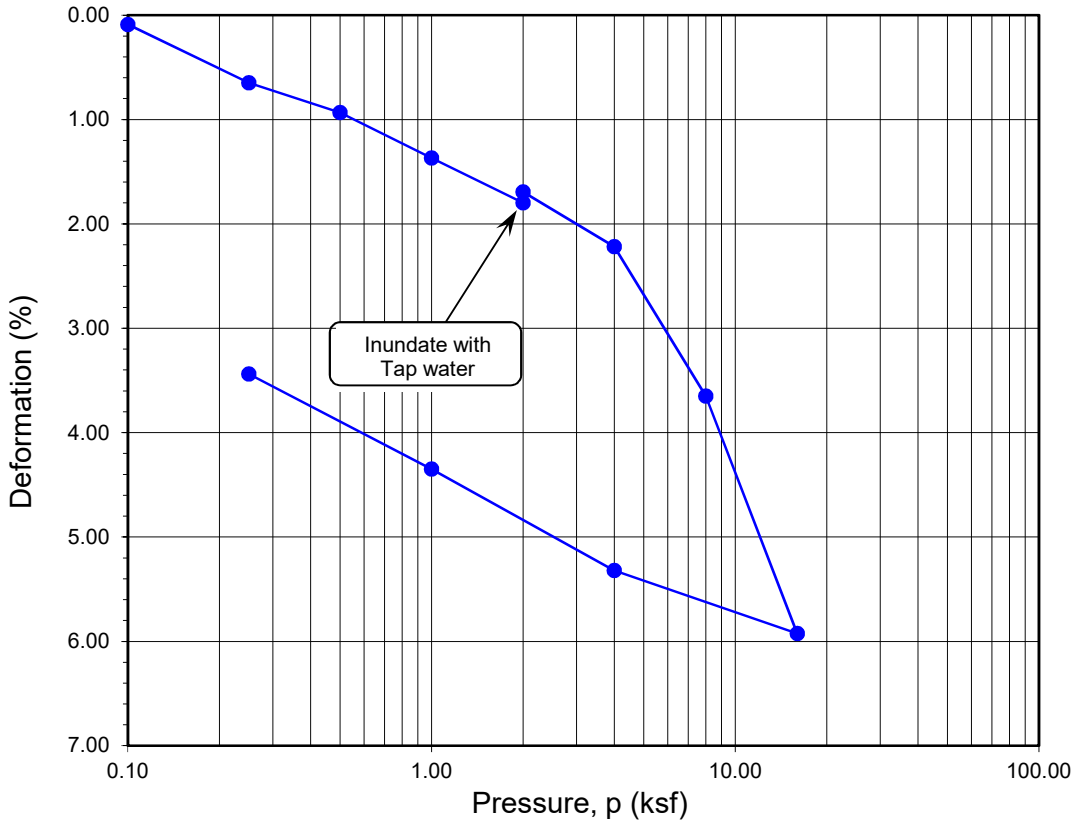
Pressure (p) (ksf)	Final Reading (in.)	Apparent Thickness (in.)	Load Compliance (%)	Deformation % of Sample Thickness	Void Ratio	Corrected Deforma-tion (%)
0.10	0.0911	0.9991	0.00	0.09	0.854	0.09
0.25	0.0978	0.9924	0.11	0.76	0.843	0.65
0.50	0.1021	0.9882	0.25	1.19	0.838	0.94
1.00	0.1082	0.9820	0.43	1.80	0.830	1.37
2.00	0.1140	0.9762	0.58	2.38	0.822	1.80
2.00	0.1130	0.9773	0.58	2.28	0.824	1.70
4.00	0.1196	0.9706	0.72	2.94	0.814	2.22
8.00	0.1355	0.9547	0.88	4.53	0.788	3.65
16.00	0.1602	0.9301	1.07	7.00	0.745	5.93
4.00	0.1523	0.9379	0.89	6.21	0.757	5.32
1.00	0.1409	0.9493	0.72	5.07	0.775	4.35
0.25	0.1293	0.9609	0.47	3.91	0.791	3.44

Time Readings				
Date	Time	Elapsed Time (min)	Square Root of Time	Dial Rdgs. (in.)

Time Readings







Boring No.	Sample No.	Depth (ft.)	Moisture Content (%)		Dry Density (pcf)		Void Ratio		Degree of Saturation (%)	
			Initial	Final	Initial	Final	Initial	Final	Initial	Final
LB-2	**R-3**	**10**	**30.7**	**26.5**	**93.9**	**99.6**	**0.855**	**0.791**	**100**	**99**

Soil Identification: Olive gray lean clay (CL)

Leighton

ONE-DIMENSIONAL CONSOLIDATION PROPERTIES of SOILS
ASTM D 2435

Project No.: 13493.001

Legacy-Collier, Proposed Euclid & Walnut Mixed-Use, Ontario CA

04-22

TESTS for SULFATE CONTENT
CHLORIDE CONTENT and pH of SOILS

Project Name: Legacy-Collier, Proposed Euclid & Walnut Mixed-Use, Ontario CA | Tested By : G. Berdy | Date: 04/13/22

Project No. : 13493.001 | Checked By: A. Santos | Date: 04/25/22

Boring No.	LB-3			
Sample No.	B-1			
Sample Depth (ft)	0-5			
Soil Identification:	Olive brown (SM)			
Wet Weight of Soil + Container (g)	168.20			
Dry Weight of Soil + Container (g)	168.07			
Weight of Container (g)	52.00			
Moisture Content (%)	0.11			
Weight of Soaked Soil (g)	100.19			

SULFATE CONTENT, DOT California Test 417, Part II

Beaker No.	8			
Crucible No.	3			
Furnace Temperature (°C)	860			
Time In / Time Out	7:15/8:00			
Duration of Combustion (min)	45			
Wt. of Crucible + Residue (g)	24.5192			
Wt. of Crucible (g)	24.5129			
Wt. of Residue (g) (A)	0.0063			
PPM of Sulfate (A) x 41150	259.25			
PPM of Sulfate, Dry Weight Basis	**260**			

CHLORIDE CONTENT, DOT California Test 422

ml of Extract For Titration (B)	15			
ml of AgNO3 Soln. Used in Titration (C)	0.4			
PPM of Chloride (C -0.2) * 100 * 30 / B	40			
PPM of Chloride, Dry Wt. Basis	**40**			

pH TEST, DOT California Test 643

pH Value	**7.92**			
Temperature °C	20.3			

SOIL RESISTIVITY TEST

DOT CA TEST 643

Project Name: Legacy-Collier, Proposed Euclid & Walnut Mixed-Use, Ontario C Tested By : G. Berdy Date: 04/19/22

Project No. : 13493.001 Checked By: A. Santos Date: 04/25/22

Boring No.: LB-3 Depth (ft.) : 0-5

Sample No. : B-1

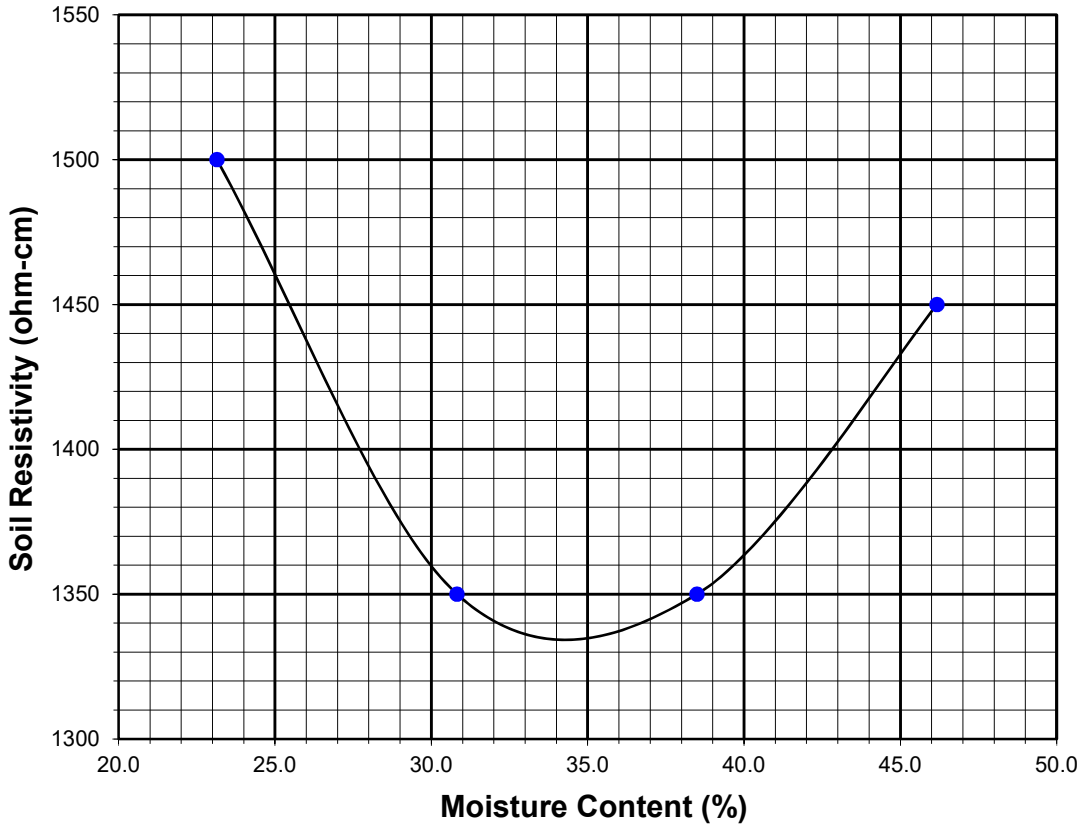
Soil Identification:* Olive brown (SM)

*California Test 643 requires soil specimens to consist only of portions of samples passing through the No. 8 US Standard Sieve before resistivity testing. Therefore, this test method may not be representative for coarser materials.

Specimen No.	Water Added (ml) (Wa)	Adjusted Moisture Content (MC)	Resistance Reading (ohm)	Soil Resistivity (ohm-cm)
1	30	23.14	1500	1500
2	40	30.82	1350	1350
3	50	38.50	1350	1350
4	60	46.18	1450	1450
5				

Moisture Content (%) (MCi)	0.11
Wet Wt. of Soil + Cont. (g)	168.20
Dry Wt. of Soil + Cont. (g)	168.07
Wt. of Container (g)	52.00
Container No.	
Initial Soil Wt. (g) (Wt)	130.40
Box Constant	1.000
MC =(((1+Mci/100)x(Wa/Wt+1))-1)x100	

Min. Resistivity (ohm-cm)	Moisture Content (%)	Sulfate Content (ppm)	Chloride Content (ppm)	Soil pH	
				pH	Temp. (°C)
DOT CA Test 643		DOT CA Test 417 Part II	DOT CA Test 422	DOT CA Test 643	
1335	**34.4**	**260**	**40**	**7.92**	**20.3**

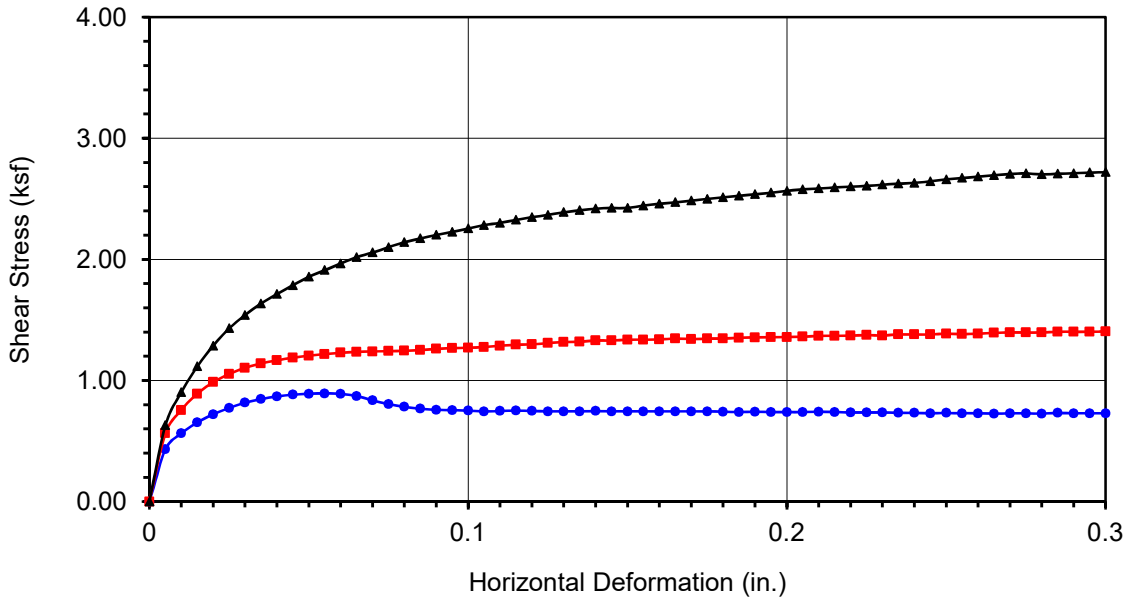


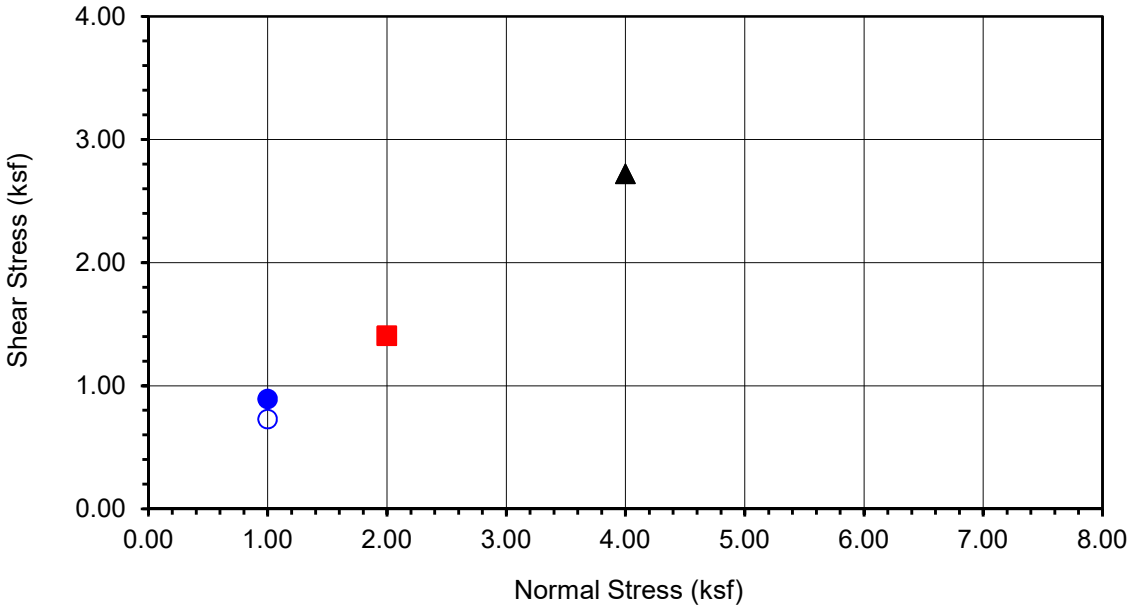
DIRECT SHEAR TEST

Consolidated Drained - ASTM D 3080

Project Name:	Legacy-Collier, Proposed Euclid & Walnut Mixed-Use, Ontario CA	Tested By:	G. Bathala	Date:	04/18/22
Project No.:	13493.001	Checked By:	A. Santos	Date:	04/25/22
Boring No.:	LB-2	Sample Type:	90% Remold		
Sample No.:	B-1	Depth (ft.):	0-5		
Soil Identification:	Olive brown sandy silt s(ML)				

Sample Diameter(in):	2.415	2.415	2.415
Sample Thickness(in.):	1.000	1.000	1.000
Weight of Sample + ring(gm):	197.98	198.21	198.62
Weight of Ring(gm):	45.38	45.43	45.60
Before Shearing			
Weight of Wet Sample+Cont.(gm):	169.35	169.35	169.35
Weight of Dry Sample+Cont.(gm):	155.92	155.92	155.92
Weight of Container(gm):	56.15	56.15	56.15
Vertical Rdg.(in): Initial	0.2545	0.2729	0.0000
Vertical Rdg.(in): Final	0.2651	0.2858	-0.0224
After Shearing			
Weight of Wet Sample+Cont.(gm):	211.09	212.06	191.55
Weight of Dry Sample+Cont.(gm):	190.82	191.76	171.67
Weight of Container(gm):	58.12	58.19	38.35
Specific Gravity (Assumed):	2.70	2.70	2.70
Water Density(pcf):	62.43	62.43	62.43





Boring No.	**LB-2**
Sample No.	**B-1**
Depth (ft)	**0-5**
Sample Type:	
90% Remold	
Soil Identification:	
Olive brown sandy silt s(ML)	

Normal Stress (kip/ft²)	1.000	2.000	4.000
Peak Shear Stress (kip/ft²)	● 0.893	■ 1.405	▲ 2.719
Shear Stress @ End of Test (ksf)	○ 0.729	□ 1.405	△ 2.719
Deformation Rate (in./min.)	0.0017	0.0017	0.0017
Initial Sample Height (in.)	1.000	1.000	1.000
Diameter (in.)	2.415	2.415	2.415
Initial Moisture Content (%)	13.46	13.46	13.46
Dry Density (pcf)	111.9	112.0	112.2
Saturation (%)	71.7	71.9	72.3
Soil Height Before Shearing (in.)	0.9894	0.9871	0.9776
Final Moisture Content (%)	15.3	15.2	14.9

Leighton

DIRECT SHEAR TEST RESULTS

Consolidated Drained - ASTM D 3080

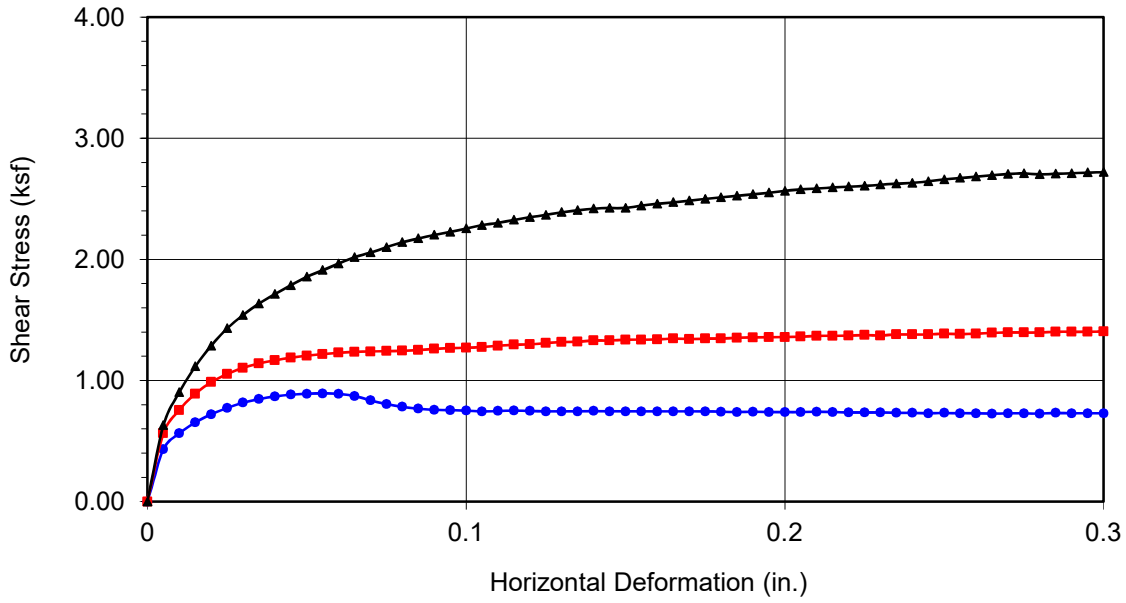
Project No.: 13493.001

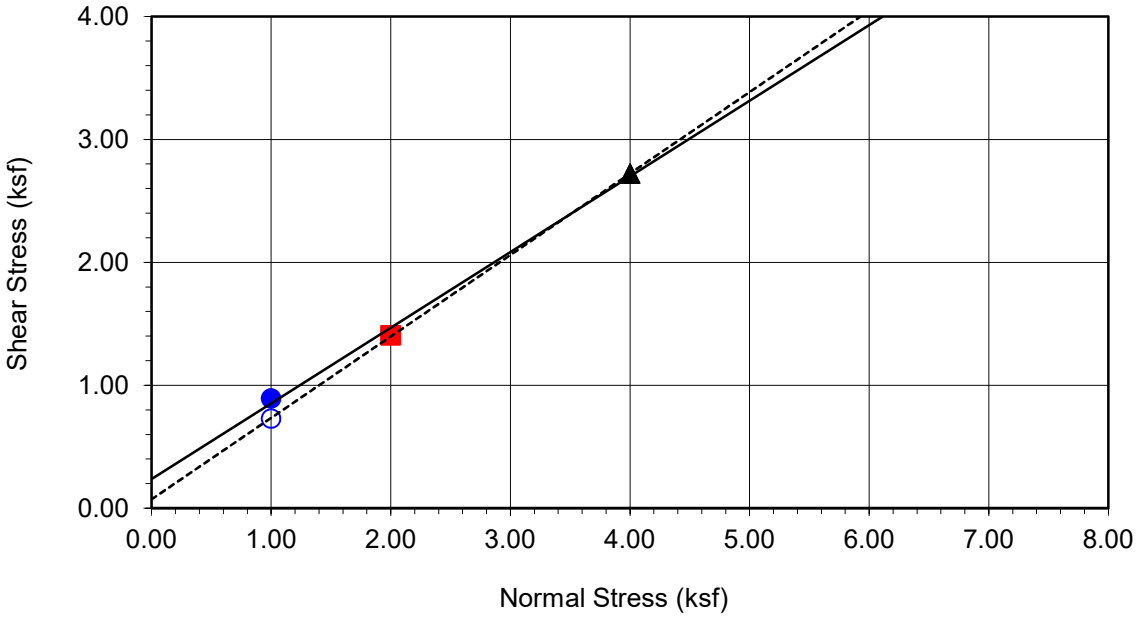
Legacy-Collier, Proposed Euclid & Walnut Mixed-Use, Ontario CA

04-22

3377

DS LB-2, B-1 @ 0-5





Boring No.	**LB-2**
Sample No.	**B-1**
Depth (ft)	**0-5**
Sample Type:	90% Remold
Soil Identification:	Olive brown sandy silt s(ML)

Strength Parameters

	C (psf)	ϕ (°)
Peak	236	32
Ultimate	72	34

Normal Stress (kip/ft²)	1.000	2.000	4.000
Peak Shear Stress (kip/ft²)	● 0.893	■ 1.405	▲ 2.719
Shear Stress @ End of Test (ksf)	○ 0.729	□ 1.405	△ 2.719
Deformation Rate (in./min.)	0.0017	0.0017	0.0017
Initial Sample Height (in.)	1.000	1.000	1.000
Diameter (in.)	2.415	2.415	2.415
Initial Moisture Content (%)	13.46	13.46	13.46
Dry Density (pcf)	111.9	112.0	112.2
Saturation (%)	71.7	71.9	72.3
Soil Height Before Shearing (in.)	0.9894	0.9871	0.9776
Final Moisture Content (%)	15.3	15.2	14.9

Leighton

DIRECT SHEAR TEST RESULTS

Consolidated Drained - ASTM D 3080

Project No.: 13493.001

Legacy-Collier, Proposed Euclid & Walnut Mixed-Use, Ontario CA

04-22

3378

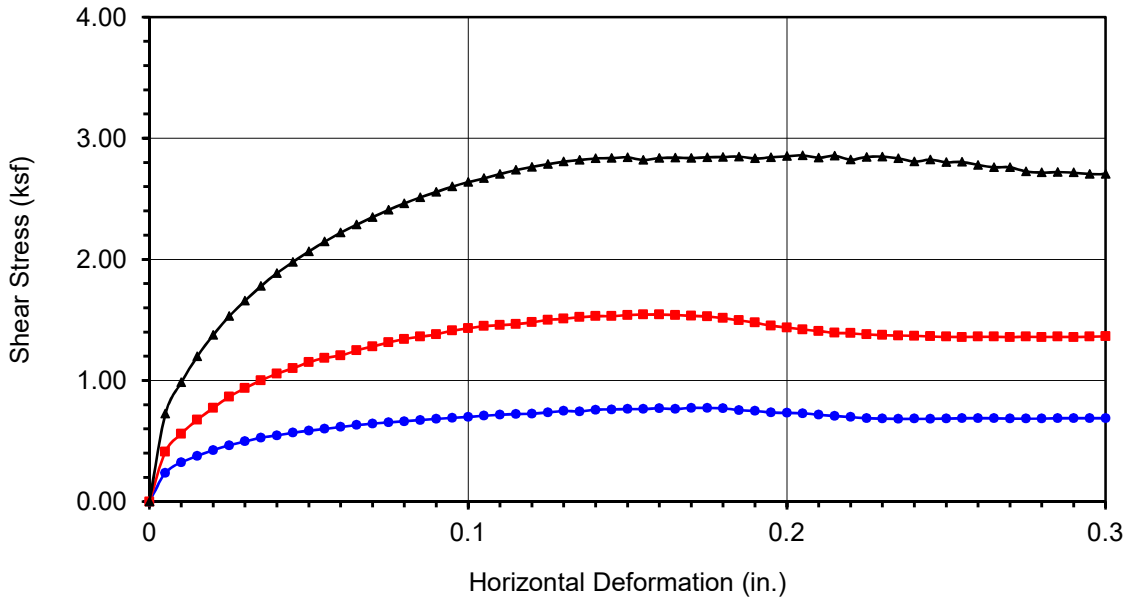
DS LB-2, B-1 @ 0-5

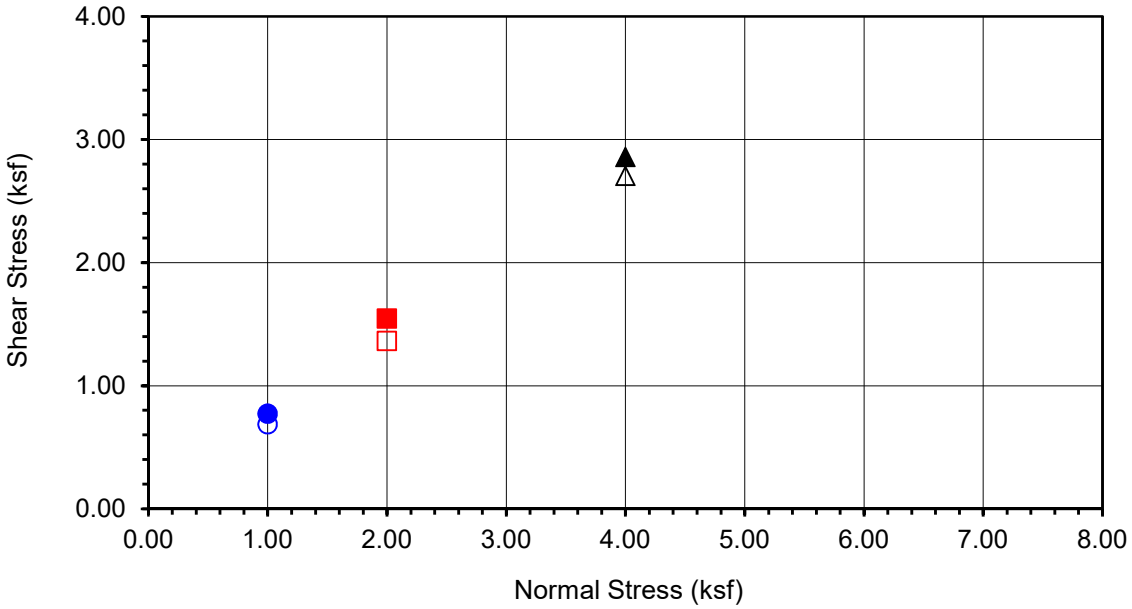
DIRECT SHEAR TEST

Consolidated Drained - ASTM D 3080

Project Name:	Legacy-Collier, Proposed Euclid & Walnut Mixed-Use, Ontario CA	Tested By:	G. Bathala	Date:	04/19/22
Project No.:	13493.001	Checked By:	A. Santos	Date:	04/25/22
Boring No.:	LB-3	Sample Type:	Ring		
Sample No.:	R-2	Depth (ft.):	7.5		
Soil Identification:	Olive silty sand (SM)				

Sample Diameter(in):	2.415	2.415	2.415
Sample Thickness(in.):	1.000	1.000	1.000
Weight of Sample + ring(gm):	177.41	181.99	182.19
Weight of Ring(gm):	43.72	45.58	45.95
Before Shearing			
Weight of Wet Sample+Cont.(gm):	182.62	182.62	182.62
Weight of Dry Sample+Cont.(gm):	178.05	178.05	178.05
Weight of Container(gm):	58.18	58.18	58.18
Vertical Rdg.(in): Initial	0.0000	0.2562	0.2637
Vertical Rdg.(in): Final	-0.0126	0.2707	0.2918
After Shearing			
Weight of Wet Sample+Cont.(gm):	208.16	204.29	212.34
Weight of Dry Sample+Cont.(gm):	188.26	184.44	192.59
Weight of Container(gm):	66.34	58.11	67.16
Specific Gravity (Assumed):	2.70	2.70	2.70
Water Density(pcf):	62.43	62.43	62.43





Boring No.	**LB-3**
Sample No.	**R-2**
Depth (ft)	**7.5**
Sample Type:	
Ring	
Soil Identification:	
Olive silty sand (SM)	

Normal Stress (kip/ft²)	1.000	2.000	4.000
Peak Shear Stress (kip/ft²)	● 0.773	■ 1.544	▲ 2.858
Shear Stress @ End of Test (ksf)	○ 0.688	□ 1.364	△ 2.704
Deformation Rate (in./min.)	0.0033	0.0033	0.0033
Initial Sample Height (in.)	1.000	1.000	1.000
Diameter (in.)	2.415	2.415	2.415
Initial Moisture Content (%)	3.81	3.81	3.81
Dry Density (pcf)	107.1	109.3	109.1
Saturation (%)	17.9	19.0	18.9
Soil Height Before Shearing (in.)	0.9874	0.9855	0.9719
Final Moisture Content (%)	16.3	15.7	15.7

Leighton

DIRECT SHEAR TEST RESULTS

Consolidated Drained - ASTM D 3080

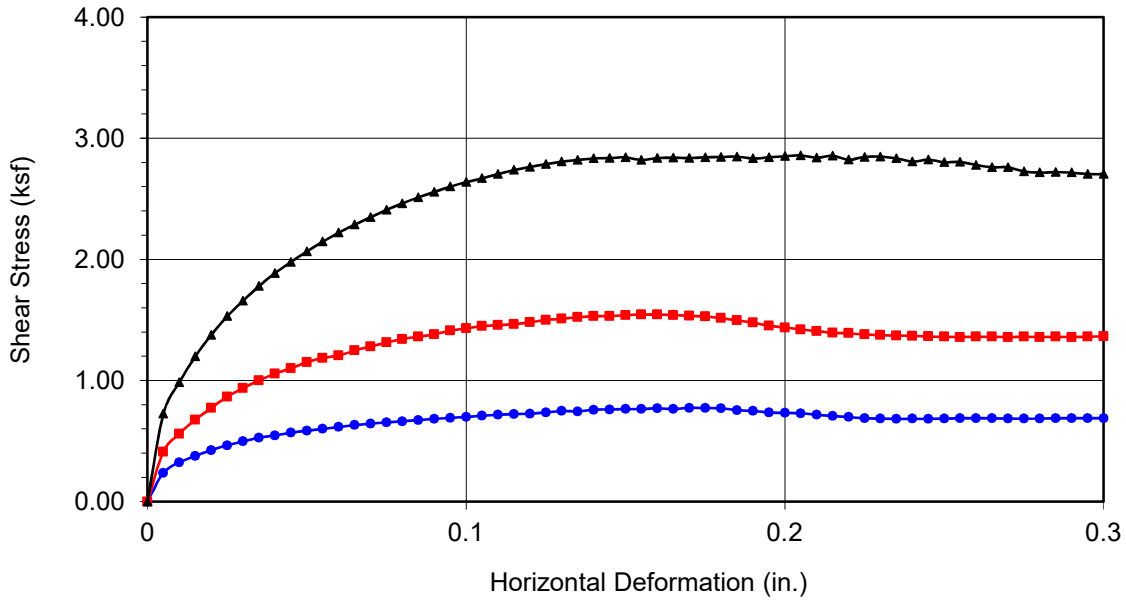
Project No.: 13493.001

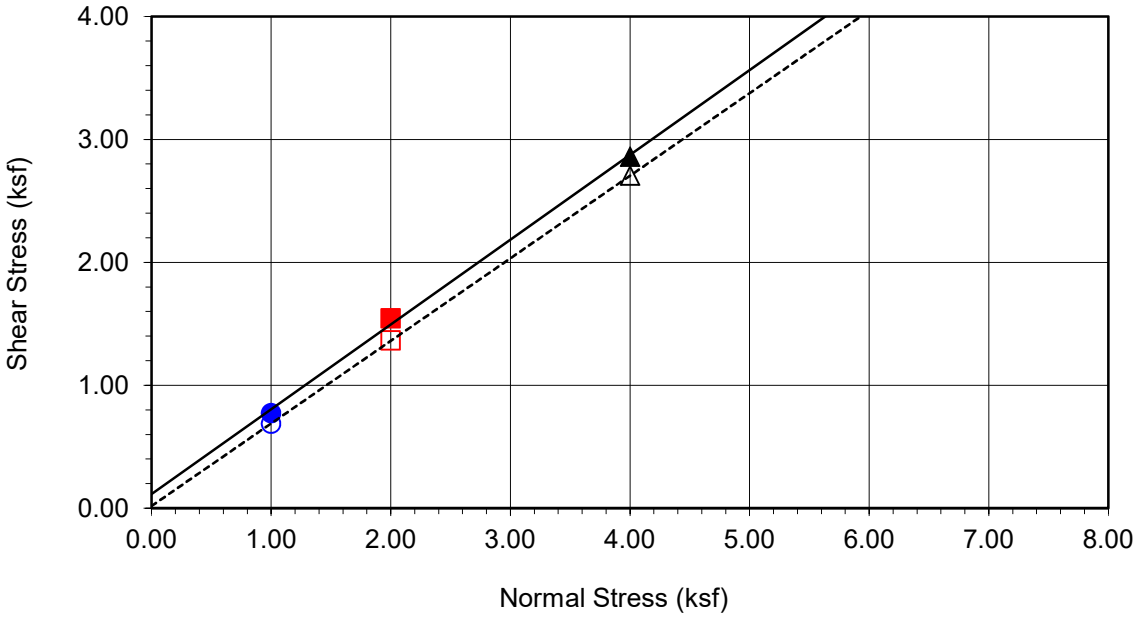
Legacy-Collier, Proposed Euclid & Walnut Mixed-Use, Ontario CA

04-22

3380

DS LB-3, R-2 @ 7.5





Boring No.	**LB-3**
Sample No.	**R-2**
Depth (ft)	**7.5**
Sample Type:	Ring
Soil Identification:	Olive silty sand (SM)

Strength Parameters

	C (psf)	ϕ (°)
Peak	116	35
Ultimate	18	34

Normal Stress (kip/ft²)	1.000	2.000	4.000
Peak Shear Stress (kip/ft²)	● 0.773	■ 1.544	▲ 2.858
Shear Stress @ End of Test (ksf)	○ 0.688	□ 1.364	△ 2.704
Deformation Rate (in./min.)	0.0033	0.0033	0.0033
Initial Sample Height (in.)	1.000	1.000	1.000
Diameter (in.)	2.415	2.415	2.415
Initial Moisture Content (%)	3.81	3.81	3.81
Dry Density (pcf)	107.1	109.3	109.1
Saturation (%)	17.9	19.0	18.9
Soil Height Before Shearing (in.)	0.9874	0.9855	0.9719
Final Moisture Content (%)	16.3	15.7	15.7

Leighton

DIRECT SHEAR TEST RESULTS

Consolidated Drained - ASTM D 3080

Project No.: 13493.001

Legacy-Collier, Proposed Euclid & Walnut Mixed-Use, Ontario CA

04-22

3381

DS LB-3, R-2 @ 7.5

EXPANSION INDEX of SOILS
ASTM D 4829

Project Name:	Legacy-Collier, Proposed Euclid & Walnut Mixed-Use, Ontario CA	Tested By:	G. Berdy	Date:	04/13/22
Project No.:	13493.001	Checked By:	A. Santos	Date:	04/25/22
Boring No.:	LB-1	Depth (ft.):	0-5		
Sample No.:	B-1				
Soil Identification:	Olive brown sandy silt s(ML)				

Dry Wt. of Soil + Cont. (g)	1000.00
Wt. of Container No. (g)	0.00
Dry Wt. of Soil (g)	1000.00
Weight Soil Retained on #4 Sieve	0.00
Percent Passing # 4	100.00

MOLDED SPECIMEN	Before Test	After Test
Specimen Diameter (in.)	4.01	4.01
Specimen Height (in.)	1.0000	1.0175
Wt. Comp. Soil + Mold (g)	609.40	443.20
Wt. of Mold (g)	202.10	0.00
Specific Gravity (Assumed)	2.70	2.70
Container No.	O	O
Wet Wt. of Soil + Cont. (g)	819.60	645.30
Dry Wt. of Soil + Cont. (g)	751.90	575.77
Wt. of Container (g)	0.00	202.10
Moisture Content (%)	9.00	18.61
Wet Density (pcf)	122.9	131.4
Dry Density (pcf)	112.7	110.8
Void Ratio	0.496	0.522
Total Porosity	0.331	0.343
Pore Volume (cc)	68.6	72.2
Degree of Saturation (%) [S_{meas}]	**49.0**	96.3

SPECIMEN INUNDATION in distilled water for the period of 24 h or expansion rate < 0.0002 in./h

Date	Time	Pressure (psi)	Elapsed Time (min.)	Dial Readings (in.)
04/13/22	11:12	1.0	0	0.5855
04/13/22	11:22	1.0	10	0.5855
Add Distilled Water to the Specimen				
04/13/22	11:59	1.0	37	0.6000
04/14/22	5:42	1.0	1100	0.6030
04/14/22	9:53	1.0	1351	0.6030

Expansion Index (EI_{meas}) = ((Final Rdg - Initial Rdg) / Initial Thick.) x 1000	**18**

Borehole	Depth	Liquid Limit	Plastic Limit	Plasticity Index	Maximum Size (mm)	%<#200 Sieve	Class-ification	Water Content (%)	Dry Density (pcf)	Satur-ation (%)	Void Ratio
LB-1	7.5							9.3	94.6		
LB-1	10.0							31.0	88.6		
LB-1	15.0							15.7	111.5		
LB-1	20.0							12.2	120.1		
LB-1	30.0							3.6			
LB-1	40.0							4.4			
LB-1	45.0							2.0	114.9		
LB-1	50.0							3.2			
LB-2	7.5							3.0	101.4		
LB-2	15.0							4.0	102.8		
LB-2	20.0							15.7	111.9		
LB-2	25.0							10.4	108.4		
LB-3	5.0							7.7	110.6		
LB-3	10.0							26.3	90.1		
LB-3	15.0							35.1	87.0		
LB-3	20.0							12.5	121.7		
LB-3	25.0							13.9	113.8		
LP-1	15.0							5.0	104.3		
LP-1	18.5							12.4	119.3		
LP-2	15.0							25.4	91.0		
LP-2	18.5							7.3	115.0		

US LAB SUMMARY 13493.001 BORING LOGS.GPJ ROCKLOG2012.GDT 5/4/22

Leighton

Summary of Laboratory Results

Project Name: Legacy-Collier, Proposed Residential Development

Project Number: 13493.001

Date: 5/4/2022 11:49:57 AM

Figure No. 1

MODIFIED PROCTOR COMPACTION TEST

ASTM D 1557

Project Name:	Legacy-Collier, Proposed Euclid & Walnut Mixed-Use, Ontario CA	Tested By:	J. Gonzalez	Date:	04/12/22
Project No.:	13493.001	Checked By:	A. Santos	Date:	04/13/22
Boring No.:	LB-2	Depth (ft.):	0-5		
Sample No.:	B-1				
Soil Identification:	Olive brown sandy silt s(ML)				

Preparation Method: [X] Moist [ ] Dry

[X] Mechanical Ram [ ] Manual Ram

Mold Volume (ft³) 0.03330 *Ram Weight = 10 lb.; Drop = 18 in.*

TEST NO.	1	2	3	4	5	6
Wt. Compacted Soil + Mold (g)	3861	3920	3880			
Weight of Mold (g)	1826	1826	1826			
Net Weight of Soil (g)	2035	2094	2054			
Wet Weight of Soil + Cont. (g)	462.6	478.9	498.0			
Dry Weight of Soil + Cont. (g)	423.8	429.5	437.3			
Weight of Container (g)	37.9	36.3	39.6			
Moisture Content (%)	10.05	12.56	15.26			
Wet Density (pcf)	134.7	138.6	136.0			
Dry Density (pcf)	122.4	123.2	118.0			

Maximum Dry Density (pcf) **123.5** **Optimum Moisture Content (%)** **11.5**

PROCEDURE USED

[X] **Procedure A**
Soil Passing No. 4 (4.75 mm) Sieve
Mold : 4 in. (101.6 mm) diameter
Layers : 5 (Five)
Blows per layer : 25 (twenty-five)
May be used if +#4 is 20% or less

[ ] **Procedure B**
Soil Passing 3/8 in. (9.5 mm) Sieve
Mold : 4 in. (101.6 mm) diameter
Layers : 5 (Five)
Blows per layer : 25 (twenty-five)
Use if +#4 is >20% and +3/8 in. is 20% or less

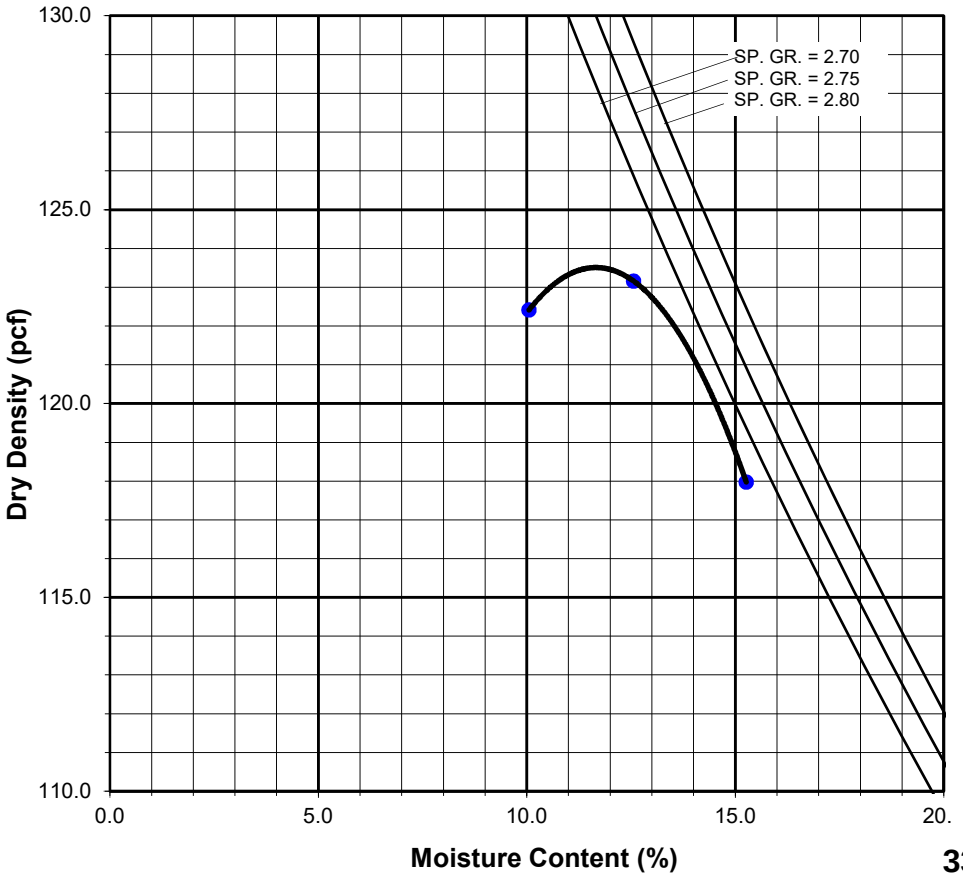
[ ] **Procedure C**
Soil Passing 3/4 in. (19.0 mm) Sieve
Mold : 6 in. (152.4 mm) diameter
Layers : 5 (Five)
Blows per layer : 56 (fifty-six)
Use if +3/8 in. is >20% and +¾ in. is <30%

Particle-Size Distribution:

GR:SA:FI

Atterberg Limits:

LL,PL,PI



3384

MX LB-2, B-1 @ 0-5

MODIFIED PROCTOR COMPACTION TEST

ASTM D 1557

Project Name:	Legacy-Collier, Proposed Euclid & Walnut Mixed-Use, Ontario CA	Tested By:	J. Gonzalez	Date:	04/13/22
Project No.:	13493.001	Checked By:	A. Santos	Date:	04/25/22
Boring No.:	LB-3	Depth (ft.):	0-5		
Sample No.:	B-1				
Soil Identification:	Olive brown silty sand (SM)				

Preparation Method: [X] Moist [ ] Dry

[X] Mechanical Ram [ ] Manual Ram

Mold Volume (ft³) 0.03330 *Ram Weight = 10 lb.; Drop = 18 in.*

TEST NO.	1	2	3	4	5	6
Wt. Compacted Soil + Mold (g)	3839	3913	3850			
Weight of Mold (g)	1826	1826	1826			
Net Weight of Soil (g)	2013	2087	2024			
Wet Weight of Soil + Cont. (g)	499.8	520.0	518.3			
Dry Weight of Soil + Cont. (g)	469.3	477.3	466.0			
Weight of Container (g)	41.0	39.1	37.8			
Moisture Content (%)	7.12	9.74	12.21			
Wet Density (pcf)	133.3	138.2	134.0			
Dry Density (pcf)	124.4	125.9	119.4			

Maximum Dry Density (pcf) **126.4** **Optimum Moisture Content (%)** **9.0**

PROCEDURE USED

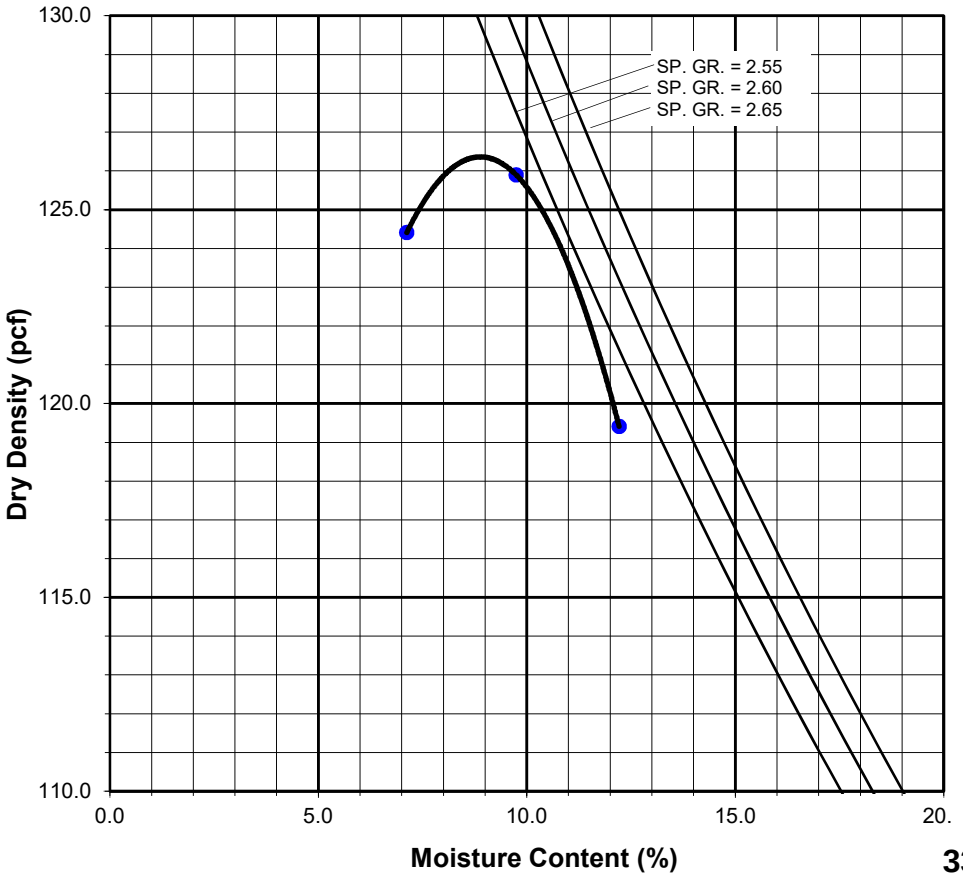
[X] **Procedure A**
Soil Passing No. 4 (4.75 mm) Sieve
Mold : 4 in. (101.6 mm) diameter
Layers : 5 (Five)
Blows per layer : 25 (twenty-five)
May be used if +#4 is 20% or less

[ ] **Procedure B**
Soil Passing 3/8 in. (9.5 mm) Sieve
Mold : 4 in. (101.6 mm) diameter
Layers : 5 (Five)
Blows per layer : 25 (twenty-five)
Use if +#4 is >20% and +3/8 in. is 20% or less

[ ] **Procedure C**
Soil Passing 3/4 in. (19.0 mm) Sieve
Mold : 6 in. (152.4 mm) diameter
Layers : 5 (Five)
Blows per layer : 56 (fifty-six)
Use if +3/8 in. is >20% and +¾ in. is <30%

Particle-Size Distribution:
GR:SA:FI

Atterberg Limits:
LL,PL,PI



3385

MX LB-3, B-1 @ 0-5

ATTERBERG LIMITS

ASTM D 4318

Project Name:	Legacy-Collier, Proposed Euclid & Walnut Mixed-Use, Onratio CA	Tested By:	J. Domingo	Date:	04/22/22
Project No. :	13493.001	Input By:	G. Bathala	Date:	04/25/22
Boring No.:	LB-2	Checked By:	A. Santos		
Sample No.:	R-3	Depth (ft.)	10.0		
Soil Identification:	Olive gray lean clay (CL)				

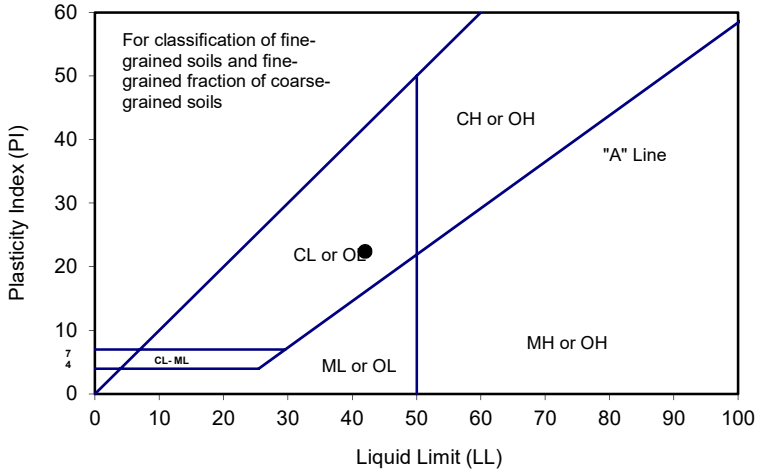
TEST	PLASTIC LIMIT		LIQUID LIMIT			
NO.	1	2	1	2	3	4
Number of Blows [N]			26	21	16	
Wet Wt. of Soil + Cont. (g)	8.64	8.87	20.09	21.49	20.68	
Dry Wt. of Soil + Cont. (g)	7.38	7.61	14.48	15.38	14.70	
Wt. of Container (g)	1.06	1.07	1.11	1.03	1.00	
Moisture Content (%) [Wn]	19.94	19.27	41.96	42.58	43.65	

Liquid Limit	**42**
Plastic Limit	**20**
Plasticity Index	**22**
Classification	**CL**

PI at "A" - Line = 0.73(LL-20) 16.06

One - Point Liquid Limit Calculation

$LL = Wn(N/25)^{0.121}$



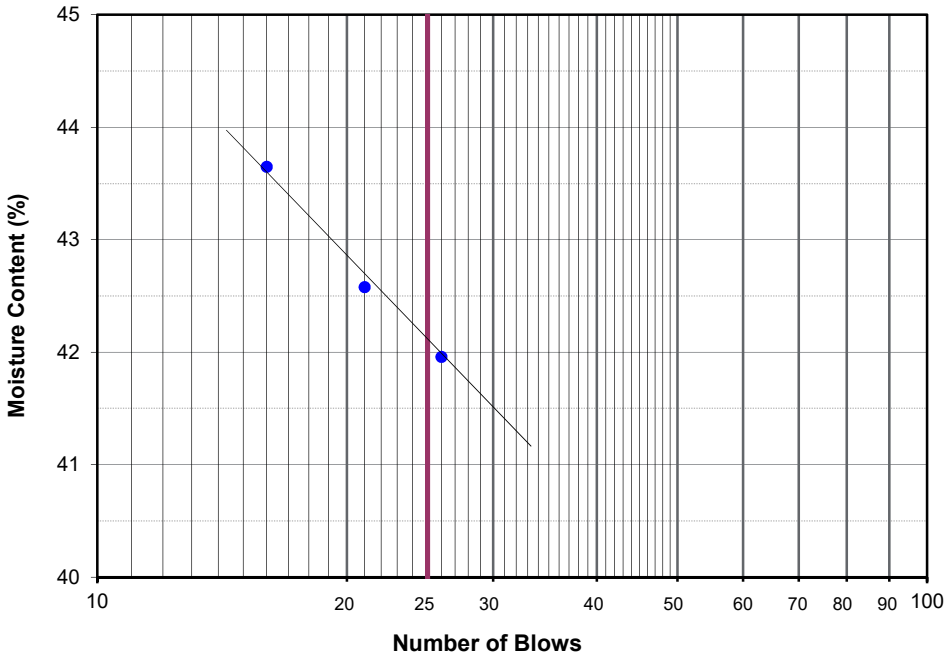
PROCEDURES USED

☐ Wet Preparation
Multipoint - Wet

☒ Dry Preparation
Multipoint - Dry

☒ Procedure A
Multipoint Test

☐ Procedure B
One-point Test



Project Name: Legacy-Collier, Proposed Euclid & Walnut Mixed-Use, Ontario CA
Project No.: 13493.001

Summary of Pocket Penetrometer Test Results

Tested by:	S. Felter	Date:	04/19/22
Prepared by:	G. Bathala	Date:	04/22/22

Boring No.	Sample No.	Depth (ft.)	Readings	Remarks
LB-1	R-2	7.5	2.50	
	R-3	10	>4.50	
	R-4	15	4.25	
	R-5	20	>4.50	
	R-10	45	3.50	
LB-2	R-2	7.5	1.75	
	R-4	15	3.75	
	R-5	20	3.50	
	R-6	25	>4.50	
LB-3	R-1	5	>4.50	
	R-3	10	>4.50	
	R-4	15	4.25	
	R-5	20	4.50	
	R-6	25	>4.50	
LP-1	R-3	15	2.75	
	R-4	18.5	>4.50	
LP-2	R-3	15	>4.50	
	R-4	18.5	>4.50	

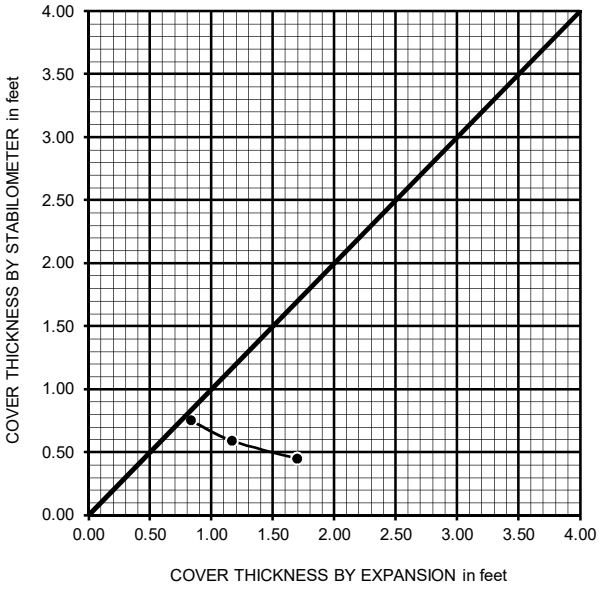
R-VALUE TEST RESULTS
DOT CA Test 301

PROJECT NAME:	Legacy-Collier, Proposed Euclid & Walnut Mixed-Use Ontario CA	PROJECT NUMBER:	13493.001
BORING NUMBER:	LB-1	DEPTH (FT.):	0-5
SAMPLE NUMBER:	B-1	TECHNICIAN:	O. Figueroa
SAMPLE DESCRIPTION:	Olive brown sandy silt s(ML)	DATE COMPLETED:	4/13/2022

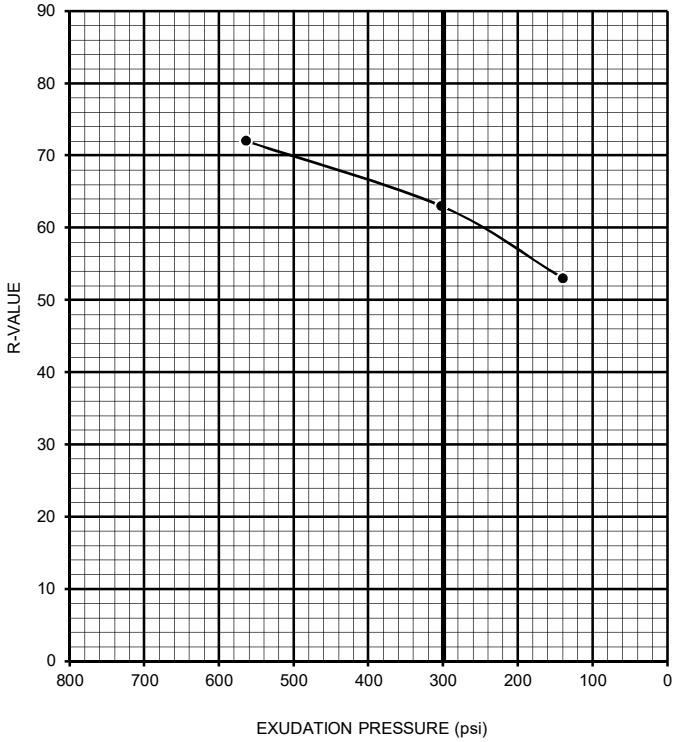
TEST SPECIMEN	a	b	c
MOISTURE AT COMPACTION %	12.7	13.7	14.6
HEIGHT OF SAMPLE, Inches	2.45	2.50	2.53
DRY DENSITY, pcf	120.2	118.7	116.2
COMPACTOR PRESSURE, psi	325	250	150
EXUDATION PRESSURE, psi	564	302	139
EXPANSION, Inches x 10exp-4	51	35	25
STABILITY Ph 2,000 lbs (160 psi)	28	36	46
TURNS DISPLACEMENT	4.60	5.13	5.45
R-VALUE UNCORRECTED	72	63	53
R-VALUE CORRECTED	72	63	53

DESIGN CALCULATION DATA	a	b	c
GRAVEL EQUIVALENT FACTOR	1.0	1.0	1.0
TRAFFIC INDEX	5.0	5.0	5.0
STABILOMETER THICKNESS, ft.	0.45	0.59	0.75
EXPANSION PRESSURE THICKNESS, ft.	1.70	1.17	0.83

EXPANSION PRESSURE CHART



EXUDATION PRESSURE CHART



R-VALUE BY EXPANSION:	50
R-VALUE BY EXUDATION:	63
EQUILIBRIUM R-VALUE:	50

SAND EQUIVALENT TEST

DOT CA Test 217

Project Name: Legacy-Collier, Proposed Euclid & Walnut Mixed-Use, Ontario CA Tested By: A Santos Date: 04/25/22

Project No. : 13493.001 Input By: J. Ward Date: 04/25/22

Boring No.	Sample No.	Depth (ft.)	Soil Type	T1	T2	T3	T4	R1	R2	SE	Average SE
LB-2	B-1	0-5	Olive brown sandy silts(ML)	11:20	11:30	11:33	11:53	13.5	1.2	9	**9**
				11:24	11:34	11:37	11:57	13.4	1.1	9	
				11:28	11:38	11:41	12:01	13.5	1.1	9	
LB-5	B-1	0-5	Olive brown silty sand (SM)	13:40	13:50	13:53	14:13	12.6	1.4	12	**12**
				13:44	13:54	13:57	14:17	12.6	1.4	12	
				13:48	13:58	14:01	14:21	12.7	1.3	11	

T1 = Starting Time

T2 = (T1 + 10 min) Begin Agitation
(131 cycles in 45 sec)

T3 = Settlement Starting Time

T4 = (T3 + 20 min) Take Clay Reading (R1)
and Sand Reading (R2)

Sand Equivalent = R2 / R1 * 100

Record SE as Next Higher Integer

3389

PARTICLE-SIZE DISTRIBUTION (GRADATION) of SOILS USING SIEVE ANALYSIS

ASTM D 6913

Project Name:	Legacy-Collier, Proposed Euclid & Walnut Mixed-Use, Ontario CA	Tested By:	S. Felter	Date:	04/20/22
Project No.:	13493.001	Checked By:	A. Santos	Date:	04/25/22
Boring No.:	LP-1	Depth (feet):	15.0		
Sample No.:	R-3				
Soil Identification:	Grayish brown silty sand (SM)				

		Moisture Content of Total Air - Dry Soil	
Container No.:	2	Wt. of Air-Dry Soil + Cont. (g)	0.0
Wt. of Air-Dried Soil + Cont.(g)	712.3	Wt. of Dry Soil + Cont. (g)	0.0
Wt. of Container (g)	110.0	Wt. of Container No._____ (g)	1.0
Dry Wt. of Soil (g)	602.3	Moisture Content (%)	0.0

After Wet Sieve	Container No.	2
	Wt. of Dry Soil + Container (g)	582.3
	Wt. of Container (g)	110.0
	Dry Wt. of Soil Retained on # 200 Sieve (g)	472.3

U. S. Sieve Size (in.)	U. S. Sieve Size (mm.)	Cumulative Weight Dry Soil Retained (g)	Percent Passing (%)
1 1/2"	37.5		
1"	25.0		
3/4"	19.0		
1/2"	12.5		
3/8"	9.5	0.0	100.0
#4	4.75	1.2	99.8
#8	2.36	3.6	99.4
#16	1.18	17.0	97.2
#30	0.600	54.5	91.0
#50	0.300	166.8	72.3
#100	0.150	343.0	43.1
#200	0.075	464.2	22.9
PAN			

GRAVEL: **0 %**

SAND: **77 %**

FINES: **23 %**

GROUP SYMBOL: **SM**

Cu = D60/D10 = _____

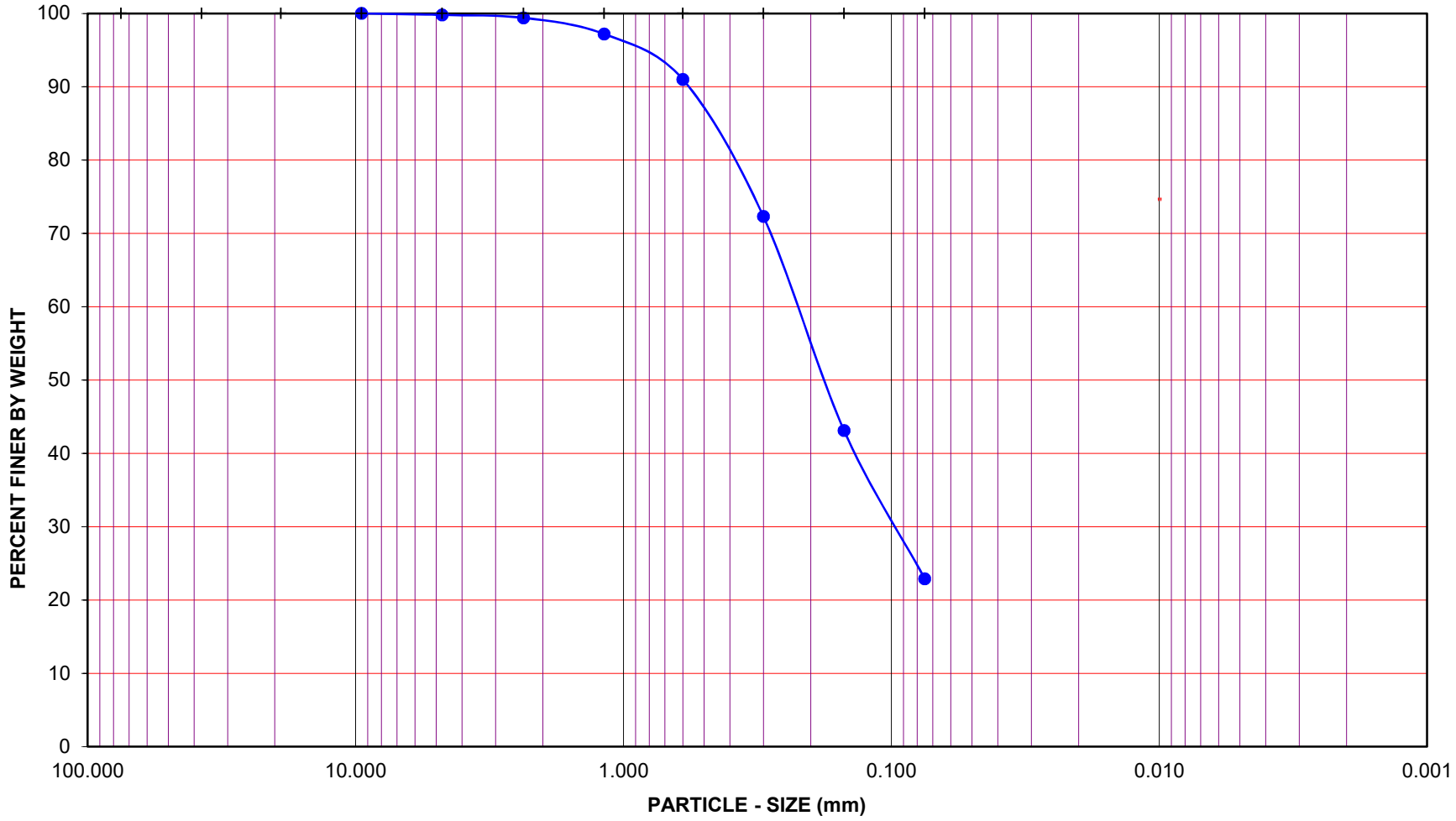
Cc = $(D30)^2/(D60*D10)$ = _____

Remarks: _____

GRAVEL		SAND			FINES	
COARSE	FINE	COARSE	MEDIUM	FINE	SILT	CLAY

U.S. STANDARD SIEVE OPENING — U.S. STANDARD SIEVE NUMBER — HYDROMETER

3.0" 1 1/2" 3/4" 3/8" #4 #8 #16 #30 #50 #100 #200



Project Name: Legacy-Collier, Proposed Euclid & Walnut Mixed-Use, Ontario CA

Project No.: 13493.001

Boring No.: LP-1 Sample No.: R-3

Depth (feet): 15.0 Soil Type : SM

Soil Identification: Grayish brown silty sand (SM)

GR:SA:FI : (%) 0 : 77 : 23

Leighton

PARTICLE - SIZE DISTRIBUTION ASTM D 6913

3391

Sieve LP-1, R-3 @ 15

PARTICLE-SIZE DISTRIBUTION (GRADATION) of SOILS USING SIEVE ANALYSIS

ASTM D 6913

Project Name:	Legacy-Collier, Proposed Euclid & Walnut Mixed Use, Ontario CA	Tested By:	S. Felter	Date:	04/20/22
Project No.:	13493.001	Checked By:	A. Santos	Date:	04/25/22
Boring No.:	LP-1	Depth (feet):	18.5		
Sample No.:	R-4				
Soil Identification:	Olive brown sandy silt s(ML)				

		Moisture Content of Total Air - Dry Soil	
Container No.:	9545	Wt. of Air-Dry Soil + Cont. (g)	0.0
Wt. of Air-Dried Soil + Cont.(g)	774.5	Wt. of Dry Soil + Cont. (g)	0.0
Wt. of Container (g)	106.2	Wt. of Container No._____ (g)	1.0
Dry Wt. of Soil (g)	668.3	Moisture Content (%)	0.0

After Wet Sieve	Container No.	9545
	Wt. of Dry Soil + Container (g)	426.4
	Wt. of Container (g)	106.2
	Dry Wt. of Soil Retained on # 200 Sieve (g)	320.2

U. S. Sieve Size (in.)	U. S. Sieve Size (mm.)	Cumulative Weight Dry Soil Retained (g)	Percent Passing (%)
1 1/2"	37.5		
1"	25.0		
3/4"	19.0		
1/2"	12.5		
3/8"	9.5	0.0	100.0
#4	4.75	2.9	99.6
#8	2.36	8.0	98.8
#16	1.18	15.3	97.7
#30	0.600	41.7	93.8
#50	0.300	106.5	84.1
#100	0.150	206.4	69.1
#200	0.075	315.8	52.7
PAN			

GRAVEL: **0 %**

SAND: **47 %**

FINES: **53 %**

GROUP SYMBOL: **s(ML)**

Cu = D60/D10 = _____

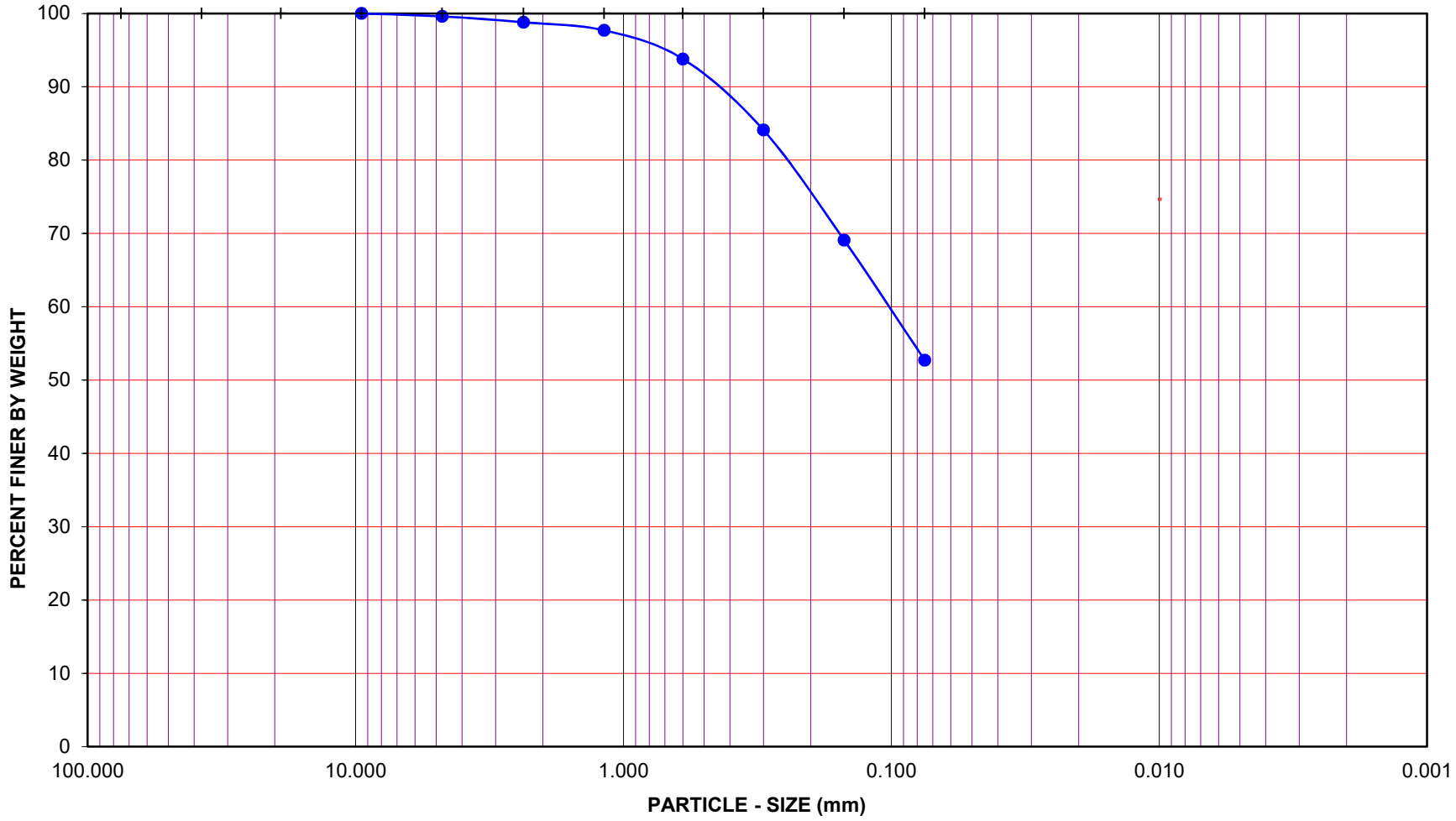
Cc = $(D30)^2/(D60*D10)$ = _____

Remarks: _____

GRAVEL		SAND			FINES	
COARSE	FINE	COARSE	MEDIUM	FINE	SILT	CLAY

U.S. STANDARD SIEVE OPENING — U.S. STANDARD SIEVE NUMBER — HYDROMETER

3.0" 1 1/2" 3/4" 3/8" #4 #8 #16 #30 #50 #100 #200



Project Name: Legacy-Collier, Proposed Euclid & Walnut Mixed Use, Ontario CA

Project No.: 13493.001

Boring No.: LP-1 Sample No.: R-4

Depth (feet): 18.5 Soil Type : s(ML)

Soil Identification: Olive brown sandy silt s(ML)

GR:SA:FI : (%) 0 : 47 : 53

Leighton

PARTICLE - SIZE DISTRIBUTION ASTM D 6913

3393

Sieve LP-1, R-4 @ 18.5

PARTICLE-SIZE DISTRIBUTION (GRADATION) of SOILS USING SIEVE ANALYSIS

ASTM D 6913

Project Name:	Legacy-Collier, Proposed Euclid & Walnut Mixed-Use, Ontario CA	Tested By:	S. Felter	Date:	04/19/22
Project No.:	13493.001	Checked By:	A. Santos	Date:	04/25/22
Boring No.:	LP-1	Depth (feet):	23.5		
Sample No.:	S-5				
Soil Identification:	Brown sandy lean clay s(CL)				

		Moisture Content of Total Air - Dry Soil	
Container No.:	969	Wt. of Air-Dry Soil + Cont. (g)	0.0
Wt. of Air-Dried Soil + Cont.(g)	538.7	Wt. of Dry Soil + Cont. (g)	0.0
Wt. of Container (g)	109.4	Wt. of Container No._____ (g)	1.0
Dry Wt. of Soil (g)	429.3	Moisture Content (%)	0.0

After Wet Sieve	Container No.	969
	Wt. of Dry Soil + Container (g)	344.3
	Wt. of Container (g)	109.4
	Dry Wt. of Soil Retained on # 200 Sieve (g)	234.9

U. S. Sieve Size (in.)	U. S. Sieve Size (mm.)	Cumulative Weight Dry Soil Retained (g)	Percent Passing (%)
1 1/2"	37.5		
1"	25.0		
3/4"	19.0		
1/2"	12.5		
3/8"	9.5	0.0	100.0
#4	4.75	1.1	99.7
#8	2.36	4.2	99.0
#16	1.18	12.8	97.0
#30	0.600	36.0	91.6
#50	0.300	83.7	80.5
#100	0.150	148.7	65.4
#200	0.075	220.7	48.6
PAN			

GRAVEL: **0 %**

SAND: **51 %**

FINES: **49 %**

GROUP SYMBOL: **s(CL)**

Cu = D60/D10 = _____

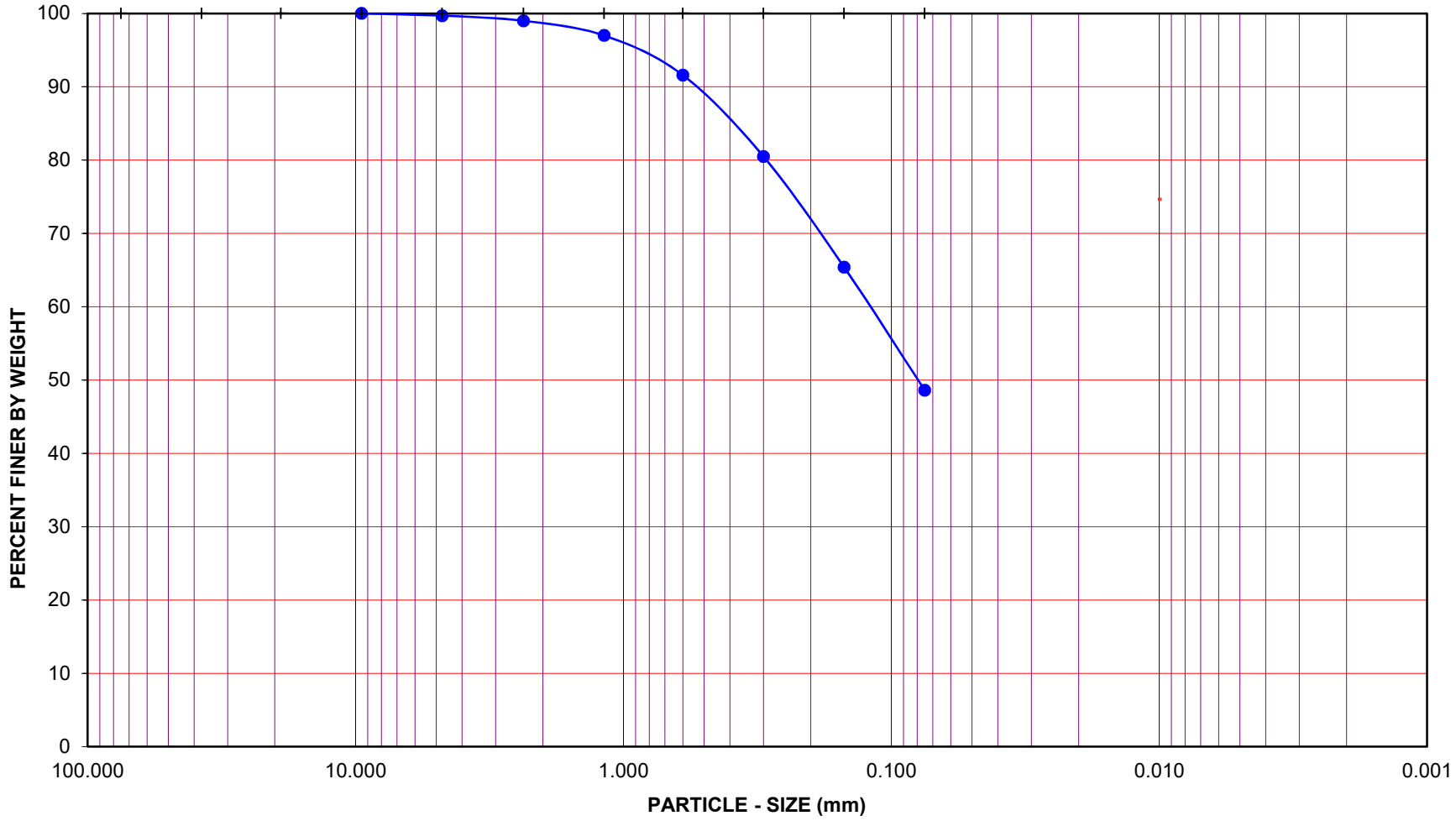
Cc = $(D30)^2/(D60*D10)$ = _____

Remarks: _____

GRAVEL		SAND			FINES	
COARSE	FINE	COARSE	MEDIUM	FINE	SILT	CLAY

U.S. STANDARD SIEVE OPENING — U.S. STANDARD SIEVE NUMBER — HYDROMETER

3.0" 1 1/2" 3/4" 3/8" #4 #8 #16 #30 #50 #100 #200



Project Name: Legacy-Collier, Proposed Euclid & Walnut Mixed-Use, Ontario CA

Project No.: 13493.001

Boring No.: LP-1 Sample No.: S-5

Depth (feet): 23.5 Soil Type : s(CL)

Soil Identification: Brown sandy lean clay s(CL)

GR:SA:FI : (%) 0 : 51 : 49

Leighton

PARTICLE - SIZE DISTRIBUTION ASTM D 6913

3395

Sieve LP-1, S-5 @ 23.5

PARTICLE-SIZE DISTRIBUTION (GRADATION) of SOILS USING SIEVE ANALYSIS

ASTM D 6913

Project Name:	Legacy-Collier, Proposed Euclid & Walnut Mixed-Use, Ontario CA	Tested By:	S. Felter	Date:	04/19/22
Project No.:	13493.001	Checked By:	A. Santos	Date:	04/25/22
Boring No.:	LP-2	Depth (feet):	15.0		
Sample No.:	R-3				
Soil Identification:	Olive brown silty clay (CL-ML)				

		Moisture Content of Total Air - Dry Soil	
Container No.:	V-1	Wt. of Air-Dry Soil + Cont. (g)	0.0
Wt. of Air-Dried Soil + Cont.(g)	635.6	Wt. of Dry Soil + Cont. (g)	0.0
Wt. of Container (g)	108.7	Wt. of Container No._____ (g)	1.0
Dry Wt. of Soil (g)	526.9	Moisture Content (%)	0.0

After Wet Sieve	Container No.	V-1
	Wt. of Dry Soil + Container (g)	139.2
	Wt. of Container (g)	108.7
	Dry Wt. of Soil Retained on # 200 Sieve (g)	30.5

U. S. Sieve Size (in.)	U. S. Sieve Size (mm.)	Cumulative Weight Dry Soil Retained (g)	Percent Passing (%)
1 1/2"	37.5		
1"	25.0		
3/4"	19.0		
1/2"	12.5		
3/8"	9.5		
#4	4.75		
#8	2.36		
#16	1.18	0.0	100.0
#30	0.600	0.4	99.9
#50	0.300	4.4	99.2
#100	0.150	12.6	97.6
#200	0.075	28.4	94.6
PAN			

GRAVEL: **0 %**

SAND: **5 %**

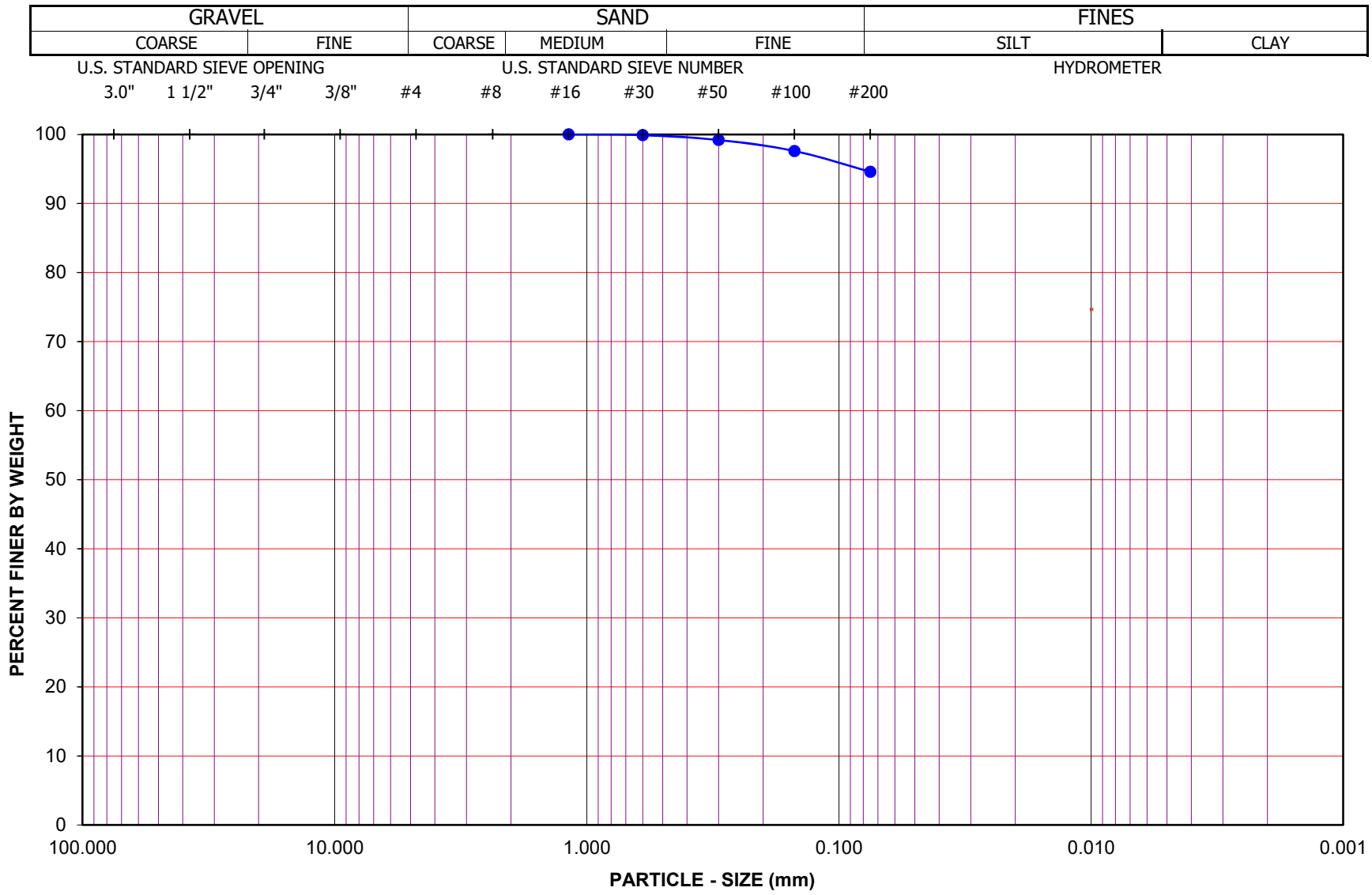
FINES: **95 %**

GROUP SYMBOL: **CL-ML**

Cu = D60/D10 = _____

Cc = $(D30)^2/(D60*D10)$ = _____

Remarks: _____



Project Name: Legacy-Collier, Proposed Euclid & Walnut Mixed-Use, Ontario CA

Project No.: 13493.001

Boring No.: LP-2 Sample No.: R-3

Depth (feet): 15.0 Soil Type : CL-ML

Soil Identification: Olive brown silty clay (CL-ML)

GR:SA:FI : (%) 0 : 5 : 95

Leighton

PARTICLE - SIZE DISTRIBUTION ASTM D 6913

33997

Sieve LP-2, R-3 @ 15

PARTICLE-SIZE DISTRIBUTION (GRADATION) of SOILS USING SIEVE ANALYSIS

ASTM D 6913

Project Name:	Legacy-Collier, Proposed Euclid & Walnut Mixed Use, Ontario CA	Tested By:	S. Felter	Date:	04/20/22
Project No.:	13493.001	Checked By:	A. Santos	Date:	04/25/22
Boring No.:	LP-2	Depth (feet):	18.5		
Sample No.:	R-4				
Soil Identification:	Olive brown silty sand (SM)				

		Moisture Content of Total Air - Dry Soil	
Container No.:	R-2	Wt. of Air-Dry Soil + Cont. (g)	0.0
Wt. of Air-Dried Soil + Cont.(g)	799.6	Wt. of Dry Soil + Cont. (g)	0.0
Wt. of Container (g)	107.7	Wt. of Container No._____ (g)	1.0
Dry Wt. of Soil (g)	691.9	Moisture Content (%)	0.0

After Wet Sieve	Container No.	R-2
	Wt. of Dry Soil + Container (g)	576.0
	Wt. of Container (g)	107.7
	Dry Wt. of Soil Retained on # 200 Sieve (g)	468.3

U. S. Sieve Size (in.)	U. S. Sieve Size (mm.)	Cumulative Weight Dry Soil Retained (g)	Percent Passing (%)
1 1/2"	37.5		
1"	25.0		
3/4"	19.0		
1/2"	12.5		
3/8"	9.5	0.0	100.0
#4	4.75	0.9	99.9
#8	2.36	3.8	99.5
#16	1.18	13.1	98.1
#30	0.600	43.5	93.7
#50	0.300	150.5	78.2
#100	0.150	340.6	50.8
#200	0.075	464.3	32.9
PAN			

GRAVEL: **0 %**

SAND: **67 %**

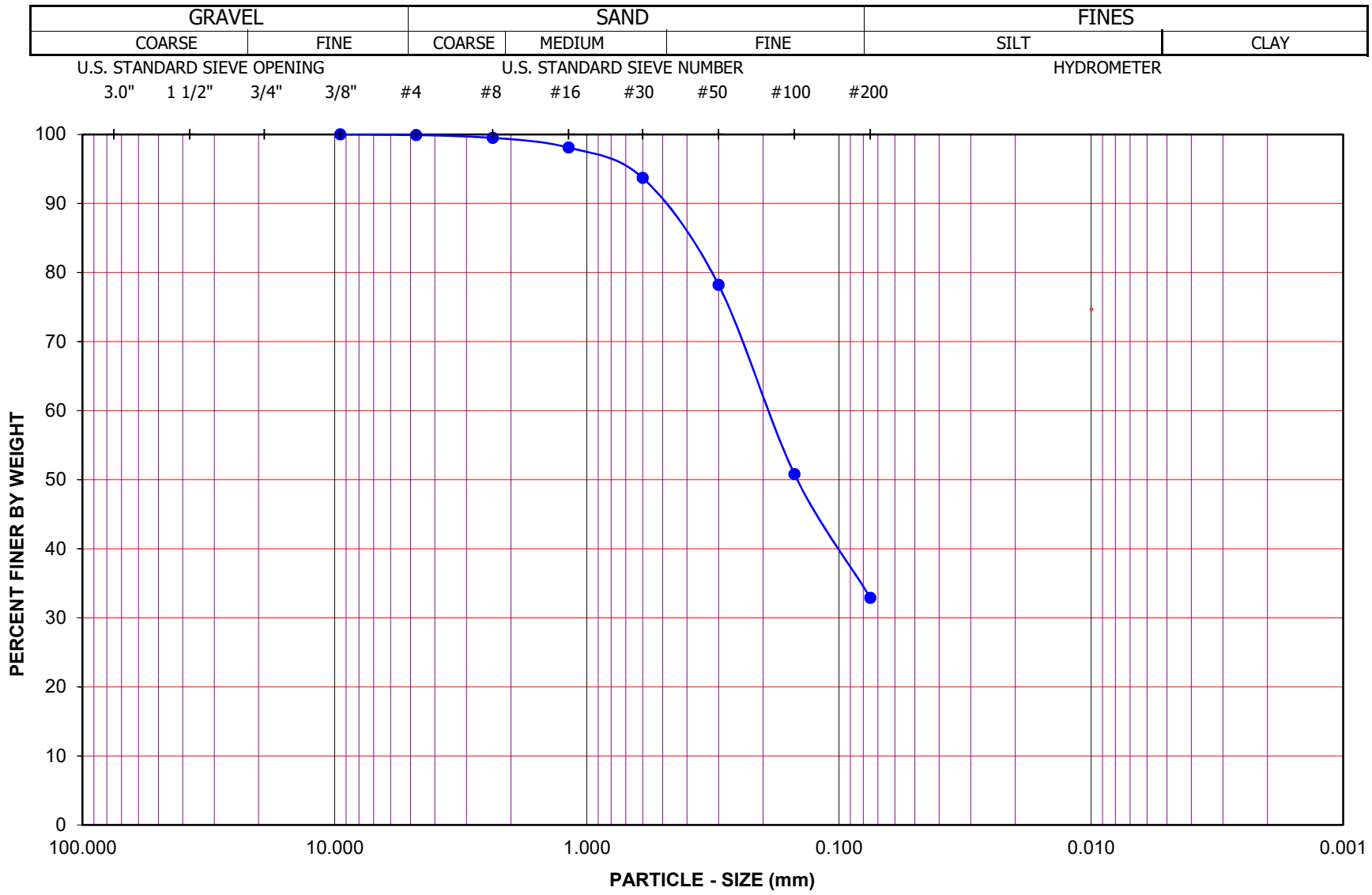
FINES: **33 %**

GROUP SYMBOL: **SM**

Cu = D60/D10 = _____

Cc = $(D30)^2/(D60*D10)$ = _____

Remarks: _____



Project Name: Legacy-Collier, Proposed Euclid & Walnut Mixed Use, Ontario CA

Project No.: 13493.001

Boring No.: LP-2 Sample No.: R-4

Depth (feet): 18.5 Soil Type : SM

Soil Identification: Olive brown silty sand (SM)

GR:SA:FI : (%) 0 : 67 : 33

Leighton

PARTICLE - SIZE DISTRIBUTION ASTM D 6913

33399

Sieve LP-2, R-4 @ 18.5

ONE-DIMENSIONAL SWELL OR SETTLEMENT POTENTIAL OF COHESIVE SOILS

ASTM D 4546

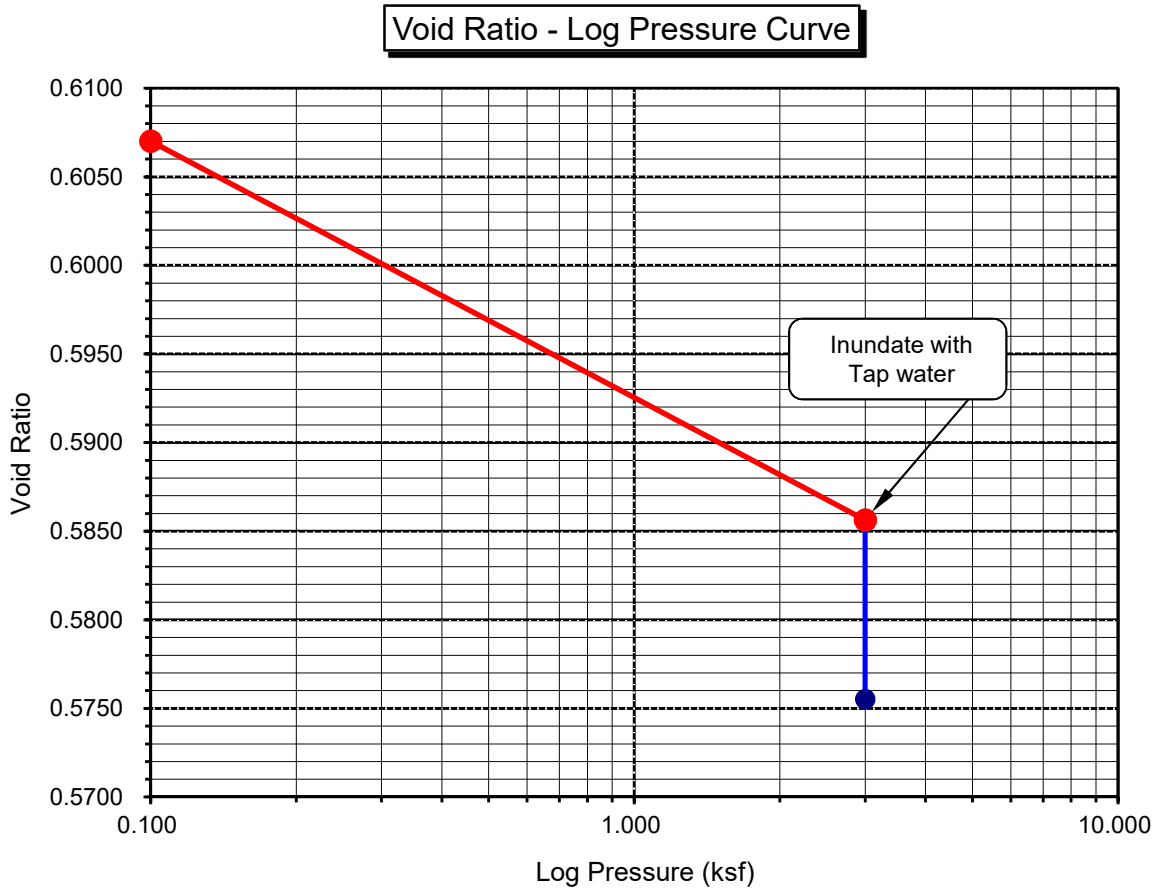
Project Name:	Legacy-Collier, Proposed Euclid & Walnut Mixed-Use, Ontario CA	Tested By:	G. Bathala	Date:	04/18/22
Project No.:	13493.001	Checked By:	A. Santos	Date:	04/26/22
Boring No.:	LB-1	Sample Type:	Ring		
Sample No.:	R-6	Depth (ft.)	25.0		
Sample Description:	Yellowish brown poorly-graded sand with silt (SP-SM)				

Initial Dry Density (pcf):	104.9
Initial Moisture (%):	3.61
Initial Length (in.):	1.0000
Initial Dial Reading:	0.3076
Diameter(in):	2.415

Final Dry Density (pcf):	107.0
Final Moisture (%) :	18.2
Initial Void Ratio:	0.6072
Specific Gravity(assumed):	2.70
Initial Saturation (%)	16.0

Pressure (p) (ksf)	Final Reading (in)	Apparent Thickness (in)	Load Compliance (%)	Swell (+) Settlement (-) % of Sample Thickness	Void Ratio	Corrected Deformation (%)
0.100	0.3075	0.9999	0.00	-0.01	0.6070	-0.01
3.000	0.2890	0.9814	0.52	-1.86	0.5856	-1.34
H2O	0.2827	0.9751	0.52	-2.49	0.5755	-1.97

Percent Swell (+) / Settlement (-) After Inundation = -0.64



ONE-DIMENSIONAL SWELL OR SETTLEMENT POTENTIAL OF COHESIVE SOILS

ASTM D 4546

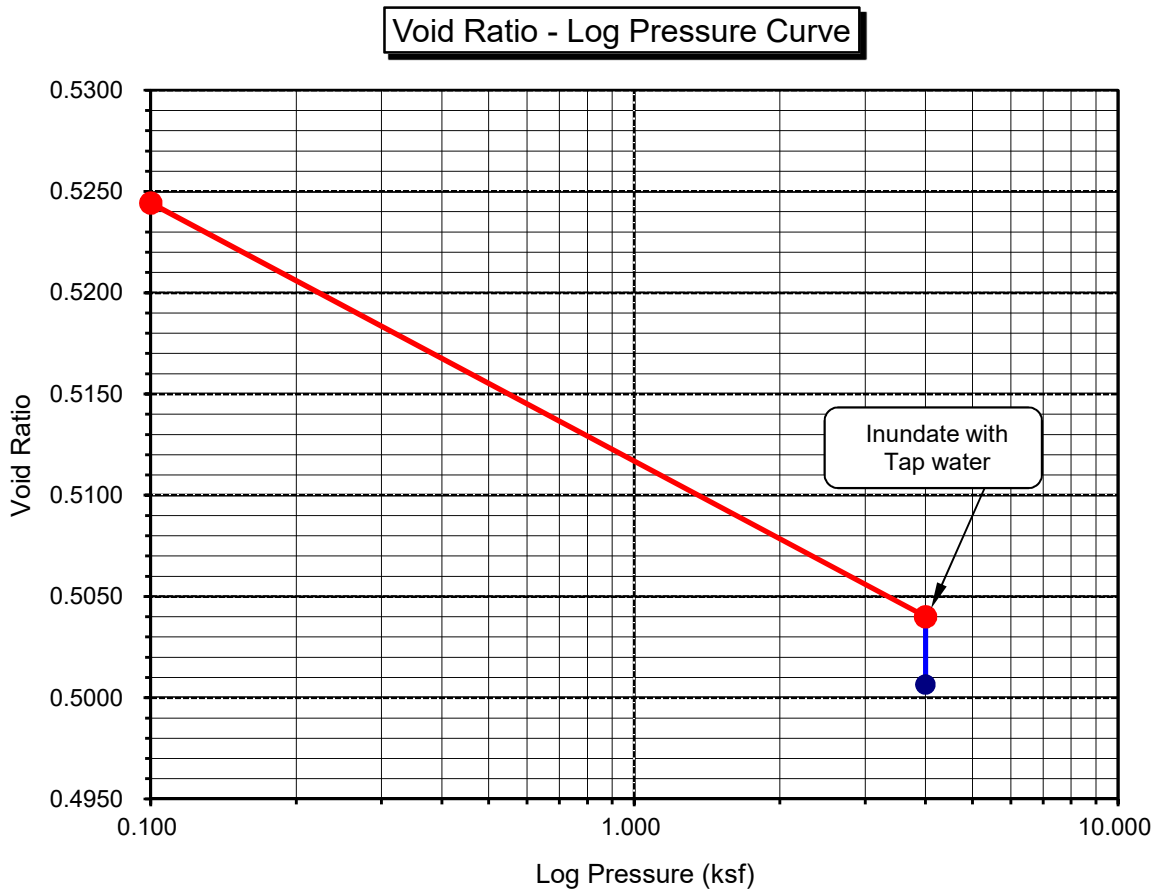
Project Name:	Legacy-Collier, Proposed Euclid & Walnut Mixed-Use, Ontario CA	Tested By:	G. Bathala	Date:	04/18/22
Project No.:	13493.001	Checked By:	A. Santos	Date:	04/26/22
Boring No.:	LB-1	Sample Type:	Ring		
Sample No.:	R-8	Depth (ft.)	35.0		
Sample Description:	Yellowish brown poorly-graded sand with silt (SP-SM)				

Initial Dry Density (pcf):	110.6
Initial Moisture (%):	3.30
Initial Length (in.):	1.0000
Initial Dial Reading:	0.3373
Diameter(in):	2.415

Final Dry Density (pcf):	112.3
Final Moisture (%) :	15.9
Initial Void Ratio:	0.5246
Specific Gravity(assumed):	2.70
Initial Saturation (%)	17.0

Pressure (p) (ksf)	Final Reading (in)	Apparent Thickness (in)	Load Compliance (%)	Swell (+) Settlement (-) % of Sample Thickness	Void Ratio	Corrected Deformation (%)
0.100	0.3372	0.9999	0.00	-0.01	0.5244	-0.01
4.000	0.3220	0.9847	0.18	-1.53	0.5040	-1.35
H2O	0.3198	0.9825	0.18	-1.75	0.5007	-1.57

Percent Swell (+) / Settlement (-) After Inundation = -0.22



APPENDIX D

GENERAL EARTHWORKS AND GRADING RECOMMENDATIONS

APPENDIX D
LEIGHTON AND ASSOCIATES, INC.
GENERAL EARTHWORK AND GRADING SPECIFICATIONS FOR ROUGH GRADING

TABLE OF CONTENTS

Section			Appendix D Page
1.0	GENERAL		1
	1.1	Intent	1
	1.2	The Geotechnical Consultant of Record	1
	1.3	The Earthwork Contractor	2
2.0	PREPARATION OF AREAS TO BE FILLED		2
	2.1	Clearing and Grubbing	2
	2.2	Processing	3
	2.3	Overexcavation	3
	2.4	Benching	3
	2.5	Evaluation/Acceptance of Fill Areas	4
3.0	FILL MATERIAL		4
	3.1	General	4
	3.2	Oversize	4
	3.3	Import	4
4.0	FILL PLACEMENT AND COMPACTION		5
	4.1	Fill Layers	5
	4.2	Fill Moisture Conditioning	5
	4.3	Compaction of Fill	5
	4.4	Compaction of Fill Slopes	5
	4.5	Compaction Testing	5
	4.6	Frequency of Compaction Testing	6
	4.7	Compaction Test Locations	6
5.0	SUBDRAIN INSTALLATION		6
6.0	EXCAVATION		6
7.0	TRENCH BACKFILLS		7
	7.1	Safety	7
	7.2	Bedding and Backfill	7
	7.3	Lift Thickness	7
	7.4	Observation and Testing	7

TABLE OF CONTENTS (CONT'D)

ATTACHMENTS

Standard Details

A - Keying and Benching	Rear of Text
B - Oversize Rock Disposal	Rear of Text
C - Canyon Subdrains	Rear of Text
D - Buttress or Replacement Fill Subdrains	Rear of Text
E - Transition Lot Fills and Side Hill Fills	Rear of Text

1.0 GENERAL

1.1 Intent

These General Earthwork and Grading Specifications are for the grading and earthwork shown on the approved grading plan(s) and/or indicated in the geotechnical report(s). These Specifications are a part of the recommendations contained in the geotechnical report(s). In case of conflict, the specific recommendations in the geotechnical report shall supersede these more general Specifications. Observations of the earthwork by the project Geotechnical Consultant during the course of grading may result in new or revised recommendations that could supersede these specifications or the recommendations in the geotechnical report(s).

1.2 The Geotechnical Consultant of Record

Prior to commencement of work, the owner shall employ the Geotechnical Consultant of Record (Geotechnical Consultant). The Geotechnical Consultants shall be responsible for reviewing the approved geotechnical report(s) and accepting the adequacy of the preliminary geotechnical findings, conclusions, and recommendations prior to the commencement of the grading.

Prior to commencement of grading, the Geotechnical Consultant shall review the "work plan" prepared by the Earthwork Contractor (Contractor) and schedule sufficient personnel to perform the appropriate level of observation, mapping, and compaction testing.

During the grading and earthwork operations, the Geotechnical Consultant shall observe, map, and document the subsurface exposures to verify the geotechnical design assumptions. If the observed conditions are found to be significantly different than the interpreted assumptions during the design phase, the Geotechnical Consultant shall inform the owner, recommend appropriate changes in design to accommodate the observed conditions, and notify the review agency where required. Subsurface areas to be geotechnically observed, mapped, elevations recorded, and/or tested include natural ground after it has been cleared for receiving fill but before fill is placed, bottoms of all "remedial removal" areas, all key bottoms, and benches made on sloping ground to receive fill.

The Geotechnical Consultant shall observe the moisture-conditioning and processing of the subgrade and fill materials and perform relative compaction testing of fill to determine the attained level of compaction.

The Geotechnical Consultant shall provide the test results to the owner and the Contractor on a routine and frequent basis.

1.3 The Earthwork Contractor

The Earthwork Contractor (Contractor) shall be qualified, experienced, and knowledgeable in earthwork logistics, preparation and processing of ground to receive fill, moisture-conditioning and processing of fill, and compacting fill. The Contractor shall review and accept the plans, geotechnical report(s), and these Specifications prior to commencement of grading. The Contractor shall be solely responsible for performing the grading in accordance with the plans and specifications.

The Contractor shall prepare and submit to the owner and the Geotechnical Consultant a work plan that indicates the sequence of earthwork grading, the number of "spreads" of work and the estimated quantities of daily earthwork contemplated for the site prior to commencement of grading. The Contractor shall inform the owner and the Geotechnical Consultant of changes in work schedules and updates to the work plan at least 24 hours in advance of such changes so that appropriate observations and tests can be planned and accomplished. The Contractor shall not assume that the Geotechnical Consultant is aware of all grading operations.

The Contractor shall have the sole responsibility to provide adequate equipment and methods to accomplish the earthwork in accordance with the applicable grading codes and agency ordinances, these Specifications, and the recommendations in the approved geotechnical report(s) and grading plan(s). If, in the opinion of the Geotechnical Consultant, unsatisfactory conditions, such as unsuitable soil, improper moisture condition, inadequate compaction, insufficient buttress key size, adverse weather, etc., are resulting in a quality of work less than required in these specifications, the Geotechnical Consultant shall reject the work and may recommend to the owner that construction be stopped until the conditions are rectified.

2.0 PREPARATION OF AREAS TO BE FILLED

2.1 Clearing and Grubbing

Vegetation, such as brush, grass, roots, and other deleterious material shall be sufficiently removed and properly disposed of in a method acceptable to the owner, governing agencies, and the Geotechnical Consultant.

The Geotechnical Consultant shall evaluate the extent of these removals depending on specific site conditions. Earth fill material shall not contain more than 1 percent of organic materials (by volume). No fill lift shall contain more than 5 percent of organic matter. Nesting of the organic materials shall not be allowed.

If potentially hazardous materials are encountered, the Contractor shall stop work in the affected area, and a hazardous material specialist shall be informed immediately for proper evaluation and handling of these materials prior to continuing to work in that area.

As presently defined by the State of California, most refined petroleum products (gasoline, diesel fuel, motor oil, grease, coolant, etc.) have chemical constituents that are considered to be hazardous waste. As such, the indiscriminate dumping or spillage of these fluids onto the ground may constitute a misdemeanor, punishable by fines and/or imprisonment, and shall not be allowed.

2.2 Processing

Existing ground that has been declared satisfactory for support of fill by the Geotechnical Consultant shall be scarified to a minimum depth of 6 inches. Existing ground that is not satisfactory shall be overexcavated as specified in the following section. Scarification shall continue until soils are broken down and free of large clay lumps or clods and the working surface is reasonably uniform, flat, and free of uneven features that would inhibit uniform compaction.

2.3 Overexcavation

In addition to removals and overexcavations recommended in the approved geotechnical report(s) and the grading plan, soft, loose, dry, saturated, spongy, organic-rich, highly fractured or otherwise unsuitable ground shall be overexcavated to competent ground as evaluated by the Geotechnical Consultant during grading.

2.4 Benching

Where fills are to be placed on ground with slopes steeper than 5:1 (horizontal to vertical units), the ground shall be stepped or benched. Please see the Standard Details for a graphic illustration. The lowest bench or key shall be a minimum of 15 feet wide and at least 2 feet deep, into competent material as evaluated by the Geotechnical Consultant. Other benches shall be excavated a minimum height of 4 feet into competent material or as otherwise recommended by the Geotechnical

Consultant. Fill placed on ground sloping flatter than 5:1 shall also be benched or otherwise overexcavated to provide a flat subgrade for the fill.

2.5 Evaluation/Acceptance of Fill Areas

All areas to receive fill, including removal and processed areas, key bottoms, and benches, shall be observed, mapped, elevations recorded, and/or tested prior to being accepted by the Geotechnical Consultant as suitable to receive fill. The Contractor shall obtain a written acceptance from the Geotechnical Consultant prior to fill placement. A licensed surveyor shall provide the survey control for determining elevations of processed areas, keys, and benches.

3.0 FILL MATERIAL

3.1 General

Material to be used as fill shall be essentially free of organic matter and other deleterious substances evaluated and accepted by the Geotechnical Consultant prior to placement. Soils of poor quality, such as those with unacceptable gradation, high expansion potential, or low strength shall be placed in areas acceptable to the Geotechnical Consultant or mixed with other soils to achieve satisfactory fill material.

3.2 Oversize

Oversize material defined as rock, or other irreducible material with a maximum dimension greater than 8 inches, shall not be buried or placed in fill unless location, materials, and placement methods are specifically accepted by the Geotechnical Consultant. Placement operations shall be such that nesting of oversized material does not occur and such that oversize material is completely surrounded by compacted or densified fill. Oversize material shall not be placed within 10 vertical feet of finish grade or within 2 feet of future utilities or underground construction.

3.3 Import

If importing of fill material is required for grading, proposed import material shall meet the requirements of Section 3.1. The potential import source shall be given to the Geotechnical Consultant at least 48 hours (2 working days) before importing begins so that its suitability can be determined and appropriate tests performed.

4.0 FILL PLACEMENT AND COMPACTION

4.1 Fill Layers

Approved fill material shall be placed in areas prepared to receive fill (per Section 3.0) in near-horizontal layers not exceeding 8 inches in loose thickness. The Geotechnical Consultant may accept thicker layers if testing indicates the grading procedures can adequately compact the thicker layers. Each layer shall be spread evenly and mixed thoroughly to attain relative uniformity of material and moisture throughout.

4.2 Fill Moisture Conditioning

Fill soils shall be watered, dried back, blended, and/or mixed, as necessary to attain a relatively uniform moisture content at or slightly over optimum. Maximum density and optimum soil moisture content tests shall be performed in accordance with the American Society of Testing and Materials (ASTM Test Method D1557).

4.3 Compaction of Fill

After each layer has been moisture-conditioned, mixed, and evenly spread, it shall be uniformly compacted to not less than 90 percent of maximum dry density (ASTM Test Method D1557). Compaction equipment shall be adequately sized and be either specifically designed for soil compaction or of proven reliability to efficiently achieve the specified level of compaction with uniformity.

4.4 Compaction of Fill Slopes

In addition to normal compaction procedures specified above, compaction of slopes shall be accomplished by backrolling of slopes with sheepsfoot rollers at increments of 3 to 4 feet in fill elevation, or by other methods producing satisfactory results acceptable to the Geotechnical Consultant. Upon completion of grading, relative compaction of the fill, out to the slope face, shall be at least 90 percent of maximum density per ASTM Test Method D1557.

4.5 Compaction Testing

Field-tests for moisture content and relative compaction of the fill soils shall be performed by the Geotechnical Consultant. Location and frequency of tests shall be at the Consultant's discretion based on field conditions encountered. Compaction test locations will not necessarily be selected on a random basis. Test locations shall be selected to verify

adequacy of compaction levels in areas that are judged to be prone to inadequate compaction (such as close to slope faces and at the fill/bedrock benches).

4.6 Frequency of Compaction Testing

Tests shall be taken at intervals not exceeding 2 feet in vertical rise and/or 1,000 cubic yards of compacted fill soils embankment. In addition, as a guideline, at least one test shall be taken on slope faces for each 5,000 square feet of slope face and/or each 10 feet of vertical height of slope. The Contractor shall assure that fill construction is such that the testing schedule can be accomplished by the Geotechnical Consultant. The Contractor shall stop or slow down the earthwork construction if these minimum standards are not met.

4.7 Compaction Test Locations

The Geotechnical Consultant shall document the approximate elevation and horizontal coordinates of each test location. The Contractor shall coordinate with the project surveyor to assure that sufficient grade stakes are established so that the Geotechnical Consultant can determine the test locations with sufficient accuracy. At a minimum, two grade stakes within a horizontal distance of 100 feet and vertically less than 5 feet apart from potential test locations shall be provided.

5.0 SUBDRAIN INSTALLATION

Subdrain systems shall be installed in accordance with the approved geotechnical report(s), the grading plan, and the Standard Details. The Geotechnical Consultant may recommend additional subdrains and/or changes in subdrain extent, location, grade, or material depending on conditions encountered during grading. All subdrains shall be surveyed by a land surveyor/civil engineer for line and grade after installation and prior to burial. Sufficient time should be allowed by the Contractor for these surveys.

6.0 EXCAVATION

Excavations, as well as over-excavation for remedial purposes, shall be evaluated by the Geotechnical Consultant during grading. Remedial removal depths shown on geotechnical plans are estimates only. The actual extent of removal shall be determined by the Geotechnical Consultant based on the field evaluation of exposed conditions during grading. Where fill-over-cut slopes are to be graded, the cut portion of the slope shall be made, evaluated, and accepted by the Geotechnical Consultant prior to placement of materials for construction of

the fill portion of the slope, unless otherwise recommended by the Geotechnical Consultant.

7.0 TRENCH BACKFILLS

7.1 Safety

The Contractor shall follow all OSHA and Cal/OSHA requirements for safety of trench excavations.

7.2 Bedding and Backfill

All bedding and backfill of utility trenches shall be performed in accordance with the applicable provisions of Standard Specifications of Public Works Construction. Bedding material shall have a Sand Equivalent greater than 30 (SE>30). The bedding shall be placed to 1 foot over the top of the conduit and densified by jetting. Backfill shall be placed and densified to a minimum of 90 percent of relative compaction from 1 foot above the top of the conduit to the surface.

The Geotechnical Consultant shall test the trench backfill for relative compaction. At least one test should be made for every 300 feet of trench and 2 feet of fill.

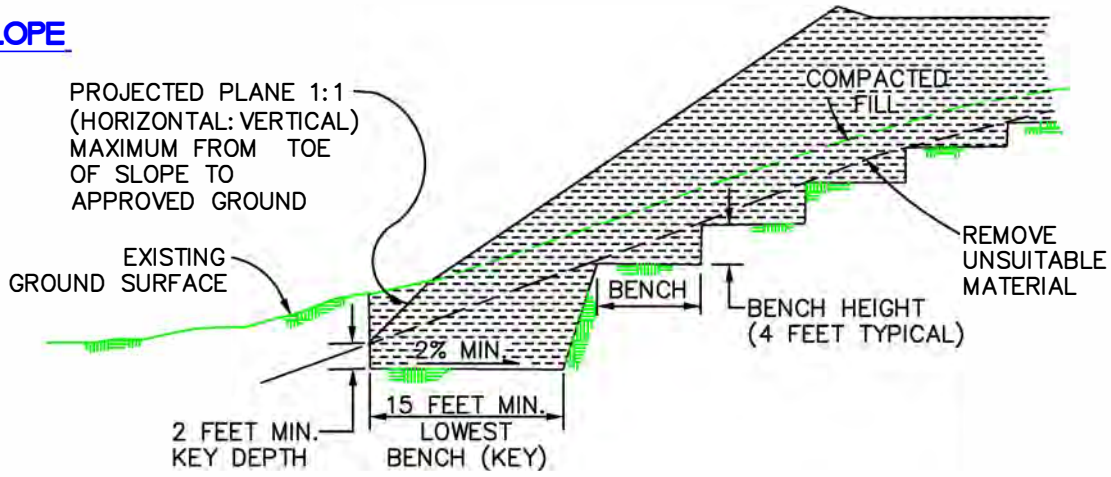
7.3 Lift Thickness

Lift thickness of trench backfill shall not exceed those allowed in the Standard Specifications of Public Works Construction unless the Contractor can demonstrate to the Geotechnical Consultant that the fill lift can be compacted to the minimum relative compaction by his alternative equipment and method.

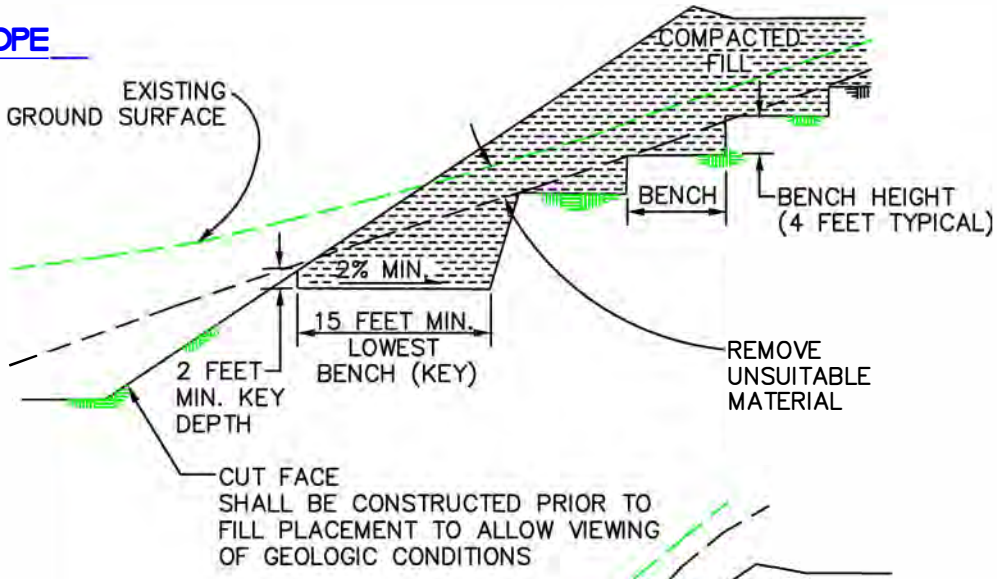
7.4 Observation and Testing

The jetting of the bedding around the conduits shall be observed by the Geotechnical Consultant.

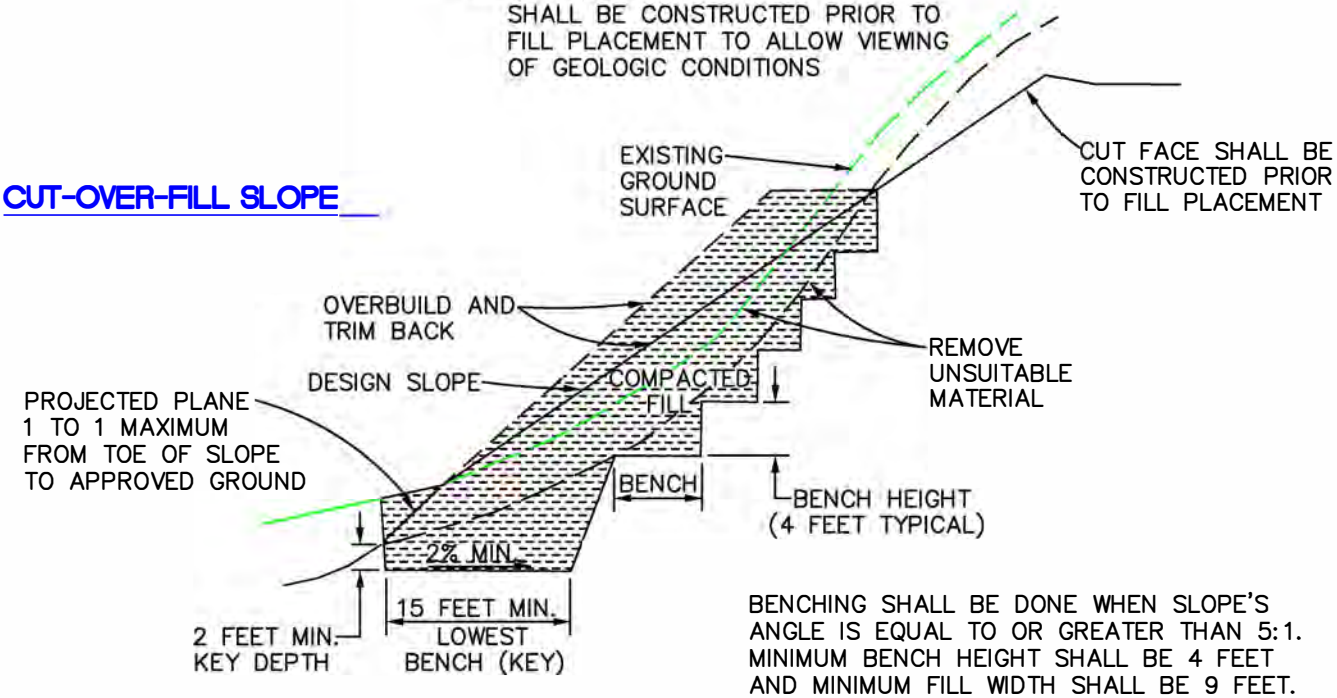
FILL SLOPE



FILL-OVER-CUT SLOPE

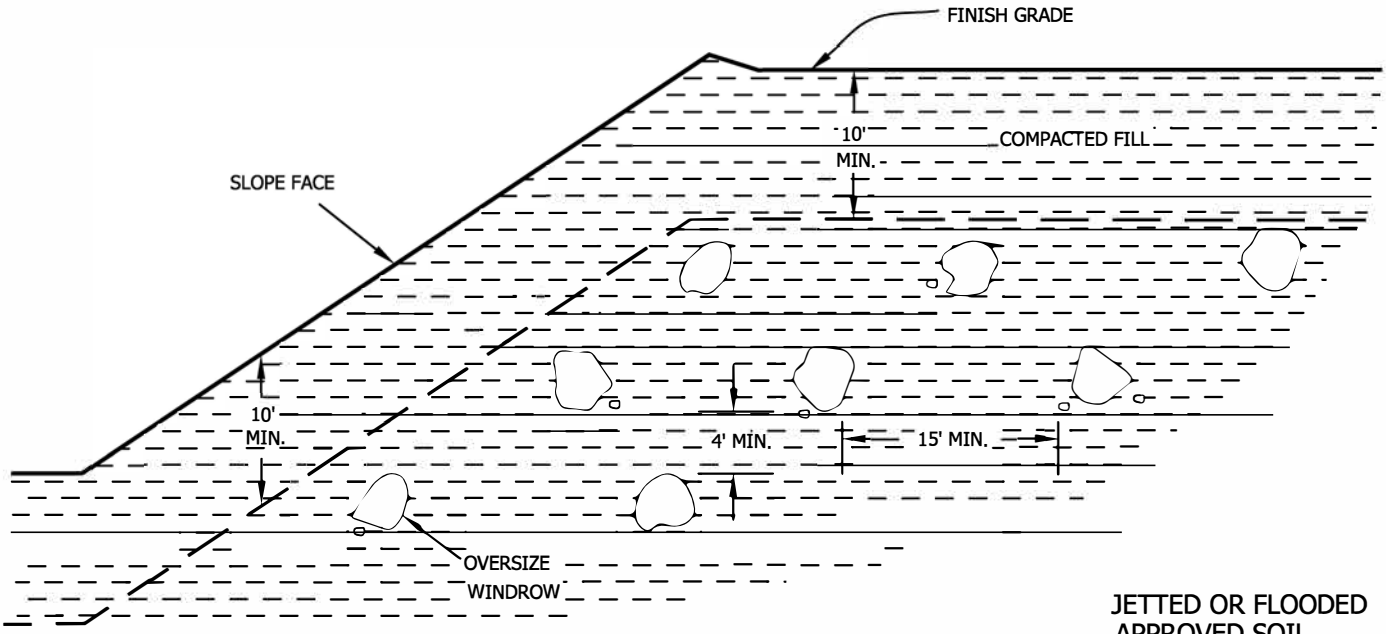


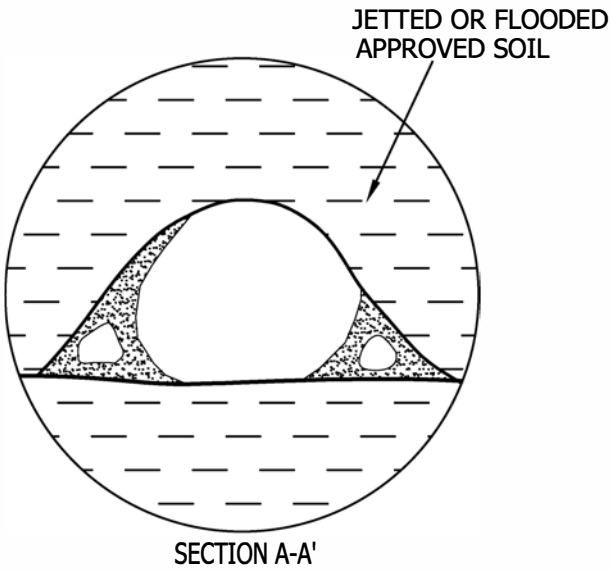
CUT-OVER-FILL SLOPE



BENCHING SHALL BE DONE WHEN SLOPE'S ANGLE IS EQUAL TO OR GREATER THAN 5:1. MINIMUM BENCH HEIGHT SHALL BE 4 FEET AND MINIMUM FILL WIDTH SHALL BE 9 FEET.

KEYING AND BENCHING	GENERAL EARTHWORK AND GRADING SPECIFICATIONS STANDARD DETAILS A	Leighton

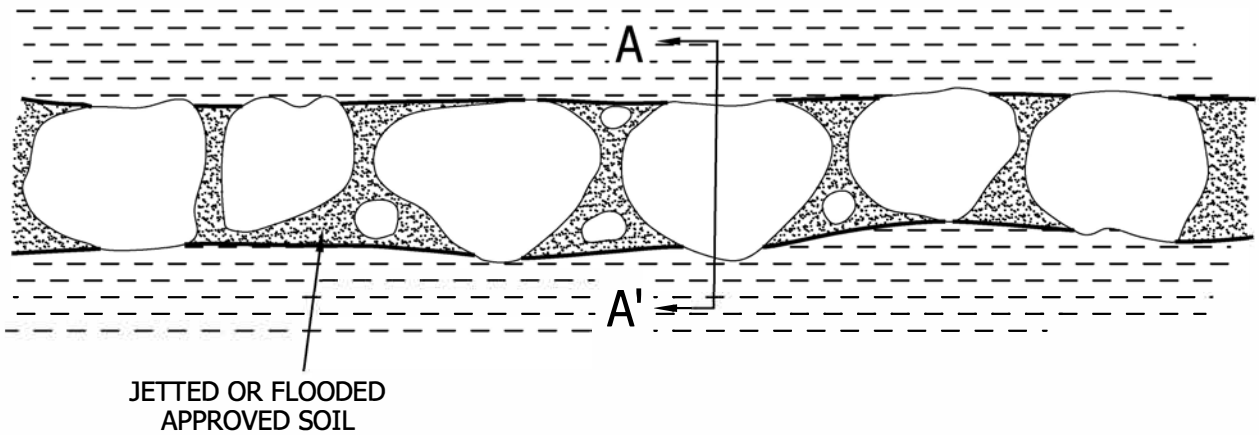




SECTION A-A'

- Oversize rock is larger than 8 inches in largest dimension.
- Backfill with approved soil jetted or flooded in place to fill all the voids.
- Do not bury rock within 10 feet of finish grade.
- Windrow of buried rock shall be parallel to the finished slope face.

PROFILE ALONG WINDROW

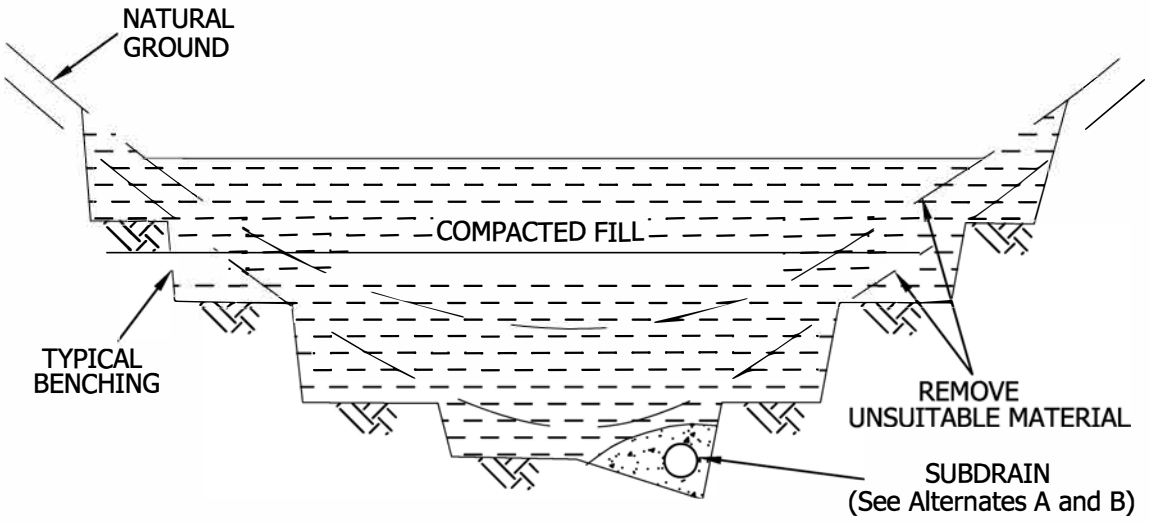


OVERSIZE ROCK DISPOSAL

GENERAL EARTHWORK AND GRADING
SPECIFICATIONS
STANDARD DETAILS B

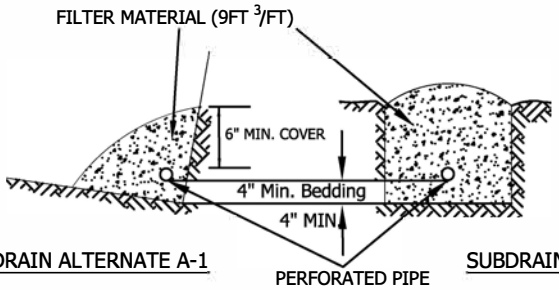
Leighton

P:\Drafting\templates\details\over-rock-disp.dwg (7/00)



SUBDRAIN ALTERNATE A

PERFORATED PIPE SURROUNDED WITH FILTER MATERIAL



SUBDRAIN ALTERNATE A-1 SUBDRAIN ALTERNATE A-2

FILTER MATERIAL

FILTER MATERIAL SHALL BE CLASS 2 PERMEABLE MATERIAL PER STATE OF CALIFORNIA STANDARD SPECIFICATION, OR APPROVED ALTERNATE. CLASS 2 GRADING AS FOLLOWS:

Sieve Size	Percent Passing
1"	100
3/4"	90-100
3/8"	40-100
No. 4	25-40
No. 8	18-33
No. 30	5-15
No. 50	0-7
No. 200	0-3

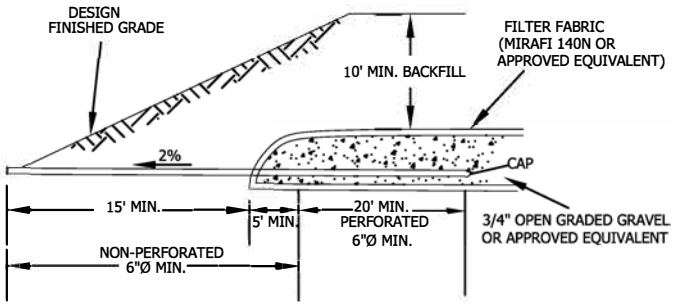
SUBDRAIN ALTERNATE B



ALTERNATE B-1 ALTERNATE B-2

○ PERFORATED PIPE IS OPTIONAL PER GOVERNING AGENCY'S REQUIREMENTS

DETAIL OF CANYON SUBDRAIN TERMINAL

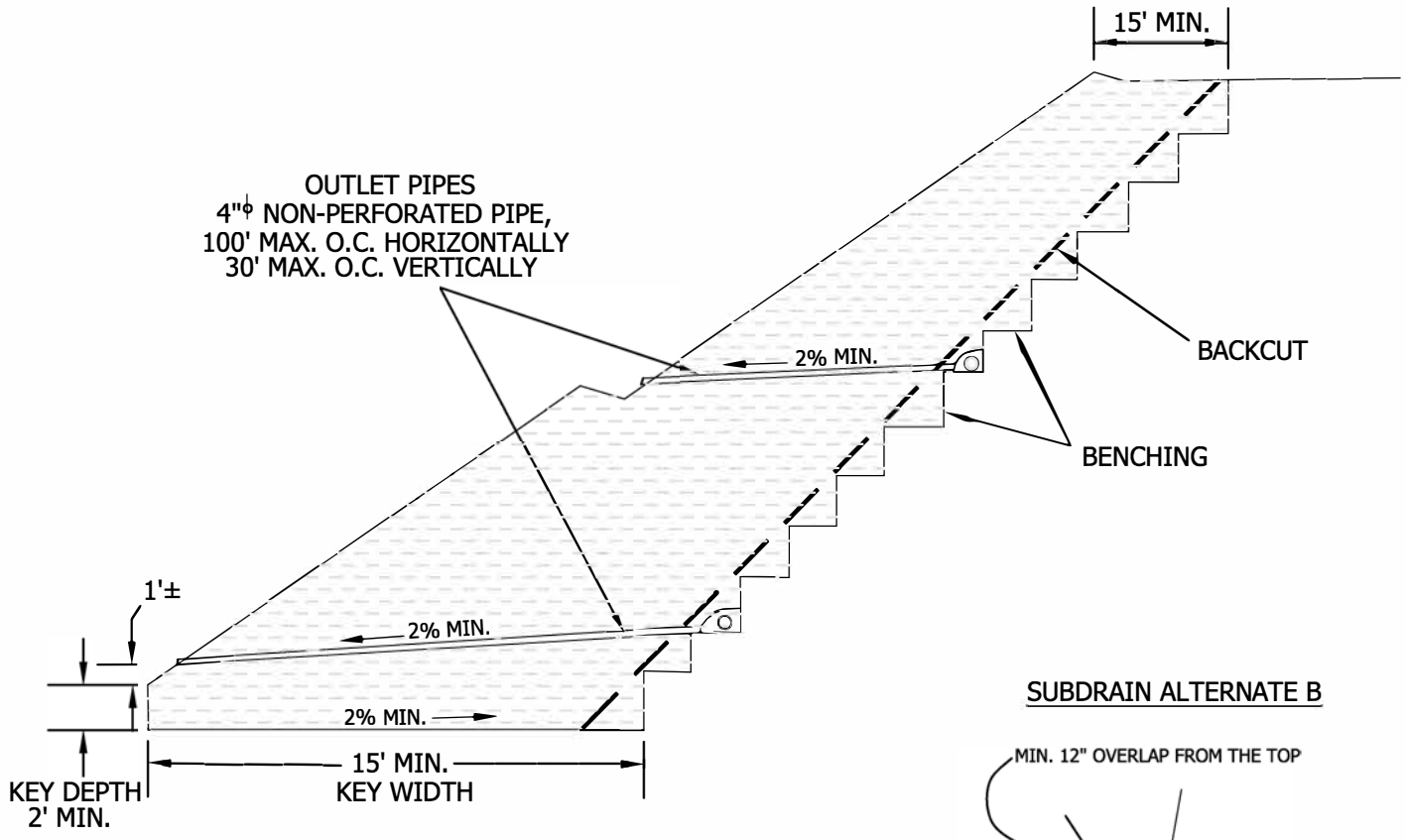


CANYON SUBDRAIN

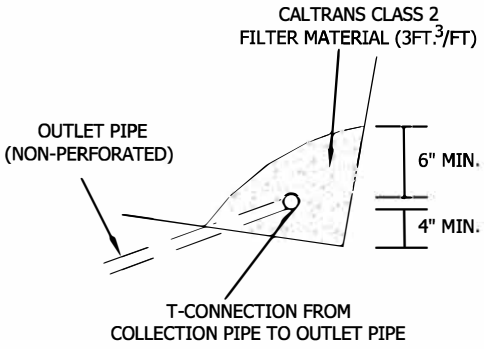
GENERAL EARTHWORK AND GRADING SPECIFICATIONS STANDARD DETAILS C

Leighton

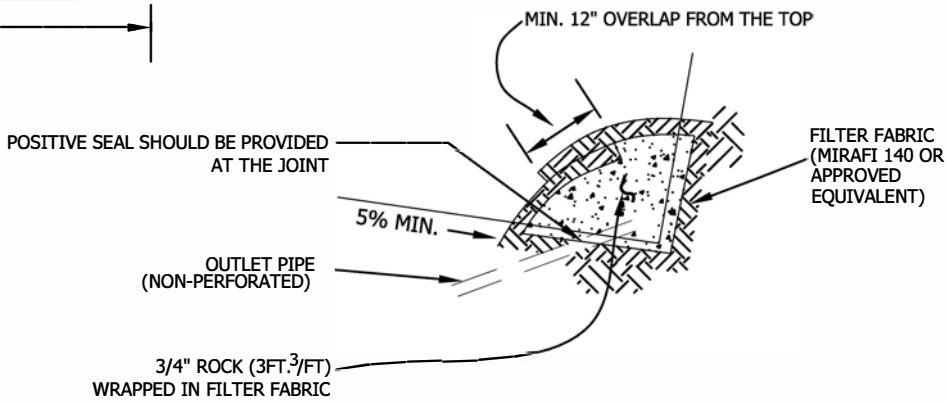
Drafting\templates\details\canyon_drains.dwg (7/00)



SUBDRAIN ALTERNATE A



SUBDRAIN ALTERNATE B

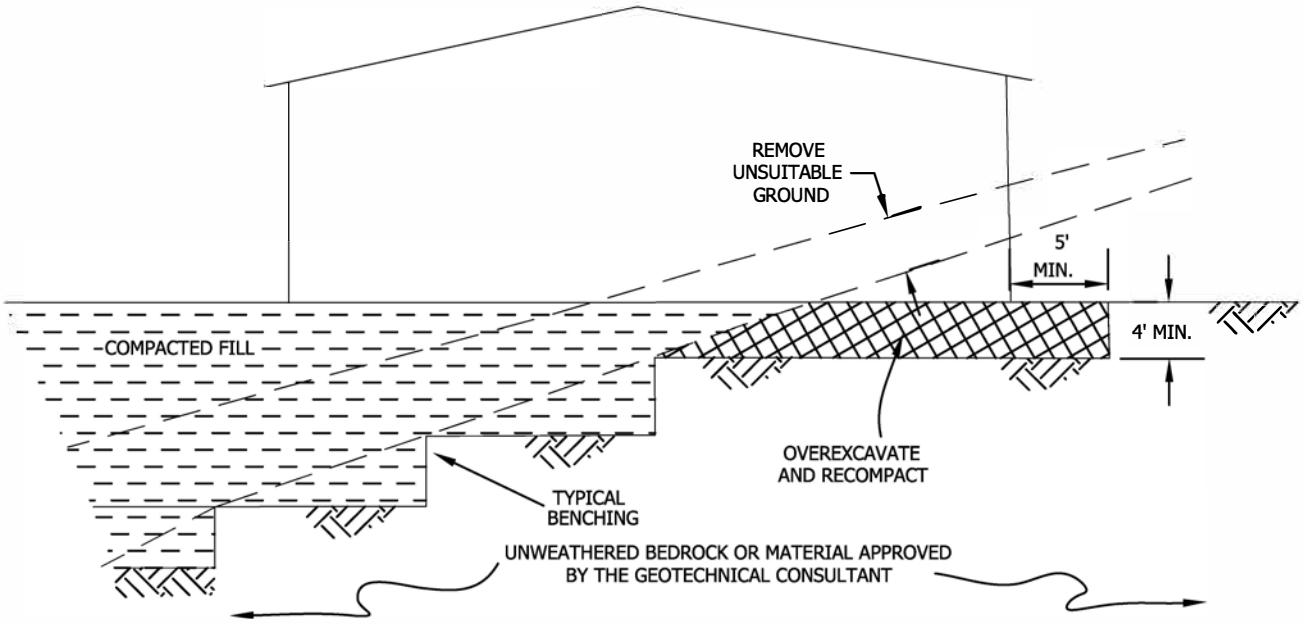


- SUBDRAIN INSTALLATION - Subdrain collector pipe shall be installed with perforations down or, unless otherwise designated by the geotechnical consultant. Outlet pipes shall be non-perforated pipe. The subdrain pipe shall have at least 8 perforations uniformly spaced per foot. Perforation shall be 1/4" to 1/2" if drilled holes are used. All subdrain pipes shall have a gradient at least 2% towards the outlet.
- SUBDRAIN PIPE - Subdrain pipe shall be ASTM D2751, ASTM D1527 (Schedule 40) or SDR 23.5 ABS pipe or ASTM D3034 (Schedule 40) or SDR 23.5 PVC pipe.
- All outlet pipe shall be placed in a trench and, after fill is placed above it, rodded to verify integrity.

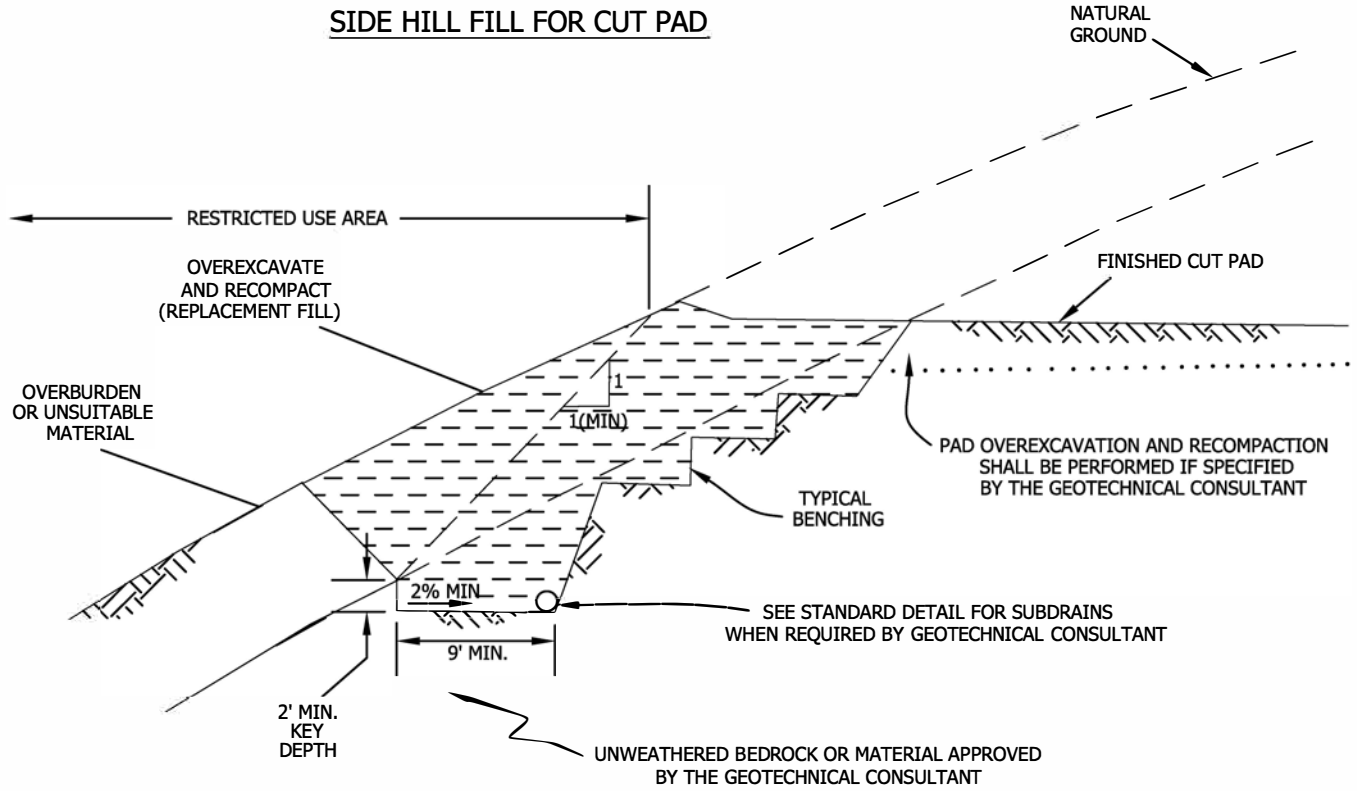
BUTTRESS OR REPLACEMENT FILL SUBDRAINS	GENERAL EARTHWORK AND GRADING SPECIFICATIONS STANDARD DETAILS D	Leighton

P:Drafting\templates\details\buttress_repl_sub.dwg (7/00)

CUT-FILL TRANSITION LOT OVEREXCAVATION



SIDE HILL FILL FOR CUT PAD



TRANSITION LOT FILLS AND SIDE HILL FILLS

GENERAL EARTHWORK AND GRADING SPECIFICATIONS
STANDARD DETAILS E

Leighton

P:\Drawing\templates\details\transition_fills.dwg (7/00)

November 29, 2022

Project No. 13493.002

Legacy/Collier Residential, LLC
5154 California Avenue
Irvine, California 92617

Attention: Mr. David Pinto

Subject: **Addendum to Geotechnical Exploration Report**
Infiltration Testing
Proposed "Euclid and Walnut Mixed Use" Development
112 Walnut Street, 2502 and 2530 Euclid Avenue
Ontario, San Bernardino County, California

Reference: Leighton and Associates, Inc., 2022, *Geotechnical Exploration Report, Proposed "Euclid and Walnut Mixed Use" Development, 112 Walnut Street, 2502 and 2530 Euclid Avenue, Ontario, California*, Project No. 13493.001, dated May 13, 2022.

Introduction

Per your request, Leighton and Associates, Inc. (Leighton) performed supplemental infiltration testing for the subject mixed use development. Additional field infiltration testing was performed in coordination with Mr. Steve Ellis of Fuscoe Engineering, Inc. (project civil engineer) to target the locations and depths planned for infiltration. While official infiltration plans were not available, we understand that stormwater infiltration is intended to be achieved utilizing a drywell system to be located in the southern portion of the site extending to approximate depths of no greater than 45 feet below ground surface (bgs).

Purpose and Scope

Purpose of our exploration was to perform field infiltration tests at the proposed device locations and invert depths. The test locations and depths were selected by the project civil engineer. Our Scope of Work included the following:

- ***Pre-Field Exploration Activities*** – Site reconnaissance performed by a professional geologist to mark the proposed infiltration test locations. Underground Service Alert

(USA) was notified to locate and mark existing underground utilities prior to our subsurface exploration.

- ***Field Exploration*** – Our supplemental subsurface exploration was performed on August 24, 2022 and included drilling, logging, and sampling of two (2) hollow-stem auger borings (designated LP-3 and LP-4) to depths ranging from approximately 40 to 45 feet below the existing ground surface. The approximate locations of these explorations are shown on Figure 1, *Geotechnical Map*. The corresponding boring logs are presented in Appendix A, *Exploration Logs.*

  During drilling of the hollow-stem auger borings drive samples were obtained from the borings for geotechnical laboratory testing. Sample collection was performed by conducting the Standard Penetration Test (SPT) within the borings in accordance with ASTM Test Method D 1586. Samples were collected within the proposed test infiltration zone at 5-foot intervals. During sampling, the sampler was driven below the bottom of the borehole by a 140-pound weight (hammer) free-falling 30 inches. The drilling rig was equipped with an automatic hammer to provide greater consistency in the drop height and striking frequency. The number of blows to drive the sampler the final 12 inches of the 18-inch drive interval is termed the “blowcount” or SPT N-value. N-values provide a measure of relative density in granular (non-cohesive) soils and comparative consistency in cohesive soils. Number of blows per 6 inches of penetration was recorded on the boring logs included in Appendix A.

  The borings were logged in the field by a geologist from our firm. Each soil sample collected was reviewed and described in accordance with the Unified Soil Classification System (USCS). The samples were sealed and packaged for transportation to our laboratory for testing. After completion of drilling, the borings were converted to percolation wells for subsequent testing.

- ***Percolation Testing*** – Borings LP-3 and LP-4 (Figure 1) were converted to temporary percolation test wells upon completion of drilling and sampling. The test wells consisted of 2-inch diameter slotted (0.020-inch) PVC well casing screened within the proposed test zone. In-situ percolation testing was performed in general accordance with the County of San Bernardino guidelines Upon completion of the percolation testing, the well casing was removed from each boring and the borings were backfilled with soil cuttings and patched at the surface to match existing site conditions.

- ***Laboratory Testing*** – Selected soil samples obtained from our hollow-stem-auger borings were tested at our in-house geotechnical laboratory. This laboratory testing

program was designed to evaluate the fines content of the soils within the tested zone (i.e. soil particles finer than the No. 200 sieve). . Results are included in Appendix C.

- ***Report Preparation*** – This report presents our findings, conclusions, and recommendations for the proposed infiltration devices.

Infiltration Testing

Percolation testing was performed in temporary wells installed within borings LP-3 and LP-4 located in the southern region of the site with test zone at depths of 25 to 45 feet bgs and 25 to 40 feet bgs, respectively. The percolation tests were conducted in general accordance with the *San Bernardino County Technical Guidance Document (TGD) for Water Quality Management Plans* (2013). Results of the percolation testing are presented in Appendix B. The test locations and tested depth intervals are shown on Plate 1.

A boring percolation test is useful for field measurements of the infiltration rate of soils, and is suited for testing when the design depth of the infiltration device is deeper than current existing grades, especially in areas where it is difficult to dig test pits, or where the depths of these test pits would be considerably deep. At the subject site, testing consisted of advancing the borings to the anticipated depth for the invert of the proposed infiltration devices.

The *Percolation Test Procedure* (falling-head test method) as outlined in the County Guidelines was implemented at each percolation test well location. The infiltration rate was calculated by dividing the rate of discharge by the infiltration surface area, or flow area. The volume of discharge was calculated by adding the total volume of water that dropped within the PVC pipe and within the annulus, and incorporating a porosity reduction factor to account for the porosity of the annulus material. The flow area was based on the average water height within the test well.

Detailed results of the field testing data and measured infiltration rate for the test well are presented in Appendix B. The test results are summarized in the table below:

Table 1 – Measured (Unfactored) Infiltration Rate

Test Well Designation	Approximate Depth of Test Zone (feet bgs)	Measured Infiltration Rate (inches per hour)
LB-3	25 to 45	0.14
LP-4	25 to 40	0.47

Based on the results of our field percolation testing that was performed at the site, the measured (unfactored) infiltration rates for the two (2) tests performed were 0.14 inches per hour (LP-3) and 0.47 inches per hour (LP-2), respectively. According to the *San Bernardino County Technical Guidance Document (TGD) for Water Quality Management Plans* (2013), the measured infiltration rate at the LP-4 well location technically exceeds the minimum feasibility criteria of 0.3 inch per hour. However, implementation of a minimum factor of safety of 2.0 as required for the design infiltration rate indicates the depth and location tested for both wells are considered infeasible for infiltration.

Closure

We appreciate the opportunity to work with you on this project. If you have any questions regarding this report, please contact us directly at the phone extensions and/or e-mail addresses listed below.





Respectfully submitted,

LEIGHTON AND ASSOCIATES, INC.

Eric M. Holliday, PG, 9219
Senior Project Geologist
Ext 4252, eholliday@leightongroup.com

John E. Haertle, PE, GE 2352
Principal Engineer
Ext: 4268, jhaertle@leightongroup.com

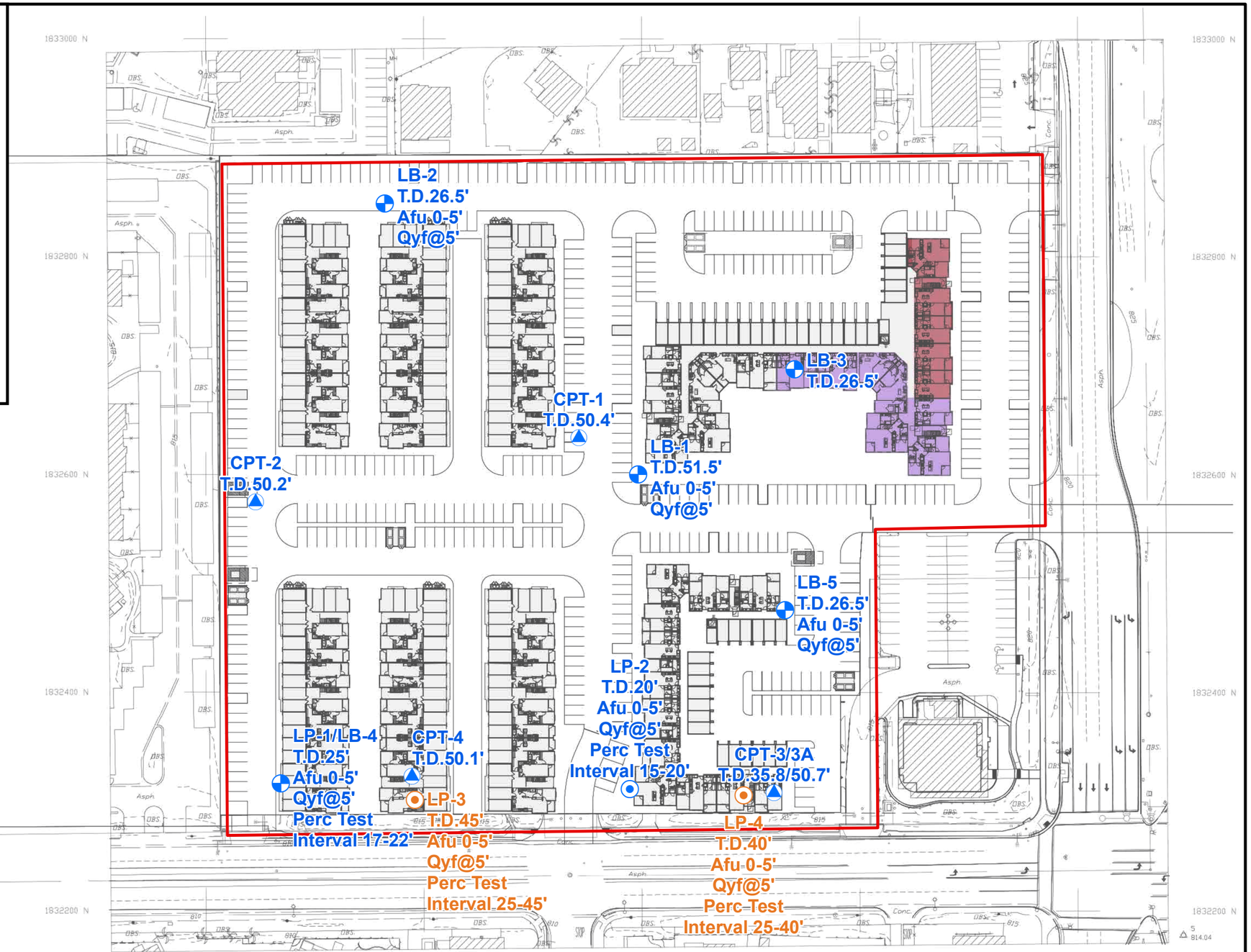
EMH/JEH/lr

Attachments: Figure 1 – *Geotechnical Map*
Appendix A - *Exploration Logs*
Appendix B - *Percolation Test Data*
Appendix C - *Geotechnical Laboratory Testing*

Distribution: (1) Addressee

LEGEND

Afu	Artificial Fill
Qyf	Quaternary Young Alluvial Fan Deposits
LP-4	Approximate location of current percolation test well showing percolation test interval in feet below ground surface.
LB-5	Approximate location of previous hollow-stem auger boring showing total depth (T.D.) and depth to earth units in feet below ground surface. (Leighton, 2022)
LP-2	Approximate location of previous percolation test well showing percolation test interval in feet below ground surface. (Leighton, 2022)
CPT-4	Approximate location of previous cone penetrometer test sounding showing total depth (T.D.) in feet below ground surface (Leighton, 2022)
	Approximate Site Boundary



N

0 100 200

Feet

Project: 13493.002	Eng/Geol: JEH/EMH
Scale: 1 " = 100 '	Date: November 2022

Base Map: Option A Site Plan, Euclid and Walnut Mixed Use
Sheet 01, Dated: 03/10/2022
by AO Architecture Design Relationships

GEOTECHNICAL MAP

Proposed Euclid and Walnut Mixed-Use Development
2502 and 2530 S. Euclid Avenue
Ontario, California

FIGURE 1

Leighton

Map Saved as J:\Drafting\13493\002\Maps\13493-002_F01_GM_2022-11-18.mxd on 11/18/2022 10:57:40 AM Author: KVM (btran)

APPENDIX A
Exploration Logs

GEOTECHNICAL BORING LOG LP-3

Project No.	13493.002	**Date Drilled**	8-24-22
Project	Proposed Euclid and Walnut Mixed-Use Development	**Logged By**	BTM
Drilling Co.	Martini Drilling, Corp.	**Hole Diameter**	8"
Drilling Method	Hollow Stem Auger - 140lb - Autohammer - 30" Drop	**Ground Elevation**	'
Location	See Figure 1 - *Geotechnical Map*	**Sampled By**	BTM

Elevation Feet	Depth Feet	Graphic Log	Attitudes	Sample No.	Bulk / Driven	Blows Per 6 Inches	Dry Density pcf	Moisture Content, %	Soil Class. (U.S.C.S.)	SOIL DESCRIPTION	Type of Tests
	0	N S								@Surface: 3 -inches Asphalt Concrete over 6 -inches Base	
									SM	**Artificial Fill, undocumented (Afu)** @0.75': Silty SAND, brown, slightly moist, very fine sand, trace medium to coarse sand and fine subrounded gravel	
	5									**Quaternary-Aged Young Alluvial Valley Deposits (Qyf)**	
	10										
	15										
	20			S-1		3 7 11			SM-ML	@20': Clayey Sandy SILT to Clayey Silty SAND, medium dense/very stiff, olive brown, slightly moist, very fine sand, low plasticity, slightly micaceous, friable, pockets of higher clay content	
	25			S-2		4 8 9			SM	@25': Silty SAND, medium dense, mottled reddish brown and grayish brown, slightly moist, very fine sand, nonplastic, slightly micaceous, friable, grading slightly finer toward bottom	-200
	30										

SAMPLE TYPES:

B	BULK SAMPLE
C	CORE SAMPLE
G	GRAB SAMPLE
R	RING SAMPLE
S	SPLIT SPOON SAMPLE
T	TUBE SAMPLE

TYPE OF TESTS:

-200	% FINES PASSING	DS	DIRECT SHEAR	SA	SIEVE ANALYSIS
AL	ATTERBERG LIMITS	EI	EXPANSION INDEX	SE	SAND EQUIVALENT
CN	CONSOLIDATION	H	HYDROMETER	SG	SPECIFIC GRAVITY
CO	COLLAPSE	MD	MAXIMUM DENSITY	UC	UNCONFINED COMPRESSIVE STRENGTH
CR	CORROSION	PP	POCKET PENETROMETER		
CU	UNDRAINED TRIAXIAL	RV	R VALUE		

Leighton

*** This log is a part of a report by Leighton and should not be used as a stand-alone document. ***

GEOTECHNICAL BORING LOG LP-3

Project No.	13493.002	**Date Drilled**	8-24-22
Project	Proposed Euclid and Walnut Mixed-Use Development	**Logged By**	BTM
Drilling Co.	Martini Drilling, Corp.	**Hole Diameter**	8"
Drilling Method	Hollow Stem Auger - 140lb - Autohammer - 30" Drop	**Ground Elevation**	'
Location	See Figure 1 - *Geotechnical Map*	**Sampled By**	BTM

Elevation Feet	Depth Feet	Graphic Log (N / S)	Attitudes	Sample No.	Bulk / Driven	Blows Per 6 Inches	Dry Density pcf	Moisture Content, %	Soil Class. (U.S.C.S.)	SOIL DESCRIPTION	Type of Tests
	30			S-3		9 11 11			ML	@30': Sandy SILT, very stiff, mottled orange brown and grayish brown, slightly moist, very fine sand, trace coarse sand, nonplastic, friable, slightly micaceous	
	35			S-4		7 11 14			SM	@35': Silty SAND, medium dense, olive brown, moist, very fine sand, micaceous, friable	-200
				S-5		10 11 11			ML	@38.5': Sandy SILT, medium dense, brown, moist, very fine sand, nonplastic, micaceous, friable, trace medium sand	
	40										
				S-6		7 14 37			SM-ML	@43.5': Interbedded Clayey Sandy SILT and Silty SAND; Clayey Sandy SILT, hard, brown, slightly moist, fine to medium sand, low plasticity, slightly micaceous	
	45									Silty SAND, very dense, yellowish brown, slightly moist, very fine to fine sand, micaceous, nonplastic, friable	
										Total Depth: 45' bgs No groundwater encountered during drilling Temporary percolation well installed; screened from 25-45' Upon completion of percolation testing, boring backfilled with soil cuttings and patched with asphalt concrete.	
	50										
	55										
	60										

This Soil Description applies only to a location of the exploration at the time of sampling. Subsurface conditions may differ at other locations and may change with time. The description is a simplification of the actual conditions encountered. Transitions between soil types may be gradual.

SAMPLE TYPES:

B	BULK SAMPLE
C	CORE SAMPLE
G	GRAB SAMPLE
R	RING SAMPLE
S	SPLIT SPOON SAMPLE
T	TUBE SAMPLE

TYPE OF TESTS:

-200	% FINES PASSING	DS	DIRECT SHEAR	SA	SIEVE ANALYSIS
AL	ATTERBERG LIMITS	EI	EXPANSION INDEX	SE	SAND EQUIVALENT
CN	CONSOLIDATION	H	HYDROMETER	SG	SPECIFIC GRAVITY
CO	COLLAPSE	MD	MAXIMUM DENSITY	UC	UNCONFINED COMPRESSIVE STRENGTH
CR	CORROSION	PP	POCKET PENETROMETER		
CU	UNDRAINED TRIAXIAL	RV	R VALUE		

Leighton

*** * * This log is a part of a report by Leighton and should not be used as a stand-alone document. * * ***

GEOTECHNICAL BORING LOG LP-4

Project No.	13493.002	**Date Drilled**	8-24-22
Project	Proposed Euclid and Walnut Mixed-Use Development	**Logged By**	BTM
Drilling Co.	Martini Drilling, Corp.	**Hole Diameter**	8"
Drilling Method	Hollow Stem Auger - 140lb - Autohammer - 30" Drop	**Ground Elevation**	'
Location	See Figure 1 - *Geotechnical Map*	**Sampled By**	BTM

Elevation Feet	Depth Feet	Graphic Log	Attitudes	Sample No.	Bulk / Driven	Blows Per 6 Inches	Dry Density pcf	Moisture Content, %	Soil Class. (U.S.C.S.)	SOIL DESCRIPTION	Type of Tests
		N S								*This Soil Description applies only to a location of the exploration at the time of sampling. Subsurface conditions may differ at other locations and may change with time. The description is a simplification of the actual conditions encountered. Transitions between soil types may be gradual.*	
	0									@Surface: 4 -inches Asphalt Concrete over 5 -inches Base	
									SM	**Artificial Fill, undocumented (Afu)** @0.75': Silty SAND, brown, slightly moist, very fine sand, trace medium to coarse sand and fine subrounded gravel	
	5									**Quaternary-Aged Young Alluvial Valley Deposits (Qyf)**	
	10										
	15										
	20			S-1		4 5 5			CL/SM	@20': Silty CLAY, stiff, gray-brown, slightly moist, medium plasticity, few very fine sand; grading to Silty SAND, loose, brown, slightly moist, very fine sand, some silt, nonplastic, trace fine subangular gravel	-200
	25			S-2		5 7 8			SM-SC	@25': Silty SAND, medium dense, grayish brown to yellowish brown, slightly moist, very fine to fine sand, slightly micaceous, some silt; grading to Sandy CLAY/Clayey SAND, medium dense/stiff, reddish brown, slightly moist, very fine to fine sand, low plasticity, slightly micaceous	
	30										

SAMPLE TYPES:

B	BULK SAMPLE
C	CORE SAMPLE
G	GRAB SAMPLE
R	RING SAMPLE
S	SPLIT SPOON SAMPLE
T	TUBE SAMPLE

TYPE OF TESTS:

-200	% FINES PASSING	DS	DIRECT SHEAR	SA	SIEVE ANALYSIS
AL	ATTERBERG LIMITS	EI	EXPANSION INDEX	SE	SAND EQUIVALENT
CN	CONSOLIDATION	H	HYDROMETER	SG	SPECIFIC GRAVITY
CO	COLLAPSE	MD	MAXIMUM DENSITY	UC	UNCONFINED COMPRESSIVE STRENGTH
CR	CORROSION	PP	POCKET PENETROMETER		
CU	UNDRAINED TRIAXIAL	RV	R VALUE		

Leighton

*** This log is a part of a report by Leighton and should not be used as a stand-alone document. ***

GEOTECHNICAL BORING LOG LP-4

Project No.	13493.002	**Date Drilled**	8-24-22
Project	Proposed Euclid and Walnut Mixed-Use Development	**Logged By**	BTM
Drilling Co.	Martini Drilling, Corp.	**Hole Diameter**	8"
Drilling Method	Hollow Stem Auger - 140lb - Autohammer - 30" Drop	**Ground Elevation**	'
Location	See Figure 1 - *Geotechnical Map*	**Sampled By**	BTM

Elevation Feet	Depth Feet	Graphic Log (N / S)	Attitudes	Sample No. (Bulk / Driven)	Blows Per 6 Inches	Dry Density pcf	Moisture Content, %	Soil Class. (U.S.C.S.)	SOIL DESCRIPTION	Type of Tests
	30			S-3	8 9 12			SM	@30': Silty SAND, medium dense, orange brown, slightly moist, very fine sand, slightly micaceous, nonplastic, friable	
	35			S-4	8 38 50/5"			SP	@35': Grading to Silty Gravelly SAND, very dense, whitish tan, slightly moist, fine to coarse sand, some fine subangular to subrounded gravel (granitic)	-200
				S-5	15 21 25			SM	@38.5': Silty SAND, dense, brown, slightly moist, very fine to fine sand, some silt, nonplastic, slightly micaceous, friable	
	40								Total Depth: 40' bgs No groundwater encountered during drilling Temporary percolation well installed; screened from 25-40' Upon completion of percolation testing, boring backfilled with soil cuttings and patched with asphalt concrete.	
	45									
	50									
	55									
	60									

SAMPLE TYPES:

- B BULK SAMPLE
- C CORE SAMPLE
- G GRAB SAMPLE
- R RING SAMPLE
- S SPLIT SPOON SAMPLE
- T TUBE SAMPLE

TYPE OF TESTS:

- -200 % FINES PASSING
- AL ATTERBERG LIMITS
- CN CONSOLIDATION
- CO COLLAPSE
- CR CORROSION
- CU UNDRAINED TRIAXIAL
- DS DIRECT SHEAR
- EI EXPANSION INDEX
- H HYDROMETER
- MD MAXIMUM DENSITY
- PP POCKET PENETROMETER
- RV R VALUE
- SA SIEVE ANALYSIS
- SE SAND EQUIVALENT
- SG SPECIFIC GRAVITY
- UC UNCONFINED COMPRESSIVE STRENGTH

Leighton

*** This log is a part of a report by Leighton and should not be used as a stand-alone document. ***

APPENDIX B

Percolation Test Data

Boring Percolation Test Data Sheet

Project Number:	13493.002	**Test Hole Number:**	LP-3	
Project Name:	Legacy - Collier	**Date Excavated:**	8/24/2022	
Earth Description:	Alluvium	**Date Tested:**	8/24/2022	
Liquid Description:	Tap water	**Depth of boring (ft):**	45	
Tested By:	BTM	**Radius of boring (in):**	4	
Time Interval Standard		**Radius of casing (in):**	1	
Start Time for Pre-Soak:	11:25	**Length of slotted of casing (ft):**		20
Start Time for Standard:	12:21	**Depth to Initial Water Depth (ft):**		25.05
Standard Time Interval		**Porosity of Annulus Material, *n* :**		1
Between Readings, mins:	10	**Bentonite Plug at Bottom:** No		

Percolation Data

Reading	Time	Time Interval, Δt (min.)	Initial/Final Depth to Water (ft.)	Initial/Final Water Height, H_0/H_f (in.)	Total Water Drop, Δd (in.)	Percolation Rate (min./in.)	Infiltration Rate (in./hr.)
1	11:25	25	25.05	239.4	17.5	1.43	0.36
	11:50		26.51	221.9			
2	11:54	25	25.00	240.0	15.4	1.63	0.31
	12:19		26.28	224.6			
3	12:21	10	25.00	240.0	6.4	1.57	0.32
	12:31		25.53	233.6			
4	12:33	10	25.00	240.0	5.4	1.85	0.27
	12:43		25.45	234.6			
5	12:44	10	25.00	240.0	4.6	2.19	0.23
	12:54		25.38	235.4			
6	12:58	10	25.00	240.0	4.2	2.38	0.21
	13:08		25.35	235.8			
7	13:17	10	25.00	240.0	3.1	3.21	0.16
	13:27		25.26	236.9			
8	13:29	10	25.00	240.0	2.9	3.47	0.14
	13:39		25.24	237.1			

Infiltration Rate (I) = Discharge Volume/Surface Area of Test Section/Time Interval

Infiltration Rate, I (Last Reading) = **0.14** **in./hr.**

Boring Percolation Test Data Sheet

Project Number:	13493.002	**Test Hole Number:**	LP-4	
Project Name:	Legacy - Collier	**Date Excavated:**	8/24/2022	
Earth Description:	Alluvium	**Date Tested:**	8/24/2022	
Liquid Description:	Tap water	**Depth of boring (ft):**	40	
Tested By:	BTM	**Radius of boring (in):**	4	
Time Interval Standard		**Radius of casing (in):**	1	
Start Time for Pre-Soak:	10:21	**Length of slotted of casing (ft):**		15
Start Time for Standard:	11:20	**Depth to Initial Water Depth (ft):**		25.00
Standard Time Interval		**Porosity of Annulus Material, *n* :**		1
Between Readings, mins:	10	**Bentonite Plug at Bottom:** No		

Percolation Data

Reading	Time	Time Interval, Δt (min.)	Initial/Final Depth to Water (ft.)	Initial/Final Water Height, H_0/H_f (in.)	Total Water Drop, Δd (in.)	Percolation Rate (min./in.)	Infiltration Rate (in./hr.)
1	10:21	25	25.00	180.0	38.6	0.65	1.14
	10:46		28.22	141.4			
2	10:51	25	25.02	179.8	32.5	0.77	0.94
	11:16		27.73	147.2			
3	11:20	10	25.00	180.0	12.6	0.79	0.86
	11:30		26.05	167.4			
4	11:32	10	25.00	180.0	10.8	0.93	0.73
	11:42		25.90	169.2			
5	11:46	10	25.00	180.0	10.2	0.98	0.69
	11:56		25.85	169.8			
6	12:00	10	25.00	180.0	8.5	1.17	0.58
	12:10		25.71	171.5			
7	12:13	10	25.00	180.0	8.4	1.19	0.57
	12:23		25.70	171.6			
8	12:27	10	25.00	180.0	7.0	1.44	0.47
	12:37		25.58	173.0			
9	12:38	10	25.02	179.8	6.8	1.46	0.46
	12:48		25.59	172.9			
10	12:50	10	25.00	180.0	7.0	1.44	0.47
	13:00		25.58	173.0			

Infiltration Rate (I) = Discharge Volume/Surface Area of Test Section/Time Interval

Infiltration Rate, I (Last Reading) = **0.47** **in./hr.**

APPENDIX C

Geotechnical Laboratory Testing

Boring No.	LP-3	LP-3	LP-4	LP-4				
Sample No.	S-2	S-4	S-1	S-4				
Depth (ft.)	25.0	35.0	20.0	35.0				
Sample Type	SPT	SPT	SPT	SPT				
Soil Identification	Yellowish brown silty sand (SM)	Light olive brown silty sand (SM)	Light olive brown sandy silt s(ML)	Light olive brown silty sand with gravel (SM)g				
Moisture Correction								
Wet Weight of Soil + Container (g)	0.00	0.00	0.00	0.00				
Dry Weight of Soil + Container (g)	0.00	0.00	0.00	0.00				
Weight of Container (g)	1.00	1.00	1.00	1.00				
Moisture Content (%)	0.00	0.00	0.00	0.00				
Sample Dry Weight Determination								
Weight of Sample + Container (g)	616.90	794.40	588.90	847.80				
Weight of Container (g)	108.60	108.50	107.30	108.00				
Weight of Dry Sample (g)	508.30	685.90	481.60	739.80				
Container No.:	V-1	927	936	957				
After Wash								
Method (A or B)	A	A	A	A				
Dry Weight of Sample + Cont. (g)	411.10	609.70	340.00	732.50				
Weight of Container (g)	108.60	108.50	107.30	108.00				
Dry Weight of Sample (g)	302.50	501.20	232.70	624.50				
% Passing No. 200 Sieve	**40.5**	**26.9**	**51.7**	**15.6**				
% Retained No. 200 Sieve	59.5	73.1	48.3	84.4				

Leighton

PERCENT PASSING
No. 200 SIEVE
ASTM D 1140

Project Name: Legacy - Ontario
Project No.: 13493.002

Tested By: J. Domingo Date: 09/12/22

3431

Passing #200 LP-3 and LP-4

Preliminary Water Quality Management Plan (PWQMP)

For compliance with Santa Ana Regional Water Quality Control Board
Order Number R8-2010-0036 (NPDES Permit No. CAS618036)

Project Name:	**EUCLID AND WALNUT MIXED USE**
Ontario Project #:	**PDEV22-027**
Applicant Name:	**LEGACY PARTNERS, CONTACT: DAVID PINTO**
Applicant Address:	**5141 CALIFORNIA AVE., STE 100, IRVINE, CA 92617**
Project Address:	**NW CORNER OF E. EUCLID AND WALNUT STREET**
Project Size (acres):	**9.82 ACRES**
Project Description:	**Redevelopment of existing commercial site**

to residential development

Submittal Date: **June 27, 2023**

Preliminary Water Quality Management Plan (PWQMP)

1. Introduction

The Preliminary Water Quality Management Plan (PWQMP) is a planning tool to improve integration of required water quality elements, stormwater management, water conservation, rainwater harvesting and re-use, and flood management in land use planning and the City's development process. The Preliminary WQMP will assist project applicants and planners in properly designing and laying out project sites so that water quality may be incorporated in the most effective manner and at the lowest cost for the developer.

The San Bernardino County Municipal Separate Storm Sewer System Permit (MS4 Permit) requires project-specific Water Quality Management plans (WQMP) to be prepared for all priority new development and significant redevelopment projects listed in Section 2 of this document. The MS4 Permit stipulates that the City of Ontario require priority project applicants to submit a Preliminary project-specific WQMP, as early as possible, during the environmental review or planning phase of a development project and that the Preliminary WQMP be approved prior to the issuance of land use entitlement.

2. Priority Projects (requiring a Preliminary WQMP)

Land Use entitlement shall not be issued for any of the listed projects, below, until a Preliminary WQMP has been approved by the City's Engineering Department. For construction projects not going through entitlement, a Preliminary and Final project specific WQMP shall be approved, prior to the issuance of construction permits:

Check the appropriate project category below, for this project:

Check below	**Project Categories**
✓	1. All significant re-development projects. Significant re-development is defined as the addition or replacement of 5,000 or more square feet of impervious surface on an already developed site subject to discretionary approval of the Permittee. Redevelopment does not include routine maintenance activities that are conducted to maintain original line and grade, hydraulic capacity, original purpose of the facility, or emergency redevelopment activity required to protect public health and safety. Where redevelopment results in an increase of less than fifty percent of the impervious surfaces of a previously existing developed site, and the existing development was not subject to WQMP requirements, the numeric sizing criteria discussed below applies only to the addition or replacement, and not to the entire developed site. Where redevelopment results in an increase of fifty percent or more of the impervious surfaces of a previously existing developed site, the numeric sizing criteria applies to the entire development (new and existing).
	2. New development projects that create 10,000 square feet or more of impervious surface (collectively over the entire project site) including commercial, industrial, residential housing subdivisions (i.e., detached single family home subdivisions, multi-family attached subdivisions or townhomes, condominiums, apartments, etc.), mixed-use, and public projects. This category includes development projects on public and private land, which fall under the planning and building authority of the permitting agency.

Check below	Project Categories
	3. Automotive repair shops (with SIC codes 5013, 5014, 5541, 7532- 7534, 7536-7539).
✓	4. Restaurants and Food Service Establishments where the land area of development is 5,000 square feet or more.
	5. Developments of 2,500 square feet of impervious surface or more adjacent to (within 200 feet) or discharging directly into environmentally sensitive areas (ESA's) such as areas designated in the Ocean Plan as areas of special biological significance or waterbodies listed on the CWA Section 303(d) list of impaired waters.
✓	6. Parking lots of 5,000 square feet or more exposed to storm water. Parking lot is defined as land area or facility for the temporary storage of motor vehicles.
	7. Retail Gasoline Outlets (RGOs) that are either 5,000 sq ft or more or have a projected average daily traffic of 100 or more vehicles per day.
	8. *This project is not covered under any of the categories listed above.

* If the development is not covered under any of the project categories listed in Section 2, the project is not required to design and install Site Design/LID BMPs or Treatment Control BMPs to treat the design storm event (Design Capture Volume) described in Section 4.

3. Preliminary WQMP Objectives

Through a combination of Site Design/LID BMPs (where feasible), Source Control, and/or Treatment Control BMPs, project-specific WQMPs shall address all identified pollutants and hydrologic conditions of concern from new development and significant re-development projects for the categories of projects (priority projects) listed in Section 2. Under each type of BMP, listed below, please indicate which BMPs are planned to be implemented and included in the Final WQMP for the project:

A. Site Design/LID (Low Impact Design) for Reducing Stormwater Runoff:

The MS4 Permit requires each priority development project to infiltrate, harvest and use, evapotranspire, or bio-treat the runoff from a 2-yr, 24-hour storm event (Design Capture Volume). If site conditions do not permit infiltration, harvest and use, evapotranspiration, and/or bio-treatment of the entire Design Capture Volume, at the project site, Site Design/LID techniques are required to be implemented to the Maximum Extent Practicable, at the project site, and the remainder of the DCV shall be infiltrated, harvested, bio-treated or treated by alternative measures. Project applicants shall submit a Preliminary WQMP that documents the LID/Site Design BMPs, proposed for the project. Please indicate, in the table below, which Site Design/LID BMPs will be utilized on this project to accomplish this requirement:

Site Design/LID Practice	Planned	Not Planned
Provide at least the minimum effective area required for LID BMPs, to comply with the WQMP (see Table 3-1 below).		✓
Grade parking lot areas/drive aisles/roof drains to sheet flow runoff into landscaped swales, via curb cuts or zero-face curbs or otherwise disconnect direct drainage from MS4.		✓
Design landscaped areas as swales and grade to accept runoff from building roofs, parking lots and project roadways.		✓
Install surface retention basins or infiltration trenches to receive impervious area runoff.		✓
Install pervious pavement in parking stalls, alleys, driveways, gutters, walkways, trails or patios.		✓
Install underground stormwater retention chambers where downstream landscaped areas are limited.		✓
Install approved Stormwater Drywells in detention areas.		✓
Construct streets, sidewalks, and parking lot stalls to the minimum widths necessary.	✓	
Install on-site Biotreatment basins/trenches with underdrains, where soil type is poorly draining.	✓	
Install “Engineered Soil” to increase uptake/soil storage capacity and/or evapotranspiration.		✓
Install Rainwater Harvesting/Use Equipment.		✓
Regional LID BMP facilities are installed, off-site, with the capacity and conveyances to accept post-development storm water runoff from this project and reserved capacity allocation credits have been assigned to the project, in a Certificate or other legally binding document, attached herein		✓

Table 3-1 Minimum Effective Area[1] Required for LID BMPs (surface + subsurface facilities) for Project WQMP to Demonstrate Infeasibility[2] (% of site)

Project Type	New Development	Re-Development
SF/MF Residential < 7 du/ac	10%	5%
SF/MF Residential < 7 - 18 du/ac	7%	3.5%
SF/MF Residential > 18 du/ac	5%	2.5%
Mixed Use, Commercial/Industrial w/FAR< 1.0	10%	5%
Mixed Use, Commercial/Industrial w/FAR 1.0-2.0	7%	3.5%
Mixed Use, Commercial/Industrial w/FAR> 2.0	5%	2.5%
Podium (parking under > 75% of project)	3%	1.5%
Zoning allowing development to property lines	2%	1%
Transit Oriented Development[3]	5%	2.5%
Parking	5%	2.5%

[1] "Effective area" is defined as land area which 1) is suitable for a retention/infiltration BMP (based on infeasibility criteria) and 2) is located down-gradient from building roof or paved areas, so that it may receive gravity flow runoff.
[2] Criteria only required if the project WQMP seeks to demonstrate that the full DCV cannot be feasibly managed on-site.
[3] Transit oriented development is defined as a project with development center within one half mile of a mass transit center.
Key: du/ac = dwelling units/acre, FAR = Floor Area Ratio = ratio of gross floor area of building to gross lot area, MF = Multi Family, SF = Single Family

B. Source Control BMPs – The following BMPs are designed to control stormwater pollutants and runoff water at the location where it is generated. Please indicate which of the listed BMPs are planned to be implemented for the project:

Source Control BMPs	Planned	Not Planned
Minimize non-stormwater site runoff through efficient irrigation system design and controllers.	✓	
Minimize trash and debris in storm runoff through a regular parking lot, storage yard and roadway sweeping program.	✓	
Provide proper covers/roofs and secondary containment for outside material storage & work areas.		✓
Provide solid roofs over all trash enclosures.	✓	
Site Owner(s)/Property Manager/HOA or POA will be familiar with the project WQMP and stormwater BMPs.	✓	
Owner or HOA or POA to provide Education/Training of site occupants and employees on stormwater BMPs.	✓	
Install stormwater placards/stenciled messages with a "No Dumping" message on all on-site/off-site storm drain inlets.	✓	
Provide contained equipment/vehicle wash rack areas that discharge to sanitary sewer.		✓

C. Treatment Control BMPs – The following BMPs are designed to control stormwater pollutants where it is not feasible to install on-site or off-site Site Design/LID BMPs, with the requisite capacity to treat the Design Capture Volume for identified Pollutants of Concern or where pretreatment of stormwater runoff is required, ahead of infiltration BMPs. Please indicate which of the listed BMPs are planned to be implemented for the project:

Treatment Control BMP	Planned	Not Planned
Gravity Separator devices for pretreatment of sediment, trash/litter or Oil & Grease		✓
Proprietary Biofiltration vaults/devices	✓	
Media Cartridge Filtration Vaults		✓
Proprietary Filter Inserts for on-site storm drain inlets or retention basin/trench overflow drains		✓

4. Volume-based calculation (approximate) for sizing on-site or off-site Stormwater Retention/Infiltration, Harvest & Re-Use or Biotreatment facilities

1) After calculating the "Watershed Imperviousness Ratio", i, which is equal to the percent of impervious area in each Drainage Management Area, divided by 100, calculate the composite runoff coefficient C_{BMP} for the Drainage Area above using the following equation:

$$\mathbf{C_{BMP} = 0.858i^3 - 0.78i^2 + 0.774i + 0.04}$$

where: $\mathbf{C_{BMP}}$ = composite runoff coefficient; and,

i = watershed imperviousness ratio.

3) Determine the area-averaged "6-hour Mean Storm Rainfall", P_6, for the Drainage Area. This is calculated by multiplying the area averaged 2-year 1-hour value (0.5"-0.6") by the appropriate regression coefficient (1.4807). The 2-yr, 1-hr value for southern Ontario is approximately to 0.5" (P_6 = 0.5*1.4807 = 0.74 and northern Ontario is approximately 0.6" in/hr (P_6 = 0.6*1.4807 = 0.89).

4) Determine the appropriate drawdown time. Use the regression constant a = 1.582 for 24 hours and a = 1.963 for 48 hours. *Note: Regression constants are provided for both 24 hour and 48-hour drawdown times; however, 48-hour drawdown times should be used in most areas of California. Drawdown times in excess of 48 hours should be used with caution as vector breeding can be a problem after water has stood in excess of 72 hours. (Use of the 24-hour drawdown time should be limited to drainage areas with coarse soils (Class 'A' soils that readily drain.)*

5) Calculate the "Maximized Detention Volume", P_0, using the following equation:

$$\mathbf{P_0 = a \cdot C_{BMP} \cdot P_6}$$

where: $\mathbf{P_0}$ = Maximized Detention Volume, in inches

a = 1.582 for 24 hour and a = 1.963 for 48-hour drawdown,

$\mathbf{C_{BMP}}$ = composite runoff coefficient; and,

$\mathbf{P_6}$ = 6-hour Mean Storm Rainfall, in inches

6) Calculate the "Target Capture Volume", V_0, using the following equation:

$$\mathbf{V_0 = (P_0 \cdot A) / 12}$$

where: $\mathbf{V_0}$ = Target Capture Volume, in acre-feet

$\mathbf{P_0}$ = Maximized Detention Volume, in inches; and,

A = BMP Drainage Area, in acres

Project Volume-based calculation (approximate) for planned on-site or off-site Stormwater Retention/Infiltration, Harvest & Re-Use or Biotreatment facilities: N/A

Variable	Factor/Formula	DA1, DMA A	DA2 DMA B	DA3 DMA C	DA4 DMA D	DA5 DMA E
Impervious surface/total surface, ratio	(i)					
C_{BMP}= runoff coefficient	$0.858i^3 - 0.78i^2 + 0.774i + 0.04$					
P_6	**P_6 = 2-yr,1-hr depth*1.4807 =					
Detention Volume (acre inches)	$P_0 = a * C_{BMP} * P_6$ =					
Drawdown rate of basin/trench (a)	1.963 for 48-hr drawdown =					
Project Total Area (acre)	(A)					
Design Capture Volume in cu. ft.	$V_0 = [(P_0 * A)/12] *43560$ =					
Runoff Volume infiltrated in first 3 hours of storm (*not applicable for underground systems*)	Vol= in/hr/12 x ft^2 of infiltration area x 3 hrs					
Retention Volume provided in cubic feet.	Retention capacity of basins, trenches, underground storage or biotreatment basin					

**For P_6 value, use site coordinates and NOAA website to determine project's average 2-yr, 1-hr rainfall depth, at: http://hdsc.nws.noaa.gov/hdsc/pfds/sa/sca_pfds.html .

5. Flow-Based calculation (approximate) for sizing on-site or off-site Biotreatment facilities and proprietary treatment technology BMPs:

1) After calculating the "Watershed Imperviousness Ratio", i, which is equal to the percent of impervious area in each Drainage Management Area divided by 100, calculate the composite runoff coefficient C_{BMP} for the Drainage Area above using the following equation:

$$\mathbf{C_{BMP} = 0.858i^3 - 0.78i^2 + 0.774i + 0.04}$$

where: $\mathbf{C_{BMP}}$ = composite runoff coefficient; and,

i = watershed imperviousness ratio.

2) Determine BMP design rainfall intensity, I_{BMP}, using the project site geo-coordinates and the NOAA website to determine project's average 2-yr, 1-hr rainfall intensity, at: http://hdsc.nws.noaa.gov/hdsc/pfds/sa/sca_pfds.html .Multiply this value by 0.2787 (regression coefficient for Ontario) and a minimum safety factor of 2.

4) Calculate the target BMP flowrate, Q, using the following formula (for each DMA <50 acres*):

$$Q = C_{BMP} \cdot I_{BMP} \cdot A$$

Where: **Q** = flow in cfs (Cubic feet per second)
I_{BMP} = BMP design rainfall intensity, in/hr
A = Drainage Area in acres

*For DMAs >50 acres, with C_{BMP} <0.5, the project applicant shall use the unit hydrograph method specified in the San Bernardino County Hydrology Manual, using the design storm pattern with rainfall return frequency such that the peak 1-hr rainfall intensity equals the 85th percentile 1-hr rainfall, multiplied by 2.

Project Flow-based calculation (approximate) for planned on-site or off-site flow-based Biotreatment facilities or Stormwater Treatment BMPs:

Variable	Factor/Formula	DA1 DMA A	DA2 DMA B	DA3 DMA C	DA4 DMA D	DA5 DMA E
Impervious surface/ total surface, ratio	(i)	0.89	0.89	0.89	0.89	0.89
C_{BMP}= composite runoff coefficient	$0.858i^3+0.78i^2+0.774i+0.04$	0.712	0.712	0.712	0.712	0.712
I_{BMP}	I_{BMP} = 2-yr,1-hr storm intensity*0.2787*safety factor	0.333	0.333	0.333	0.333	0.333
Drainage area (ac)	A = DMA sq ft/43,560	1.77	1.46	1.50	1.32	1.90
Target BMP flowrate	Q = C_{BPM}* I_{BMP} * A	0.423	0.348	0.357	0.316	0.453

Please see next sheet for additional DRAINAGE AREA Treatment BMPs

Project Flow-based calculation (approximate) for planned on-site or off-site flow-based Biotreatment facilities or Stormwater Treatment BMPs: (Continued)

Variable	Factor/Formula	DA6 DMA A	DA7 DMA B	DA8 DMA C	DA9 DMA D	DA10 DMA E
Impervious surface/ total surface, ratio	(i)	0.89	0.89			
C_{BMP}= composite runoff coefficient	$0.858i^3+0.78i^2+0.774i+0.04$	0.712	0.712			
I_{BMP}	I_{BMP} = 2-yr,1-hr storm intensity*0.2787*safety factor	0.333	0.333			
Drainage area (ac)	A = DMA sq ft/43,560	0.69	0.97			
Target BMP flowrate	Q = C_{BPM}* I_{BMP} * A	0.165	0.232			

6. Hydrologic Conditions of Concern (HCOC) and use of the on-line San Bernardino County HCOC Map for determining necessary mitigation steps necessary if there are HCOCs downstream of a project:

Project applicants may access the on-line HCOC Map at: http://permitrack.sbcounty.gov/WAP/. The map will indicate any hydrology concerns with downstream waterways that are hydraulically connected to the project and will indicate if there are any approved regional projects downstream that could be utilized for off-site mitigation of HCOCs. Please indicate here if the project will or will not be able to retain/infilter, harvest and use or biotreat and detain the DCV, on-site, as calculated in Section 4 and if there are HCOCs identified downstream of the project:

Retain or Harvest/Use the DCV on site?	Yes		No	✓
Biotreat the DCV but not infilter the runoff?	Yes	✓	No	
HCOCs identified downstream of site?	Yes		No	✓

If the entire DCV will not be retained on site, the DCV is biotreated but not infiltered or additional detention capacity is needed to address identified HCOCs, downstream of the site, please list here, what additional mitigation measures will be utilized (on-site or off-site) to address HCOCs (see Section 4.2.1-4.2.3 of the SB County WQMP Technical Guidance):

NO HCOC EXISTS FOR THIS SITE

7. Site Plan and Conceptual Grading/Drainage Plan requirements for submission with the Preliminary WQMP:

Provide a Site Plan and Conceptual Grading/Drainage Plan along with this Preliminary WQMP, which conceptually shows the proposed locations of buildings, homes, parking lots, parks, new paved roadways, landscaped areas, drainage patterns and drainage sub-areas, methods of conveyance, proposed retention/infiltration, harvest & use or biotreatment facilities that are planned for installation. Where it is determined to be infeasible to capture and detain design storm runoff volumes, on-site, please include other design features, as described in Section 3, above. Include numbered or lettered notes on the Site Plan with a legend detailing other BMPs, as described in Section 3.

8. BMP Maintenance and Funding Mechanism & Description:

BMP Maintenance and funding will be the responsibility of the owner/lessee.

9. Acknowledgment:

As the property owner or developer, I understand that this project is required to install and implement permanent LID Storm Water Best Management Practices pursuant to the requirements of the San Bernardino County MS4 Permit and to document those BMPs in the submittal of a Water Quality Management Plan, which is binding on any current or successive owners of this property.

Yes	✓	No	

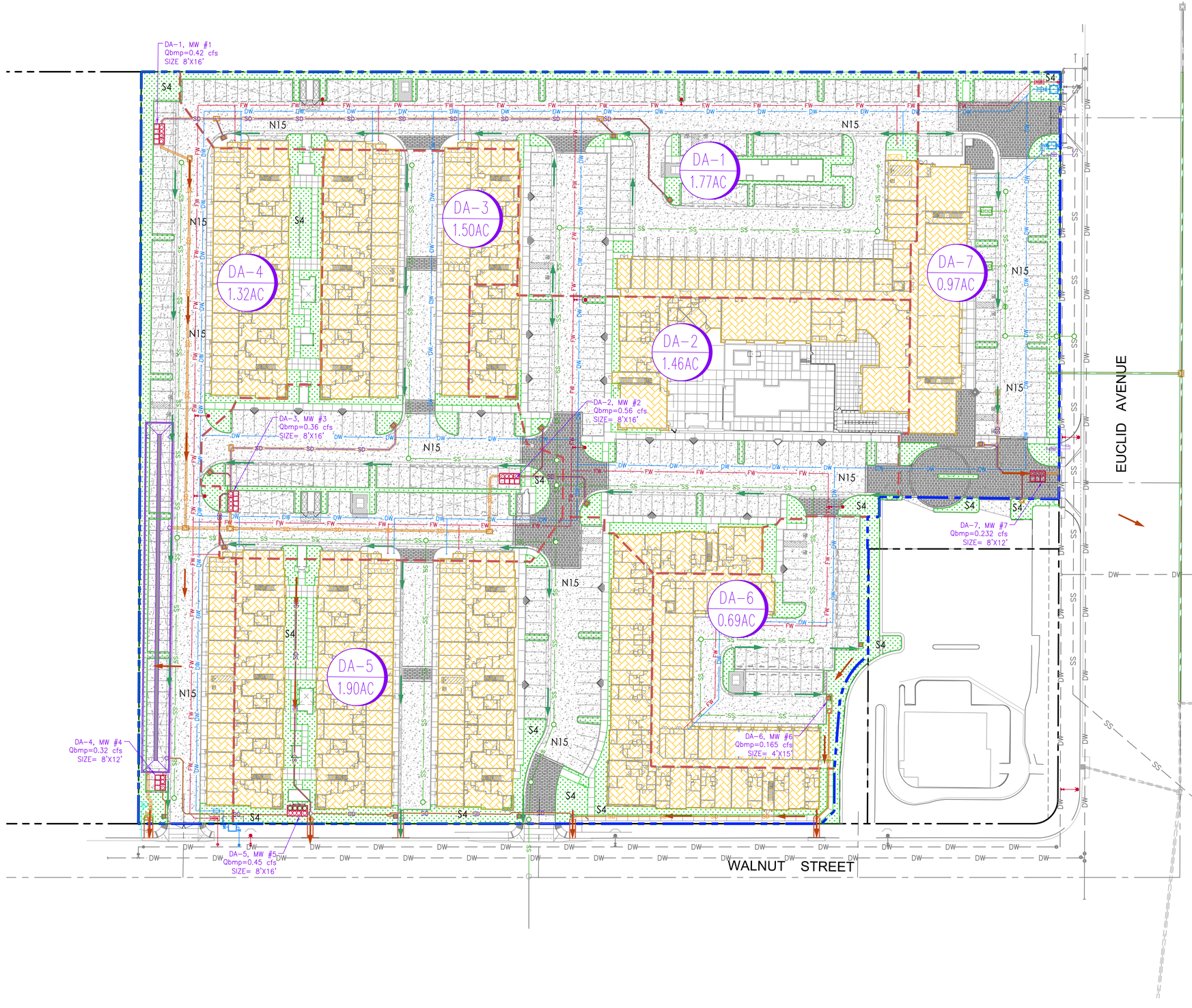
10. Exemption Signature:

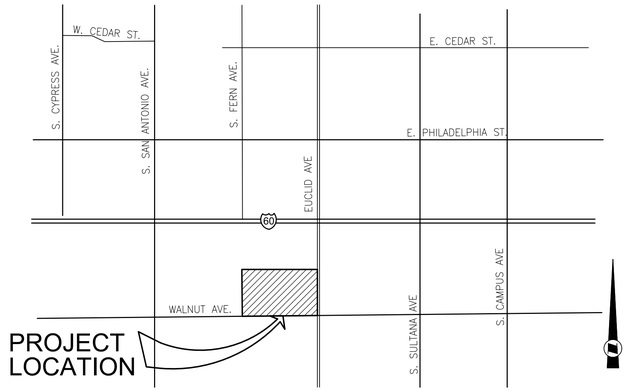
As the property owner or developer, I understand that this project is not required by the San Bernardino County MS4 Permit to install and implement permanent LID Storm Water Best Management Practices and will not be required to submit a Water Quality Management Plan.

Signature of Owner or Developer Date

WQMP PLAN AND DRAINAGE PLAN

- Vicinity Map
- Site Plan, Drainage Flow and LID BMP Plan
- Conceptual Grading Plan (For reference only)





VICINITY MAP
NOT TO SCALE

LEGEND

- PROJECT BOUNDARY
- DRAINAGE AREA BOUNDARY
- FLOW DIRECTION (SURFACE)
- FLOW DIRECTION (PIPE)
- PROPOSED STORM DRAIN LINE (PUBLIC)
- SD — PROPOSED STORM DRAIN LINE (PRIVATE)
- CATCH BASIN STENCILING AND COMMON AREA CATCH BASIN INSPECTION
- N15 — STREET VACUUMING AND CLEANING
- S4 — EFFICIENT IRRIGATION
- LANDSCAPE AREA
- ROOF
- PAVEMENT/HARDSCAPE
- DA-X X AC — DRAINAGE AREA ID AND ACREAGE
- UNDERGROUND RETENTION/INFILTRATION CHAMBERS
- MODULAR WETLAND BY CONTECH (PROPRIETARY BIO RETENTION BASIN)
- SD — PROPOSED STORM DRAIN DRAINING TO MODULAR WETLAND

FUSCOE ENGINEERING
FULL CIRCLE THINKING

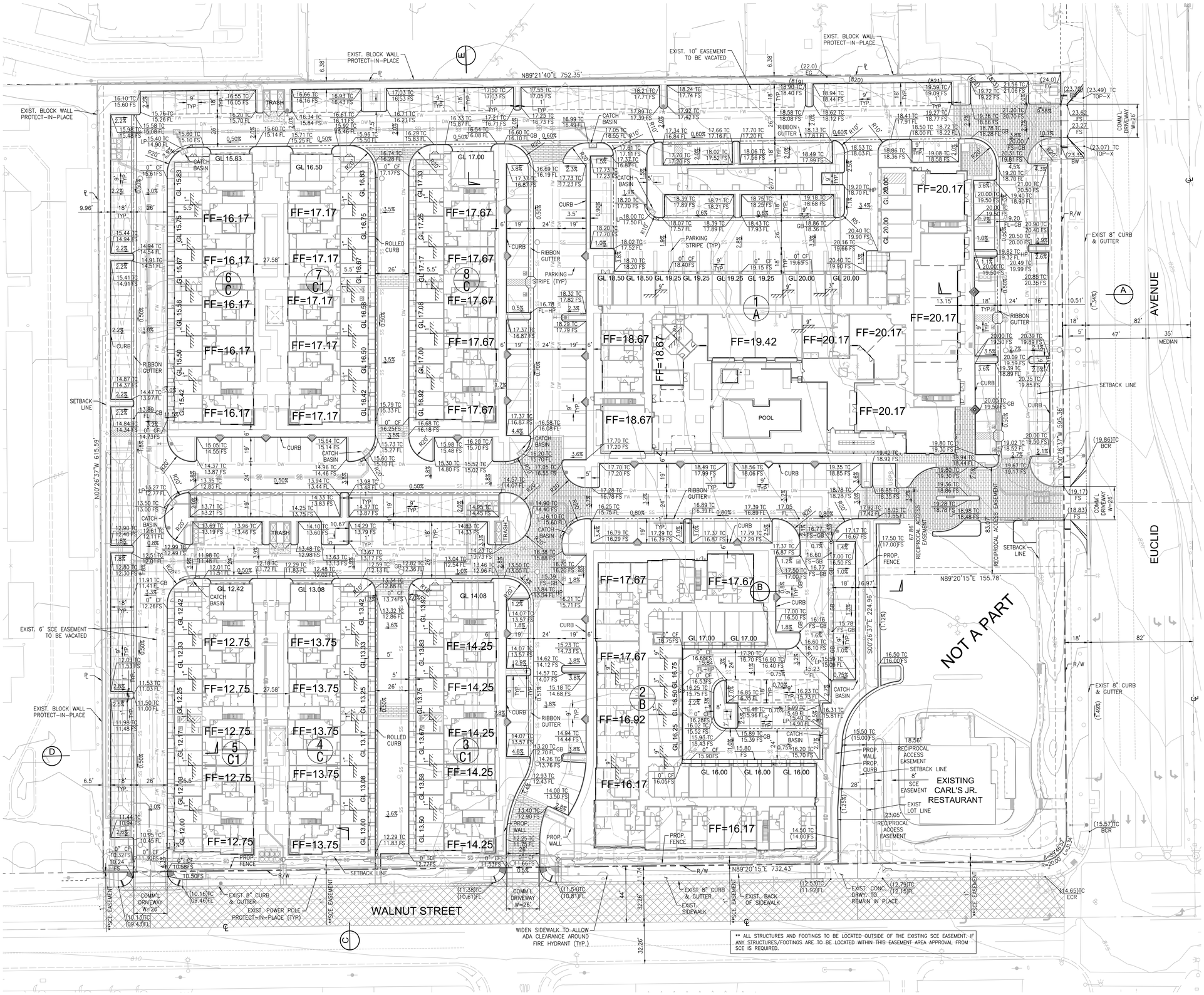
N

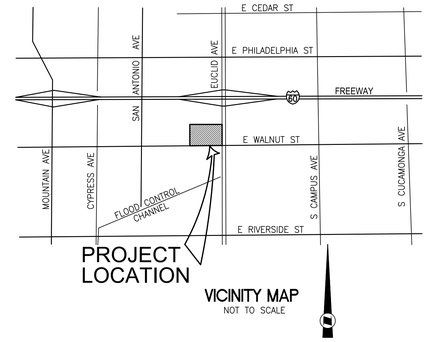
Scale: 1" = 40'
Exhibit Date: 06.27.23

PWQMP EXHIBIT-OPTION 2
EUCLID AND WALNUT MIXED USE
NW CORNER OF E. EUCLID
AND WALNUT STREET
ONTARIO, CA

CONCEPTUAL GRADING PLAN FOR ONTARIO APARTMENTS

IN THE CITY OF ONTARIO, COUNTY OF SAN BERNARDINO
STATE OF CALIFORNIA





OWNER:

LEGACY PARTNERS
ATTN: DAVID PINTO
5141 CALIFORNIA AVENUE, SUITE 100
IRVINE, CA 92617
PHONE: (949) 930-7712
DPINTO@LEGACYPARTNERS.COM

ARCHITECT:

ARCHITECTS ORANGE
ATTN: SERAFIN MARANAN
144 NORTH ORANGE STREET
ORANGE, CA 92866
PHONE: (714) 639-9860

LEGEND

- CARPORTS
- TREE WELLS
- GRIND AND OVERLAY
- DECORATIVE PAVERS

NOTE:

- EUCLID AVENUE IS MAINTAINED BY CALTRANS. DRIVEWAY APPROACH TYPE AND SIZE AND LOCATION, SIDEWALK AND CURB & GUTTER IMPROVEMENTS TO BE COORDINATED WITH CALTRANS.
- COMPACTION TO BE NO GREATER THAN 85% IN LANDSCAPE AREAS. ALL FINISHED GRADES AT 1 ½" BELOW FINISHED SURFACES. SLOPE TO BE MAXIMUM 3:1.
- LANDSCAPE AREAS WHERE COMPACTION HAS OCCURRED DUE TO GRADING ACTIVITIES AND WHERE TREES OR STORMWATER INFILTRATION AREAS ARE LOCATED SHALL BE LOOSENED BY SOIL FRACTURING. FOR TREES, A 12'X12'X18" DEEP AREA; FOR STORMWATER INFILTRATION, THE ENTIRE AREA SHALL BE LOOSENED. ADD THE FOLLOWING INFORMATION ON THE PLANS: THE BACKHOE METHOD OF SOIL FRACTURING SHALL BE USED TO BREAK UP COMPACTION. A 4" LAYER OF COMPOST IS SPREAD OVER THE SOIL SURFACE BEFORE FRACTURING IS BEGUN. THE BACKHOE SHALL DIG INTO THE SOIL LIFTING AND THE DROP THE SOIL IMMEDIATELY BACK INTO THE HOLE. THE BUCKET THEN MOVES TO THE ADJACENT SOIL AND REPEATS. THE COMPACT FALLS INTO THE SPACES BETWEEN THE SOIL CHUNKS CREATED. FRACTURING SHALL LEAVE THE SOIL SURFACE QUITE ROUGH WITH LARGE SOIL CLODS. THESE MUST BE BROKEN BY ADDITIONAL TILLING. TILLING IN MORE COMPOST TO THE SURFACE AFTER FRACTURING PER THE SOIL REPORT WILL HELP CREATE AN A HORIZON SOIL. IMPORTED OR REUSED TOPSOIL CAN BE ADDED ON TOP OF THE FRACTURED SOIL AS NEEDED FOR GRADING. THE LANDSCAPE ARCHITECT SHALL BE PRESENT DURING THIS PROCESS AND PROVIDE CERTIFICATION OF THE SOIL FRACTURING. FOR ADDITIONAL REFERENCE, SEE URBAN TREE FOUNDATION–PLANTING SOIL SPECIFICATION.

EARTHWORK QUANTITY ESTIMATE

	CUT (C.Y.)	FILL (C.Y.)
RAW VOLUME	13,314	2,853
SHRINKAGE (15%)	0	1,997
SUBSIDENCE (427,972 SF. X 0.1'/27)	0	1580
BLDG OVER–EX	14,570	14,570
OVER–EX SHRINKAGE (15%)	0	2186
TOTAL	27,884	23,186
NET (EXPORT)	4,698	

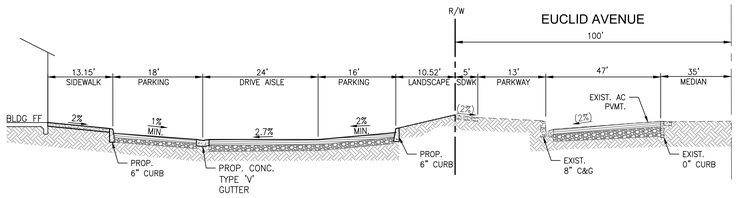
NOTE:
QUANTITIES SHOWN HEREON ARE FOR BUDGETARY PURPOSES ONLY AND SHALL NOT BE USED FOR BIDDING. CONTRACTOR SHALL DETERMINE HIS OWN QUANTITIES AND BID A COMPLETE JOB.

** ALL STRUCTURES AND FOOTINGS TO BE LOCATED OUTSIDE OF THE EXISTING SCE EASEMENT. IF ANY STRUCTURES/FOOTINGS ARE TO BE LOCATED WITHIN THIS EASEMENT AREA APPROVAL FROM SCE IS REQUIRED.

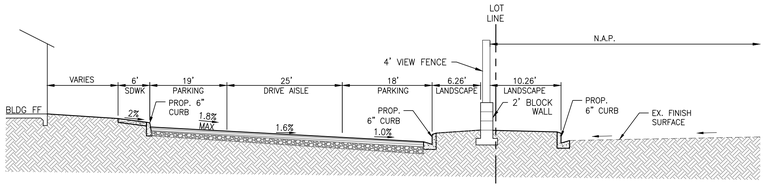
SCALE: 1" = 30'

PREPARED BY:
FUSCOE ENGINEERING
2850 Inland Empire Blvd. Suite B
Ontario, California 91764
Phone (909) 581-0676
FAX (909) 581-0696
Civil Engineers Land Surveyors
Job Number: 424-027 Date: May, 2023

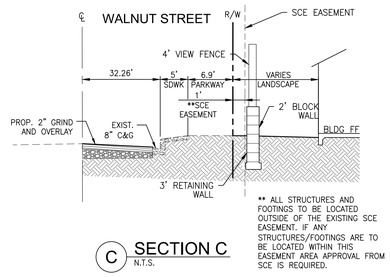
F:\PROJECTS\424\027\PLANS\ENTITLEMENTS\CONCEPTUAL GRADING PLAN\424-027 CGP.DWG [Mo-27-3, 8:19:01AM] Plotted by: cpeoples



A SECTION A
N.T.S.

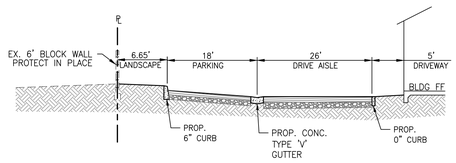


B SECTION B
N.T.S.

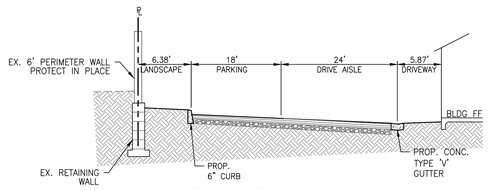


C SECTION C
N.T.S.

** ALL STRUCTURES AND FOOTINGS TO BE LOCATED OUTSIDE OF THE EXISTING SCE EASEMENT. IF ANY STRUCTURES/FOOTINGS ARE TO BE LOCATED WITHIN THIS EASEMENT AREA APPROVAL FROM SCE IS REQUIRED.



D SECTION D
N.T.S.



E SECTION E
N.T.S.

PREPARED BY:
FUSCOE ENGINEERING
2850 Inland Empire Blvd. Suite B
Ontario, California 91764
Phone (909) 581-0676
FAX (909) 581-0696
Civil Engineers Land Surveyors
Job Number: 424-027 Date: May, 2023

F:\PROJECTS\424\027-PLANS\EXHIBITS\EMENTS\CONCEPTUAL GRADING PLAN\424-027 CGP.DWG (06-27-23, 8:19:39AM) Plotted by: cgonzalez

BMP SIZING CALCULATIONS

- Precipitation Data

- Treatment control BMP sizing calculations (Proposed Modular Wetland by Contech) for DA-1 through DA-7

NOAA Atlas 14, Volume 6, Version 2
Location name: Ontario, California, USA*
Latitude: 34.0275°, Longitude: -117.6526°
Elevation: m/ft**
* source: ESRI Maps
** source: USGS

POINT PRECIPITATION FREQUENCY ESTIMATES

Sanja Perica, Sarah Dietz, Sarah Heim, Lillian Hiner, Kazungu Maitaria, Deborah Martin, Sandra Pavlovic, Ishani Roy, Carl Trypaluk, Dale Unruh, Fenglin Yan, Michael Yekta, Tan Zhao, Geoffrey Bonnin, Daniel Brewer, Li-Chuan Chen, Tye Parzybok, John Yarchoan

NOAA, National Weather Service, Silver Spring, Maryland

PF_tabular | PF_graphical | Maps_&_aerials

PF tabular

PDS-based point precipitation frequency estimates with 90% confidence intervals (in inches)[1]

Duration	Average recurrence interval (years)									
	1	2	5	10	25	50	100	200	500	1000
5-min	0.116 (0.097-0.141)	0.153 (0.127-0.185)	0.199 (0.166-0.242)	0.237 (0.196-0.291)	0.289 (0.230-0.366)	0.328 (0.255-0.425)	0.367 (0.279-0.489)	0.408 (0.301-0.559)	0.463 (0.327-0.663)	0.506 (0.345-0.751)
10-min	0.167 (0.139-0.202)	0.219 (0.182-0.265)	0.286 (0.238-0.347)	0.340 (0.280-0.417)	0.414 (0.329-0.525)	0.470 (0.366-0.609)	0.526 (0.400-0.701)	0.585 (0.431-0.802)	0.664 (0.469-0.950)	0.726 (0.494-1.08)
15-min	0.202 (0.168-0.244)	0.264 (0.220-0.320)	0.346 (0.287-0.420)	0.411 (0.339-0.504)	0.500 (0.398-0.635)	0.568 (0.442-0.737)	0.637 (0.483-0.847)	0.707 (0.521-0.969)	0.803 (0.567-1.15)	0.878 (0.598-1.30)
30-min	0.305 (0.255-0.370)	0.401 (0.334-0.485)	0.524 (0.435-0.636)	0.623 (0.514-0.764)	0.758 (0.603-0.961)	0.860 (0.670-1.12)	0.964 (0.732-1.28)	1.07 (0.790-1.47)	1.22 (0.859-1.74)	1.33 (0.905-1.97)
60-min	0.456 (0.381-0.552)	0.598 (0.498-0.724)	0.782 (0.650-0.950)	0.930 (0.767-1.14)	1.13 (0.900-1.44)	1.28 (1.00-1.67)	1.44 (1.09-1.92)	1.60 (1.18-2.19)	1.82 (1.28-2.60)	1.98 (1.35-2.94)
2-hr	0.682 (0.570-0.826)	0.894 (0.745-1.08)	1.16 (0.965-1.41)	1.37 (1.13-1.68)	1.65 (1.31-2.09)	1.85 (1.44-2.40)	2.06 (1.56-2.74)	2.26 (1.66-3.09)	2.52 (1.78-3.61)	2.72 (1.86-4.04)
3-hr	0.858 (0.716-1.04)	1.12 (0.936-1.36)	1.45 (1.21-1.77)	1.71 (1.41-2.10)	2.05 (1.63-2.60)	2.30 (1.79-2.98)	2.54 (1.93-3.38)	2.78 (2.05-3.81)	3.10 (2.19-4.43)	3.33 (2.27-4.94)
6-hr	1.19 (0.996-1.44)	1.56 (1.30-1.89)	2.01 (1.67-2.45)	2.37 (1.95-2.90)	2.83 (2.25-3.59)	3.16 (2.46-4.10)	3.49 (2.65-4.64)	3.82 (2.81-5.23)	4.24 (2.99-6.06)	4.55 (3.10-6.75)
12-hr	1.55 (1.29-1.88)	2.03 (1.69-2.45)	2.63 (2.18-3.19)	3.10 (2.55-3.79)	3.71 (2.95-4.71)	4.17 (3.24-5.40)	4.61 (3.50-6.14)	5.06 (3.73-6.94)	5.64 (3.98-8.08)	6.08 (4.14-9.02)
24-hr	2.02 (1.79-2.33)	2.65 (2.35-3.06)	3.47 (3.06-4.02)	4.13 (3.61-4.82)	5.00 (4.23-6.03)	5.66 (4.69-6.96)	6.32 (5.12-7.96)	6.98 (5.50-9.05)	7.88 (5.96-10.6)	8.56 (6.26-11.9)
2-day	2.41 (2.13-2.78)	3.23 (2.85-3.73)	4.31 (3.80-4.99)	5.19 (4.54-6.06)	6.40 (5.42-7.72)	7.34 (6.08-9.03)	8.29 (6.71-10.4)	9.28 (7.31-12.0)	10.6 (8.05-14.3)	11.7 (8.55-16.3)
3-day	2.58 (2.28-2.97)	3.50 (3.10-4.04)	4.73 (4.17-5.48)	5.75 (5.03-6.71)	7.16 (6.06-8.63)	8.27 (6.86-10.2)	9.40 (7.62-11.9)	10.6 (8.35-13.7)	12.3 (9.27-16.5)	13.6 (9.92-18.9)
4-day	2.77 (2.45-3.20)	3.80 (3.36-4.38)	5.16 (4.55-5.98)	6.30 (5.51-7.35)	7.86 (6.66-9.48)	9.09 (7.54-11.2)	10.4 (8.39-13.1)	11.7 (9.21-15.1)	13.5 (10.2-18.3)	15.0 (11.0-20.9)
7-day	3.22 (2.85-3.71)	4.43 (3.91-5.11)	6.03 (5.32-6.98)	7.35 (6.43-8.58)	9.17 (7.76-11.1)	10.6 (8.78-13.0)	12.0 (9.75-15.2)	13.6 (10.7-17.6)	15.6 (11.8-21.1)	17.3 (12.6-24.1)
10-day	3.51 (3.11-4.05)	4.85 (4.28-5.59)	6.61 (5.83-7.65)	8.06 (7.05-9.41)	10.1 (8.51-12.1)	11.6 (9.62-14.3)	13.2 (10.7-16.6)	14.8 (11.7-19.2)	17.1 (12.9-23.0)	18.8 (13.8-26.3)
20-day	4.26 (3.77-4.91)	5.94 (5.25-6.86)	8.19 (7.22-9.48)	10.0 (8.79-11.7)	12.6 (10.7-15.2)	14.6 (12.1-18.0)	16.7 (13.5-21.0)	18.8 (14.9-24.4)	21.8 (16.5-29.4)	24.2 (17.7-33.7)
30-day	5.00 (4.43-5.77)	7.01 (6.19-8.09)	9.72 (8.57-11.2)	12.0 (10.5-14.0)	15.2 (12.8-18.3)	17.7 (14.6-21.7)	20.3 (16.4-25.5)	23.0 (18.1-29.8)	26.8 (20.3-36.2)	29.9 (21.9-41.7)
45-day	5.97 (5.29-6.89)	8.35 (7.38-9.64)	11.6 (10.2-13.4)	14.4 (12.6-16.8)	18.3 (15.5-22.1)	21.5 (17.8-26.5)	24.9 (20.1-31.3)	28.4 (22.4-36.8)	33.5 (25.4-45.2)	37.6 (27.5-52.5)
60-day	6.94 (6.14-8.00)	9.62 (8.50-11.1)	13.4 (11.8-15.5)	16.6 (14.5-19.3)	21.2 (18.0-25.6)	25.1 (20.8-30.8)	29.1 (23.6-36.7)	33.6 (26.4-43.5)	39.9 (30.2-53.8)	45.2 (33.0-63.0)

[1] Precipitation frequency (PF) estimates in this table are based on frequency analysis of partial duration series (PDS).

Numbers in parenthesis are PF estimates at lower and upper bounds of the 90% confidence interval. The probability that precipitation frequency estimates (for a given duration and average recurrence interval) will be greater than the upper bound (or less than the lower bound) is 5%. Estimates at upper bounds are not checked against probable maximum precipitation (PMP) estimates and may be higher than currently valid PMP values.

Please refer to NOAA Atlas 14 document for more information.

Back to Top

PF graphical

MODULAR WETLAND #1			
Tributary Area DA-1	77121	sf	Step 1
Pervious area	8483	sf	Site condition
Impervious area	68638	sf	Site condition
Percent Imperviousness	89%		Site condition
Runoff coefficient=	0.716		Step 3
P2yr-1hr=	0.598		Step 4 (See Attached)
C1 Valley =	1.4807		Step 5
P6 =	0.885		Step 5
Drawdown Time =	48	hour	Step 6
C2 (For 48 hour)=	1.963		Step 7
DCV =	**7997**	cft	Step 7
P0=	1.244		

Qbmp Euclid and Walnut, ONTARIO (PWQMP)

Biotreatment (Modular Wetland) Sizing Calculation			
Area =	1.77	AC	
Ibmp=	0.167		
FS=	2		
Required Ibmp=	0.333		
Qbmp =	0.423	cfs	Flow control BMP
Modular Wetland MW-1	8X16	ftXft	Proposed Size
Proposed treatment Capacity	0.462	cfs	> Required flow rate

MODULAR WETLAND #2			
Tributary Area DA-2	63501	sf	Step 1
Pervious area	6985	sf	Site condition
Impervious area	56516	sf	Site condition
Percent Imperviousness	89%		Site condition
Runoff coefficient=	0.716		Step 3
P2yr-1hr=	0.598		Step 4 (See Attached)
C1 Valley =	1.4807		Step 5
P6 =	0.885		Step 5
Drawdown Time =	48	hour	Step 6
C2 (For 48 hour)=	1.963		Step 7
DCV =	**6585**	cft	Step 7
P0=	1.244		

Qbmp Euclid and Walnut, ONTARIO (PWQMP)

Biotreatment (Modular Wetland) Sizing Calculation			
Area =	1.46	AC	
Ibmp=	0.167		
FS=	2		
Required Ibmp=	0.333		
Qbmp =	0.348	cfs	Flow control BMP
Modular Wetland MW-2	8X16	ftXft	Proposed Size
Proposed treatment Capacity	0.462	cfs	> Required flow rate

MODULAR WETLAND #3			
Tributary Area DA-3	65174	sf	Step 1
Pervious area	7169	sf	Site condition
Impervious area	58005	sf	Site condition
Percent Imperviousness	89%		Site condition
Runoff coefficient=	0.716		Step 3
P2yr-1hr=	0.598		Step 4 (See Attached)
C1 Valley =	1.4807		Step 5
P6 =	0.885		Step 5
Drawdown Time =	48	hour	Step 6
C2 (For 48 hour)=	1.963		Step 7
DCV =	**6758**	cft	Step 7
P0=	1.244		

Qbmp Euclid and Walnut, ONTARIO (PWQMP)

Biotreatment (Modular Wetland) Sizing Calculation			
Area =	1.50	AC	
Ibmp=	0.167		
FS=	2		
Required Ibmp=	0.333		
Qbmp =	0.357	cfs	Flow control BMP
Modular Wetland MW-3	8X16	ftXft	Proposed Size
Proposed treatment Capacity	0.462	cfs	> Required flow rate

MODULAR WETLAND #4			
Tributary Area DA-4	57596	sf	Step 1
Pervious area	6336	sf	Site condition
Impervious area	51260	sf	Site condition
Percent Imperviousness	89%		Site condition
Runoff coefficient=	0.716		Step 3
P2yr-1hr=	0.598		Step 4 (See Attached)
C1 Valley =	1.4807		Step 5
P6 =	0.885		Step 5
Drawdown Time =	48	hour	Step 6
C2 (For 48 hour)=	1.963		Step 7
DCV =	**5972**	cft	Step 7
P0=	1.244		

Qbmp Euclid and Walnut, ONTARIO (PWQMP)

Biotreatment (Modular Wetland) Sizing Calculation			
Area =	1.32	AC	
Ibmp=	0.167		
FS=	2		
Required Ibmp=	0.333		
Qbmp =	0.316	cfs	Flow control BMP
Modular Wetland MW-4	8X12	ftXft	Proposed Size
Proposed treatment Capacity	0.346	cfs	> Required flow rate

MODULAR WETLAND #5			
Tributary Area DA-5	82585	sf	Step 1
Pervious area	9084	sf	Site condition
Impervious area	73501	sf	Site condition
Percent Imperviousness	89%		Site condition
Runoff coefficient=	0.716		Step 3
P2yr-1hr=	0.598		Step 4 (See Attached)
C1 Valley =	1.4807		Step 5
P6 =	0.885		Step 5
Drawdown Time =	48	hour	Step 6
C2 (For 48 hour)=	1.963		Step 7
DCV =	**8564**	cft	Step 7
P0=	1.244		

Qbmp Euclid and Walnut, ONTARIO (PWQMP)

Biotreatment (Modular Wetland) Sizing Calculation			
Area =	1.90	AC	
Ibmp=	0.167		
FS=	2		
Required Ibmp=	0.333		
Qbmp =	0.453	cfs	Flow control BMP
Modular Wetland MW-5	8X16	ftXft	Proposed Size
Proposed treatment Capacity	0.462	cfs	> Required flow rate

MODULAR WETLAND #6			
Tributary Area DA-6	30034	sf	Step 1
Pervious area	3304	sf	Site condition
Impervious area	26730	sf	Site condition
Percent Imperviousness	89%		Site condition
Runoff coefficient=	0.716		Step 3
P2yr-1hr=	0.598		Step 4 (See Attached)
C1 Valley =	1.4807		Step 5
P6 =	0.885		Step 5
Drawdown Time =	48	hour	Step 6
C2 (For 48 hour)=	1.963		Step 7
DCV =	**3114**	cft	Step 7
P0=	1.244		

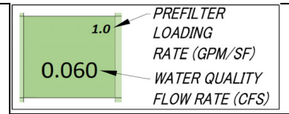
Qbmp Euclid and Walnut, ONTARIO (PWQMP)

Biotreatment (Modular Wetland) Sizing Calculation			
Area =	0.69	AC	
Ibmp=	0.167		
FS=	2		
Required Ibmp=	0.333		
Qbmp =	0.165	cfs	Flow control BMP
Modular Wetland MW-6	8X8	ftXft	Proposed Size
Proposed treatment Capacity	0.231	cfs	> Required flow rate

MODULAR WETLAND #7			
Tributary Area DA-7	42385	sf	Step 1
Pervious area	4662	sf	Site condition
Impervious area	37723	sf	Site condition
Percent Imperviousness	89%		Site condition
Runoff coefficient=	0.716		Step 3
P2yr-1hr=	0.598		Step 4 (See Attached)
C1 Valley =	1.4807		Step 5
P6 =	0.885		Step 5
Drawdown Time =	48	hour	Step 6
C2 (For 48 hour)=	1.963		Step 7
DCV =	**4395**	cft	Step 7
P0=	1.244		

Qbmp Euclid and Walnut, ONTARIO (PWQMP)

Biotreatment (Modular Wetland) Sizing Calculation			
Area =	0.97	AC	
Ibmp=	0.167		
FS=	2		
Required Ibmp=	0.333		
Qbmp =	0.232	cfs	Flow control BMP
Modular Wetland MW-6	8X12	ftXft	Proposed Size
Proposed treatment Capacity	0.346	cfs	> Required flow rate



MWS LINEAR 2.0 HGL SIZING MATRIX - 2.1 GPM/SF PREFILTER

HIGH DENSITY PROJECTS

REGULAR PREFILTER CARTRIDGE
HIGH CAPACITY PREFILTER CARTRIDGE
~~SIZE NOT AVAILABLE~~

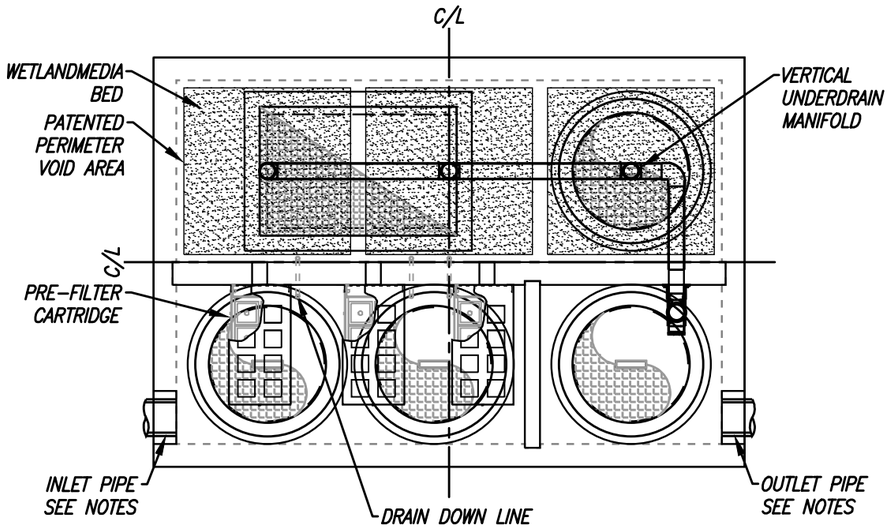
	MWS MODEL SIZE	WETLAND PERIMETER LENGTH	LOADING RATE GPM/SF	HGL HEIGHT																						
				SHALLOW MODELS										STANDARD HEIGHT MODEL	HIGH CAPACITY MODELS											
				1.4	1.6	1.8	2.0	2.2	2.4	2.6	2.8	3.0	3.2	3.4	3.6	3.8	4.0	4.2	4.4	4.6	4.8	5.0	5.2	5.4	5.6	5.8	6.0
SIDE BY SIDE UNITS	MWS-L-4-4	6.70	1.0	0.022	0.025	0.028	0.031	0.034	0.037	0.040	0.043	0.046	0.049	**0.052**	0.055	0.058	0.062	0.065	0.068	0.071	0.074	0.077	0.080	0.083	0.086	0.089	0.092
	MWS-L-4-6	9.30	1.0	0.030	0.034	0.038	0.043	0.047	0.051	0.055	0.060	0.064	0.068	**0.073**	0.077	0.081	0.085	0.090	0.094	0.098	0.102	0.107	0.111	0.115	0.120	0.124	0.128
	MWS-L-4-6.33	9.30	1.0	0.030	0.034	0.038	0.043	0.047	0.051	0.055	0.060	0.064	0.068	**0.073**	0.077	0.081	0.085	0.090	0.094	0.098	0.102	0.107	0.111	0.115	0.120	0.124	0.128
	MWS-L-4-8	14.80	1.0	0.048	0.054	0.061	0.068	0.075	0.082	0.088	0.095	0.102	0.109	**0.115**	0.122	0.129	0.136	0.143	0.149	0.156	0.163	0.170	0.177	0.183	0.190	0.197	0.204
END TO END UNITS	MWS-L-4-13	18.40	1.0	0.059	0.068	0.076	0.084	0.093	0.101	0.110	0.118	0.127	0.135	**0.144**	0.152	0.160	0.169	0.177	0.186	0.194	0.203	0.211	0.220	0.228	0.236	0.245	0.253
	MWS-L-4-15	22.40	1.0	0.072	0.082	0.093	0.103	0.113	0.123	0.134	0.144	0.154	0.165	**0.175**	0.185	0.195	0.206	0.216	0.226	0.236	0.247	0.257	0.267	0.278	0.288	0.298	0.308
	MWS-L-4-17	26.40	1.0	0.085	0.097	0.109	0.121	0.133	0.145	0.158	0.170	0.182	0.194	**0.206**	0.218	0.230	0.242	0.254	0.267	0.279	0.291	0.303	0.315	0.327	0.339	0.351	0.364
	MWS-L-4-19	30.40	1.0	0.098	0.112	0.126	0.140	0.153	0.167	0.181	0.195	0.209	0.223	**0.237**	0.251	0.265	0.279	0.293	0.307	0.321	0.335	0.349	0.363	0.377	0.391	0.405	0.419
	MWS-L-4-21	34.40	1.0	0.111	0.126	0.142	0.158	0.174	0.189	0.205	0.221	0.237	0.253	**0.268**	0.284	0.300	0.316	0.332	0.347	0.363	0.379	0.395	0.411	0.426	0.442	0.458	0.474
SIDE BY SIDE UNITS	MWS-L-6-8	18.80	1.0	0.060	0.069	0.078	0.086	0.095	0.104	0.112	0.121	0.129	0.138	**0.147**	0.155	0.164	0.173	0.181	0.190	0.198	0.207	0.216	0.224	0.233	0.242	0.250	0.259
	MWS-L-8-8	29.60	1.0	0.095	0.109	0.122	0.136	0.149	0.163	0.177	0.190	0.204	0.217	**0.231**	0.245	0.258	0.272	0.285	0.299	0.312	0.326	0.340	0.353	0.367	0.380	0.394	0.408
	MWS-L-8-12	44.40	1.0	0.143	0.163	0.183	0.204	0.224	0.245	0.265	0.285	0.306	0.326	**0.346**	0.367	0.387	0.408	0.428	0.448	0.469	0.489	0.509	0.530	0.550	0.571	0.591	0.611
	MWS-L-8-16	59.20	1.0	0.190	0.217	0.245	0.272	0.299	0.326	0.353	0.380	0.408	0.435	**0.462**	0.489	0.516	0.543	0.571	0.598	0.625	0.652	0.679	0.706	0.734	0.761	0.788	0.815
	MWS-L-8-20	74.00	1.0	0.238	0.272	0.306	0.340	0.374	0.408	0.442	0.476	0.509	0.543	**0.577**	0.611	0.645	0.679	0.713	0.747	0.781	0.815	0.849	0.883	0.917	0.951	0.985	1.019
	MWS-L-8-24	88.80	1.0	0.285	0.326	0.367	0.408	0.448	0.489	0.530	0.571	0.611	0.652	**0.693**	0.734	0.774	0.815	0.856	0.897	0.937	0.978	1.019	1.060	1.101	1.141	1.182	1.223

BMP DETAIL

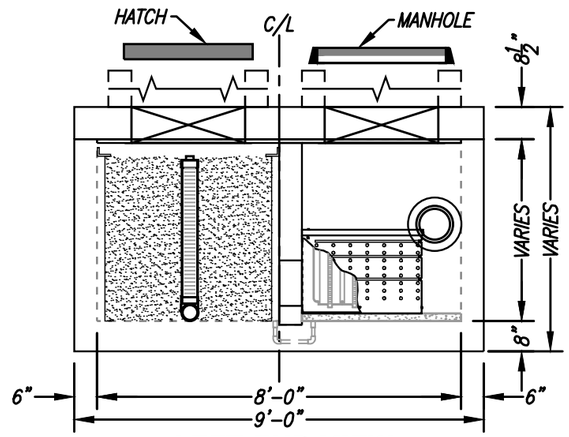
- Modular Wetland by Bio-Clean Environmental (Contech)
- List of Certified Trash Full Capture Systems by Water Resources Control Board

SITE SPECIFIC DATA			
PROJECT NUMBER			
PROJECT NAME			
PROJECT LOCATION			
STRUCTURE ID			
TREATMENT REQUIRED			
FLOW BASED (CFS)			
0.346			
PEAK BYPASS REQUIRED (CFS) – IF APPLICABLE			OFFLINE
PIPE DATA	I.E.	MATERIAL	DIAMETER
INLET PIPE 1			
INLET PIPE 2	N/A	N/A	N/A
OUTLET PIPE			
	PRETREATMENT	BIOFILTRATION	DISCHARGE
RIM ELEVATION			
SURFACE LOAD	DIRECT TRAFFIC		
NOTES:			

* PRELIMINARY NOT FOR CONSTRUCTION



PLAN VIEW



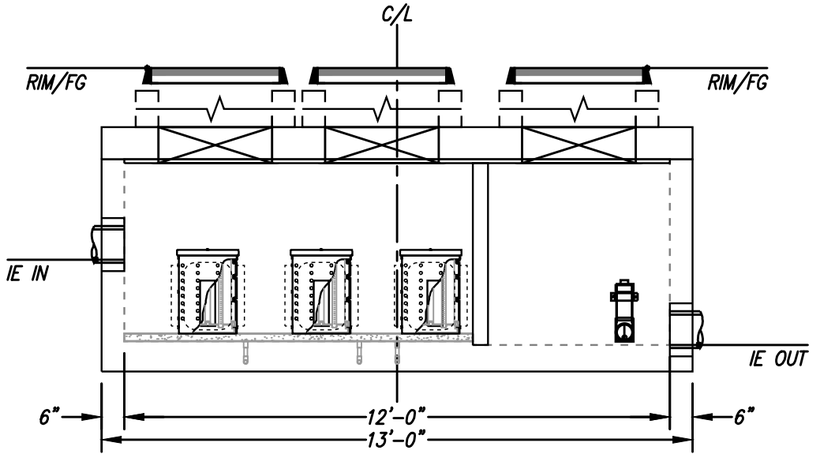
LEFT END VIEW

INSTALLATION NOTES

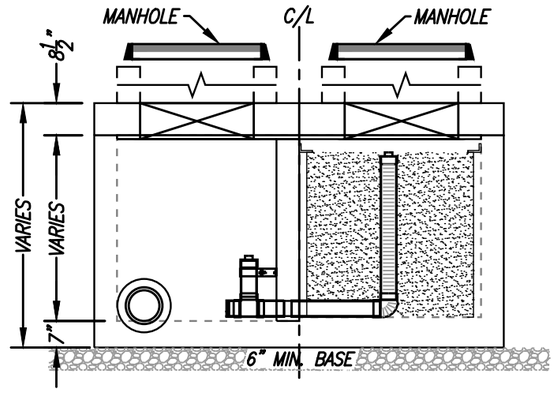
1. CONTRACTOR TO PROVIDE ALL LABOR, EQUIPMENT, MATERIALS AND INCIDENTALS REQUIRED TO OFFLOAD AND INSTALL THE SYSTEM AND APPURTENANCES IN ACCORDANCE WITH THIS DRAWING AND THE MANUFACTURERS' SPECIFICATIONS, UNLESS OTHERWISE STATED IN MANUFACTURER'S CONTRACT.
2. UNIT MUST BE INSTALLED ON LEVEL BASE. MANUFACTURER RECOMMENDS A MINIMUM 6" LEVEL ROCK BASE UNLESS SPECIFIED BY THE PROJECT ENGINEER. CONTRACTOR IS RESPONSIBLE FOR VERIFYING PROJECT ENGINEER'S RECOMMENDED BASE SPECIFICATIONS.
4. CONTRACTOR TO SUPPLY AND INSTALL ALL EXTERNAL CONNECTING PIPES. ALL PIPES MUST BE FLUSH WITH INSIDE SURFACE OF CONCRETE (PIPES CANNOT INTRUDE BEYOND FLUSH). INVERT OF OUTFLOW PIPE MUST BE FLUSH WITH DISCHARGE CHAMBER FLOOR. ALL PIPES SHALL BE SEALED WATERTIGHT PER MANUFACTURER'S STANDARD CONNECTION DETAIL.
5. CONTRACTOR RESPONSIBLE FOR INSTALLATION OF ALL PIPES, RISERS, MANHOLES, AND HATCHES. CONTRACTOR TO USE GROUT AND/OR BRICKS TO MATCH COVERS WITH FINISHED SURFACE UNLESS SPECIFIED OTHERWISE.
6. VEGETATION SUPPLIED AND INSTALLED BY OTHERS. ALL UNITS WITH VEGETATION MUST HAVE DRIP OR SPRAY IRRIGATION SUPPLIED AND INSTALLED BY OTHERS.
7. CONTRACTOR RESPONSIBLE FOR CONTACTING CONTECH FOR ACTIVATION OF UNIT. MANUFACTURER'S WARRANTY IS VOID WITHOUT PROPER ACTIVATION BY A CONTECH REPRESENTATIVE.

GENERAL NOTES

1. MANUFACTURER TO PROVIDE ALL MATERIALS UNLESS OTHERWISE NOTED.
2. ALL DIMENSIONS, ELEVATIONS, SPECIFICATIONS AND CAPACITIES ARE SUBJECT TO CHANGE. FOR PROJECT SPECIFIC DRAWINGS DETAILING EXACT DIMENSIONS, WEIGHTS AND ACCESSORIES PLEASE CONTACT CONTECH.



ELEVATION VIEW



RIGHT END VIEW

TREATMENT FLOW (CFS)	0.346
OPERATING HEAD (FT)	3.4
PRETREATMENT LOADING RATE (GPM/SF)	2.0
WETLAND MEDIA LOADING RATE (GPM/SF)	1.0

MODULAR WETLANDS
FOR PATENT INFORMATION, GO TO www.ContechES.com/IP

CONTECH ENGINEERED SOLUTIONS LLC
www.ContechES.com

MWS-L-8-12-V-UG
STORMWATER BIOFILTRATION SYSTEM STANDARD DETAIL

State Water Resources Control Board

Certified Trash Full Capture Systems Available to the Public
(Updated October 13, 2022)

Trash Provisions

To qualify as a trash full capture system (System) as described below and satisfy the requirements of the Trash Provisions,[1] a System installed after December 2, 2015, must be certified, prior to installation, by the State Water Resources Control Board (State Water Board) Executive Director, or designee, that meets the full capture system definition. The Trash Provisions define a full capture system as a treatment control, or series of treatment controls, including but not limited to, a multi-benefit project or a low impact development control that traps all particles that are 5-millimeter or greater, and has a design treatment capacity that is either:

1. Of not less than the peak flow rate resulting from a one-year, one-hour storm event (design storm) in the subdrainage area, or

2. Appropriately sized and designed to carry at least the same flows as the corresponding storm drain.

Consistent with these requirements, the Systems shall not bypass trash below the design storm under maximum operational loading conditions and shall not have a diversion structure present upstream such that a portion of the peak flow is not treated to trap all particles 5-millimeter or greater.

Vector Control Accessibility

According to the California Health and Safety Code,[2] California landowners are legally responsible to abate (eliminate the source of) a public nuisance arising from their property, including mosquitoes. Mosquito vector control districts have substantial authority to access public and private property, inspect known or suspected sources of

[1] Amendment to the Water Quality Control Plan for Ocean Waters of California to Control Trash and Part 1 Trash Provisions of the Water Quality Control Plan for Inland Surface Waters, Enclosed Bays, and Estuaries of California adopted by the State Water Board.

[2] Health & Safety Code sections 2001-2002, 2060-2067, 100170, and 131075.

mosquitoes, abate mosquito sources, and charge the landowner for work performed and/or charge fees if a landowner is unwilling or unable to address a mosquito source arising from their property.

If not designed properly, a System may impede the mosquito vector control district's ability to (1) visually inspect the System and/or storm vault for mosquito breeding, and (2) apply the appropriate chemical treatment. Moreover, some Systems may create a habitat for mosquitoes.

All the Systems in the tables below have been reviewed and approved by the Mosquito Vector Control Association of California for vector control accessibility. However, prior to installation of any Systems, the local mosquito vector control district should be contacted to ensure the installation conforms to the local district's visual inspection, treatment, and vector breeding minimizing guidelines. The Mosquito Vector Control Association of California may also be contacted via email at Trashtreatment@mvcac.org.

Certified Trash Full Capture System Tables

The Systems included in the tables below are: 1) new Systems certified by the State Water Board Executive Director after adoption of the Trash Provisions, and 2) legacy Systems that were certified pursuant to the Trash Provisions include those full capture systems that were listed in Appendix I of the Bay Area-wide Trash Capture Demonstration Project, Final Project Report (May 8, 2014). All Systems remain certified unless and until they are decertified by the State Water Board's Executive Director or designee. Legacy Systems' descriptions are included in "fact sheets" that have been updated to address the application requirements for new Systems.

The tables do not include the Department of Transportation's Systems as its Systems are not available to the public. Multi-benefit trash treatment systems are listed separately on the State Water Board's Trash Implementation webpage at: https://www.waterboards.ca.gov/water_issues/programs/stormwater/trash_implementation.html.

Systems are either identified by their application number or, for legacy Systems, by a fact sheet alpha numeric designation.

Please note: Only Systems originally manufactured or distributed by the listed applicants are certified full capture systems.

The alphabetical tables of System applicants are divided into two categories:

- *Catch Basin Inserts and Other Insert Systems.* These Systems typically are inserted into existing stormwater infrastructure; and

- *High Flow Capacity Trash Full Capture Systems*. These Systems are generally self-contained units that typically are not inserted into existing stormwater infrastructure and that are designed to treat trash from large drainage areas.

How to Access Certified System Applications and Legacy System Fact Sheets

Other than those applications pertaining to the Department of Transportation's certified Systems, all certified System applications and legacy System fact sheets may be obtained from the California Stormwater Quality Association's trash webpage at: https://www.casqa.org/resources/trash/certified-full-capture-system-trash-treatment-control-devices. To obtain the Department of Transportation's certified applications, please contact Leo Cosentini (contact information below).

All questions concerning the Trash Provisions and the tables below should be directed to Leo Cosentini by email at Leo.Cosentini@waterboards.ca.gov or by phone at (916) 341-5524.

TABLE 2. High Flow Capacity Trash Full Capture Systems

Applicant/Owner	Full Capture System Name	Date of Application Certification and Update (if applicable), or Fact Sheet Update	Date of Vector Control Accessibility Approval
Advanced Drainage Systems, Inc.	Barracuda Hydrodynamic Separator	Application 21 06/26/19 Updated 05/21/21	03/15/19
AquaShield, Inc.	Aqua-Swirl® Stormwater Treatment System	Application 1 08/04/17 Updated 11/06/20	12/03/20
Bio Clean® Environmental Services, Inc.	Debris Separating Baffle Box	Application 6 03/15/18	07/28/20
Bio Clean® Environmental Services, Inc.	Bio Clean® Deflective Screening Device	Application 20 06/26/19	07/28/20
Bio Clean® Environmental Services, Inc.	Modular Wetland System®	Application 15 07/10/18	03/15/19
Coanda Inc.	Coanda Trash Screen and Debris Fence	Fact Sheet COA-1 12/02/15 Updated 09/10/21	09/07/21

INFILTRATION TESTING RESULTS

GEOTECHNICAL EXPLORATION REPORT
PROPOSED EUCLID AND WALNUT MIXED-USE DEVELOPMENT
112 WALNUT STREET, 2502 AND 2530 EUCLID AVENUE ONTARIO, CALIFORNIA

Prepared For

LEGACY/COLLIER RESIDENTIAL, LLC
5154 CALIFORNIA AVENUE
IRVINE, CALIFORNIA 92617

Prepared By

LEIGHTON AND ASSOCIATES, INC.
17781 COWAN
IRVINE, CALIFORNIA 92614

Project No. 13493.001

May 13, 2022

May 13, 2022

Project No. 13493.001

Legacy/Collier Residential, LLC
5154 California Avenue
Irvine, California 92617

Attention: Mr. David Pinto

Subject: Geotechnical Exploration Report
Proposed "Euclid and Walnut Mixed Use" Development
112 Walnut Street, 2502 and 2530 Euclid Avenue
Ontario, San Bernardino County, California

In accordance with our March 30, 2022 proposal, Leighton and Associates, Inc. submits this geotechnical engineering report for the proposed Euclid and Walnut Mixed-Use Development located at 112 Walnut Street, 2502 and 2530 Euclid Avenue in the City of Ontario, California. The purpose of our study was to evaluate the subsurface soil and groundwater conditions at the site to provide geotechnical recommendations for the design and construction of the proposed concept as currently planned. The results of our exploration, findings, conclusions and recommendations are presented in this report.

The recommendations presented in this report are considered to be preliminary and subject to revision based upon the limited information regarding the proposed development. Upon review of project design concept plans, revision to the recommendations may be considered necessary. In addition, revision to design recommendations may be necessary upon review by the local building official or their designated, third party technical reviewer.

We sincerely appreciate the opportunity to be of service to you. If you have any questions or if we can be of further service, please contact us at ***(866) LEIGHTON***; directly at the phone extensions or e-mail as listed below.

Respectfully submitted,

LEIGHTON AND ASSOCIATES, INC.

PROFESSIONAL GEOLOGIST
ERIC M. HOLLIDAY
No. 9219
STATE OF CALIFORNIA

REGISTERED PROFESSIONAL ENGINEER
JOHN E. HAERTLE
No. 2352
GEOTECHNICAL
STATE OF CALIFORNIA

Eric M. Holliday, PG, 9219
Senior Project Geologist
Ext 4252, eholliday@leightongroup.com

John E. Haertle, PE, GE 2352
Principal Engineer
Ext: 4268, jhaertle@leightongroup.com

EMH/JEH/ lr

TABLE OF CONTENTS

Section **Page**

1.0 INTRODUCTION 1

1.1 Site Description 1
1.2 Proposed Development 1

1.2.1 Structural Loads 2
1.2.2 Finish Floor Elevations 2
1.2.3 Pavement 2
1.2.4 Ancillary Improvements 3

1.3 Purpose and Scope 3

2.0 GEOTECHNICAL FINDINGS 6

2.1 Regional Geologic Setting 6
2.2 Surficial Geology 6
2.3 Subsurface Soil Conditions 6

2.3.1 Undocumented Artificial Fill (Afu) 7
2.3.2 Quaternary-Aged Young Alluvial Fan Deposits (Qyf) 7

2.4 Engineering Properties 7

2.4.1 Expansive Soil Characteristics 7
2.4.2 Soil Corrosivity 8
2.4.3 Soil Compressibility 8
2.4.4 Shear Strength 9
2.4.5 Excavation Characteristics 9

2.5 Groundwater Conditions 9
2.6 Infiltration 10

3.0 SEISMIC AND GEOLOGIC HAZARDS 12

3.1 Surface Fault Rupture 12
3.2 Regional Faulting 12
3.3 Strong Ground Shaking 12
3.4 Liquefaction Potential 14
3.5 Seismically-Induced Settlement 14
3.6 Lateral Spreading 15
3.7 Earthquake-Induced Landsliding 16
3.8 Flooding 16
3.9 Seiches and Tsunamis 16
3.10 Methane 17

4.0 FINDINGS AND CONCLUSIONS 18

5.0 GEOTECHNICAL DESIGN RECOMMENDATIONS 19

5.1 Earthwork 19
5.1.1 Site Preparation 20
5.1.2 Removals and Overexcavations 20
5.1.3 Subgrade Preparation 21
5.1.4 Fill Placement and Compaction 22
5.1.5 Shrinkage and Bulking 22
5.1.6 Reuse of Concrete and Asphalt Rubble 23
5.2 Foundation Design 24
5.2.1 Vertical Load Bearing Capacity 24
5.2.2 Lateral Load Resistance 25
5.2.3 Settlement Estimate 26
5.3 Slab-on-Grade Floors 26
5.4 Temporary Excavations 27
5.5 Trench Backfill 28
5.6 Soil Corrosivity 29
5.7 Cement Type 30
5.8 Elevator Pit Wall Design 31
5.9 Pavements 31
5.9.1 Pavement Subgrades 31
5.9.2 Hot Mix Asphalt (HMA) Pavement Sections 31
5.9.3 Portland Cement Concrete (PCC) Pavements 33
5.10 Concrete Flatwork and Exterior Slabs 33
Surface 34
5.11 Drainage 34
5.12 Additional Geotechnical Services 35
6.0 LIMITATIONS 36
7.0 REFERENCES 38

Tables

Table 1 – Measured (Unfactored) Infiltration Rate 10
Table 2 – 2019 CBC Based Ground Motion Parameters (Mapped Values) 13
Table 3 – Seismically-Induced Settlement - MCE_G Seismic Event 15
Table 4 – Soil Corrosivity as a Function of Resistivity 29
Table 5 – Summary of Corrosivity Testing 30
Table 6 – Asphalt Pavement Sections 32

Attachments

Important Information About Your Geotechnical Engineering Report Rear of Text

Figure 1 – Site Location Map Rear of Text
Figure 2 – Geotechnical Map Rear of Text
Figure 3 – Regional Geology Map Rear of Text
Figure 4 – Regional Fault Map and Historical Seismicity Map Rear of Text
Figure 5 – Flood Hazard Zone Map Rear of Text
Figure 6 – Dam Inundation Map Rear of Text
Figure 7 – Retaining Wall Backfill and Subdrain Detail (EI≤50) Rear of Text

Appendix A – Exploration Logs
Appendix B – Percolation Test Data
Appendix C – Laboratory Test Results
Appendix D – General Earthworks and Grading Recommendations

1.0 INTRODUCTION

1.1 Site Description

The project site is a rectangular parcel of land, approximately 10.6-acres in size, located at the northwest corner of Walnut Street and Euclid Avenue in the city of Ontario, California. The site consists of the properties located at the street addresses of 112 W. Walnut Street, and 2502 and 2530 S. Euclid Avenue. The site is bordered by Euclid Avenue on the east, Walnut Street to the south, and residential development on the west and north. The southeastern region of the property is occupied by an existing Carl's Jr. restaurant. The site location (latitude 34.0275°, longitude -117.6524°) and immediate vicinity are shown on Figure 1, *Site Location Map.*

Based on visual site reconnaissance and review of the *Alta/NSPS Land Title Survey* prepared by Hillwig-Goodrow Inc., the site is currently occupied by a large rectangular-shaped structure formerly used as a K-Mart store located in the western portion of the site, and a strip mall retail development in the northeast region. The remainder of the site was generally paved with asphalt concrete and served as the parking lot for the development. The property is relatively flat, generally level with the adjacent roadways with site elevations (EL.) ranging from approximately EL. +823 feet above mean sea level (msl) in the northeastern region to approximately EL. +812 feet msl in the southwest region.

Based on review of historic aerial photographs (NETR, 2021), the project site appears to have a similar configuration dating back to at least 1985. The strip mall located in the northeast corner of the site was constructed between 1980 and 1985 and the K-Mart and Carl's Jr. structures were constructed at some point between 1966 and 1980. Prior to at least 1966, the site seems to have been used for agricultural purposes.

1.2 Proposed Development

Our understanding of the proposed development is based on review of the *Euclid and Walnut Mixed Use Site Plan* Options A and B, Scale 1" = 100', dated March 10, 2022, prepared by AO Architects (AOA, 2022). The development conceptually consists of two options for a proposed mixed-use development with 3- to 4-story residential and commercial structures:

- Option A includes a total of 346 residential units in 8 structures with 5,000 square feet of commercial development. In the Option A development scheme it appears the existing Carl's Jr. restaurant in the southeast corner of the site will remain.
- Option B consists of full-site development with 376 residential units in 10 structures with 11,400 square feet of commercial development.

We understand the current preferred option for development is Option A and, therefore, is the development scheme that serves as the basis for the geotechnical recommendations presented in this report. Ancillary improvements will include pavement for vehicle access and parking, landscaping, utility infrastructure, and flatwork.

1.2.1 Structural Loads

Information regarding total building height, finish floor elevations, and proposed loading conditions were not readily available at the time of this report. However, we understand that subterranean levels are not currently planned. Based upon the type of development planned for project site and our experience with similar developments, the buildings have been assumed to consist of wood frame structures supported by load bearing wall and isolated columns. Structural loads have been assumed to be a maximum of 3 kips per lineal foot for bearing walls and 40 kips for columns, Should additional design information become available, it should be provided to Leighton for review.

1.2.2 Finish Floor Elevations

The finish first floor elevations of the proposed structures have been assumed to be within 1 to 2 feet of existing grade with floor elevations established or minimize cut and fill required on site. The actual quantity of cut and fill will be dependent upon the actual floor elevations determined by the project civil engineer and the quantity of overexcavation required to prepare building pad areas.

1.2.3 Pavement

Pavements proposed for the development are expected to be primarily subjected to automobiles and occasional heavy truck traffic. Pavement

recommendations have been based upon a Traffic Index of 4.0 for automobile parking stalls; 5.0 for general purpose drive aisles; and 6.0 for areas subject to heavy trucks. Pavement recommendations have been based upon a twenty-year design life.

1.2.4 Ancillary Improvements

Based on email correspondence with Mr. Steve Ellis with Fuscoe Engineering, Inc., we understand preliminary infiltration system design is considering an invert depth of 15 feet below ground surface (bgs) along the southern property line.

1.3 Purpose and Scope

The purpose of our geotechnical exploration was to evaluate the subsurface conditions at the site relative to the proposed development concept and provide geotechnical recommendations to aid in the design and construction for the project as currently planned. The scope of this geotechnical exploration included the following tasks:

- *Background Review* – We reviewed readily available in-house geotechnical reports, literature, aerial photographs, and maps relevant to the site. We evaluated geological hazards and potential geotechnical issues that may significantly impact the site. The documents reviewed are listed in Section 7.0.

- *Pre-Field Exploration Activities* – A site visit was performed by a member of our technical staff to mark the proposed exploration locations. Underground Service Alert (USA) was notified to identify and mark the locations of existing underground utilities prior to our subsurface exploration.

- *Field Exploration* – Our subsurface exploration was performed on April 6, 2022 and included drilling, logging, and sampling of five (5) hollow-stem auger borings (designated LB-1 through LB-5) to approximate depths ranging from 25 to 51½ feet below the existing ground surface (bgs). One (1) additional boring (designated LP-2) was drilled to an approximate depth of 20 feet bgs for subsequent percolation testing. To supplement the hollow-stem auger borings, four (4) Cone Penetrometer Test (CPT) soundings (designated CPT-1 through CPT-4) were advanced to depths of approximately 50 feet bgs. The approximate locations of the explorations are shown on Figure 2, *Geotechnical Map.* The boring and CPT logs are presented in Appendix A, *Exploration Logs.*

During drilling of the hollow-stem auger borings both bulk and drive samples were obtained from the borings for geotechnical laboratory testing. Driven ring samples were collected from the borings using a Modified California ring-lined sampler conducted in accordance with ASTM Test Method D 3550. Representative samples were also collected by conducting the Standard Penetration Test (SPT) within the borings in accordance with ASTM Test Method D 1586. Samples were collected at 5-foot intervals throughout the depth of exploration. In both test methods, the sampler is driven below the bottom of the borehole by a 140-pound weight (hammer) free-falling 30 inches. The drilling rig was equipped with an automatic hammer to provide greater consistency in the drop height and striking frequency. The number of blows to drive the sampler the final 12-inches of the 18-inch drive interval is termed the "blowcount" or SPT N-value. The N-values provide a measure of relative density in granular (non-cohesive) soils and comparative consistency in cohesive soils. The number of blows per 6 inches of penetration was recorded on the boring logs included in Appendix A, *Exploration Logs*.

The borings were logged in the field by a geologist from our firm. Each soil sample collected was reviewed and described in accordance with the Unified Soil Classification System (USCS). The samples were sealed and packaged for transportation to our laboratory. After completion of drilling, the borings were backfilled with soil cuttings and patched with cold-mix asphalt concrete at the surface.

- *Percolation Testing* – Boring LB-4 /LP-1 and LP-2 were converted to temporary percolation test wells upon completion of drilling and sampling. The test wells consisted of 2-inch diameter slotted (0.020") PVC well casing surrounded by #3 Monterey Sand placed in the annulus of the borehole within the test zone. In-situ percolation testing was performed in general accordance with the County of San Bernardino guidelines. The results of the percolation testing are presented in Appendix B, *Percolation Test Data*. Additional details regarding the field percolation tests and results are presented in Section 2.4.1, *Infiltration*. Upon completion of the percolation testing, the well casing was removed from each boring and the borings were backfilled with soil cuttings and patched at the surface with cold-mix asphalt concrete to match existing site conditions.

- *Laboratory Testing* – Laboratory tests were performed on selected soil samples obtained from the borings during our field exploration. The laboratory testing

program was designed to evaluate the physical and engineering characteristics of the onsite soil. Tests performed during this exploration included:

- In- situ Moisture Content and Dry Density (ASTM D2216 and ASTM D2937);
- Atterberg Limits (ASTM D 4318)
- Direct Shear (ASTM D 3080)
- Consolidation (ASTM D 2435);
- One Dimensional Swell or Settlement (ASTM D 4546)
- Maximum Dry Density (ASTM D 1557);
- Particle Size Distribution (ASTM D 6913);
- Expansion Index (ASTM D 4829);
- R-value (DOT CA Test 301)
- Sand Equivalent Test (DOT CA Test 217); and
- Corrosivity Suite – pH, Sulfate, Chloride, and Resistivity (California Test Methods 417, 422, and 532/643).

Results of the in-situ moisture content and dry density testing are presented on the boring logs in Appendix A. Other laboratory test results are presented in Appendix C, *Laboratory Test Results*

- *Engineering Analysis* – The data obtained from our background review and field exploration were evaluated and analyzed to develop recommendations for the proposed development.
- *Report Preparation* – This report presents our findings, conclusions, and recommendations for the proposed development.

2.0 GEOTECHNICAL FINDINGS

2.1 Regional Geologic Setting

The project site is located in the Chino Basin in the northern portion of the Peninsular Ranges geomorphic province of California. Major structural features surround this region, including the Cucamonga fault and the San Gabriel Mountains to the north, the Chino fault and Puente/Chino Hills to the west, and the San Jacinto fault to the east. This is an area of large-scale crustal disturbance as the relatively northwestward moving Peninsular Ranges province collides with the Transverse Ranges province (San Gabriel Mountains) to the north. Several active and potentially active faults have been mapped in the region and are believed to accommodate compression associated with this collision. The Sierra Madre fault, a major structural feature along the southern flank of the San Gabriel Mountains, is located approximately 8.3 miles north of the site. This fault, as well as other faults in the region, has the potential for generating strong ground motions at the project site. Further discussion of faulting relative to the site is provided in Section 3.0, Seismic and Geologic Hazards.

The site is located in an area underlain by thick accumulations of alluvial sand, silt, gravel, cobbles, and boulders eroded from the mountains and deposited in the site vicinity by the Santa Ana River and smaller tributaries such as the San Antonio Creek and Cucamonga Creek (Morton and Miller, 2006; Dibblee, 2002).

2.2 Surficial Geology

The Quaternary age deposits that cover the floor and margins of the Chino Basin are composed primarily of unconsolidated recent (Holocene) young alluvial fan deposits consisting predominately of sands and gravels derived from the surrounding mountains and hills with finer clays and silts deposited into the basin over the broad floodplain. The surficial geologic units mapped in the vicinity of the project site are shown on Figure 3, *Regional Geology Map*.

2.3 Subsurface Soil Conditions

Based on our subsurface explorations, the site is underlain by a relatively thin mantle of undocumented artificial fill materials (Afu) overlying Quaternary-aged (Holocene) young alluvial fan deposits (Qyf).

A general description of the encountered soils is presented as follows:

2.3.1 Undocumented Artificial Fill (Afu)

The artificial fill encountered in our borings extended to a depth of approximately 5 feet below grade and likely associated with the existing site improvements. In general, the encountered fill soils consist primarily of sandy silt and silty sand. Localized thicker accumulations of fill materials may be present between explored locations, particularly beneath the existing buildings.

2.3.2 Quaternary-Aged Young Alluvial Fan Deposits (Qyf)

Below the mantle of artificial fill material, Quaternary-aged young alluvial fan deposits were encountered in the borings to the maximum depth explored (approximately 51½ feet). As encountered, this younger alluvial unit consists of stiff to very stiff sandy silt, silty clay, and clay; interbedded with medium dense to dense silty sand, sand with silt, and sand with gravel. Although relatively variable across the site, in general, fine-grained material is more prevalent in the upper 15 to 25 feet with coarser grained material becoming more frequent at depths of 25 feet or greater.

Detailed descriptions of the subsurface soils encountered in the borings are presented on the logs included in Appendix A. The locations of the borings are shown on Figure 2, *Geotechnical Location Map.*

2.4 Engineering Properties

The results of laboratory testing are presented in Appendix C of this report. Discussion regarding select engineering properties of these soils are described in the following sections based upon the results of the laboratory testing program.

2.4.1 Expansive Soil Characteristics

Expansive soils contain significant amounts of clay particles that swell considerably when wetted and which shrink when dried. Foundations constructed on these soils are subject to uplifting forces caused by the swelling. Without proper mitigation measures, heaving and cracking of both building foundations and slabs-on-grade could result.

One (1) near-surface bulk soil sample collected from Boring LB-1 was tested for expansion potential. The test results indicate an Expansion Index (EI) value of 18, corresponding to a "Very Low" expansion potential. The Expansion Index laboratory test results are included in Appendix C of this report.

Variance in expansion potential of onsite soil is anticipated; therefore, additional testing is recommended upon completion of site grading and excavation to confirm the expansion potential presented in this report. For purposes of this report and based upon visual characterization of alluvial materials at approximate foundation depth, low expansion potential of site materials may be considered to support design and verified upon completion of earthwork grading.

2.4.2 Soil Corrosivity

One (1) near-surface bulk soil sample collected from Boring LB-3 was tested for corrosivity to assess corrosion potential to buried concrete. The chemical analysis test results for the onsite soil from our geotechnical exploration are included in Appendix C of this report.

The test results indicate a soluble sulfate concentration of 266 parts per million (ppm), chloride content of 40 ppm, pH 7.92, and a minimum resistivity value of 1,335 ohm-cm.

The results of the resistivity tests indicate the underlying soil is severely corrosive to buried ferrous metals per ASTM STP 1013. Based on the measured water-soluble sulfate contents from the soil samples, concrete in contact with the soil is expected to have negligible exposure to sulfate attack per ACI 318 (ACI, 2014). The samples tested for water-soluble chloride content indicate a low potential for corrosion of steel in concrete due to the chloride content of the soil.

2.4.3 Soil Compressibility

Three (3) samples of the onsite soils recovered from the borings were subjected to consolidation testing to evaluate the compressibility of these materials under assumed loads representative of anticipated structural bearing stresses. The results of testing indicate these soils exhibit a low

compressibility potential. The results of testing are presented in Appendix C.

2.4.4 Shear Strength

Evaluation of the shear strength characteristics of the soils included laboratory direct shear testing. The results of testing are included in Appendix C that provide values of angle of internal friction (ø) and cohesion (c) for use in geotechnical analysis.

2.4.5 Excavation Characteristics

Based on our subsurface explorations performed at the site and our experience from grading jobs in the vicinity of the site, we anticipate the onsite artificial fill and alluvial materials can generally be excavated using conventional excavation equipment in good operating condition.

The soils within the planned excavation depths are variable, and locally consist of layers that contain granular, unconsolidated soils with little or no cementation and few fines. These materials are prone to cave in or collapse in unshored excavations. See Section 5.4, *Temporary Excavations* for additional information on soil type and excavation characteristics.

2.5 Groundwater Conditions

Groundwater was not encountered during our subsurface exploration to the maximum depth of 51.5 feet bgs. Based on review of the *Chino Basin Optimum Basin Management Plan 2008 State of the Basin Report* (Wildermuth, 2009), groundwater depth at the site is anticipated to be on the order of approximately 225 feet bgs. Review of available information from the California Department of Water Resources (DWR, 2022) for a nearby groundwater monitoring well located approximately 1.8 miles northwest of the project site (State Well # 01S07W29A001S) indicates the shallowest groundwater level measured for a monitoring period between October 1959 and September 2021 was approximately 214 feet bgs in 1959; with the most recent groundwater levels documented to be on the order of 250 feet bgs.

Based on these findings, groundwater is not expected to pose a constraint during or after construction. Fluctuations of the groundwater level, localized zones of perched water, and an increase in soil moisture, should be anticipated during and

following the rainy seasons or periods of locally intense rainfall or storm water runoff, or from stormwater infiltration.

2.6 Infiltration

Percolation testing was performed in temporary wells installed within borings LB-4/LP-1 and LP-2 located in the southern region of the site with test zone at depths of 17 to 22 feet bgs and 15 to 20 feet bgs, respectively. The percolation tests were conducted in general accordance with the *San Bernardino County Technical Guidance Document (TGD) for Water Quality Management Plans* (2013). Results of the percolation testing are presented in Appendix B. The test locations and tested depth intervals are shown on Figure 2.

A boring percolation test is useful for field measurements of the infiltration rate of soils, and is suited for testing when the design depth of the infiltration device is deeper than current existing grades, especially in areas where it is difficult to dig test pits, or where the depths of these test pits would be considerably deep. At the subject site, testing consisted of advancing the borings to the anticipated depth for the invert of the proposed infiltration devices.

The *Percolation Test Procedure* (falling-head test method) as outlined in the County Guidelines was implemented at each percolation test well location. The infiltration rate was calculated by dividing the rate of discharge by the infiltration surface area, or flow area. The volume of discharge was calculated by adding the total volume of water that dropped within the PVC pipe and within the annulus, and incorporating a porosity reduction factor to account for the porosity of the annulus material. The flow area was based on the average water height within the test well.

Detailed results of the field testing data and measured infiltration rate for the test well are presented in Appendix B. The test results are summarized in the table below:

Table 1 – Measured (Unfactored) Infiltration Rate

Test Well Designation	Approximate Depth of Test Zone (feet bgs)	Measured Infiltration Rate (inches per hour)
LB-4/LP-1	17 to 22	0.32
LP-2	15 to 20	0.69

Based on the results of our field percolation testing that was performed at the site, the measured (unfactored) infiltration rates for the two (2) tests performed were 0.32 inches per hour (LB-4/LP-1) and 0.69 inches per hour (LP-2), respectively. According to the *San Bernardino County Technical Guidance Document (TGD) for Water Quality Management Plans* (2013), the measured infiltration rate at both test well locations technically exceeds the minimum feasibility criteria of 0.3 inch per hour. However, implementation of a minimum factor of safety of 2.0 as required for the design infiltration rate indicates the depth and location tested for LB-4/LP-1 is considered infeasible for infiltration.

In consideration of the general greater prevalence of coarse-grained material at the site below depths of 25 feet or deeper, a more feasible infiltration rate may be achieved in percolation testing performed at depths greater than those tested during this exploration.

3.0 SEISMIC AND GEOLOGIC HAZARDS

Depending upon the geographic location and geologic setting of a particular site in southern California, seismic-related hazards can include surface fault rupture; strong ground shaking; seismically-induced landslides; liquefaction and associated effects such as settlement and/or lateral spreading; and seiches, tsunamis and/or flooding depending upon the proximity of bodies of water. The following sections discuss each of these hazards and potential effect upon this site.

3.1 Surface Fault Rupture

Known surface faults in the region are mapped on Figure 4, *Regional Surface Fault and Historical Seismicity Map*. Review of available literature indicates that no known active faults have been mapped across the site, and the site is **not** located within a currently established *Alquist-Priolo Earthquake Fault Zone* (Bryant and Hart, 2007). Therefore, a surface fault rupture hazard evaluation is not mandated for this site. Given an absence of known faults, potential risk for surface fault rupture at this site is low.

3.2 Regional Faulting

The location of the closest active faults to the site was evaluated using the United States Geological Survey (USGS) Earthquake Hazards Program National Seismic Hazard Maps (USGS, 2008b). The closest active faults to the site with the potential for surface fault rupture are the Chino fault, San Jose fault, Cucamonga fault and Sierra Madre fault, located approximately 4.7 miles, 6.0 miles, 7.9 miles and 8.3 miles from the site, respectively. The San Andreas fault, which is the largest active fault in California, is approximately 20.3 miles northeast of the site on the north side of the San Gabriel Mountains. As discussed, major regional faults with surface expression in proximity to the site are shown on Figure 4, *Regional Fault and Historic Seismicity Map*.

3.3 Strong Ground Shaking

The principal seismic hazard to the site is ground shaking resulting from an earthquake occurring along any of several major active and potentially active faults in southern California (Figure 4). The intensity of ground shaking at a given location depends primarily upon the earthquake magnitude, the distance from the source, and the site response characteristics. Accordingly, design of the project should be performed in accordance with all applicable current codes and standards

utilizing the appropriate seismic design parameters to reduce seismic risk as defined by California Geological Survey (CGS) Chapter 2 of Special Publication 117A (CGS, 2008). The 2019 edition of the California Building Code (CBC) is the current edition of the code. Through compliance with these regulatory requirements and the utilization of appropriate seismic design parameters selected by the design professionals, potential effects relating to seismic shaking can be reduced.

The following code-based seismic parameters should be considered for design under the 2019 CBC:

Table 2 – 2019 CBC Based Ground Motion Parameters (Mapped Values)

Categorization/Coefficient	Code-Based
Site Latitude	34.0275°
Site Longitude	-117.6523°
Site Class	D
Mapped Spectral Response Acceleration at Short Period (0.2 sec), S_S	1.5 g
Mapped Spectral Response Acceleration at Long Period (1 sec), S_1	0.579 g
Short Period (0.2 sec) Site Coefficient, F_a	1.0
Long Period (1 sec) Site Coefficient, F_v	1.72*
Adjusted Spectral Response Acceleration at Short Period (0.2 sec), S_{MS}	1.5 g
Adjusted Spectral Response Acceleration at Long Period (1 sec), S_{M1}	0.996*
Design Spectral Response Acceleration at Short Period (0.2 sec), S_{DS}	1.0 g
Design Spectral Response Acceleration at Long Period (1 sec), S_{D1}	0.664*
Site Coefficient for Peak Ground Acceleration, F_{PGA}	1.1
Peak Ground Acceleration adjusted for Site Class effects, PGA_M	0.644 g

1. All were derived from the ASCE 7 Hazard Tool web page: https://asce7hazardtool.online/
2. All coefficients in units of g (spectral acceleration)
3. *Requires C_s calculation, see *Note* below.

Based on Table 1613.2.3(2) of the 2019 CBC, the long period site coefficient (F_v) should be determined in accordance with Section 11.4.8 of ASCE 7-16 since the mapped spectral response acceleration at 1 second is greater than 0.2g for Site Class D. In accordance with Section 11.4.8 of ASCE 7-16, a site-specific seismic analysis is required; however, the values provided herein may be utilized if design

is performed in accordance with exception (2) in Section 11.4.8 of ASCE 7-16, with special requirements for the seismic response coefficient (Cs) as noted below. The project structural engineer should review the seismic parameters.

Note: Long period coefficient (Fv) of 1.7 may be utilized for calculation of Ts, provided that the value of the Seismic Response Coefficient (Cs) is determined by Equation 12.8-2 for values of the fundamental period of the building (T) less than or equal to 1.5Ts, and taken as 1.5 times the value computed in accordance with either equation 12.8-3 for T greater than 1.5 Ts and less than or equal to T_L or equation 12.8-4 for T greater than T_L.

3.4 Liquefaction Potential

The term liquefaction is generally referenced to loss of strength and stiffness in soils due to build-up of pore water pressure when subject to cyclic or monotonic loading. Both sandy and clayey soils are susceptible to loss of strength and stiffness. Because of the difference in strength characteristic and methods for evaluating strength loss potential for granular and clayey soils, the term liquefaction is used for granular soils while cyclic softening is used for fine-grained soils (i.e. clays and plastic silts).

In general, adverse effects of liquefaction or cyclic softening include excessive ground settlement, loss of bearing support for structural foundations, and seismically-induced lateral ground deformations such as lateral spreading. Depending upon the relative thickness of the liquefied strata with respect to overlying non-liquefiable soils, other potentially adverse effects such as ground oscillation and ground fissuring may occur.

As regionally mapped on the California Geological Survey *Earthquake Zones of Required Investigation (EZRIM) for the Ontario Quadrangle* (CGS, 200) and shown on Figure 4, *Seismic Hazard Zone Map*, the site is **not** within an area potentially susceptible to liquefaction. In addition, review of the San Bernardino County *Geologic Hazard Overlays* map FH27C (2010), the project site is not located within a County liquefaction susceptibility zone. The historically shallowest groundwater level recorded by DWR near the site is 214 feet bgs and the recent recorded depth to groundwater is greater than 200 feet bgs. Based on these findings, liquefaction is not considered a hazard at the site.

3.5 Seismically-Induced Settlement

Seismically-induced settlement consists of dynamic settlement of unsaturated soil (above groundwater) and liquefaction-induced settlement (below groundwater).

These settlements occur primarily within low density sandy soil due to reduction in volume during and shortly after an earthquake event.

As previously discussed, the site is not considered susceptible to the occurrence of liquefaction. Therefore, seismically-induced settlement will consist solely of densification of non-saturated soils upon exposure to strong ground shaking. Evaluation of the potential for such seismically-induced settlements to occur was performed for the Geomean Maximum Considered Event (MCE_G) and the associated ground motion that corresponds to a 2,475 year average return period (ARP) for the CPT soundings that were advanced to a depth of 50 feet below grade. The results of the analysis are presented below:

Table 3 – Seismically-Induced Settlement - MCE_G Seismic Event

Design Scenario		CPT I.D.	Settlement (inches)		
PGA	M_W		Liquefaction[1]	Non-Liquefaction[2]	Total
0.64	6.78	CPT-1	No Liquefaction	0.23	0.23
		CPT-2	No Liquefaction	0.09	0.09
		CPT-3A	No Liquefaction	0.16	0.16
		CPT-4	No Liquefaction	0.45	0.45

Notes: (1) Liquefaction-induced settlement; Design Groundwater below depth of 50 feet

(2) Non-liquefaction induced ("dry sand") settlement

The results of the analysis indicated the magnitude of seismically-induced settlement under the MCE_G scenario will be less than ½ to 1 inch. Based on the general consistency in soil conditions as depicted by the test borings conducted at the site, the differential settlement is estimated to be approximately ½ inch over a distance of at least 40 feet, which results in an angular distortion less than 0.0021 in./in., which is anticipated to be within tolerable levels for structural design.

3.6 Lateral Spreading

Liquefaction may also cause lateral spreading. For lateral spreading to occur, the liquefiable zone must be continuous, unconstrained laterally, and free to move along gently sloping ground toward an unconfined area. Since the site is relatively flat and constrained laterally and liquefaction is not considered a hazard at the site, earthquake-induced lateral spreading is also not considered a hazard at the site.

3.7 Earthquake-Induced Landsliding

As regionally mapped on the California Geological Survey *Earthquake Zones of Required Investigation for the Torrance Quadrangle* (CGS, March 25, 1999) and shown on Figure 4, *Seismic Hazard Zone Map*, the site is **not** located within an area potentially susceptible to liquefaction (CGS, 2000a). Review of the San Bernardino County *Geologic Hazard Overlays* map FH27C (2010) indicates the project site is not located within a County landslide susceptibility zone. The project site is relatively flat with no significant slopes on or immediately adjacent. It is our opinion that seismically-induced landsliding is not considered a hazard at the site.

3.8 Flooding

According to a Federal Emergency Management Agency (FEMA) flood insurance rate map (FEMA, 2015), the project site is located within a flood hazard area identified as "Zone X", which is defined as an area of minimal flood hazard. Regionally, storm runoff flow is generally directed to the southwest. As shown on Figure 5, *Flood Hazard Zone Map*, the site is **not** located within a 100-year or 500-year flood hazard zone.

Earthquake-induced flooding can be caused by failure of dams or other water-retaining structures as a result of earthquakes. As shown on Figure 6, *Dam Inundation Map*, the site **is** mapped within an inundation zone associated with San Antonio Dam. Catastrophic failure of this dam is expected to be a very unlikely event in that dam safety regulations exist and are enforced by the DOSD, Army Corps of Engineers and Department of Water Resources. Inspectors may require dam owners to perform work, maintenance or implement controls if issues are found with the safety of the dam. Due to the location and distance of the site from San Antonio Dam, along with the unlikely failure of the dam, the potential for earthquake-induced flooding to occur due to a failure of this dam is considered low.

3.9 Seiches and Tsunamis

Seiches are large waves generated in enclosed bodies of water in response to ground shaking. Tsunamis are waves generated in large bodies of water by fault displacement or major ground movement. Based on the absence of an enclosed water body near the site and the inland location of the site, seiche and tsunami risks at the site are considered negligible.

3.10 Methane

Based on review of State of California Geologic Energy Management Division (CalGEM) records, the project site is not located within an oil field boundary (CalGEM, 2021). The nearest documented oil well to the site is located approximately 0.6 miles southwest of the site (API# 0407100083; Donald B. Lamont, Donald B. Lamont Lease, Well No. 1) and is reported as a plugged dry hole (CalGEM, 2021). Based on these findings, the potential for methane hazard at the site is low.

4.0 FINDINGS AND CONCLUSIONS

No evidence of adverse geological or geotechnical hazards was noted at the site that will preclude the development of the project as currently planned. Presented below is a summary of findings based upon the results of our geotechnical exploration of the site. Geotechnical recommendations for design and construction are presented in Section 4.0 of this report.

- The potential for surface fault rupture is considered to be low since the site is not located in a designated Alquist-Priolo Earthquake Fault Zone.

- The site may be subjected to strong ground shaking during the design life of the proposed development due to the proximity of several active faults in the vicinity of the site. The Chino fault, located approximately 4.7 miles southwest of the site is the nearest active fault to the site with a potential for surface rupture and generation of strong ground shaking. However, strong ground shaking may occur at the site due to seismic activity on one of a number of faults in the area.

- The site is **not** located within an area shown as susceptible to liquefaction according to the CGS *Earthquake Zones of Required Investigation Map* for the Ontario Quadrangle or the San Bernardino County *Geologic Hazard Overlays* map FH27C. Given the lack of shallow groundwater underlying the site, the potential for liquefaction is considered low.

- Groundwater was not encountered to the maximum depth explored of 51½ feet bgs. Recent nearby groundwater levels as documented by the California Department of Water Resources indicate the depth to groundwater is likely on the order of greater than 200 feet bgs. Groundwater is not anticipated to be a constraint to site grading or construction.

- At a minimum, development of the site for support of the proposed mixed-use development should include overexcavation and recompaction of the existing artificial fill materials as well as a portion of the underlying native soils to develop a layer of structural compacted fill to provide foundation support.

- The results of the infiltration testing performed at the site indicate stormwater infiltration is marginally feasible based on the tested locations and depths.

- The proposed structures may be supported by a shallow foundation system supported on structural compacted fill underlain by suitable bearing native soils.

5.0 GEOTECHNICAL DESIGN RECOMMENDATIONS

Based upon this study, we conclude that the proposed development for the subject site is feasible from a geotechnical standpoint, provided that the recommendations presented in this report are properly incorporated in design and construction. Geotechnical recommendations for the proposed development are presented in the following sections and are intended to provide sufficient geotechnical information to develop the project plans in accordance with 2019 CBC requirements. The following recommendations may be superseded by more restrictive requirements of the architect, structural engineer, and/or local building official.

The recommendations below are based upon the exhibited geotechnical engineering properties of the soils and their anticipated response both during and after construction. The recommendations are also based upon proper field observation and testing during construction. The project geotechnical engineer should be notified of suspected variances in field conditions to determine the effect upon the recommendations subsequently presented. These recommendations are considered minimal and may be superseded by more restrictive requirements of the civil and structural engineers, the City of Ontario, the County of San Bernardino and other governing agencies.

Leighton should review the grading plans, foundation plans and project specifications as they become available to verify that the recommendations presented in this report have been incorporated into the plans for this project.

5.1 Earthwork

All site grading should be performed in accordance with the project specifications that are prepared by the appropriate design professional. The guide specifications presented in Appendix D, General Earthwork and Grading Recommendations may be used as a guideline in developing the project specifications.

Earthwork and grading operations are recommended to be observed and appropriate testing be performed by representatives of the geotechnical engineer to verify that the site is properly prepared, the selected fill materials are satisfactory, and that placement and compaction of fills has been performed in accordance with our recommendations and the project specifications.

5.1.1 Site Preparation

Initial preparation of the site should include demolition and removal of the existing facility from the project site including all foundations, slabs and underground structures. Existing utilities not planned for reuse with the proposed development should be either removed in their entirety, properly abandoned in-place, or rerouted around the development area to preserve their function. Disposal of all debris and remnants of the existing development should be performed in accordance with the type of material and local regulations.

The existing development includes a relatively large paved parking lot that consists of asphalt concrete. Based upon the conditions encountered at the test boring locations, the thickness of the existing asphalt concrete ranged from 2½ to 5 inches underlain by base course that ranged from 3 to 12 inches in thickness. Reuse of the pavement with the proposed development will require consideration of proposed finish grades and the need to construct an asphalt overlay to prolong the service life of the pavement. Recommendations for reuse of the pavement can be provided upon request. However, for purposes of this report, the existing pavement is assumed to not be salvaged for reuse and will be removed from the site. If properly processed during demolition and removal, the pavement may be reused as the base course for construction of new pavement.

Upon completion of demolition and site clearing activities, the soils should be carefully observed for the removal of all unsuitable deposits. All undocumented fill or man-made debris, unsuitable native soils and former foundation remnants should be excavated and removed from the proposed building/structure footprint prior to fill placement.

5.1.2 Removals and Overexcavations

The recommended depths of overexcavation presented below have been based upon the assumed structural loads and the recommended allowable bearing pressure. The actual depth recommended for preparation of foundation areas may be revised depending upon the actual footing sizes that result from structural design of the foundations. Consequently, the recommendations for building pad preparation/overexcavation should be reviewed by the geotechnical engineer as foundation design proceeds.

To provide uniform foundation support and reduce the potential for excessive static settlement, all existing undocumented fill and any unsuitable soil, as deemed by the geotechnical engineer, should be removed to expose suitable native soils and replaced as engineered fill below the proposed building and other structural improvements. Based on our field explorations, we estimate removals of existing undocumented fill will be approximately 5 feet below existing grade across most of the site. Localized areas are anticipated to require deeper removals, in particular beneath the existing buildings and in areas of existing utilities.

Removals should be performed such that all undocumented fill is removed and replaced as engineered fill. In addition, overexcavations should be performed such that a minimum of 4 feet of engineered fill is established below the proposed building foundation elements and the at-grade slabs of the buildings. The lateral extent of overexcavation beyond foundations should be equal to the depth of overexcavation below the proposed foundations as measured at the excavation subgrade.

The depth of overexcavation in non-structural areas planned for new pavement construction is recommended to be 2 feet below the current grade or planned subgrade elevation to develop a suitable bearing subgrade for pavement support. Deeper overexcavations in localized areas may be recommended during grading by a representative of the geotechnical engineer depending on observed subsurface conditions.

5.1.3 Subgrade Preparation

All excavation bottoms or removal bottoms should be observed by a representative of the geotechnical engineer prior to placement of fill or other improvements to determine that geotechnically suitable soil is exposed. Excavation bottoms observed to be suitable for fill placement or other improvements should be scarified to a depth of at least 8 inches, moisture-conditioned as necessary to achieve a moisture content of at least 2 percentage points above the optimum moisture content, and then compacted to a minimum of 90 percent of the maximum dry density as determined by ASTM Test Method D 1557 (Modified Proctor).

5.1.4 Fill Placement and Compaction

The onsite soil, free of organic material, cobbles, boulders, rubble, and rock less than 3 inches in largest dimension, is suitable to be used as structural fill. All fill soil should be placed in loose lifts no greater than 8 inches in thickness, moisture-conditioned as necessary to a moisture content 1 to 2 percentage points above optimum moisture content and compacted using proper equipment to the minimum standard as noted below, unless stated otherwise in the specific sections.

- Fill soil should be moisture-conditioned and compacted to a minimum of 90 percent relative compaction as determined by ASTM Test Method D1557.
- Subgrade exposures should be moisture-conditioned and compacted to a minimum of 90 percent relative compaction as determined by ASTM Test Method D1557
- Base course material should be compacted to a minimum of 95 percent relative compaction.
- Utility trench backfill is discussed in Section 5.5.

Material imported to the site for use as fill should be reviewed and approved by the geotechnical engineer prior to import to the site and placement as fill. Imported soils should be very low in expansion potential (EI less than 20); non-corrosive to metals and concrete; and be free of hazardous substances.

When grading is interrupted by heavy rains, fill operations should not be resumed until the moisture content and the dry density of the placed fill are satisfactory.

5.1.5 Shrinkage and Bulking

The change in volume of excavated and recompacted soil varies according to soil type and location. This volume change is represented as a percentage increase (bulking) or decrease (shrinkage) in volume of fill after removal and recompaction. Field and laboratory data used in our calculations included laboratory-measured maximum dry density for the

general soil type encountered at the subject site, the measured in-place densities of near surface soils encountered and our experience.

Earthwork operations are generally anticipated to be limited to soils to a depth of 5 to 6 feet below current grade with some additional overexcavation in localized areas of the site where unsuitable bearing/very loose relative density soils may be encountered in the southern to southwestern region of the site. Data regarding the in-place density of the near surface soils could not be collected due to the manner in which field exploration was encountered whereby the soils to a depth of 5 feet at the boring locations were pre-drilled by use of a hand auger to protect against damaging buried utilities. Therefore, earthwork quantities (shrinkage/bulking) are primarily based upon experience with similar materials at other project sites and the limited available data from soils recovered from a depth of 6 feet.

On a preliminary basis, the existing fill materials requiring removal and recompaction are anticipated to exhibit volume shrinkage on the order of of 10 to 15 percent. The estimated shrinkage does not include material losses due to removal of organic material or other unsuitable bearing materials (debris, rubble, oversize material greater than 6-inches) and the actual shrinkage that occurs during grading may vary throughout the site.

5.1.6 Reuse of Concrete and Asphalt Rubble

If encountered during site clearing and/or during preparation activities, construction rubble (i.e., Portland cement concrete and asphalt concrete) may be incorporated in the proposed development. For use as structural fill, the processed material should be crushed to develop a relatively well-graded mixture with a maximum particle size of 3-inch nominal diameter. Concrete rubble should be free of rebar and processed asphalt pavement rubble may be used if mixed with the existing base course (where present). Processed material may be used as structural fill if uniformly mixed with onsite soils in proportion of 1 part processed material to 3 parts soil. For use as pavement base course, rubble should be crushed to satisfy gradation requirements of Section 200-2.4 of the *Standard Specifications for Public Works Construction,* (SSPWC, “Greenbook”). Such materials must be free of and segregated from any hazardous materials and/or organic material of any kind.

5.2 Foundation Design

Preparation of the building areas should be performed as described in Section 5.1 of this report. Upon completion of building pad preparation, the soils that will provide support of the foundations are expected to consist of properly moisture-conditioned structural compacted fill that exhibits very low to low expansion potential underlain by suitable bearing native soils.

5.2.1 Vertical Load Bearing Capacity

The proposed structures are recommended to be supported by a shallow foundation system in which continuous strip footings are used for wall support and isolated square pad footings for column support. Footings to support the proposed buildings are recommended to be designed for a maximum net allowable soil bearing pressure of 2,500 pounds per square foot (psf) for continuous strip footings for wall support and 3,000 psf for isolated square pad footings for column support.

The foundations for ancillary structures separate from the proposed buildings are recommend to be designed for a maximum 2,000 pounds per square foot (psf) for continuous strip footings for wall support and 2,500 psf for isolated square pad footings for column support. The recommended bearing pressures assume the foundations will be supported by a layer of structural compacted fill that is a minimum 2 feet in thickness below foundations and extends laterally distance of at least 2 feet beyond the edges of the foundations.

The allowable bearing values may be increased by one-third when considering short-term seismic or wind loads. The recommended bearing pressure is net so the unit weight of concrete may be assumed to be 50 pcf when calculating the component of load demand due to foundation weight; the weight of soil backfill can be neglected when determining the downward loads.

The recommended allowable bearing pressures stated above have been based upon specific minimum footing sizes and embedment depths:

- Minimum widths for foundations are recommended to be 18 inches for continuous strip footings and 24 inches for square pad footings.

- Minimum footing embedment depth for the isolated exterior footings and the footings for the exterior walls is recommended to be 18 inches.
- The minimum embedment depth for interior footings is recommended to be 18 inches.
- The minimum embedment depth for ancillary structures is 18 inches below adjacent subgrade elevation.

The depth of embedment should be determined from the finish subgrade elevation adjacent to the building for the perimeter footings and the finish pad grade within the structure for interior footings. Additional foundation embedment depth may be considered for foundations located close to property lines to protect foundations from being undermined due future excavation that may be performed on the adjacent properties.

Determination of the minimum steel reinforcement requirements of the continuous strip and isolated square pad footings should be performed by the structural engineer.

The foundation bearing soils are recommended to be evaluated by the geotechnical engineer prior to placing reinforcing steel. Evaluation is intended to verify suitable bearing conditions to support the footings and the footing excavations are generally in compliance with foundation plans.

5.2.2 Lateral Load Resistance

Lateral loads may be resisted by friction acting along the bottoms of the footings and passive resistance of the soil adjacent to the vertical sides of the foundations provided the foundations are poured neat against properly compacted fill or undisturbed native soils. Resistance to lateral load may be calculated on the basis of an allowable frictional coefficient of 0.30 and allowable passive resistance equal to an equivalent fluid density of 250 pounds-per-cubic-foot (pcf) to a maximum of 2,500 psf. No reduction will be needed to any of the above two components for computing the total resistance to lateral loads. The use of passive resistance in lateral load analysis requires the foundations to be cast against vertical, undisturbed trench walls or any voids along the footing be backfilled with structural compacted fill.

5.2.3 Settlement Estimate

Estimated post-construction total and differential settlement under the assumed loading conditions and preparation of the building areas as described in this report are estimated to be on the order of 1 inch and ½ inch, respectively. The differential settlement is expected to occur over a minimum span of 30 feet, thereby resulting in an angular distortion less than 0.002, which is expected to be within tolerable limits for the proposed structures.

Settlement is a function of footing size and contact bearing pressure. As a result, differential settlement can be expected between adjacent columns or walls where a large differential loading condition exists. Leighton should review the settlement estimates when final foundation plans and loads for the proposed structures become available.

5.3 Slab-on-Grade Floors

Upon completion of the recommended building pad preparation, the subgrades of the slabs supported on grade are anticipated to consist of newly placed structural compacted fill, which is generally expected to consist of the existing soils that have been overexcavated and recompacted under engineering controlled conditions.

Based upon the anticipated subgrade conditions, the floor slabs of the proposed buildings that will be supported on grade may be designed and constructed as a mat on elastic foundation using a modulus of subgrade reaction (k_{v1}) of 100 pounds per cubic inch (pci). These slabs are recommended to be a minimum of 4 inches in thickness and include No. 3 rebar placed at center of the slab at 18 inches on-center in each direction based on geotechnical considerations. Increase in the slab thickness and/or reinforcing may be necessary due to structural engineering considerations as determined by the structural engineer.

The slabs may are recommended to be underlain by a minimum 4-inch thick coarse granular material to serve as a working mat during construction and serve as a capillary moisture break.

Interior slabs-on-grade are recommended to be underlain by a synthetic sheeting to serve as a retarder to moisture vapor transmission in areas where moisture-sensitive floor coverings are used (such as vinyl, tile, or carpet) or storage areas

for personal possessions. Prior to installing the synthetic sheeting, the exposed subgrade surface should be clear of all extruding rock and gravel that could damage the sheeting. The sheeting should be evaluated for the presence of punctures or tears by the installer prior to pouring concrete. Installation of the sheeting should include proper overlap and taping of seams.

Appropriate synthetic sheeting should be determined by others qualified in evaluating and mitigating moisture vapor transmission through concrete slabs. Our firm does not practice in the field of moisture vapor transmission evaluation, since this is not specifically a geotechnical issue. Therefore, we recommend that a qualified person, such as the flooring subcontractor and/or structural engineer, be consulted with to evaluate the general and specific moisture vapor transmission paths and any impact on the proposed construction with respect to the storage facility and retail areas. That person should provide recommendations for mitigation of the potential adverse effects of moisture vapor transmission on various components of the structures as deemed appropriate.

Care should be taken to avoid slab curling if slabs are poured in hot weather. Frequent construction joints should be provided to minimize the potential for cracking. Slabs should be designed and constructed as promulgated by the Portland Cement Association (PCA). Prior to the slab pour, all utility trenches should be properly backfilled and compacted. Differential settlement of this material could result in movement and distress to hardscape and other improvements. The need to repair cracks, etc. should be anticipated.

5.4 Temporary Excavations

All temporary excavations, including utility trenches, retaining wall excavations, and other excavations should be performed in accordance with project plans, specifications and all Occupational Safety and Health Administration (OSHA) requirements.

Temporary excavations should be treated in accordance with the State of California version of OSHA excavation regulations, Construction Safety Orders for Excavation General Requirements, Article 6, Section 1541, effective October 1, 1995. The sides of excavations should be shored or sloped in accordance with OSHA regulations. OSHA allows the sides of unbraced excavations, up to a maximum height of 20 feet, to be cut to a ¾H:1V (horizontal:vertical) slope for Type A soils, 1H:1V for Type B soils, and 1½H:1V for Type C soils. Onsite sandy soils

are to be considered Type C soils which are subject to collapse in shallow unbraced excavations (i.e., approximately 3 to 4 feet in vertical height).

OSHA regulations are applicable in areas with no restriction of surrounding ground deformations. Shoring should be designed for areas with deformation restrictions. The soil type should be verified or revised based on geotechnical observation and testing during construction, as soil classifications may vary over short horizontal distances.

Typical cantilever shoring should be designed based on an active fluid pressure of 38 pcf, assuming level ground above the shoring. If excavations are braced at the top and at specific design intervals, the active pressure may then be approximated by a rectangular soil pressure distribution with the pressure per foot of width equal to 25***H*** psf, where ***H*** is equal to the depth of the excavation being shored.

Heavy construction loads, such as those resulting from stockpiles and heavy machinery, should be kept a minimum distance equivalent to the excavation height or 5 feet, whichever is greater, from the excavation unless the excavation is shored and these surcharges are considered in the design of the shoring system. Excavations that extend below an imaginary plane inclined at 45 degrees below the edge of any adjacent existing site foundation should be properly shored to maintain support of the adjacent structures.

5.5 Trench Backfill

Utility trenches should be backfilled with compacted fill in accordance with Sections 306-1.2 and 306-1.3 of the *Standard Specifications for Public Works Construction,* (SSPWC, “Greenbook”), 2018 Edition. Utility trenches can be backfilled with onsite material free of rubble, debris, organic and oversized material up to 3 inches in largest dimension. Prior to backfilling trenches, pipes should be bedded in and covered with either:

- **Granular Bedding:** a) ½-inch open grade aggregate; or b) a uniform sand material with a Sand Equivalent (SE) greater than or equal to (≥) 30, passing the No. 4 U.S. Standard Sieve (or as specified by the pipe manufacturer). Testing to evaluate the Sand Equivalent (SE) of representative samples of the near surface soils indicated SE values below 30, thereby indicating the on-site soils may not be suitable for reuse in this manner.

- **CLSM:** Controlled Low Strength Material (CLSM) conforming to Section 201-6 of the SSPWC. CLSM bedding should be placed to 1 foot (0.3 m) over the top of the conduit, and vibrated.

Pipe bedding should extend at least 4 inches below the pipeline invert and at least 12 inches over the top of the pipeline. The bedding and shading sand is recommended to be densified in place by vibratory, lightweight compaction equipment. Jetting or hydro-consolidation may be suitable for this project site where utility trenches will be underlain by the silty sands, typically present in the upper 5 to 10 feet.

Trench backfill over the pipe bedding zone may consist of native and clean fill soils. All backfill should be placed in thin lifts (appropriate for the type of compaction equipment), moisture conditioned above optimum, and mechanically compacted to at least 90 percent relative compaction, relative to the ASTM D 1557 laboratory maximum density.

5.6 Soil Corrosivity

In general, soil resistivity, which is a measure of how easily electrical current flows through soils, is the most influential factor for corrosion to ferrous metals. The following table presents an approximate relationship between soil resistivity and soil corrosiveness.

Table 4 – Soil Corrosivity as a Function of Resistivity

Soil Resistivity (ohm-cm)	Classification of Soil Corrosiveness
0 to 900	Very severe corrosion
900 to 2,300	Severely corrosive
2,300 to 5,000	Moderately corrosive
5,000 to 10,000	Mildly corrosive
10,000 to >100,000	Very mildly corrosive
Note: [1] ASTM STP 1013 titled *Effects of Soil Characteristics on Corrosion* (February, 1989).	

In addition to resistivity, the concentration of chloride ions can also be used to evaluate corrosive potential to steel, either in the form of reinforcement protected by concrete cover or plain steel substructures, such as steel pipes. As a general guideline, the chloride threshold adopted by Caltrans is a concentration of 500 ppm

or greater as determined by California Test 532. Concentrations of chloride ions above the stated concentration or other characteristics such as soil resistivity or redox potential may warrant special corrosion protection measures. The results of corrosivity testing are summarized in the following table.

Table 5 – Summary of Corrosivity Testing

Test Parameter	Test Results LB-3 @ 0'-5'	General Classification of Hazard
Water-Soluble Sulfate in Soil (ppm)	260	Negligible sulfate exposure to buried concrete
Water-Soluble Chloride in Soil (ppm)	40	Non-corrosive to buried reinforced concrete
pH	7.92	Moderately alkaline
Minimum Resistivity (saturated, ohm-cm)	1,335	Severely corrosive to buried ferrous pipes

The results of the resistivity tests indicate the underlying soil is moderately corrosive to buried ferrous metals per ASTM STP 1013. The samples tested for water-soluble chloride content indicate a low potential for corrosion of steel in concrete due to the chloride content of the soil.

Based on the test results, ferrous pipes buried in moist to wet site earth materials should be avoided by using high-density polyethylene (HDPE), polyvinyl chloride (PVC) and/or other non-ferrous pipe when possible provided the pipe walls possess sufficient strength for the embedment and external loading to which the pipe will be subjected. Ferrous pipe can also be protected by polyethylene bags, tape or coatings, di-electric fittings or other means to separate pipe from on-site soils. If buried ferrous pipes are planned for this site, further corrosivity testing of soil samples should be performed upon completion of rough grading and specific corrosion protection measures should be recommended by a qualified corrosion engineer.

5.7 Cement Type

In general, soil environments that are detrimental to concrete have high concentrations of soluble sulfates and/or pH values of less than 5.5. Section 4.3 of ACI 318 (ACI, 2014) provides specific guidelines for the concrete mix-design when the soluble sulfate content of the soil exceeds 0.1 percent by weight or 1,000 parts per million (ppm).

The results of laboratory testing indicated concentrations of soluble sulfate less than 0.1 percent. The test results indicate a sulfate Exposure Class designation of "S0" appears to be appropriate for the project site based upon criteria presented in ACI 318. However, if the concrete is expected to be in contact with reclaimed water, Type V cement and a water/cement ratio of 0.45 should be used. Samples should be collected from the compacted fill subgrade upon completion of grading to confirm the initial findings of this exploration.

5.8 Elevator Pit Wall Design

The proposed development is not expected to include new earth retaining structures due to the generally level topographic relief of the site and no below grade levels associated with the buildings. However, in consideration that the buildings will be multi-stories in height, the buildings are anticipated to include elevators. In the anticipation that elevator equipment will include below-grade pits to house the mechanical workings, design of the pit walls should include provisions to resist the lateral load of the adjacent soils. Based on the recommended building pad parathion and the anticipated soil conditions, design of the pit walls is recommended to be based upon an equivalent lateral earth pressure of 60 psf per foot of retained height.

5.9 Pavements

5.9.1 Pavement Subgrades

The pavement subgrades should be prepared as described in Section 5.1 of this report. In accordance with the recommendations, preparation of the subgrade within the areas of new pavement construction are recommended to be overexcavated to a depth of 2 feet below the current grade or planned subgrade elevation, or to the depth of undocumented fill whichever is greater, to allow placement of a minimum of 2 feet of structural fill to develop a suitable bearing subgrade for pavement support.

5.9.2 Hot Mix Asphalt (HMA) Pavement Sections

Asphalt pavements are anticipated to be feasible for the proposed development. Based on the anticipated subgrade conditions and the results of laboratory testing conducted on one bulk sample of the near surface soils

(LB-1), the following recommendations for pavement design have been based upon a design R-value of 30 for the anticipated subgrade. R-value tests should be performed upon completion of grading to verify the design value is appropriate for the actual subgrade conditions. Based on the design procedures outlined in the current Caltrans Highway Design Manual and using an R-value of 78 for the pavement base course, the following flexible pavement sections may be used for Traffic Index values that correspond to various levels of vehicle traffic.

Table 6 – Asphalt Pavement Sections

Traffic Index	Asphalt Concrete (inches)	Base Course (inches)	
		CAB	CMB
4 or less	3	5	6
5.0	3	6	7
6.0	4	7	8

Notes: CAB – Crushed Aggregate Base Course; Caltrans Class 2, Section 26 or SSPWC Section 200-2.2

CMB – Crushed Miscellaneous Base Course; SSPWC Section 200-2.4

The asphalt concrete should conform to the specifications outlined in Section 203-6 of the Standard Specifications for Public Works Construction (SSPWC, a.k.a. “Greenbook”), and asphalt concrete construction methods should meet the requirements of Section 302-5 of the Green Book.

The base course should conform to requirements of Section 26 of State of California Department of Transportation Standard Specifications (Caltrans), latest edition, or meet the specifications for untreated base as defined in Section 200-2.2 of the SSPWC (Greenbook). As an alternate, the base course may comply with the specifications for Crushed Miscellaneous Base per SSPWC Section 200-2.4 with an appropriate increase in thickness.

Prior to placement of the base course, the subgrade soil should be processed to a minimum depth of 8 inches, moisture-conditioned to 1 to 2 percent above optimum moisture content, and recompacted to a minimum of 95 percent relative compaction. Base course should be placed in thin lifts, moisture conditioned, as necessary, and compacted to a minimum of 95 percent relative compaction (ASTM D1557).

5.9.3 Portland Cement Concrete (PCC) Pavements

Portland cement concrete is recommended for areas of the development subjected to large loads and truck loading/unloading areas. In such areas, a minimum 6-inch thick Portland Concrete Cement (PCC) pavement section reinforced is recommended. Reinforcement is recommended to consist of No. 4 rebar at a maximum on-center spaced at 16 inches in each direction. The recommended PCC pavement section was based on the procedures described in the *Guide for Design and Construction of Concrete Parking Lots by the American Concrete Inst*itute (ACI 330R-08).

All PCC pavements should have a minimum 28-day concrete compressive strength of 3,000 pounds-per-square-inch (psi). The reinforcement should be evaluated by the civil/structural engineer to accommodate any additional structural loading requirements. Control joints are recommended to be installed at a maximum on-center spacing of 12 feet for 6-inch thick slabs, and should form square panels.

Concrete pavement may be underlain by a minimum 4-inch thick layer of compacted granular base to serve as a leveling mat for construction and to assist in load transfer at construction joints.

Integral curbs should be used at the perimeter of PCC pavement. Longitudinal joints should be avoided near curbs and gutters. Use of concrete cutoff or edge barriers should be considered at the perimeter of common parking or driveway areas when abutting either open (unfinished) or landscaped areas.

5.10 Concrete Flatwork and Exterior Slabs

Exterior concrete slabs-on-grade should have a minimum thickness of 4 inches. Common Type II cement should be adequate for concrete flatwork not exposed to recycled water. Type V cement and a water:cement ratio of 0.45 should be used for concrete exposed to recycled water.

Concrete flatwork should be placed on compacted fill. If this material has been disturbed or dried out, the subgrade soil to a depth of 12 inches should be moisture conditioned to 1 to 2 percent above optimum moisture content and recompacted to minimum 90 percent relative compaction.

Exterior concrete driveways, ramps, curbs, gutters, sidewalks often crack. Inclusion of joints at frequent intervals and reinforcement will help control the locations of the cracks, and thus reduce the unsightly appearance. Construction or weakened plane joints should be spaced at intervals of 6 feet or less for sidewalks, curbs and gutters. The spacing may be increased to 10 feet for ramps and driveways. If cracking occurs, repairs may be needed to mitigate the trip hazard and/or improve the appearance.

Minor cracking of concrete after curing due to expansion, drying and shrinkage is normal and should be expected. However, cracking is often aggravated by a high water-to-cement ratio, high concrete temperature at the time of placement, small nominal aggregate size, and rapid moisture loss due to hot, dry, and/or windy weather conditions during placement and curing. Cracking due to temperature and moisture fluctuations can also be expected.

The use of low-slump concrete or low water/cement ratios can reduce the potential for shrinkage cracking. Inclusion of joints at frequent intervals and reinforcement will help control the locations of the cracks, and thus improve aesthetics. Control joints should be spaced at intervals no more than 10 feet. If cracking occurs, repairs may be needed to mitigate the trip hazard and/or improve the appearance.

Slab cracking and/or uneven slab surfaces may result due to the presence of fill if the fill is left in place below the slabs. Slab distortion may result in tripping hazards. Standard methods to mitigate trip hazards include the following:

- Saw Cutting
- Grinding
- Patching and ramping
- Removing and replacement

A regular maintenance program should be implemented to mitigate trip hazards and comply with safety requirements.

5.11 Surface Drainage

Positive drainage of surface water away from structures is very important. Water should not be allowed to pond adjacent to buildings or new site improvements. Positive drainage may be accomplished by providing drainage away at a minimum of 2 percent for earthen surfaces for a lateral distance of at least five feet and further maintained by a swale or drainage path at a gradient of at least 1 percent.

Where necessary, drainage paths may be shortened by the use of area drains and collector pipes. Eave gutters are recommended and should reduce water infiltration into the subgrade materials. Downspouts should be connected to appropriate outlet devices.
Irrigation of landscaping should be controlled to maintain, as much as possible, consistent moisture content sufficient to provide healthy plant growth without over watering.

5.12 Additional Geotechnical Services

Leighton should review the grading plans, foundation plans, and specifications when they are available to verify that the recommendations presented in this report have been properly interpreted and incorporated.

Geotechnical observation and testing should be provided during the following activities:

- Grading and excavation of the site;
- Subgrade Preparation;
- Compaction of all fill materials;
- Utility trench backfilling and compaction;
- Footing excavation and slab-on-grade preparation;
- Pavement subgrade and base preparation;
- Placement of asphalt concrete and/or concrete; and
- When conditions are encountered on site that are not consistent with the conditions described in this report.

6.0 LIMITATIONS

This report was prepared using the degree of care and skill ordinarily exercised, under similar circumstances, by reputable geotechnical consultants practicing at this time in San Bernardino County. We do not make any warranty, either express or implied.

As in many projects, conditions revealed in excavations may be at variance with preliminary findings. If this occurs, the changed conditions must be evaluated by the geotechnical consultant and additional recommendations be developed as needed.

The identification and testing of hazardous, toxic or contaminated materials was outside the scope of Leighton's work. Should such materials be encountered at any time, or their existence be suspected, all measures stipulated in local, County, State and Federal regulations, as applicable, should be implemented.

This report is issued with the understanding that it is the responsibility of the owner, or of his representative, to ensure that the information and recommendations contained herein are brought to the attention of the necessary design consultants for the project and incorporated into the plans; and that the necessary steps are taken to see that the contractors carry out such recommendations in the field.

Changes in the conditions of a property can occur with the passage of time, whether due to natural processes or the work of man on the subject or adjacent properties. In addition, changes in standards of practice may occur from legislation or the broadening of knowledge. Accordingly, the findings of this report may at some future time be invalidated wholly or partially by changes outside Leighton’s control.

The conclusions and recommendations in this report are based in part upon data that were obtained from a necessarily limited number of observations, site visits, excavations, samples and tests. Such information can be obtained only with respect to the specific locations explored, and therefore may not completely define all subsurface conditions throughout the site. The nature of many sites is that differing geotechnical or geological conditions can occur within small distances and under varying climatic conditions. Furthermore, changes in subsurface conditions can and do occur over time. Therefore, the findings, conclusions and recommendations presented in this report can be relied upon only if Leighton has the opportunity to perform additional investigation of the site, finalize and complete the conclusions and recommendations presented in this report, and finally to observe the subsurface conditions during grading and construction of the project, in order to verify that our preliminary findings are representative of the site.

This report is intended only for the use of Legacy/Collier Residential, LLC and its design consultants, and only as related expressly to evaluation of the feasibility of developing the subject site with the proposed development and for preliminary planning and design.

If parties other than Leighton are engaged to provide construction geotechnical services, they must be notified that they will be required to assume complete responsibility for the geotechnical phase of the project by concurring with the findings and recommendations in this report or by providing alternative recommendations.

Any persons using this report for bidding or construction purposes should perform such independent explorations as they deem necessary to satisfy themselves as to the surface and subsurface conditions to be encountered and the procedures to be used in the performance of work on the subject site.

7.0 REFERENCES

American Concrete Institute (ACI), 2014, Building Code Requirements for Structural Concrete (ACI 318-14) and Commentary, an ACI Standard, reported by ACI Committee 318.

American Society of Civil Engineers (ASCE), 2017, Minimum Design Loads for Buildings and Other Structures, ASCE/SEI 7-16, with Supplement 1, Effective December 12, 2018.

Bray, J.D. and Sancio, R.B., 2006, Assessment of the Liquefaction Susceptibility of Fine-Grained Soils, Journal of Geotechnical and Geoenvironmental Engineering, American Society of Civil Engineers, September 2006, V. 132, No. 9, pp. 1165-1177.

Bryant, W.A., and Hart, E.W., 2007, Fault Rupture Hazard Zones in California, Alquist-Priolo Earthquake Fault Zoning Act with Index to Earthquake Zones Maps, Department of Conservation, California Geological Survey, Special Publication 42, 2007 Interim Revision.

California Building Standards Commission, 2019, 2019 California Building Code (CBC), California Code of Regulations, Title 24, Part 2, Volume 2 of 2, Based on 2018 International Building Code, Effective January 1, 2020.

California Department of Conservation, Geologic Energy Management Division (CalGEM), 2021, Interactive Wellfinder Website, https://maps.conservation.ca.gov/doggr/wellfinder/

California Geological Survey (CGS; formerly California Division of Mines and Geology, CDMG), 2000a, Seismic Hazards Zones, Ontario Quadrangle, Official Map Released November 17, 2000.

———, 2000b, Seismic Hazard Zone Report for the Ontario 7.5-Minute Quadrangle, Los Angeles County, California, Seismic Hazard Zone Report No. 040.

_____, 2000c, CD-ROM containing digital images of Official Maps of Alquist-Priolo Earthquake Fault Zones that affect the Southern Region, DMG CD 2000-003 2000.

_____, 2008, Special Publication 117A, Guidelines for Evaluating and Mitigating Seismic Hazards in California.

_____, 2018, Earthquake Fault Zones, A Guide for Government Agencies, Property Owners / Developers, and Geoscience Practitioners for Assessing Fault Rupture Hazards in California, Special Publication 42, Revised 2018.

San Bernardino County, 2010, Land Use Services, General Plan, Geologic Hazard Overlays, map FH27 C – Ontario, scale 1:14,400, dated march 9, 2010.

_____, 2013, Technical Guidance Document for Water Quality Management Plans, Prepared by CDM Smith, Inc. for the County of San Bernardino Areawide Stormwater Program, dated June 7, 2013.

Dibblee, T.W. Jr., 2002, Geologic Map of the San Dimas and Ontario Quadrangles, Los Angeles and San Bernardino Counties, California, Dibblee Geological Foundation Map No. DF-91.

Federal Emergency Management Agency, 2015, Flood Insurance Rate Map, City of Ontario, Map Number 06071C8620H, dated August 8, 2008.

Jennings, C.W., 2010, Fault Activity Map of California, California Geological Survey, Geologic Data Map No. 6, map scale 1:750,000.

Morton D.M., and Miller, F.K., 2006, Geologic Map of the San Bernardino and Santa Ana, 30' x 60' Quadrangles, California, USGS Open File Report 2006-1217.

Nationwide Environmental Title Research, LLC (NETR), 2021, Historic Aerials by NETR Online, website: http://www.historicaerials.com/aerials.

United States Geological Survey (USGS), 2018, Ontario Quadrangle, California, 7.5 Minute Series Topographic Map, map scale 1:24,000.

_____, 2008a, Unified Hazard Tool for Deaggregations, https://earthquake.usgs.gov/hazards/interactive/

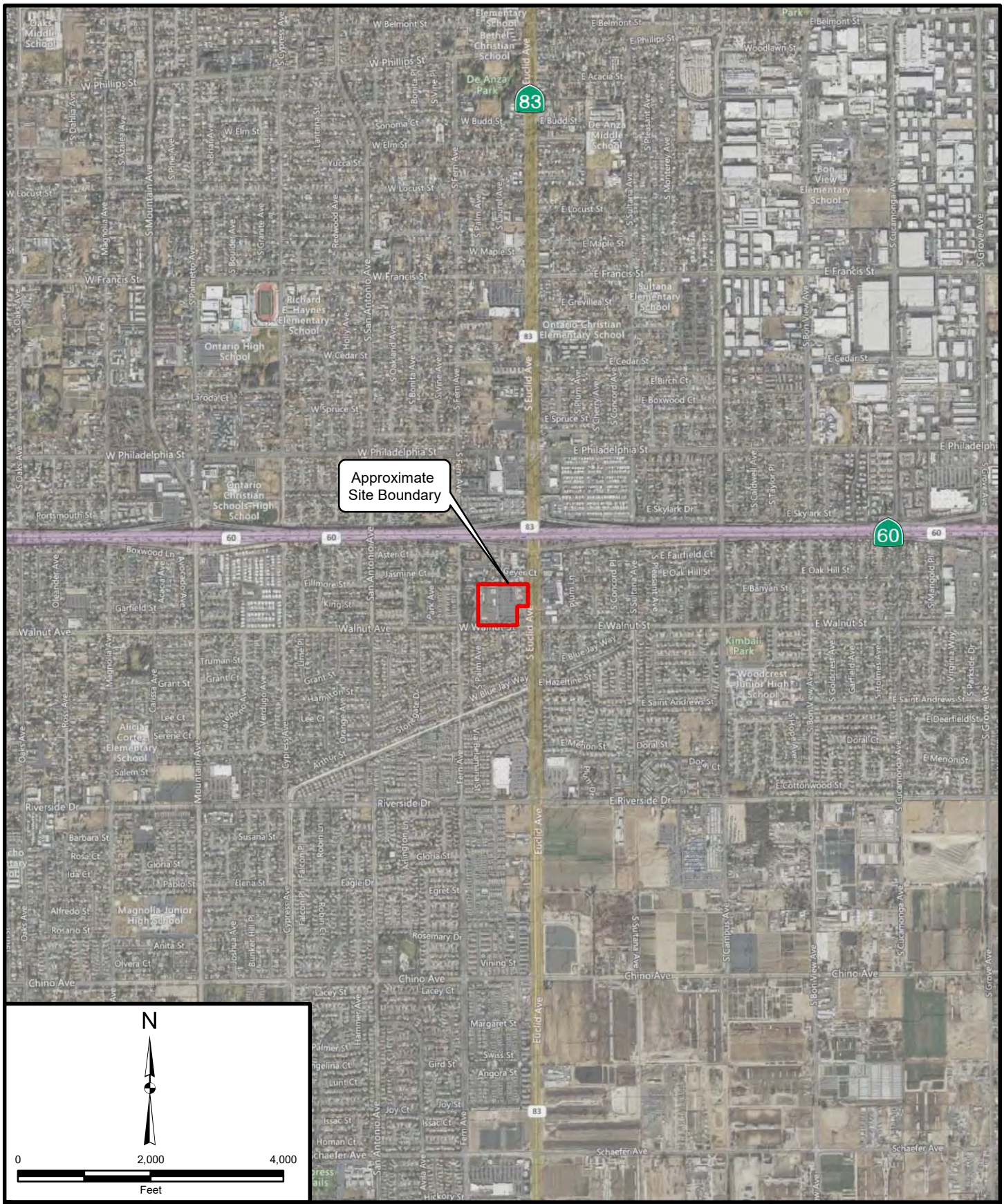
_____, 2008b, National Seismic Hazard Maps – Fault Parameters, https://earthquake.usgs.gov/cfusion/hazfaults_2008_search/query_main.cfm

_____, 2021a, Interactive Fault Map, http://earthquake.usgs.gov/hazards/qfaults/map/

_____, 2021b, Interactive Geologic Map, http://ngmdb.usgs.gov/maps/MapView/

Wildermuth Environmental, Inc., 2009, Chino Basin Optimum Basin Management Program, 2008 State of the Basin Report, Final Report, Prepared for Chino Basin Watermaster, dated November, 2009.

FIGURES



Project: 13493.001	Eng/Geol: JEH/EMH
Scale:1 " = 2,000 '	Date: May 2022

Reference: © 2022 Microsoft Corporation © 2022 Maxar ©CNES (2022) Distribution Airbus

SITE LOCATION MAP

Proposed Euclid and Walnut Mixed-Use Development
2502 and 2530 S. Euclid Avenue
Ontario, California

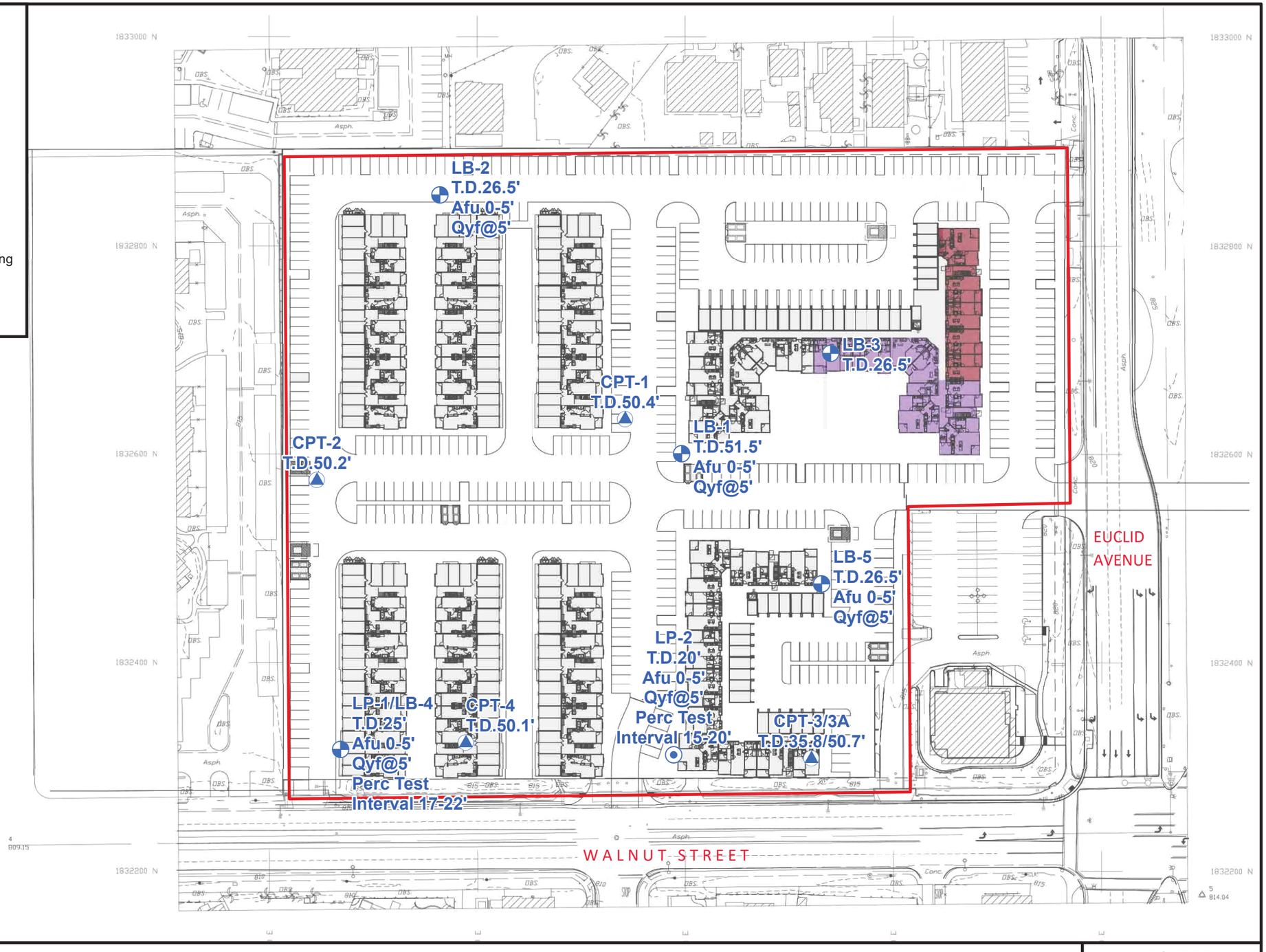
FIGURE 1

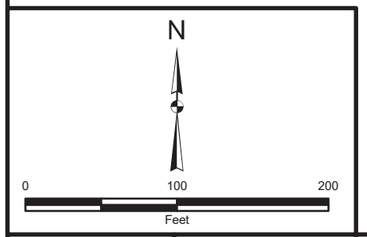
Leighton

Map Saved as J:\Drafting\13493\001\Maps\13493-001_F01_SLM_2022-04-19.mxd on 4/14/2022 2:00:06 PM Author: KVM (btran)

LEGEND

Afu	Artificial Fill
Qyf	Quaternary Young Alluvial Fan Deposits
LB-5	Approximate location of hollow-stem auger boring showing total depth (T.D.) and depth to earth units in feet below ground surface.
LP-2	Approximate location of percolation test well showing percolation test interval in feet below ground surface.
CPT-4	Approximate location of cone penetrometer test sounding showing total depth (T.D.) in feet below ground surface
	Approximate Site Boundary





Project: 13493.001	Eng/Geol: JEH/EMH
Scale:1 " = 100 '	Date: May 2022

Base Map: Option A Site Plan, Euclid and Walnut Mixed Use
Sheet 01, Dated: 03/10/2022
by AO Architecture Design Relationships

GEOTECHNICAL MAP

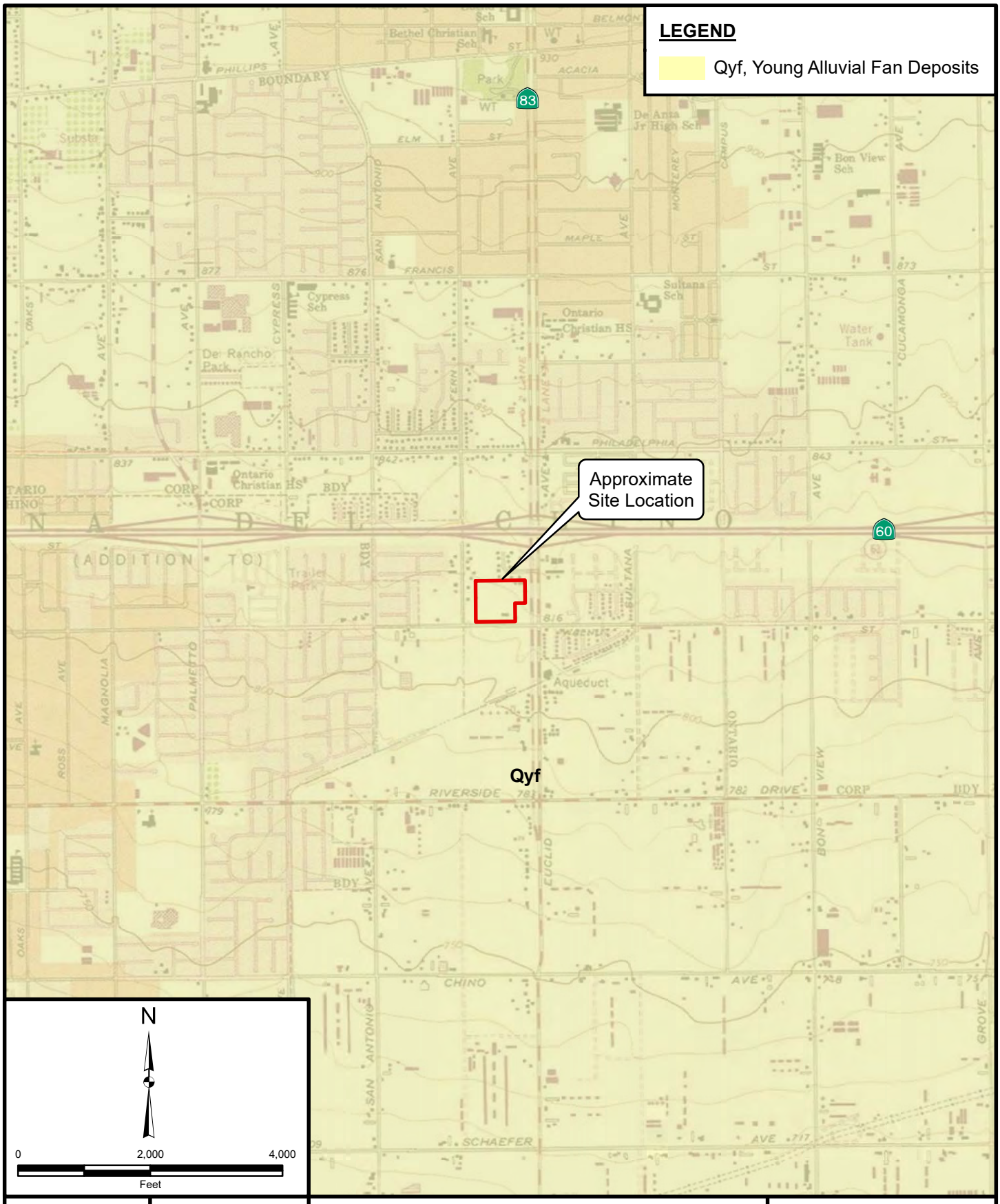
Proposed Euclid and Walnut Mixed-Use Development
2502 and 2530 S. Euclid Avenue
Ontario, California

FIGURE 2

Leighton

3505

Map Saved as J:\Drafting\13493\001\Maps\13493-001_F02_GM_2022-04-20.mxd on 4/19/2022 11:14:24 AM Author: KVM (btran)



Project: 13493.001	Eng/Geol: JEH/EMH
Scale:1 " = 2,000 '	Date: May 2022

Basemap: USGS Topo Map Service from Esri, 2021
Reference: USGS Geologic Map of the Sotuthern California GIS Compilation by CGS, Lancaster, et al., 2012

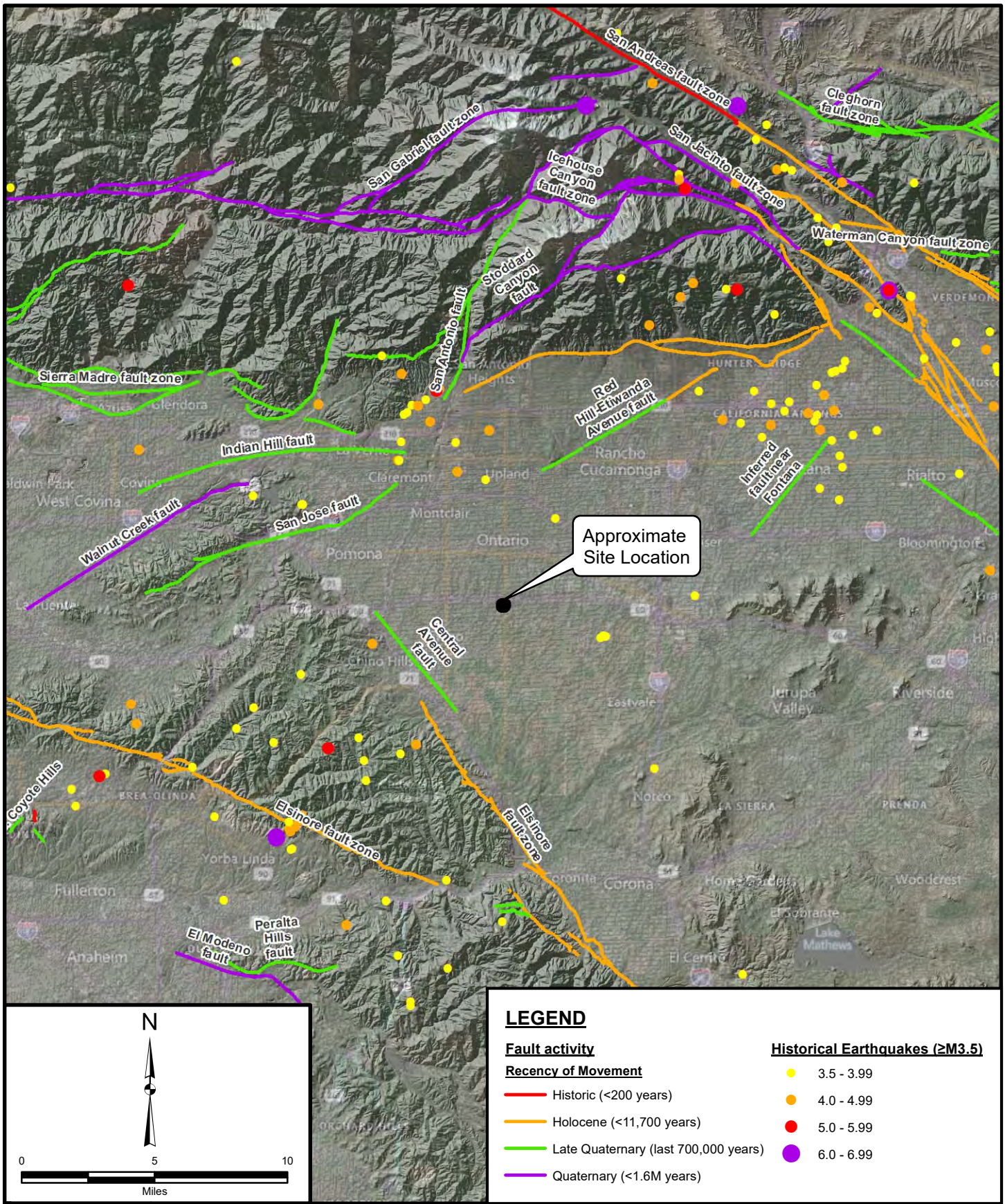
REGIONAL GEOLOGY MAP

Proposed Euclid and
Walnut Mixed-Use Development
2502 and 2530 S. Euclid Avenue
Ontario, California

FIGURE 3

Leighton

Map Saved as J:\Drafting\13493\001\Maps\13493-001_F03_RGM_2022-04-19.mxd on 4/14/2022 2:02:07 PM Author: KVM (btran)



LEGEND

Fault activity

Recency of Movement

- Historic (<200 years)
- Holocene (<11,700 years)
- Late Quaternary (last 700,000 years)
- Quaternary (<1.6M years)

Historical Earthquakes (≥M3.5)

- 3.5 - 3.99
- 4.0 - 4.99
- 5.0 - 5.99
- 6.0 - 6.99

Project: 13493.001	Eng/Geol: JEH/EMH
Scale: 1 " = 5 miles	Date: May 2022

Base Map: ESRI ArcGIS Online 2022
Reference: maps.conservation.ca.gov

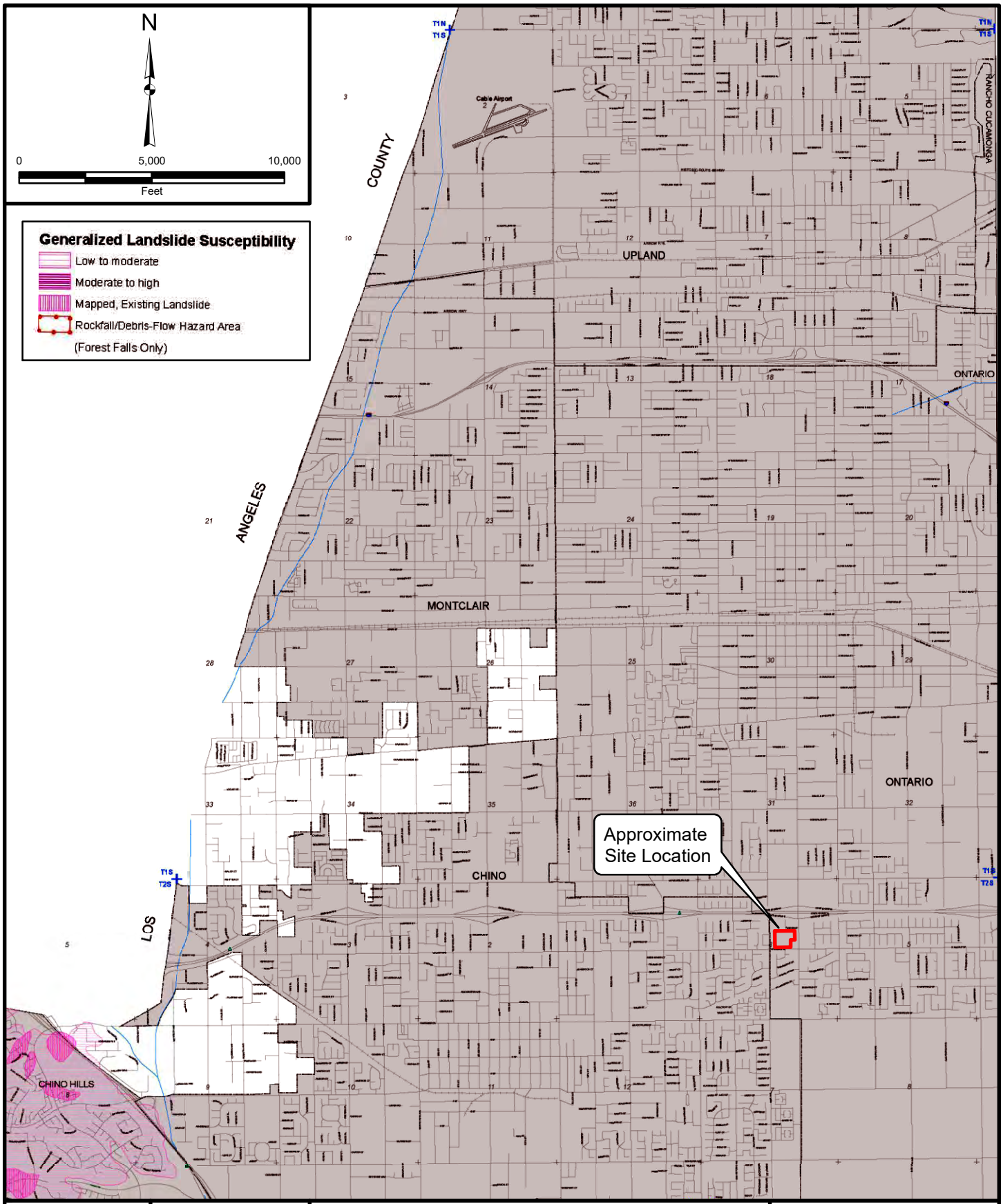
REGIONAL FAULTS AND HISTORIC SEISMICITY MAP

Proposed Euclid and Walnut Mixed-Use Development
2502 and 2530 S. Euclid Avenue
Ontario, California

FIGURE 4

Leighton

Map Saved as J:\Drafting\13493\001\Maps\13493-001_F04_RFHSM_2022-04-19.mxd on 4/14/2022 2:03:52 PM Author: KVM (btran)



Project: 13493.001	Eng/Geol: JEH/EMH
Scale: 1 " = 5,000 '	Date: May 2022

Base Map: San Bernardino County Land Use Plan General Plan, Geologic Hazard Overlays, FH27 C Ontario

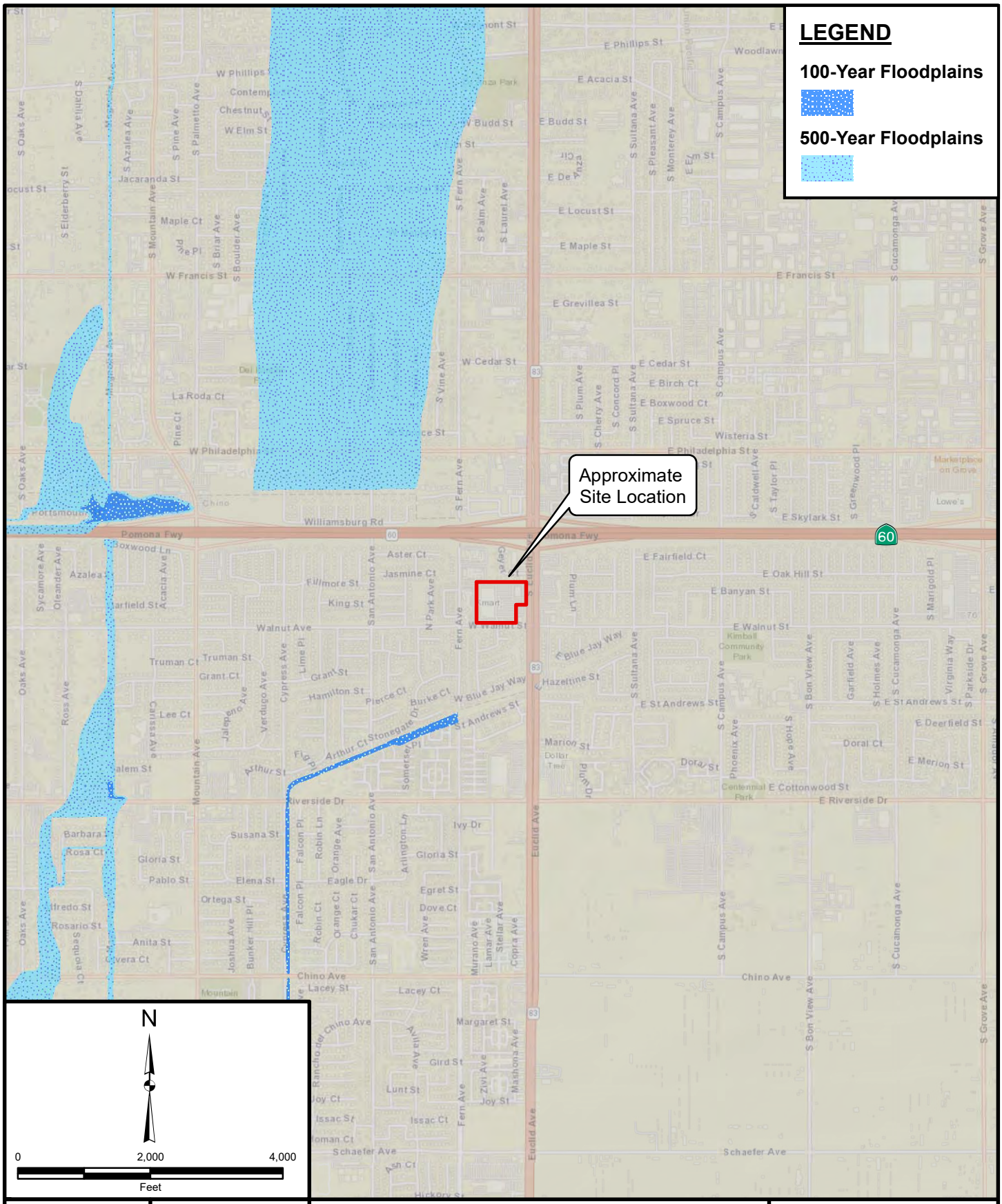
SEISMIC HAZARD MAP

Proposed Euclid and Walnut Mixed-Use Development
2502 and 2530 S. Euclid Avenue
Ontario, California

FIGURE 5

Leighton

Map Saved as J:\Drafting\13493\001\Maps\13493-001_F05_SHM_2022-04-20.mxd on 4/20/2022 1:12:49 PM Author: KVM (btran)



Project: 13493.001	Eng/Geol: JEH/EMH
Scale:1 " = 2,000 '	Date: May 2022
Base Map: ESRI ArcGIS Online 2022 Reference: FEMA, DWR	

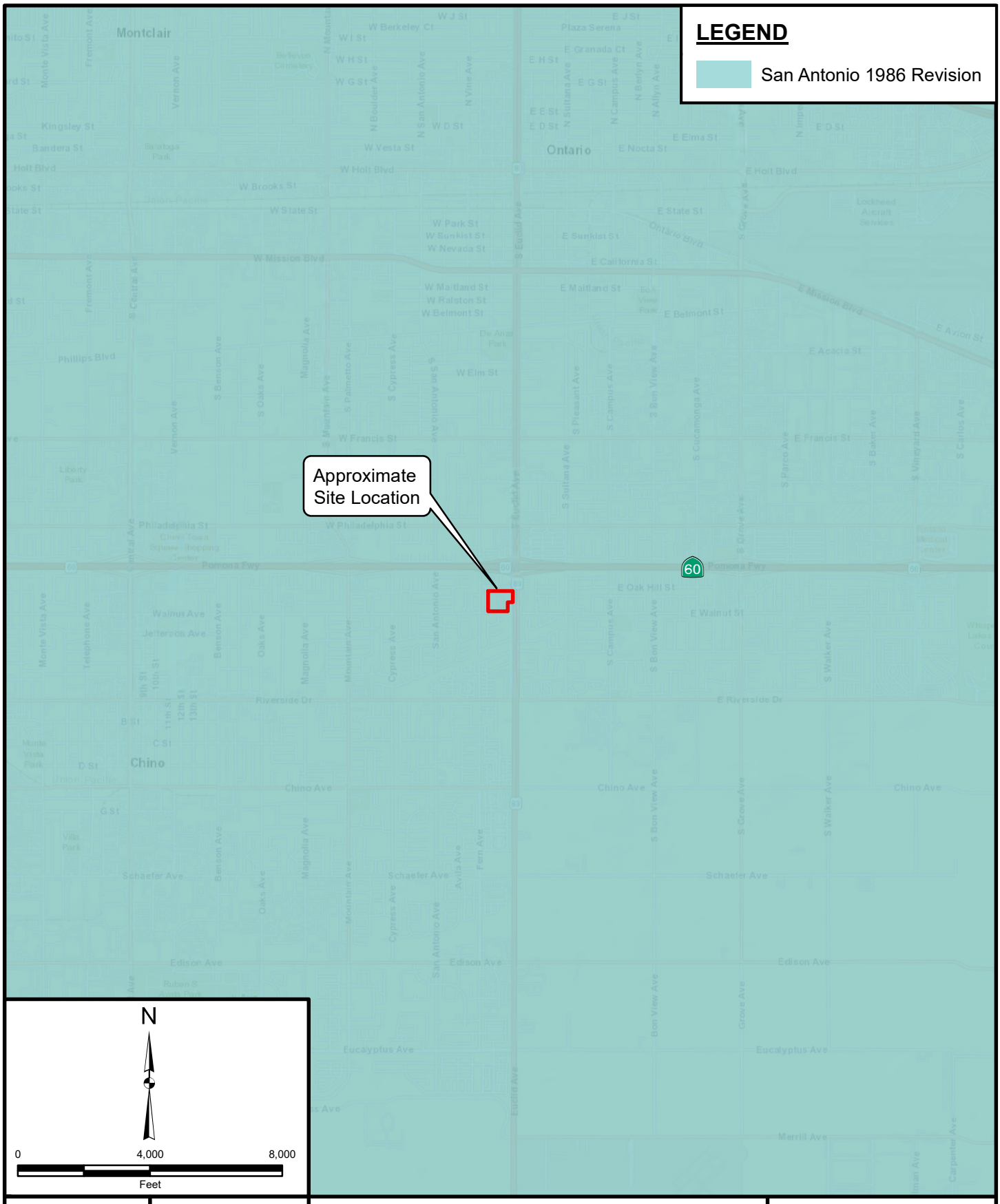
FLOOD HAZARD ZONE MAP

Proposed Euclid and
Walnut Mixed-Use Development
2502 and 2530 S. Euclid Avenue
Ontario, California

FIGURE 6

Leighton

Map Saved as J:\Drafting\13493\001\Maps\13493-001_F06_FHM_2022-04-19.mxd on 4/14/2022 2:10:26 PM Author: KVM (btran)



Project: 13493.001	Eng/Geol: JEH/EMH
Scale:1 " = 4,000 '	Date:May 2022

Base Map: ESRI ArcGIS Online 2022
Reference: FEMA, DWR

DAM INUNDATION MAP

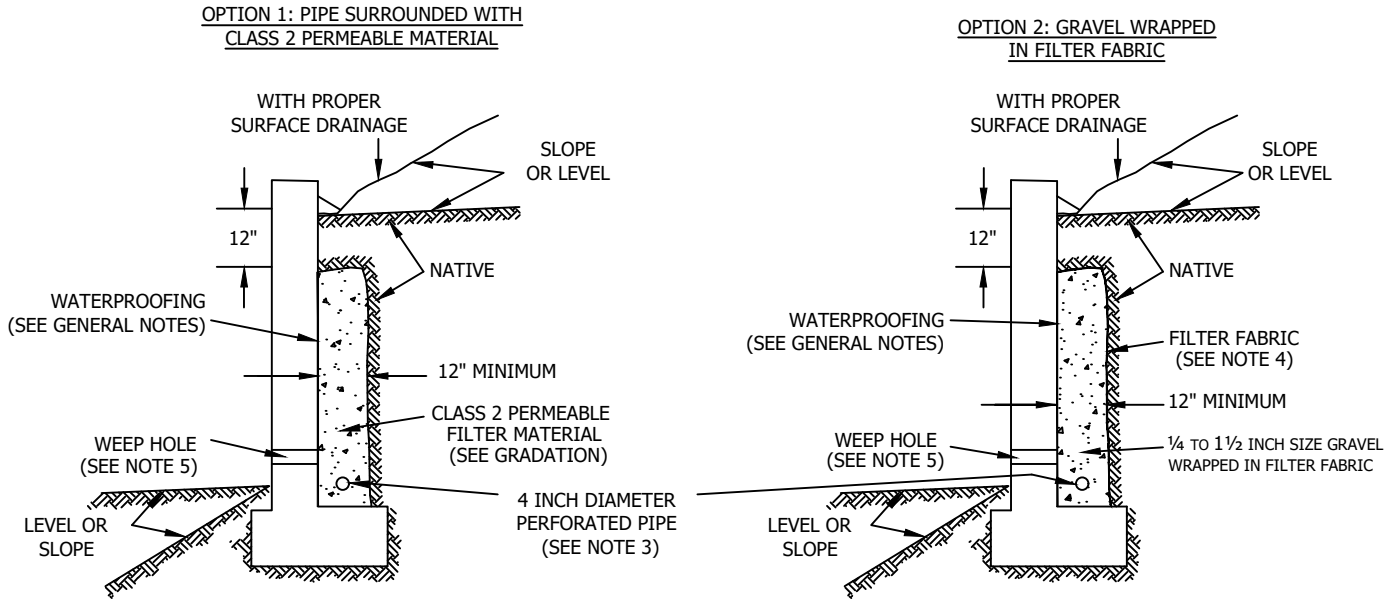
Proposed Euclid and
Walnut Mixed-Use Development
2502 and 2530 S. Euclid Avenue
Ontario, California

FIGURE 7

Leighton

Map Saved as J:\Drafting\13493\001\Maps\13493-001_F07_DIM_2022-04-19.mxd on 4/14/2022 2:17:09 PM Author: KVM (btran)

SUBDRAIN OPTIONS AND BACKFILL WHEN NATIVE MATERIAL HAS EXPANSION INDEX OF ≤50


OPTION 1: PIPE SURROUNDED WITH CLASS 2 PERMEABLE MATERIAL

OPTION 2: GRAVEL WRAPPED IN FILTER FABRIC

Class 2 Filter Permeable Material Gradation
Per Caltrans Specifications

Sieve Size	Percent Passing
1"	100
3/4"	90-100
3/8"	40-100
No. 4	25-40
No. 8	18-33
No. 30	5-15
No. 50	0-7
No. 200	0-3

GENERAL NOTES:

* Waterproofing should be provided where moisture nuisance problem through the wall is undesirable.
* Water proofing of the walls is not under purview of the geotechnical engineer
* All drains should have a gradient of 1 percent minimum
*Outlet portion of the subdrain should have a 4-inch diameter solid pipe discharged into a suitable disposal area designed by the project engineer. The subdrain pipe should be accessible for maintenance (rodding)
*Other subdrain backfill options are subject to the review by the geotechnical engineer and modification of design parameters.

Notes:
1) Sand should have a sand equivalent of 30 or greater and may be densified by water jetting.
2) 1 Cu. ft. per ft. of 1/4- to 1 1/2-inch size gravel wrapped in filter fabric
3) Pipe type should be ASTM D1527 Acrylonitrile Butadiene Styrene (ABS) SDR35 or ASTM D1785 Polyvinyl Chloride plastic (PVC), Schedule 40, Armco A2000 PVC, or approved equivalent. Pipe should be installed with perforations down. Perforations should be 3/8 inch in diameter placed at the ends of a 120-degree arc in two rows at 3-inch on center (staggered)
4) Filter fabric should be Mirafi 140NC or approved equivalent.
5) Weephole should be 3-inch minimum diameter and provided at 10-foot maximum intervals. If exposure is permitted, weepholes should be located 12 inches above finished grade. If exposure is not permitted such as for a wall adjacent to a sidewalk/curb, a pipe under the sidewalk to be discharged through the curb face or equivalent should be provided. For a basement-type wall, a proper subdrain outlet system should be provided.
6) Retaining wall plans should be reviewed and approved by the geotechnical engineer.
7) Walls over six feet in height are subject to a special review by the geotechnical engineer and modifications to the above requirements.

RETAINING WALL BACKFILL AND SUBDRAIN DETAIL FOR WALLS 6 FEET OR LESS IN HEIGHT

WHEN NATIVE MATERIAL HAS EXPANSION INDEX OF ≤50

Leighton

FIGURE 8

3511

v:\Junior Eng\TEMPLATES\STANDARD-FIGURES\ALL-STANDARD-FIGURES.DWG (08-02-21 9:07:35AM) Plotted by: btran

APPENDIX A

EXPLORATION LOGS

GEOTECHNICAL BORING LOG LB-1

Project No.	13493.001	**Date Drilled**	4-6-22
Project	Legacy-Collier, Proposed Residential Development	**Logged By**	BTM
Drilling Co.	Martini Drilling, Corp.	**Hole Diameter**	8"
Drilling Method	Hollow Stem Auger - 140lb - Autohammer - 30" Drop	**Ground Elevation**	805'
Location	See Figure 2 - *Geotechnical Map*	**Sampled By**	BTM

Elevation Feet	Depth Feet	Graphic Log (N / S)	Attitudes	Sample No.	Bulk / Driven	Blows Per 6 Inches	Dry Density pcf	Moisture Content, %	Soil Class. (U.S.C.S.)	SOIL DESCRIPTION	Type of Tests
										This Soil Description applies only to a location of the exploration at the time of sampling. Subsurface conditions may differ at other locations and may change with time. The description is a simplification of the actual conditions encountered. Transitions between soil types may be gradual.	
805	0									@Surface: 2.5 -inches Asphalt Concrete over 4.5 -inches Base	
				B-1					ML-SM	**Artificial Fill, undocumented (Afu)** @0.58': Sandy SILT, olive brown, moist, low plasticity, very fine to fine sand, slightly micaceous; grades to Silty SAND, medium brown, moist, very fine to fine sand, slightly micaceous @ ~4'	EI, RV
800	5			R-1		4 7 9			ML/CL	<Quaternary-Aged Young Alluvial Deposits (Qyf) **@5': Silty CLAY, stiff, olive brown, moist, low plasticity, iron oxidation staining, slightly micaceous, few fine sand** **PP=2.50 TSF)>>**	CN
				R-2		7 11 13	95	9	ML-SM	@7.5': Sandy SILT, very stiff, medium olive brown, moist, very fine sand, low plasticity, slightly micaceous, slightly laminated; grades to Clayey SILT with sand, grayish brown, moist, low plasticity, iron oxidation staining, slightly micaceous, few fine sand	
795	10			R-3		4 9 15	89	31	CL-ML	@10': Silty CLAY, very stiff, gray, moist, low to medium plasticity, iron oxidation staining/veins, few fine sand, trace subrounded gravel, slightly laminated PP>4.5 TSF	
790	15			R-4		4 8 12	112	16		@15': Silty CLAY, stiff, medium brown, moist, medium plasticity, iron oxidation staining, slightly micaceous; grades to Sandy CLAY, medium brown, moist, medium plasticity, very fine to fine sand, slightly micaceous, iron oxidation staining PP=4.25 TSF	
785	20			R-5		8 18 22	120	12	SC	@20': Clayey SAND, medium dense, mottled medium brown to orange, low plasticity, predominately fine sand, little medium sand, slightly micaceous, slightly laminated, trace fine subrounded gravel PP>4.50 TSF	
780	25			R-6		12 16 27			SP	@25': SAND with Silt, medium dense, yellowish brown, slightly moist, predominately fine sand, poorly-graded, little medium sand, slightly micaceous	CO
775	30										

SAMPLE TYPES:

B	BULK SAMPLE
C	CORE SAMPLE
G	GRAB SAMPLE
R	RING SAMPLE
S	SPLIT SPOON SAMPLE
T	TUBE SAMPLE

TYPE OF TESTS:

-200	% FINES PASSING	DS	DIRECT SHEAR	SA	SIEVE ANALYSIS
AL	ATTERBERG LIMITS	EI	EXPANSION INDEX	SE	SAND EQUIVALENT
CN	CONSOLIDATION	H	HYDROMETER	SG	SPECIFIC GRAVITY
CO	COLLAPSE	MD	MAXIMUM DENSITY	UC	UNCONFINED COMPRESSIVE STRENGTH
CR	CORROSION	PP	POCKET PENETROMETER		
CU	UNDRAINED TRIAXIAL	RV	R VALUE		

Leighton

*** * * This log is a part of a report by Leighton and should not be used as a stand-alone document. * * ***

GEOTECHNICAL BORING LOG LB-1

Project No.	13493.001	**Date Drilled**	4-6-22
Project	Legacy-Collier, Proposed Residential Development	**Logged By**	BTM
Drilling Co.	Martini Drilling, Corp.	**Hole Diameter**	8"
Drilling Method	Hollow Stem Auger - 140lb - Autohammer - 30" Drop	**Ground Elevation**	805'
Location	See Figure 2 - *Geotechnical Map*	**Sampled By**	BTM

Elevation Feet	Depth Feet	Graphic Log (N / S)	Attitudes	Sample No. (Bulk / Driven)	Blows Per 6 Inches	Dry Density pcf	Moisture Content, %	Soil Class. (U.S.C.S.)	SOIL DESCRIPTION	Type of Tests
775	30			S-7	9 12 14		4		@30': SAND with gravel, medium dense, orange brown, slightly moist, fine to coarse sand, few fine subrounded gravel, slightly micaceous	
770	35			R-8	11 24 50/4"				@35': SAND with Silt, Very dense, yellowish brown, predominately fine sand, little medium to coarse sand, poorly graded, few fine subangular to subrounded gravel	CO
765	40			S-9	8 12 19		4		@40': SAND, dense, medium brown, slightly moist, predominately fine sand, little medium to coarse sand, trace to few fine subangular to subrounded gravel, slightly micaceous	
760	45			R-10	47 50/3"	115	2		@45': Very dense, medium brown to orange brown, few fine subrounded gravel	
755	50			S-11	35 39 50/4"		3		@50': Very dense, little subrounded granitic gravel	
750	55								**Total Depth: 51.5' bgs** **No groundwater encountered during drilling** **Backfilled with soil cuttings** **Patched with cold-mix asphalt concrete**	
745	60									

This Soil Description applies only to a location of the exploration at the time of sampling. Subsurface conditions may differ at other locations and may change with time. The description is a simplification of the actual conditions encountered. Transitions between soil types may be gradual.

SAMPLE TYPES:
- B BULK SAMPLE
- C CORE SAMPLE
- G GRAB SAMPLE
- R RING SAMPLE
- S SPLIT SPOON SAMPLE
- T TUBE SAMPLE

TYPE OF TESTS:
- -200 % FINES PASSING
- AL ATTERBERG LIMITS
- CN CONSOLIDATION
- CO COLLAPSE
- CR CORROSION
- CU UNDRAINED TRIAXIAL
- DS DIRECT SHEAR
- EI EXPANSION INDEX
- H HYDROMETER
- MD MAXIMUM DENSITY
- PP POCKET PENETROMETER
- RV R VALUE
- SA SIEVE ANALYSIS
- SE SAND EQUIVALENT
- SG SPECIFIC GRAVITY
- UC UNCONFINED COMPRESSIVE STRENGTH

Leighton

*** This log is a part of a report by Leighton and should not be used as a stand-alone document. ***

GEOTECHNICAL BORING LOG LB-2

Project No.	13493.001	**Date Drilled**	4-6-22
Project	Legacy-Collier, Proposed Residential Development	**Logged By**	BTM
Drilling Co.	Martini Drilling, Corp.	**Hole Diameter**	8"
Drilling Method	Hollow Stem Auger - 140lb - Autohammer - 30" Drop	**Ground Elevation**	807'
Location	See Figure 2 - *Geotechnical Map*	**Sampled By**	BTM

Elevation Feet	Depth Feet	Graphic Log (N S)	Attitudes	Sample No.	Bulk / Driven	Blows Per 6 Inches	Dry Density pcf	Moisture Content, %	Soil Class. (U.S.C.S.)	SOIL DESCRIPTION	Type of Tests
										This Soil Description applies only to a location of the exploration at the time of sampling. Subsurface conditions may differ at other locations and may change with time. The description is a simplification of the actual conditions encountered. Transitions between soil types may be gradual.	
	0									@Surface: 4 -inches Asphalt Concrete over 5 -inches Base	
805				B-1					ML-SM	**Artificial Fill, undocumented (Afu)** @0.75': Sandy SILT, olive brown, moist, low plasticity, very fine sand, slightly micaceous, some debris (asphalt)	DS, MD, SE
	5			R-1		3 8 16			ML-SM	<Quaternary-Aged Young Alluvial Deposits (Qyf) **@5': Clayey SAND, medium dense, olive gray, very moist, low plasticity, very fine to fine sand, slightly micaceous, pinhole pores; grades to Silty SAND with gravel, light to medium brown, predominately fine sand, few medium sand, fine subangular granitic gravel)>>**	CN
800				R-2		6 11 11	101	3	SP	@7.5': SAND, medium dense, grayish brown, moist, very fine to fine sand, slightly micaceous, little iron oxidation staining	
	10			R-3		4 8 12			CL/SM	@10': CLAY, stiff, olive gray, moist, lean, low plasticity, extensive iron oxidation staining, few very fine sand, slightly micaceous; grades to Silty SAND, light orange brown, very fine sand, slightly micaceous	CN, AL
795											
	15			R-4		10 10 11	103	4	SP-ML	@15': SAND with silt, medium dense, light gray, slightly moist, very fine to fine sand, micaceous; interbedded with Clayey SILT, medium brown, moist, low plasticity, laminated, iron oxidation staining	
790											
	20			R-5		7 11 17	112	16	ML-SM CL-SC	@20': Sandy SILT, very stiff, medium brown, moist, low plasticity, very fine sand, micaceous; grades to Sandy CLAY, medium brown, moist, low plasticity, very fine to fine sand, trace subrounded gravel	
785										PP = 3.50	
	25			R-6		10 15 24	108	10	SP	@25': Sandy CLAY, very stiff, medium brown, moist, low plasticity, very fine to fine sand, micaceous, some silt	
780										PP > 4.50 TSF @26': SAND with silt, orange brown, dry to slightly moist, very fine to fine sand, few medium sand, slightly micaceous	
	30									**Total Depth: 26.5' bgs** **No groundwater encountered during drilling** **Backfilled with soil cuttings**	

SAMPLE TYPES:

B	BULK SAMPLE
C	CORE SAMPLE
G	GRAB SAMPLE
R	RING SAMPLE
S	SPLIT SPOON SAMPLE
T	TUBE SAMPLE

TYPE OF TESTS:

-200	% FINES PASSING	DS	DIRECT SHEAR	SA	SIEVE ANALYSIS
AL	ATTERBERG LIMITS	EI	EXPANSION INDEX	SE	SAND EQUIVALENT
CN	CONSOLIDATION	H	HYDROMETER	SG	SPECIFIC GRAVITY
CO	COLLAPSE	MD	MAXIMUM DENSITY	UC	UNCONFINED COMPRESSIVE STRENGTH
CR	CORROSION	PP	POCKET PENETROMETER		
CU	UNDRAINED TRIAXIAL	RV	R VALUE		

Leighton

*** * * This log is a part of a report by Leighton and should not be used as a stand-alone document. * * ***

GEOTECHNICAL BORING LOG LB-2

Project No.	13493.001	**Date Drilled**	4-6-22
Project	Legacy-Collier, Proposed Residential Development	**Logged By**	BTM
Drilling Co.	Martini Drilling, Corp.	**Hole Diameter**	8"
Drilling Method	Hollow Stem Auger - 140lb - Autohammer - 30" Drop	**Ground Elevation**	807'
Location	See Figure 2 - *Geotechnical Map*	**Sampled By**	BTM

Elevation Feet	Depth Feet	Graphic Log (N / S)	Attitudes	Sample No. (Bulk / Driven)	Blows Per 6 Inches	Dry Density pcf	Moisture Content, %	Soil Class. (U.S.C.S.)	SOIL DESCRIPTION	Type of Tests
	30								**Patched with cold-mix asphalt concrete**	
775										
	35									
770										
	40									
765										
	45									
760										
	50									
755										
	55									
750										
	60									

This Soil Description applies only to a location of the exploration at the time of sampling. Subsurface conditions may differ at other locations and may change with time. The description is a simplification of the actual conditions encountered. Transitions between soil types may be gradual.

SAMPLE TYPES:

- B BULK SAMPLE
- C CORE SAMPLE
- G GRAB SAMPLE
- R RING SAMPLE
- S SPLIT SPOON SAMPLE
- T TUBE SAMPLE

TYPE OF TESTS:

- -200 % FINES PASSING
- AL ATTERBERG LIMITS
- CN CONSOLIDATION
- CO COLLAPSE
- CR CORROSION
- CU UNDRAINED TRIAXIAL
- DS DIRECT SHEAR
- EI EXPANSION INDEX
- H HYDROMETER
- MD MAXIMUM DENSITY
- PP POCKET PENETROMETER
- RV R VALUE
- SA SIEVE ANALYSIS
- SE SAND EQUIVALENT
- SG SPECIFIC GRAVITY
- UC UNCONFINED COMPRESSIVE STRENGTH

Leighton

*** This log is a part of a report by Leighton and should not be used as a stand-alone document. ***

GEOTECHNICAL BORING LOG LB-3

Project No.	13493.001	**Date Drilled**	4-6-22
Project	Legacy-Collier, Proposed Residential Development	**Logged By**	BTM
Drilling Co.	Martini Drilling, Corp.	**Hole Diameter**	8"
Drilling Method	Hollow Stem Auger - 140lb - Autohammer - 30" Drop	**Ground Elevation**	808'
Location	See Figure 2 - *Geotechnical Map*	**Sampled By**	BTM

Elevation Feet	Depth Feet	Graphic Log (N S)	Attitudes	Sample No.	Bulk / Driven	Blows Per 6 Inches	Dry Density pcf	Moisture Content, %	Soil Class. (U.S.C.S.)	SOIL DESCRIPTION	Type of Tests
	0									@Surface: 3.5 -inches Asphalt Concrete over 12 -inches Base	
				B-1					SM	**Artificial Fill, undocumented (Afu)** @1.3': Silty SAND, olive brown, slightly moist, very fine to fine sand, few medium sand, trace coarse sand, non-plastic, few debris (asphalt)	CR, MD
805	5			R-1		7 9 11	111	8	SM	<Quaternary-Aged Young Alluvial Deposits (Qyf) **@5': Silty SAND, medium dense, medium brown, moist, very fine to fine sand, slightly laminated, slightly micaceous)>>**	
800				R-2		7 12 15			CL-SC	@7.5': Silty SAND, medium dense, olive, slightly moist, fine sand, low plasticity, iron oxidation staining, carbonate veins; grades to SAND, yellowish brown, slightly moist, very fine to fine sand	DS
	10			R-3		10 16 26	90	26	CL	@10': Silty CLAY, very stiff, grayish brown, slightly moist, low to medium plasticity, trace very fine sand, iron oxidation staining PP > 4.50 TSF	
795											
	15			R-4		5 9 17	87	35		@15': Very stiff, slightly laminated PP = 4.25 TSF	
790											
	20			R-5		12 16 27	122	12	SC	@20': Clayey SAND, medium dense, orange brown, slightly moist, low plasticity, fine sand, trace medium to coarse sand, slightly laminated, iron oxidation staining PP = 4.50 TSF	
785											
	25			R-6		7 10 17	114	14		@25': Medium dense, higher sand content, pinhole pores PP > 4.50 TSF	
780										**Total Depth: 26.5' bgs** **No groundwater encountered during drilling** **Backfilled with soil cuttings** **Patched with cold-mix asphalt concrete**	
	30										

SAMPLE TYPES:
- B BULK SAMPLE
- C CORE SAMPLE
- G GRAB SAMPLE
- R RING SAMPLE
- S SPLIT SPOON SAMPLE
- T TUBE SAMPLE

TYPE OF TESTS:
- -200 % FINES PASSING
- AL ATTERBERG LIMITS
- CN CONSOLIDATION
- CO COLLAPSE
- CR CORROSION
- CU UNDRAINED TRIAXIAL
- DS DIRECT SHEAR
- EI EXPANSION INDEX
- H HYDROMETER
- MD MAXIMUM DENSITY
- PP POCKET PENETROMETER
- RV R VALUE
- SA SIEVE ANALYSIS
- SE SAND EQUIVALENT
- SG SPECIFIC GRAVITY
- UC UNCONFINED COMPRESSIVE STRENGTH

Leighton

*** This log is a part of a report by Leighton and should not be used as a stand-alone document. ***

GEOTECHNICAL BORING LOG LB-5

Project No.	13493.001	**Date Drilled**	4-6-22
Project	Legacy-Collier, Proposed Residential Development	**Logged By**	BTM
Drilling Co.	Martini Drilling, Corp.	**Hole Diameter**	8"
Drilling Method	Hollow Stem Auger - 140lb - Autohammer - 30" Drop	**Ground Elevation**	807'
Location	See Figure 2 - *Geotechnical Map*	**Sampled By**	BTM

Elevation Feet	Depth Feet	Graphic Log	Attitudes	Sample No.	Bulk / Driven	Blows Per 6 Inches	Dry Density pcf	Moisture Content, %	Soil Class. (U.S.C.S.)	SOIL DESCRIPTION	Type of Tests
		N S								*This Soil Description applies only to a location of the exploration at the time of sampling. Subsurface conditions may differ at other locations and may change with time. The description is a simplification of the actual conditions encountered. Transitions between soil types may be gradual.*	
	0									@Surface: 5 -inches Asphalt Concrete over 3 -inches Base	
805				B-1					SM	**Artificial Fill, undocumented (Afu)** @0.67': Silty SAND, olive brown, slightly moist, very fine to fine sand, few medium sand, trace coarse sand, trace debris (asphalt)	SE
	5			R-1		5 7 9			SM-ML	<Quaternary-Aged Young Alluvial Deposits (Qyf) **@5': Silty SAND, medium dense, medium brown, slightly moist, very fine to fine sand, trace coarse sand, nonplastic, slightly micaceous; grades to Sandy SILT, yellowish brown, slightly moist, very fine sand, no to low plasticity, slightly micaceous)>>**	
800				R-2		9 16 16			ML-SM	@7.5': Sandy SILT, very stiff, grayish brown, slightly moist, very fine sand, low plasticity, iron oxidation staining; grades to Sandy SILT, yellowish brown	
	10			R-3		6 11 16			CL-ML	@10': Silty CLAY, very stiff, grayish brown to tan, moist, low plasticity, slightly laminated, trace very fine sand; grades to SAND, tan to yellowish brown, slightly moist, very fine to fine sand, slightly micaceous	
795											
	15			R-4		5 10 21				@15': Silty CLAY, very stiff, grayish brown, moist, low to medium plasticity, iron oxidation staining, some very fine to fine sand, slightly laminated	
790											
	20			R-5		6 9 19				@20': Very stiff, few to little very fine to fine sand, slightly laminated	
785											
	25			R-6		10 18 28			SC	@25': Clayey SAND, dense, olive brown, moist, predominately fine sand, trace to few medium to coarse sand, low plasticity, slightly micaceous; grades to orange, iron oxidation stained Clayey SAND, slightly laminated	
780										**Total Depth: 26.5' bgs** **No groundwater encountered during drilling** **Backfilled with soil cuttings** **Patched with cold-mix asphalt concrete**	
	30										

SAMPLE TYPES:

- B BULK SAMPLE
- C CORE SAMPLE
- G GRAB SAMPLE
- R RING SAMPLE
- S SPLIT SPOON SAMPLE
- T TUBE SAMPLE

TYPE OF TESTS:

-200	% FINES PASSING	DS	DIRECT SHEAR	SA	SIEVE ANALYSIS
AL	ATTERBERG LIMITS	EI	EXPANSION INDEX	SE	SAND EQUIVALENT
CN	CONSOLIDATION	H	HYDROMETER	SG	SPECIFIC GRAVITY
CO	COLLAPSE	MD	MAXIMUM DENSITY	UC	UNCONFINED COMPRESSIVE STRENGTH
CR	CORROSION	PP	POCKET PENETROMETER		
CU	UNDRAINED TRIAXIAL	RV	R VALUE		

Leighton

*** * * This log is a part of a report by Leighton and should not be used as a stand-alone document. * * ***

GEOTECHNICAL BORING LOG LP-1

Project No.	13493.001	**Date Drilled**	4-6-22
Project	Legacy-Collier, Proposed Residential Development	**Logged By**	BTM
Drilling Co.	Martini Drilling, Corp.	**Hole Diameter**	8"
Drilling Method	Hollow Stem Auger - 140lb - Autohammer - 30" Drop	**Ground Elevation**	805'
Location	See Figure 2 - *Geotechnical Map*	**Sampled By**	BTM

Elevation Feet	Depth Feet	Graphic Log	Attitudes	Sample No.	Bulk Driven	Blows Per 6 Inches	Dry Density pcf	Moisture Content, %	Soil Class. (U.S.C.S.)	SOIL DESCRIPTION	Type of Tests
										This Soil Description applies only to a location of the exploration at the time of sampling. Subsurface conditions may differ at other locations and may change with time. The description is a simplification of the actual conditions encountered. Transitions between soil types may be gradual.	
805	0	N S								@Surface: 3 -inches Asphalt Concrete over 7 -inches Base	
				B-1					ML-SM	**Artificial Fill, undocumented (Afu)** @0.83': Sandy SILT, olive brown, moist, low plasticity, very fine sand, slightly micaceous; grades to Silty SAND, medium brown, moist, very fine to fine sand, trace medium sand, slightly micaceous @ ~4'	
800	5			S-1		2 2 2			SM-ML	**Quaternary-Aged Young Alluvial Deposits (Qyf)** @5': Silty SAND, very loose, medium brown, moist, very fine to fine sand, slightly micaceous, nonplastic	
795	10			S-2		2 3 4			ML-CL	@10': Clayey Sandy SILT, medium stiff, moist, low plasticity, very fine sand, slightly micaceous; grades to Silty CLAY with sand, gray, moist, low to medium plasticity, very fine sand, micaceous, extensive iron oxidation staining	
790	15			R-3		6 9 11	104	5	SP	@15': Silty SAND, medium dense, grayish brown, slightly moist, prodominately fine sand, some clay, trace medium to coarse sand, trace fine subrounded gravel, slightly micaceous	, SA
				R-4		8 13 21	119	12	SM	@18.5': Sandy SILT, very stiff, olive brown, slightly moist, low plasticity, very fine to fine sand, iron oxidation staining, slightly micaceous PP > 4.50 TSF	, SA
785	20			S-5		5 6 7			ML-SM	@23.5': Sandy CLAY, stiff to medium dense, orange mottled with brown, low plasticity, very fine to fine sand, slightly micaceous	SA
780	25									**Total Depth: 25' bgs** **No groundwater encountered during drilling** **Temporary percolation well installed; screened from 17 - 22' bgs** **Upon completion of percolation testing, boring was backfilled with soil cuttings and patched with cold-mix asphalt**	
775	30										

SAMPLE TYPES:

- B BULK SAMPLE
- C CORE SAMPLE
- G GRAB SAMPLE
- R RING SAMPLE
- S SPLIT SPOON SAMPLE
- T TUBE SAMPLE

TYPE OF TESTS:

- -200 % FINES PASSING
- AL ATTERBERG LIMITS
- CN CONSOLIDATION
- CO COLLAPSE
- CR CORROSION
- CU UNDRAINED TRIAXIAL
- DS DIRECT SHEAR
- EI EXPANSION INDEX
- H HYDROMETER
- MD MAXIMUM DENSITY
- PP POCKET PENETROMETER
- RV R VALUE
- SA SIEVE ANALYSIS
- SE SAND EQUIVALENT
- SG SPECIFIC GRAVITY
- UC UNCONFINED COMPRESSIVE STRENGTH

Leighton

*** * * This log is a part of a report by Leighton and should not be used as a stand-alone document. * * ***

GEOTECHNICAL BORING LOG LP-2

Project No.	13493.001	**Date Drilled**	4-6-22
Project	Legacy-Collier, Proposed Residential Development	**Logged By**	BTM
Drilling Co.	Martini Drilling, Corp.	**Hole Diameter**	8"
Drilling Method	Hollow Stem Auger - 140lb - Autohammer - 30" Drop	**Ground Elevation**	804'
Location	See Figure 2 - *Geotechnical Map*	**Sampled By**	BTM

Elevation Feet	Depth Feet	Graphic Log	Attitudes	Sample No.	Bulk / Driven	Blows Per 6 Inches	Dry Density pcf	Moisture Content, %	Soil Class. (U.S.C.S.)	SOIL DESCRIPTION	Type of Tests
		N S								*This Soil Description applies only to a location of the exploration at the time of sampling. Subsurface conditions may differ at other locations and may change with time. The description is a simplification of the actual conditions encountered. Transitions between soil types may be gradual.*	
	0									@Surface: 3.5 -inches Asphalt Concrete over 4 -inches Base	
				B-1					SM-ML	**Artificial Fill, undocumented (Afu)** @0.62': Silty SAND to Sandy SILT, olive brown, slightly moist, very fine to fine sand, low to no plasticity, slightly micaceous	
800											
	5			S-1		4 2 2			SM	<Quaternary-Aged Young Alluvial Deposits (Qyf) **@5': Silty SAND, very loose, medium to dark brown, moist, very fine to fine sand, trace coarse sand to fine subrounded gravel)>>**	
795											
	10			S-2		2 2 3			ML/CL	@10': Sandy SILT, medium stiff, mottled with gray and light brown, slightly moist, low plasticity, very fine sand, slightly micaceous; grades to Silty CLAY, grayish brown, moist, low to medium plasticity, iron oxidation staining, laminated	
790											
	15			R-3		4 6 9	91	25		@15': Silty CLAY, stiff, olive brown, moist, low plasticity, very fine sand, slightly micaceous, laminated, iron oxidation staining	, SA
785				R-4		12 16 26	115	7	SM	@18.5': Silty SAND, medium dense, olive brown, moist, very fine to fine sand, low to no plasticity, little iron oxidation staining, trace pinhole pores	, SA
	20										
										Total Depth: 20' bgs **No groundwater encountered during drilling** **Temporary percolation well installed; screened from 15 - 20' bgs** **Upon completion of percolation testing, boring was backfilled with soil cuttings and patched with cold-mix asphalt**	
780											
	25										
775											
	30										

SAMPLE TYPES:

B	BULK SAMPLE
C	CORE SAMPLE
G	GRAB SAMPLE
R	RING SAMPLE
S	SPLIT SPOON SAMPLE
T	TUBE SAMPLE

TYPE OF TESTS:

-200	% FINES PASSING	DS	DIRECT SHEAR	SA	SIEVE ANALYSIS
AL	ATTERBERG LIMITS	EI	EXPANSION INDEX	SE	SAND EQUIVALENT
CN	CONSOLIDATION	H	HYDROMETER	SG	SPECIFIC GRAVITY
CO	COLLAPSE	MD	MAXIMUM DENSITY	UC	UNCONFINED COMPRESSIVE STRENGTH
CR	CORROSION	PP	POCKET PENETROMETER		
CU	UNDRAINED TRIAXIAL	RV	R VALUE		

Leighton

*** * * This log is a part of a report by Leighton and should not be used as a stand-alone document. * * ***

APPENDIX B

PERCOLATION TEST DATA

Boring Percolation Test Data Sheet

Project Number:	13493.001	**Test Hole Number:**	LP-1	
Project Name:	Legacy - Collier	**Date Excavated:**	4/6/2022	
Earth Description:	Alluvium	**Date Tested:**	4/7/2022	
Liquid Description:	Tap water	**Depth of boring (ft):**	23.5	
Tested By:	LFO/KD	**Radius of boring (in):**	4	
Time Interval Standard		**Radius of casing (in):**	1	
Start Time for Pre-Soak:	8:34	**Length of slotted of casing (ft):**		5
Start Time for Standard:	9:31	**Depth to Initial Water Depth (ft):**		16.9
Standard Time Interval	25	**Porosity of Annulus Material, *n* :**		0.35
Between Readings, mins:	10	**Bentonite Plug at Bottom:** No		

Percolation Data

Reading	Time	Time Interval, Δt (min.)	Initial/Final Depth to Water (ft.)	Initial/Final Water Height, H_0/H_f (in.)	Total Water Drop, Δd (in.)	Percolation Rate (min./in.)	Infiltration Rate (in./hr.)
1	8:34	25	16.93	78.8	8.2	3.06	0.20
	8:59		17.61	70.7			
2	9:04	25	16.99	78.1	7.4	3.36	0.18
	9:29		17.61	70.7			
3	9:31	10	16.94	78.7	5.9	1.70	0.35
	9:41		17.43	72.8			
4	9:43	10	17.00	78.0	5.0	1.98	0.30
	9:53		17.42	73.0			
5	9:55	10	17.00	78.0	5.3	1.89	0.32
	10:05		17.44	72.7			
6	10:06	10	17.00	78.0	5.3	1.89	0.32
	10:16		17.44	72.7			
7	10:18	10	17.00	78.0	5.4	1.85	0.33
	10:28		17.45	72.6			
8	10:30	10	17.00	78.0	5.3	1.89	0.32
	10:40		17.44	72.7			

Infiltration Rate (I) = Discharge Volume/Surface Area of Test Section/Time Interval

Infiltration Rate, I (Last Reading) = **0.32** **in./hr.**

Boring Percolation Test Data Sheet

Project Number:	13493.001	**Test Hole Number:**	LP-2
Project Name:	Legacy - Collier	**Date Excavated:**	4/6/2022
Earth Description:	Alluvium	**Date Tested:**	4/7/2022
Liquid Description:	Tap water	**Depth of boring (ft):**	20
Tested By:	LFO/KD	**Radius of boring (in):**	4
Time Interval Standard		**Radius of casing (in):**	1
Start Time for Pre-Soak:	7:25	**Length of slotted of casing (ft):**	5
Start Time for Standard:	8:27	**Depth to Initial Water Depth (ft):**	15.05
Standard Time Interval	25	**Porosity of Annulus Material, *n* :**	0.35
Between Readings, mins:	10	**Bentonite Plug at Bottom:** No	

Percolation Data

Reading	Time	Time Interval, Δt (min.)	Initial/Final Depth to Water (ft.)	Initial/Final Water Height, H_0/H_f (in.)	Total Water Drop, Δd (in.)	Percolation Rate (min./in.)	Infiltration Rate (in./hr.)
1	7:25	25	15.05	59.4	0.1	208.33	0.00
	7:50		15.06	59.3			
2	7:55	25	15.20	57.6	16.2	1.54	0.59
	8:20		16.55	41.4			
3	8:27	10	15.08	59.0	8.0	1.24	0.66
	8:37		15.75	51.0			
4	8:39	10	15.05	59.4	8.8	1.14	0.72
	8:49		15.78	50.6			
5	8:56	10	15.08	59.0	8.0	1.24	0.66
	9:06		15.75	51.0			
6	9:08	10	15.08	59.0	5.0	1.98	0.40
	9:18		15.50	54.0			
7	9:21	10	15.08	59.0	8.4	1.19	0.69
	9:31		15.78	50.6			
8	9:34	10	15.08	59.0	8.4	1.19	0.69
	9:44		15.78	50.6			

Infiltration Rate (I) = Discharge Volume/Surface Area of Test Section/Time Interval

Infiltration Rate, I (Last Reading) = **0.69** **in./hr.**

APPENDIX C

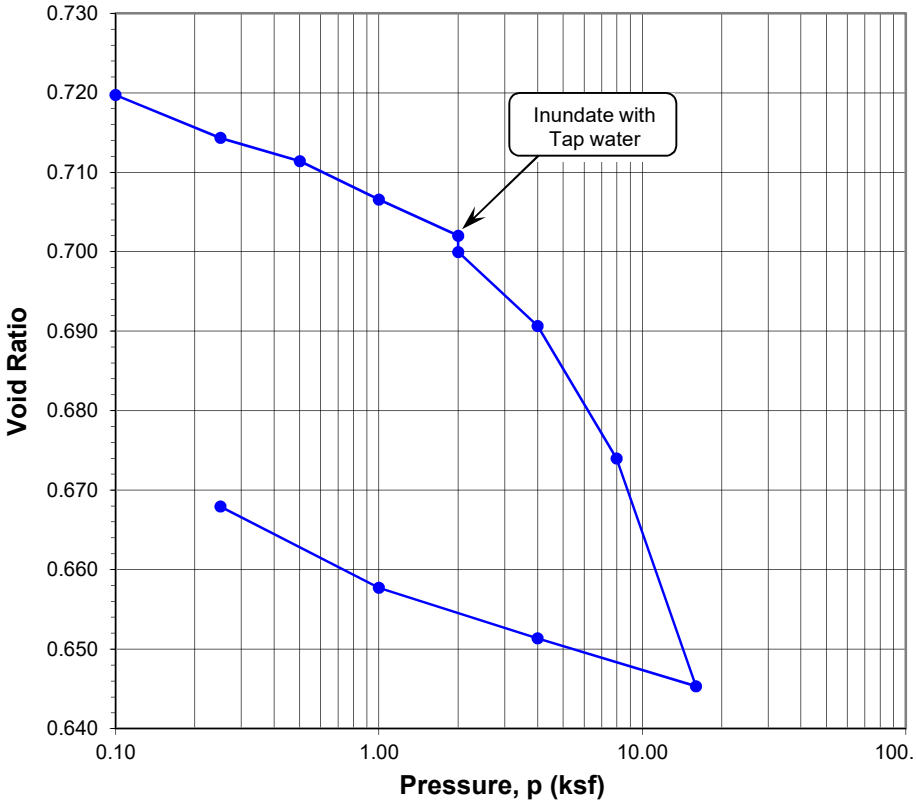
LABORATORY TEST RESULTS

ONE-DIMENSIONAL CONSOLIDATION PROPERTIES of SOILS

ASTM D 2435

Project Name:	Legacy-Collier, Proposed Euclid & Walnut Mixed-Use, Ontario CA	Tested By: GB/JD	Date: 04/13/22
Project No.:	13493.001	Checked By: A. Santos	Date: 04/26/22
Boring No.:	LB-1	Depth (ft.): 5.0	
Sample No.:	R-1	Sample Type: Ring	
Soil Identification:	Olive silty clay (CL-ML)		

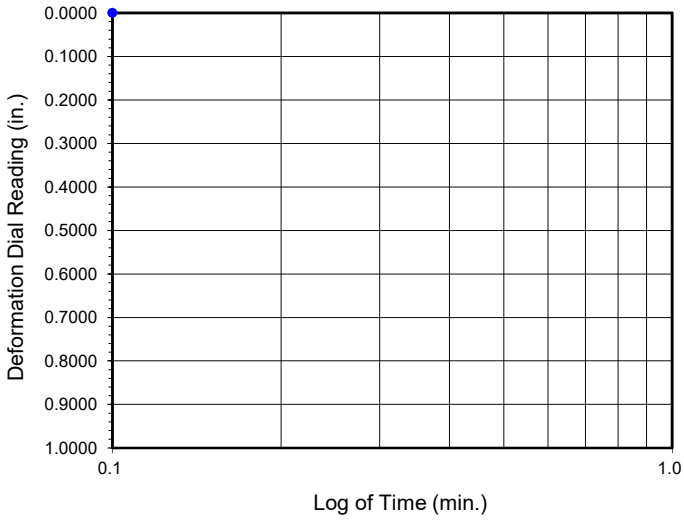
Sample Diameter (in.):	2.415
Sample Thickness (in.):	1.000
Weight of Sample + ring (g):	185.47
Weight of Ring (g):	45.70
Height after consol. (in.):	0.9695
Before Test	
Wt. of Wet Sample+Cont. (g):	169.15
Wt. of Dry Sample+Cont. (g):	153.14
Weight of Container (g):	65.19
Initial Moisture Content (%)	18.2
Initial Dry Density (pcf)	98.3
Initial Saturation (%):	68
Initial Vertical Reading (in.)	0.0773
After Test	
Wt. of Wet Sample+Cont. (g):	254.24
Wt. of Dry Sample+Cont. (g):	229.01
Weight of Container (g):	59.14
Final Moisture Content (%)	20.32
Final Dry Density (pcf):	106.5
Final Saturation (%):	94
Final Vertical Reading (in.)	0.1103
Specific Gravity (assumed):	2.71
Water Density (pcf):	62.43

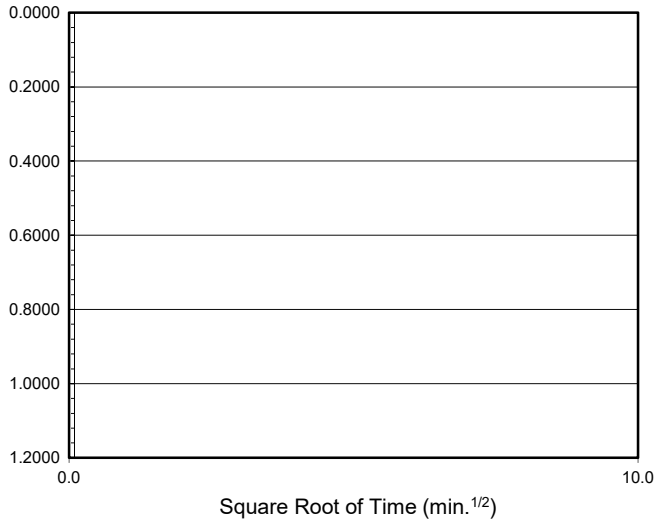


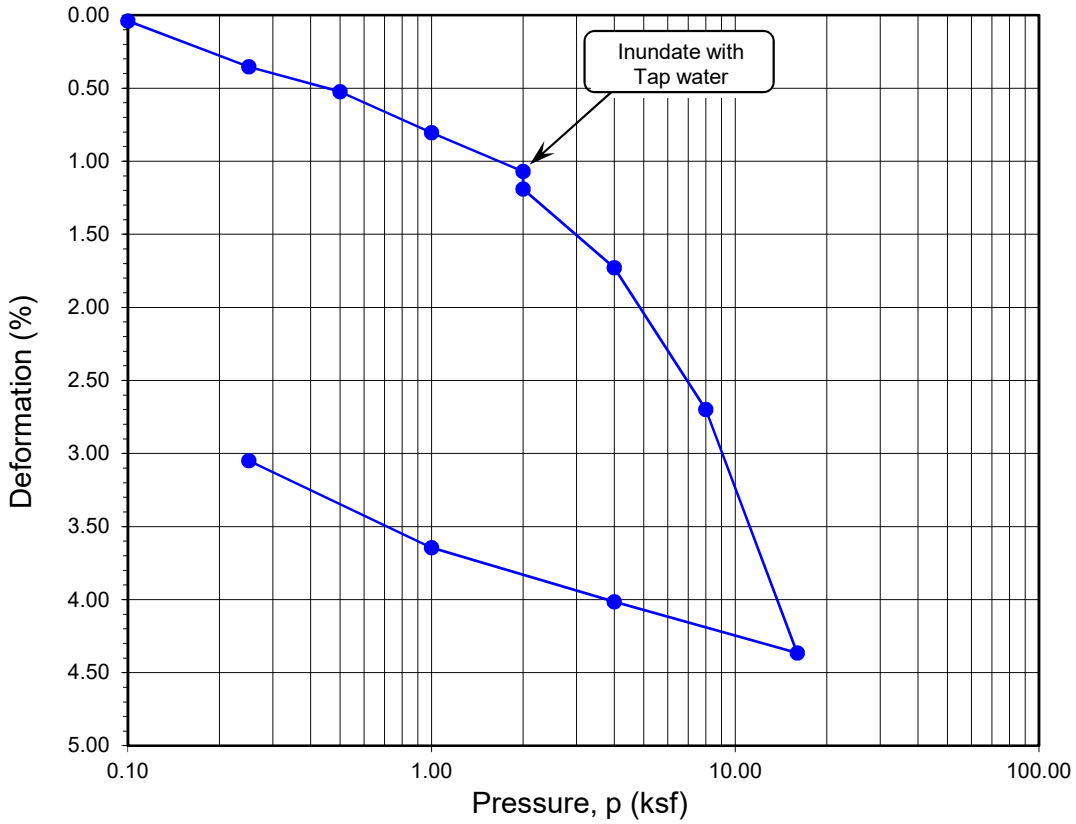
Pressure (p) (ksf)	Final Reading (in.)	Apparent Thickness (in.)	Load Compliance (%)	Deformation % of Sample Thickness	Void Ratio	Corrected Deformation (%)
0.10	0.0777	0.9996	0.00	0.04	0.720	0.04
0.25	0.0812	0.9962	0.03	0.39	0.714	0.36
0.50	0.0834	0.9940	0.08	0.61	0.711	0.53
1.00	0.0869	0.9905	0.15	0.95	0.707	0.80
2.00	0.0905	0.9868	0.25	1.32	0.702	1.07
2.00	0.0917	0.9856	0.25	1.44	0.700	1.19
4.00	0.0982	0.9791	0.36	2.09	0.691	1.73
8.00	0.1092	0.9681	0.49	3.19	0.674	2.70
16.00	0.1274	0.9500	0.64	5.01	0.645	4.37
4.00	0.1222	0.9552	0.47	4.49	0.651	4.02
1.00	0.1172	0.9602	0.34	3.99	0.658	3.65
0.25	0.1103	0.9670	0.25	3.30	0.668	3.05

Time Readings				
Date	Time	Elapsed Time (min)	Square Root of Time	Dial Rdgs. (in.)

Time Readings







Boring No.	Sample No.	Depth (ft.)	Moisture Content (%)		Dry Density (pcf)		Void Ratio		Degree of Saturation (%)	
			Initial	Final	Initial	Final	Initial	Final	Initial	Final
LB-1	**R-1**	**5**	**18.2**	**20.3**	**98.3**	**106.5**	**0.720**	**0.668**	**68**	**94**

Soil Identification: Olive silty clay (CL-ML)

Leighton

ONE-DIMENSIONAL CONSOLIDATION PROPERTIES of SOILS
ASTM D 2435

Project No.: 13493.001

Legacy-Collier, Proposed Euclid & Walnut Mixed-Use, Ontario CA

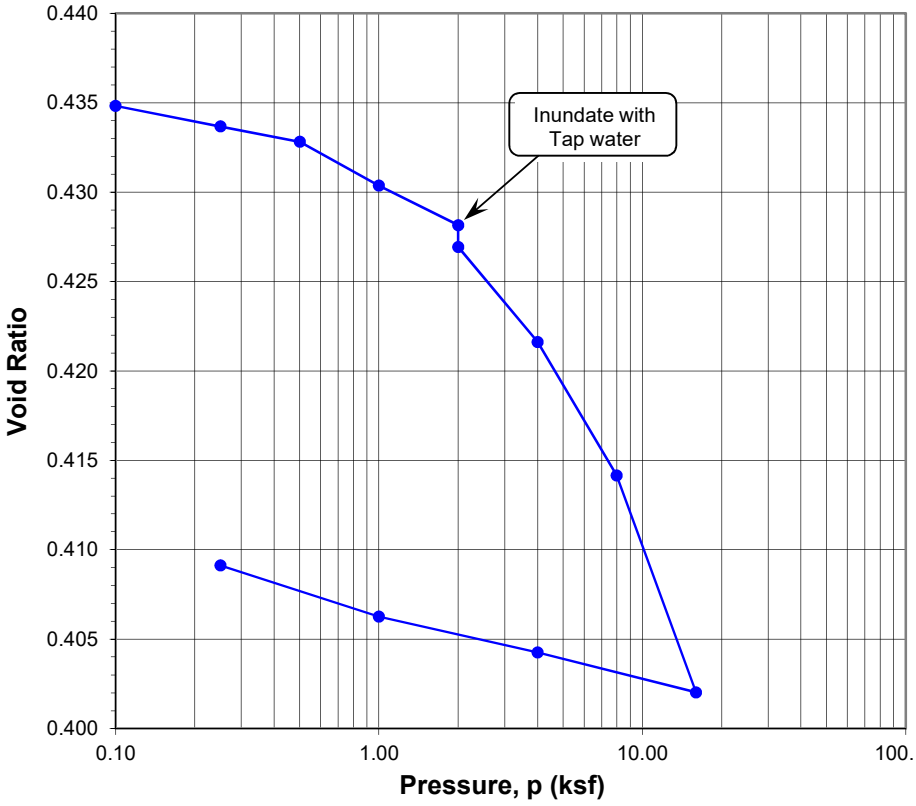
04-22

ONE-DIMENSIONAL CONSOLIDATION PROPERTIES of SOILS

ASTM D 2435

Project Name:	Legacy-Collier, Proposed Euclid & Walnut Mixed-Use, Ontario CA	Tested By: GB/JD	Date: 04/13/22
Project No.:	13493.001	Checked By: A. Santos	Date: 04/26/22
Boring No.:	LB-2	Depth (ft.): 5.0	
Sample No.:	R-1	Sample Type: Ring	
Soil Identification:	Olive gray silty, clayey sand (SC-SM)		

Sample Diameter (in.):	2.415
Sample Thickness (in.):	1.000
Weight of Sample + ring (g):	199.47
Weight of Ring (g):	44.89
Height after consol. (in.):	0.9819
Before Test	
Wt. of Wet Sample+Cont. (g):	189.19
Wt. of Dry Sample+Cont. (g):	178.43
Weight of Container (g):	59.52
Initial Moisture Content (%)	9.0
Initial Dry Density (pcf)	117.9
Initial Saturation (%):	56
Initial Vertical Reading (in.)	0.0958
After Test	
Wt. of Wet Sample+Cont. (g):	269.21
Wt. of Dry Sample+Cont. (g):	253.05
Weight of Container (g):	66.12
Final Moisture Content (%)	11.38
Final Dry Density (pcf):	120.3
Final Saturation (%):	76
Final Vertical Reading (in.)	0.1178
Specific Gravity (assumed):	2.71
Water Density (pcf):	62.43

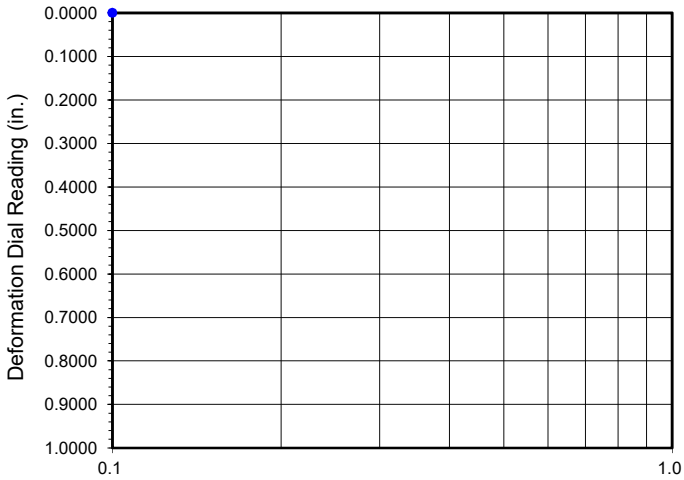


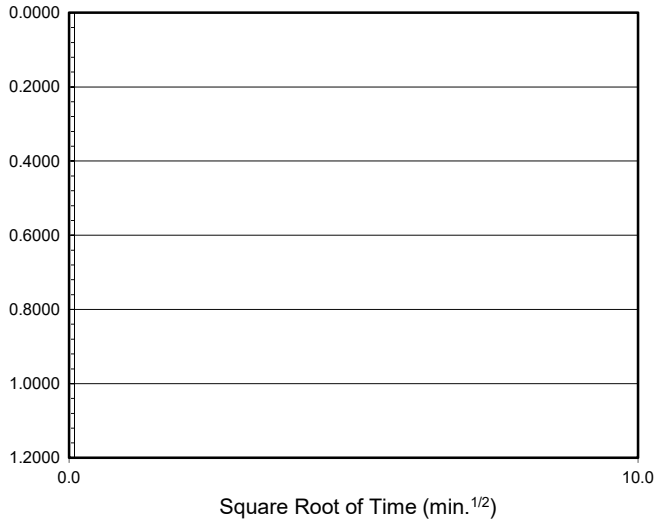
Pressure (p) (ksf)	Final Reading (in.)	Apparent Thickness (in.)	Load Compliance (%)	Deformation % of Sample Thickness	Void Ratio	Corrected Deformation (%)
0.10	0.0960	0.9998	0.00	0.02	0.435	0.02
0.25	0.0974	0.9984	0.06	0.16	0.434	0.10
0.50	0.0988	0.9970	0.14	0.30	0.433	0.16
1.00	0.1015	0.9943	0.24	0.57	0.430	0.33
2.00	0.1043	0.9916	0.36	0.84	0.428	0.48
2.00	0.1051	0.9907	0.36	0.93	0.427	0.57
4.00	0.1102	0.9856	0.50	1.44	0.422	0.94
8.00	0.1170	0.9788	0.66	2.12	0.414	1.46
16.00	0.1275	0.9684	0.86	3.17	0.402	2.31
4.00	0.1240	0.9718	0.67	2.82	0.404	2.15
1.00	0.1210	0.9748	0.51	2.52	0.406	2.01
0.25	0.1178	0.9780	0.39	2.20	0.409	1.81

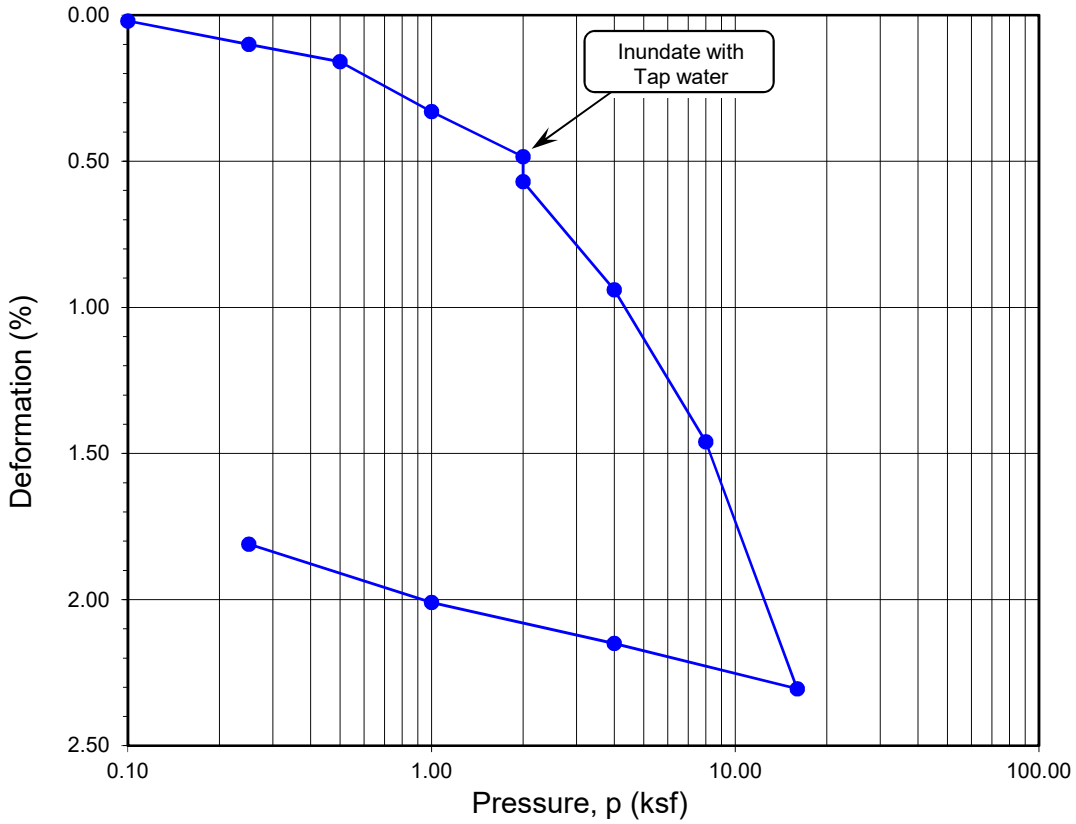
Time Readings				
Date	Time	Elapsed Time (min)	Square Root of Time	Dial Rdgs. (in.)

3527

Time Readings







Boring No.	Sample No.	Depth (ft.)	Moisture Content (%)		Dry Density (pcf)		Void Ratio		Degree of Saturation (%)	
			Initial	Final	Initial	Final	Initial	Final	Initial	Final
LB-2	**R-1**	**5**	**9.0**	**11.4**	**117.9**	**120.3**	**0.435**	**0.409**	**56**	**76**

Soil Identification: Olive gray silty, clayey sand (SC-SM)

Leighton

ONE-DIMENSIONAL CONSOLIDATION PROPERTIES of SOILS
ASTM D 2435

Project No.: 13493.001

Legacy-Collier, Proposed Euclid & Walnut Mixed-Use, Ontario CA

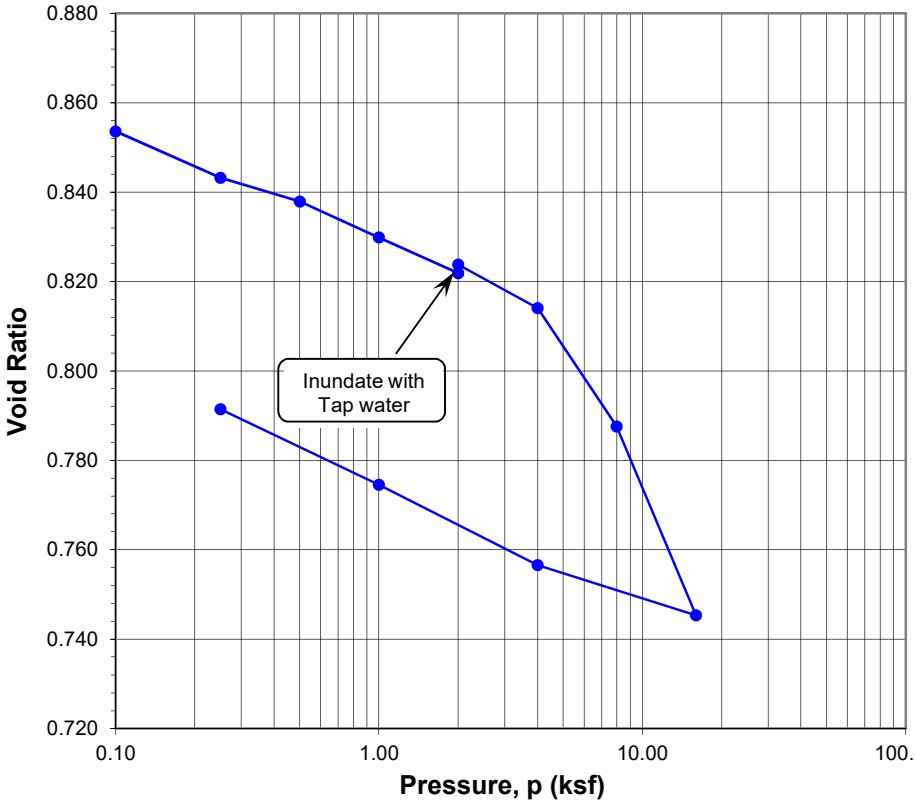
04-22

ONE-DIMENSIONAL CONSOLIDATION PROPERTIES of SOILS

ASTM D 2435

Project Name:	Legacy-Collier, Proposed Euclid & Walnut Mixed-Use, Ontario CA	Tested By: GB/JD	Date: 04/13/22
Project No.:	13493.001	Checked By: A. Santos	Date: 04/26/22
Boring No.:	LB-2	Depth (ft.): 10.0	
Sample No.:	R-3	Sample Type: Ring	
Soil Identification:	Olive gray lean clay (CL)		

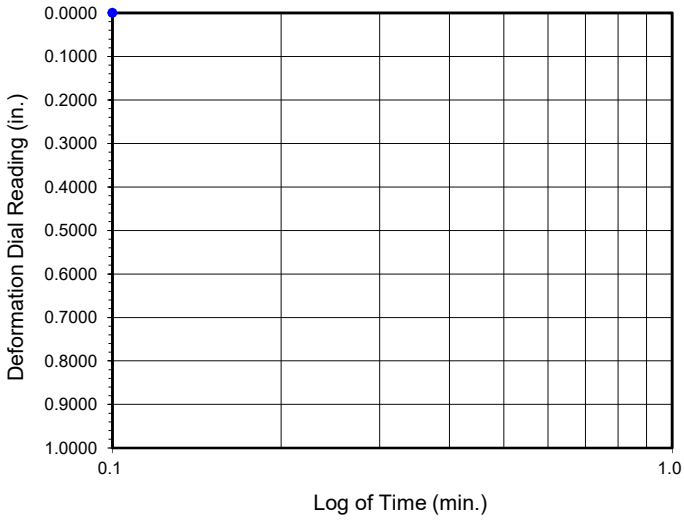
Sample Diameter (in.):	2.415
Sample Thickness (in.):	1.000
Weight of Sample + ring (g):	193.07
Weight of Ring (g):	45.55
Height after consol. (in.):	0.9656
Before Test	
Wt. of Wet Sample+Cont. (g):	263.34
Wt. of Dry Sample+Cont. (g):	214.46
Weight of Container (g):	55.13
Initial Moisture Content (%)	30.7
Initial Dry Density (pcf)	93.9
Initial Saturation (%):	100
Initial Vertical Reading (in.)	0.0902
After Test	
Wt. of Wet Sample+Cont. (g):	253.11
Wt. of Dry Sample+Cont. (g):	222.45
Weight of Container (g):	61.21
Final Moisture Content (%)	26.50
Final Dry Density (pcf):	99.6
Final Saturation (%):	99
Final Vertical Reading (in.)	0.1293
Specific Gravity (assumed):	2.79
Water Density (pcf):	62.43

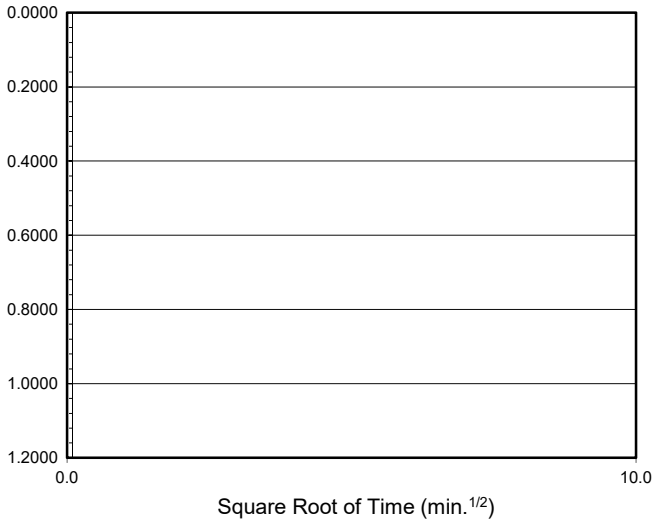


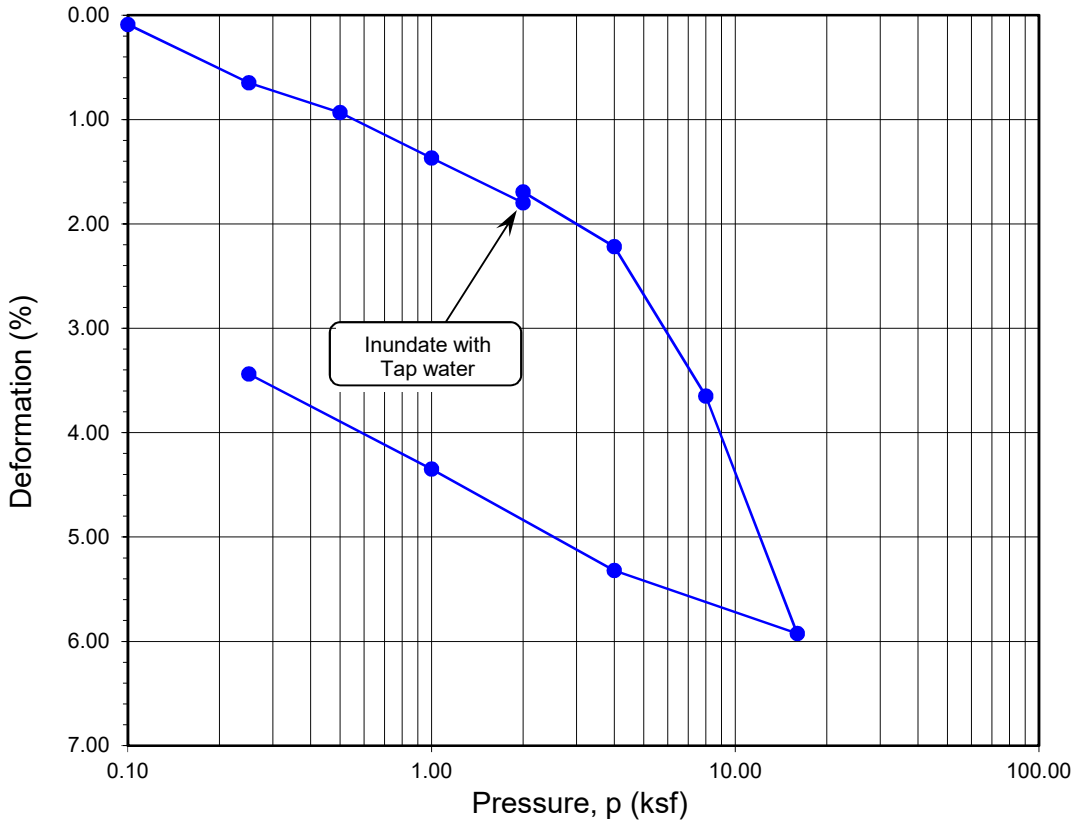
Pressure (p) (ksf)	Final Reading (in.)	Apparent Thickness (in.)	Load Compliance (%)	Deformation % of Sample Thickness	Void Ratio	Corrected Deforma-tion (%)
0.10	0.0911	0.9991	0.00	0.09	0.854	0.09
0.25	0.0978	0.9924	0.11	0.76	0.843	0.65
0.50	0.1021	0.9882	0.25	1.19	0.838	0.94
1.00	0.1082	0.9820	0.43	1.80	0.830	1.37
2.00	0.1140	0.9762	0.58	2.38	0.822	1.80
2.00	0.1130	0.9773	0.58	2.28	0.824	1.70
4.00	0.1196	0.9706	0.72	2.94	0.814	2.22
8.00	0.1355	0.9547	0.88	4.53	0.788	3.65
16.00	0.1602	0.9301	1.07	7.00	0.745	5.93
4.00	0.1523	0.9379	0.89	6.21	0.757	5.32
1.00	0.1409	0.9493	0.72	5.07	0.775	4.35
0.25	0.1293	0.9609	0.47	3.91	0.791	3.44

Time Readings				
Date	Time	Elapsed Time (min)	Square Root of Time	Dial Rdgs. (in.)

Time Readings







Boring No.	Sample No.	Depth (ft.)	Moisture Content (%)		Dry Density (pcf)		Void Ratio		Degree of Saturation (%)	
			Initial	Final	Initial	Final	Initial	Final	Initial	Final
LB-2	**R-3**	**10**	**30.7**	**26.5**	**93.9**	**99.6**	**0.855**	**0.791**	**100**	**99**

Soil Identification: Olive gray lean clay (CL)

Leighton

ONE-DIMENSIONAL CONSOLIDATION PROPERTIES of SOILS
ASTM D 2435

Project No.: 13493.001

Legacy-Collier, Proposed Euclid & Walnut Mixed-Use, Ontario CA

04-22

TESTS for SULFATE CONTENT
CHLORIDE CONTENT and pH of SOILS

Project Name: Legacy-Collier, Proposed Euclid & Walnut Mixed-Use, Ontario CA | Tested By : G. Berdy | Date: 04/13/22

Project No. : 13493.001 | Checked By: A. Santos | Date: 04/25/22

Boring No.	LB-3			
Sample No.	B-1			
Sample Depth (ft)	0-5			
Soil Identification:	Olive brown (SM)			
Wet Weight of Soil + Container (g)	168.20			
Dry Weight of Soil + Container (g)	168.07			
Weight of Container (g)	52.00			
Moisture Content (%)	0.11			
Weight of Soaked Soil (g)	100.19			

SULFATE CONTENT, DOT California Test 417, Part II

Beaker No.	8			
Crucible No.	3			
Furnace Temperature (°C)	860			
Time In / Time Out	7:15/8:00			
Duration of Combustion (min)	45			
Wt. of Crucible + Residue (g)	24.5192			
Wt. of Crucible (g)	24.5129			
Wt. of Residue (g) (A)	0.0063			
PPM of Sulfate (A) x 41150	259.25			
PPM of Sulfate, Dry Weight Basis	**260**			

CHLORIDE CONTENT, DOT California Test 422

ml of Extract For Titration (B)	15			
ml of AgNO3 Soln. Used in Titration (C)	0.4			
PPM of Chloride (C -0.2) * 100 * 30 / B	40			
PPM of Chloride, Dry Wt. Basis	**40**			

pH TEST, DOT California Test 643

pH Value	**7.92**			
Temperature °C	20.3			

SOIL RESISTIVITY TEST

DOT CA TEST 643

Project Name: Legacy-Collier, Proposed Euclid & Walnut Mixed-Use, Ontario C Tested By : G. Berdy Date: 04/19/22

Project No. : 13493.001 Checked By: A. Santos Date: 04/25/22

Boring No.: LB-3 Depth (ft.) : 0-5

Sample No. : B-1

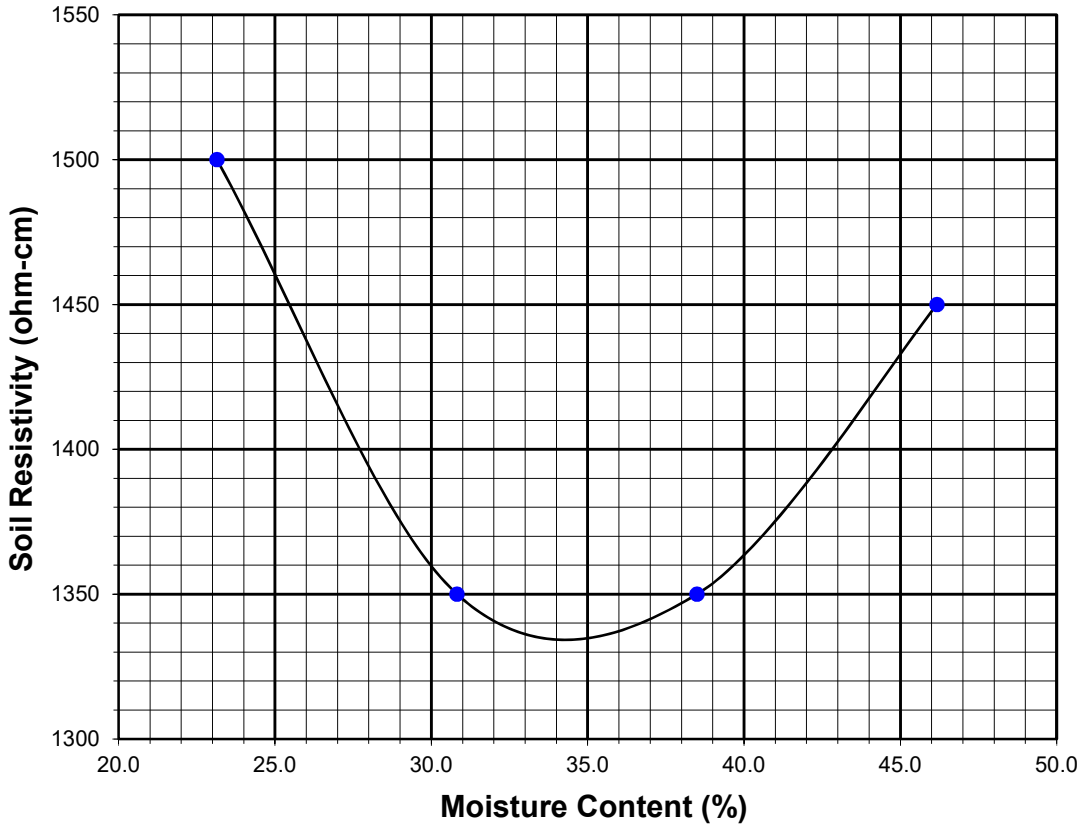
Soil Identification:* Olive brown (SM)

*California Test 643 requires soil specimens to consist only of portions of samples passing through the No. 8 US Standard Sieve before resistivity testing. Therefore, this test method may not be representative for coarser materials.

Specimen No.	Water Added (ml) (Wa)	Adjusted Moisture Content (MC)	Resistance Reading (ohm)	Soil Resistivity (ohm-cm)
1	30	23.14	1500	1500
2	40	30.82	1350	1350
3	50	38.50	1350	1350
4	60	46.18	1450	1450
5				

Moisture Content (%) (MCi)	0.11
Wet Wt. of Soil + Cont. (g)	168.20
Dry Wt. of Soil + Cont. (g)	168.07
Wt. of Container (g)	52.00
Container No.	
Initial Soil Wt. (g) (Wt)	130.40
Box Constant	1.000
MC =(((1+Mci/100)x(Wa/Wt+1))-1)x100	

Min. Resistivity (ohm-cm)	Moisture Content (%)	Sulfate Content (ppm)	Chloride Content (ppm)	Soil pH	
				pH	Temp. (°C)
DOT CA Test 643		DOT CA Test 417 Part II	DOT CA Test 422	DOT CA Test 643	
1335	**34.4**	**260**	**40**	**7.92**	**20.3**

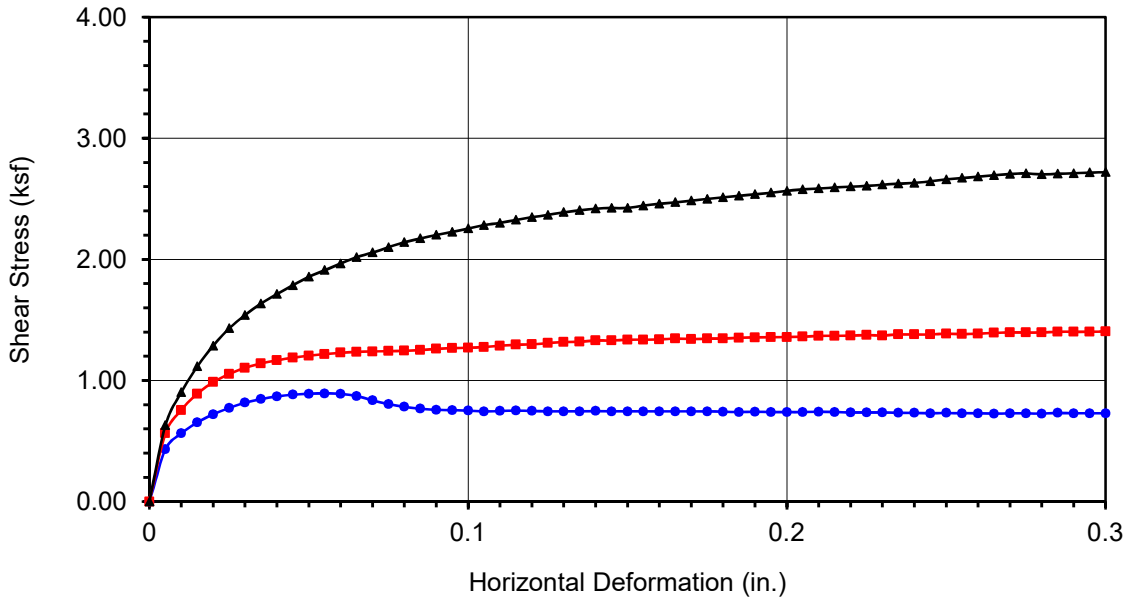


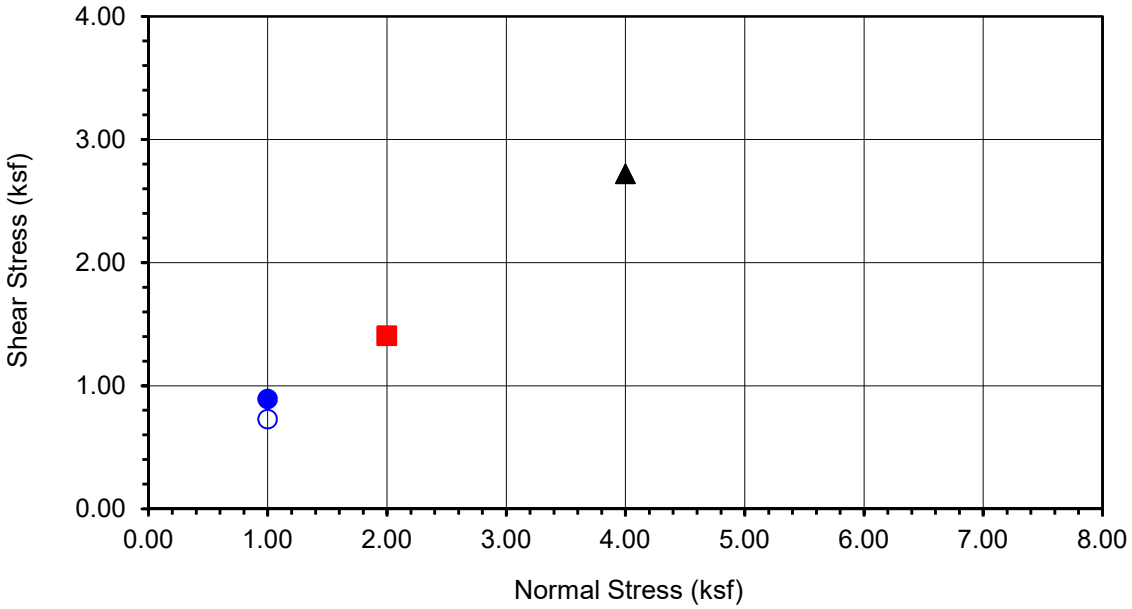
DIRECT SHEAR TEST

Consolidated Drained - ASTM D 3080

Project Name:	Legacy-Collier, Proposed Euclid & Walnut Mixed-Use, Ontario CA	Tested By:	G. Bathala	Date:	04/18/22
Project No.:	13493.001	Checked By:	A. Santos	Date:	04/25/22
Boring No.:	LB-2	Sample Type:	90% Remold		
Sample No.:	B-1	Depth (ft.):	0-5		
Soil Identification:	Olive brown sandy silt s(ML)				

Sample Diameter(in):	2.415	2.415	2.415
Sample Thickness(in.):	1.000	1.000	1.000
Weight of Sample + ring(gm):	197.98	198.21	198.62
Weight of Ring(gm):	45.38	45.43	45.60
Before Shearing			
Weight of Wet Sample+Cont.(gm):	169.35	169.35	169.35
Weight of Dry Sample+Cont.(gm):	155.92	155.92	155.92
Weight of Container(gm):	56.15	56.15	56.15
Vertical Rdg.(in): Initial	0.2545	0.2729	0.0000
Vertical Rdg.(in): Final	0.2651	0.2858	-0.0224
After Shearing			
Weight of Wet Sample+Cont.(gm):	211.09	212.06	191.55
Weight of Dry Sample+Cont.(gm):	190.82	191.76	171.67
Weight of Container(gm):	58.12	58.19	38.35
Specific Gravity (Assumed):	2.70	2.70	2.70
Water Density(pcf):	62.43	62.43	62.43





Boring No.	**LB-2**
Sample No.	**B-1**
Depth (ft)	**0-5**
Sample Type:	
90% Remold	
Soil Identification:	
Olive brown sandy silt s(ML)	

Normal Stress (kip/ft²)	1.000	2.000	4.000
Peak Shear Stress (kip/ft²)	● 0.893	■ 1.405	▲ 2.719
Shear Stress @ End of Test (ksf)	○ 0.729	□ 1.405	△ 2.719
Deformation Rate (in./min.)	0.0017	0.0017	0.0017
Initial Sample Height (in.)	1.000	1.000	1.000
Diameter (in.)	2.415	2.415	2.415
Initial Moisture Content (%)	13.46	13.46	13.46
Dry Density (pcf)	111.9	112.0	112.2
Saturation (%)	71.7	71.9	72.3
Soil Height Before Shearing (in.)	0.9894	0.9871	0.9776
Final Moisture Content (%)	15.3	15.2	14.9

Leighton

DIRECT SHEAR TEST RESULTS

Consolidated Drained - ASTM D 3080

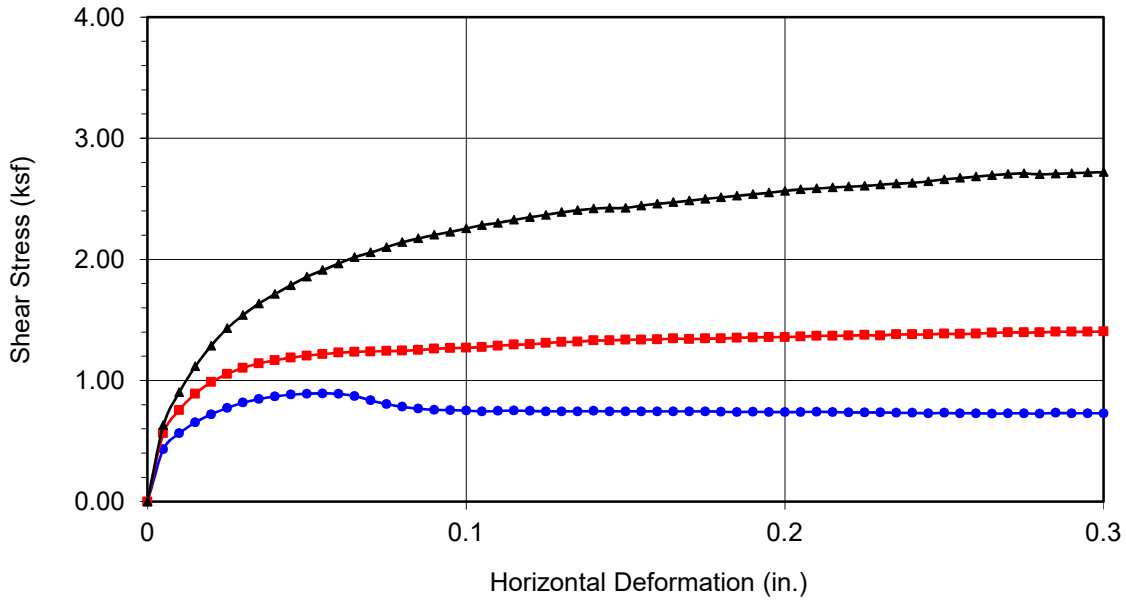
Project No.: 13493.001

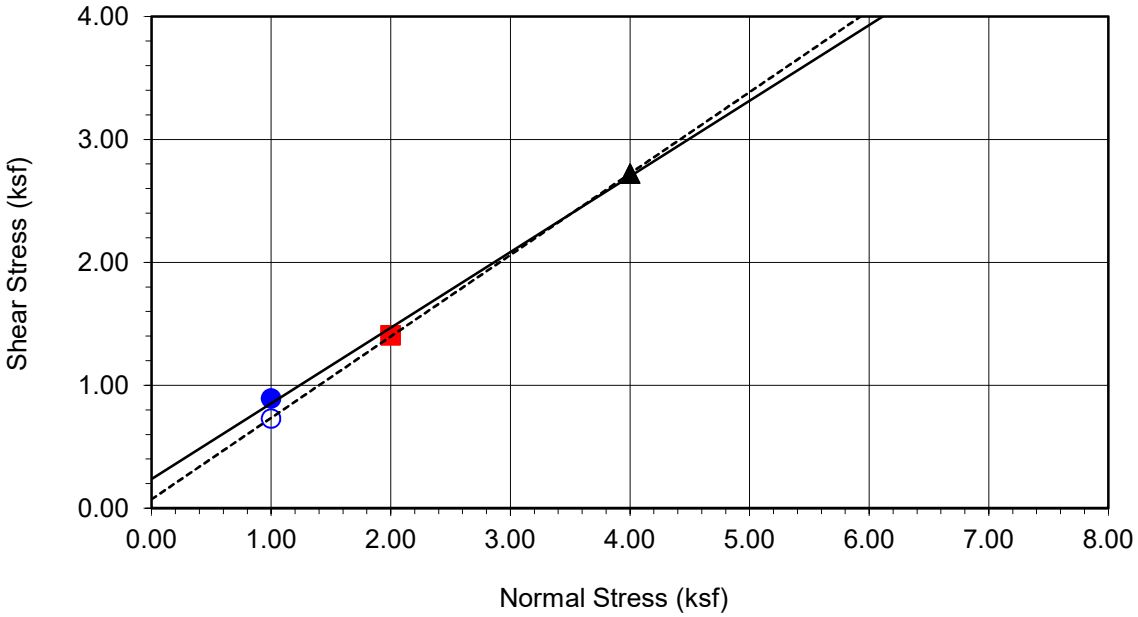
Legacy-Collier, Proposed Euclid & Walnut Mixed-Use, Ontario CA

04-22

3534

DS LB-2, B-1 @ 0-5





Boring No.	**LB-2**
Sample No.	**B-1**
Depth (ft)	**0-5**
Sample Type:	90% Remold
Soil Identification:	Olive brown sandy silt s(ML)

Strength Parameters

	C (psf)	ϕ (°)
Peak	236	32
Ultimate	72	34

Normal Stress (kip/ft²)	1.000	2.000	4.000
Peak Shear Stress (kip/ft²)	● 0.893	■ 1.405	▲ 2.719
Shear Stress @ End of Test (ksf)	○ 0.729	□ 1.405	△ 2.719
Deformation Rate (in./min.)	0.0017	0.0017	0.0017
Initial Sample Height (in.)	1.000	1.000	1.000
Diameter (in.)	2.415	2.415	2.415
Initial Moisture Content (%)	13.46	13.46	13.46
Dry Density (pcf)	111.9	112.0	112.2
Saturation (%)	71.7	71.9	72.3
Soil Height Before Shearing (in.)	0.9894	0.9871	0.9776
Final Moisture Content (%)	15.3	15.2	14.9

Leighton

DIRECT SHEAR TEST RESULTS

Consolidated Drained - ASTM D 3080

Project No.: 13493.001

Legacy-Collier, Proposed Euclid & Walnut Mixed-Use, Ontario CA

04-22

3535

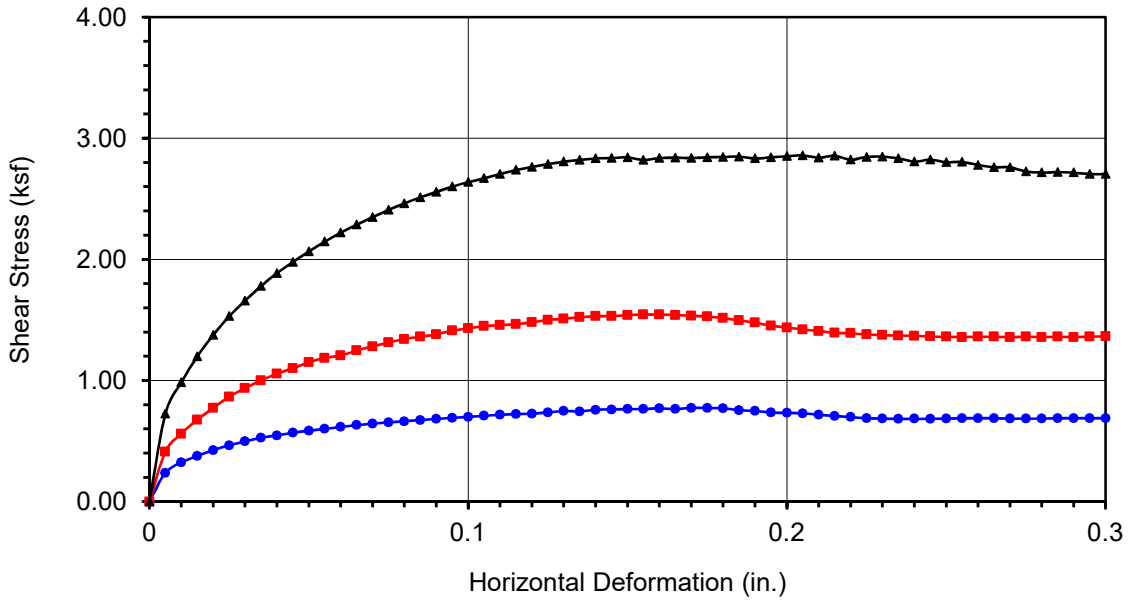
DS LB-2, B-1 @ 0-5

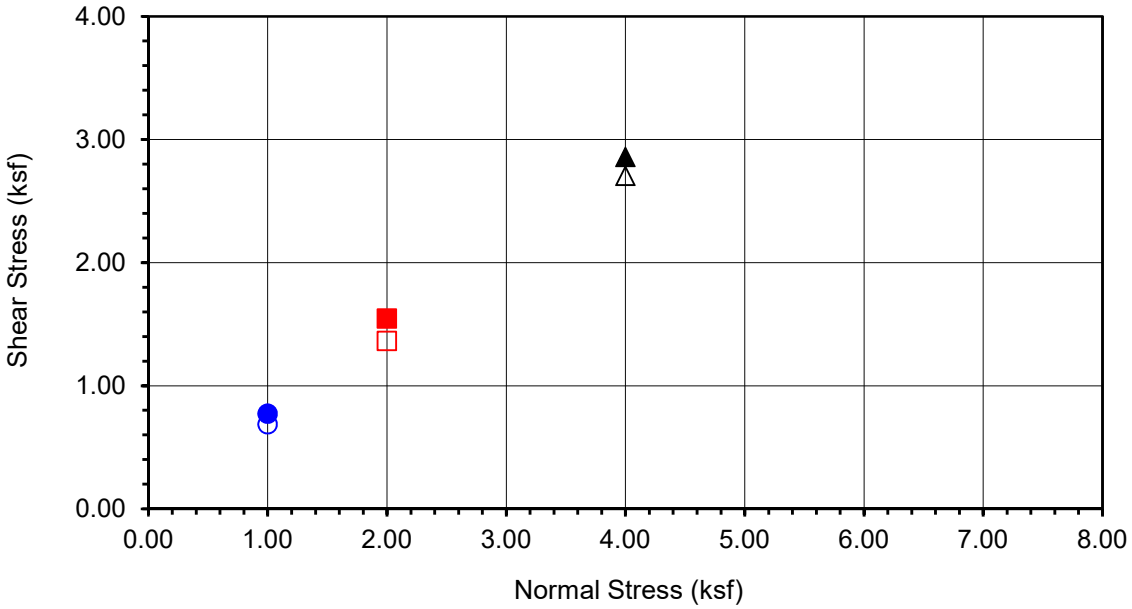
DIRECT SHEAR TEST

Consolidated Drained - ASTM D 3080

Project Name:	Legacy-Collier, Proposed Euclid & Walnut Mixed-Use, Ontario CA	Tested By:	G. Bathala	Date:	04/19/22
Project No.:	13493.001	Checked By:	A. Santos	Date:	04/25/22
Boring No.:	LB-3	Sample Type:	Ring		
Sample No.:	R-2	Depth (ft.):	7.5		
Soil Identification:	Olive silty sand (SM)				

Sample Diameter(in):	2.415	2.415	2.415
Sample Thickness(in.):	1.000	1.000	1.000
Weight of Sample + ring(gm):	177.41	181.99	182.19
Weight of Ring(gm):	43.72	45.58	45.95
Before Shearing			
Weight of Wet Sample+Cont.(gm):	182.62	182.62	182.62
Weight of Dry Sample+Cont.(gm):	178.05	178.05	178.05
Weight of Container(gm):	58.18	58.18	58.18
Vertical Rdg.(in): Initial	0.0000	0.2562	0.2637
Vertical Rdg.(in): Final	-0.0126	0.2707	0.2918
After Shearing			
Weight of Wet Sample+Cont.(gm):	208.16	204.29	212.34
Weight of Dry Sample+Cont.(gm):	188.26	184.44	192.59
Weight of Container(gm):	66.34	58.11	67.16
Specific Gravity (Assumed):	2.70	2.70	2.70
Water Density(pcf):	62.43	62.43	62.43





Boring No.	**LB-3**
Sample No.	**R-2**
Depth (ft)	**7.5**
Sample Type:	
Ring	
Soil Identification:	
Olive silty sand (SM)	

Normal Stress (kip/ft²)	1.000	2.000	4.000
Peak Shear Stress (kip/ft²)	● 0.773	■ 1.544	▲ 2.858
Shear Stress @ End of Test (ksf)	○ 0.688	□ 1.364	△ 2.704
Deformation Rate (in./min.)	0.0033	0.0033	0.0033
Initial Sample Height (in.)	1.000	1.000	1.000
Diameter (in.)	2.415	2.415	2.415
Initial Moisture Content (%)	3.81	3.81	3.81
Dry Density (pcf)	107.1	109.3	109.1
Saturation (%)	17.9	19.0	18.9
Soil Height Before Shearing (in.)	0.9874	0.9855	0.9719
Final Moisture Content (%)	16.3	15.7	15.7

Leighton

DIRECT SHEAR TEST RESULTS

Consolidated Drained - ASTM D 3080

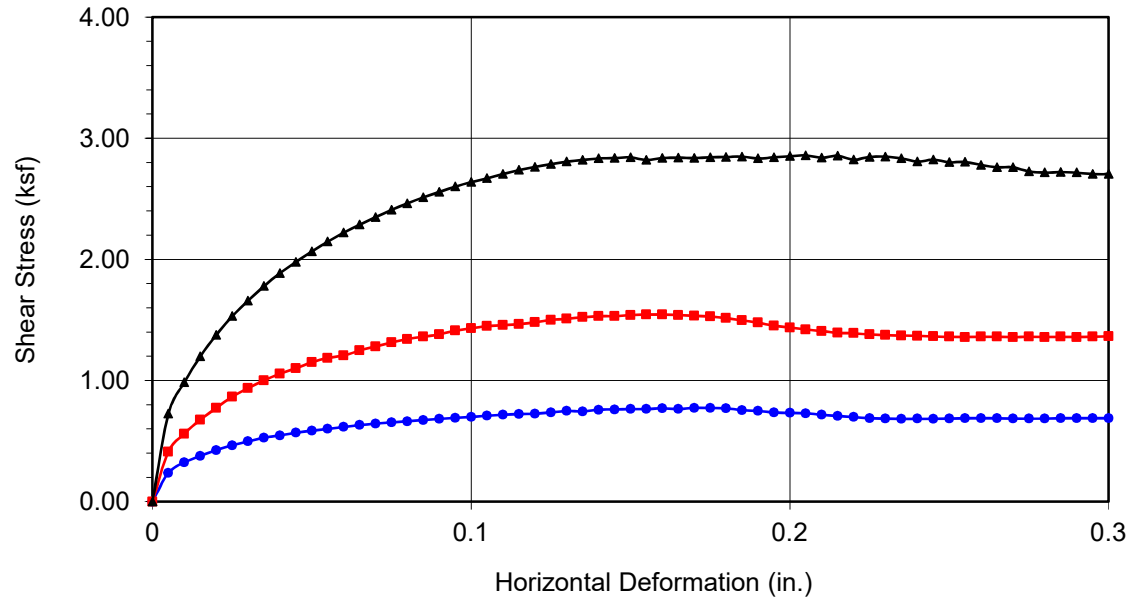
Project No.: 13493.001

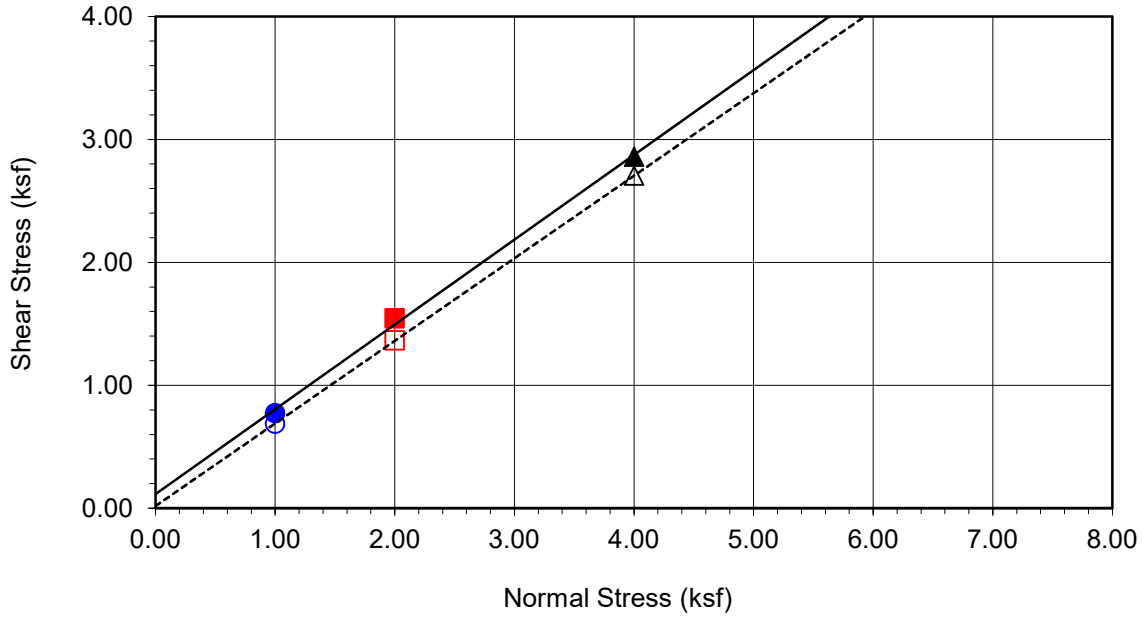
Legacy-Collier, Proposed Euclid & Walnut Mixed-Use, Ontario CA

04-22

3537

DS LB-3, R-2 @ 7.5





Boring No.	**LB-3**
Sample No.	**R-2**
Depth (ft)	**7.5**
Sample Type:	Ring
Soil Identification:	Olive silty sand (SM)

Strength Parameters

	C (psf)	ϕ (°)
Peak	116	35
Ultimate	18	34

Normal Stress (kip/ft²)	1.000	2.000	4.000
Peak Shear Stress (kip/ft²)	● 0.773	■ 1.544	▲ 2.858
Shear Stress @ End of Test (ksf)	○ 0.688	□ 1.364	△ 2.704
Deformation Rate (in./min.)	0.0033	0.0033	0.0033
Initial Sample Height (in.)	1.000	1.000	1.000
Diameter (in.)	2.415	2.415	2.415
Initial Moisture Content (%)	3.81	3.81	3.81
Dry Density (pcf)	107.1	109.3	109.1
Saturation (%)	17.9	19.0	18.9
Soil Height Before Shearing (in.)	0.9874	0.9855	0.9719
Final Moisture Content (%)	16.3	15.7	15.7

Leighton

DIRECT SHEAR TEST RESULTS

Consolidated Drained - ASTM D 3080

Project No.: 13493.001

Legacy-Collier, Proposed Euclid & Walnut Mixed-Use, Ontario CA

04-22

3538

DS LB-3, R-2 @ 7.5

EXPANSION INDEX of SOILS
ASTM D 4829

Project Name:	Legacy-Collier, Proposed Euclid & Walnut Mixed-Use, Ontario CA	Tested By:	G. Berdy	Date:	04/13/22
Project No.:	13493.001	Checked By:	A. Santos	Date:	04/25/22
Boring No.:	LB-1	Depth (ft.):	0-5		
Sample No.:	B-1				
Soil Identification:	Olive brown sandy silt s(ML)				

Dry Wt. of Soil + Cont.	(g)	1000.00
Wt. of Container No.	(g)	0.00
Dry Wt. of Soil	(g)	1000.00
Weight Soil Retained on #4 Sieve		0.00
Percent Passing # 4		100.00

MOLDED SPECIMEN		Before Test	After Test
Specimen Diameter	(in.)	4.01	4.01
Specimen Height	(in.)	1.0000	1.0175
Wt. Comp. Soil + Mold	(g)	609.40	443.20
Wt. of Mold	(g)	202.10	0.00
Specific Gravity (Assumed)		2.70	2.70
Container No.		O	O
Wet Wt. of Soil + Cont.	(g)	819.60	645.30
Dry Wt. of Soil + Cont.	(g)	751.90	575.77
Wt. of Container	(g)	0.00	202.10
Moisture Content	(%)	9.00	18.61
Wet Density	(pcf)	122.9	131.4
Dry Density	(pcf)	112.7	110.8
Void Ratio		0.496	0.522
Total Porosity		0.331	0.343
Pore Volume	(cc)	68.6	72.2
Degree of Saturation (%) [S_{meas}]		**49.0**	96.3

SPECIMEN INUNDATION in distilled water for the period of 24 h or expansion rate < 0.0002 in./h

Date	Time	Pressure (psi)	Elapsed Time (min.)	Dial Readings (in.)
04/13/22	11:12	1.0	0	0.5855
04/13/22	11:22	1.0	10	0.5855
Add Distilled Water to the Specimen				
04/13/22	11:59	1.0	37	0.6000
04/14/22	5:42	1.0	1100	0.6030
04/14/22	9:53	1.0	1351	0.6030

Expansion Index (EI_{meas}) = ((Final Rdg - Initial Rdg) / Initial Thick.) x 1000	**18**

Borehole	Depth	Liquid Limit	Plastic Limit	Plasticity Index	Maximum Size (mm)	%<#200 Sieve	Class-ification	Water Content (%)	Dry Density (pcf)	Satur-ation (%)	Void Ratio
LB-1	7.5							9.3	94.6		
LB-1	10.0							31.0	88.6		
LB-1	15.0							15.7	111.5		
LB-1	20.0							12.2	120.1		
LB-1	30.0							3.6			
LB-1	40.0							4.4			
LB-1	45.0							2.0	114.9		
LB-1	50.0							3.2			
LB-2	7.5							3.0	101.4		
LB-2	15.0							4.0	102.8		
LB-2	20.0							15.7	111.9		
LB-2	25.0							10.4	108.4		
LB-3	5.0							7.7	110.6		
LB-3	10.0							26.3	90.1		
LB-3	15.0							35.1	87.0		
LB-3	20.0							12.5	121.7		
LB-3	25.0							13.9	113.8		
LP-1	15.0							5.0	104.3		
LP-1	18.5							12.4	119.3		
LP-2	15.0							25.4	91.0		
LP-2	18.5							7.3	115.0		



Summary of Laboratory Results

Project Name: Legacy-Collier, Proposed Residential Development

Project Number: 13493.001

Date: 5/4/2022 11:49:57 AM

Figure No. 1

MODIFIED PROCTOR COMPACTION TEST

ASTM D 1557

Project Name:	Legacy-Collier, Proposed Euclid & Walnut Mixed-Use, Ontario CA	Tested By:	J. Gonzalez	Date:	04/12/22
Project No.:	13493.001	Checked By:	A. Santos	Date:	04/13/22
Boring No.:	LB-2	Depth (ft.):	0-5		
Sample No.:	B-1				
Soil Identification:	Olive brown sandy silt s(ML)				

Preparation Method: [X] Moist [ ] Dry

[X] Mechanical Ram [ ] Manual Ram

Mold Volume (ft³) 0.03330 *Ram Weight = 10 lb.; Drop = 18 in.*

TEST NO.	1	2	3	4	5	6
Wt. Compacted Soil + Mold (g)	3861	3920	3880			
Weight of Mold (g)	1826	1826	1826			
Net Weight of Soil (g)	2035	2094	2054			
Wet Weight of Soil + Cont. (g)	462.6	478.9	498.0			
Dry Weight of Soil + Cont. (g)	423.8	429.5	437.3			
Weight of Container (g)	37.9	36.3	39.6			
Moisture Content (%)	10.05	12.56	15.26			
Wet Density (pcf)	134.7	138.6	136.0			
Dry Density (pcf)	122.4	123.2	118.0			

Maximum Dry Density (pcf) **123.5** **Optimum Moisture Content (%)** **11.5**

PROCEDURE USED

[X] **Procedure A**
Soil Passing No. 4 (4.75 mm) Sieve
Mold : 4 in. (101.6 mm) diameter
Layers : 5 (Five)
Blows per layer : 25 (twenty-five)
May be used if +#4 is 20% or less

[ ] **Procedure B**
Soil Passing 3/8 in. (9.5 mm) Sieve
Mold : 4 in. (101.6 mm) diameter
Layers : 5 (Five)
Blows per layer : 25 (twenty-five)
Use if +#4 is >20% and +3/8 in. is 20% or less

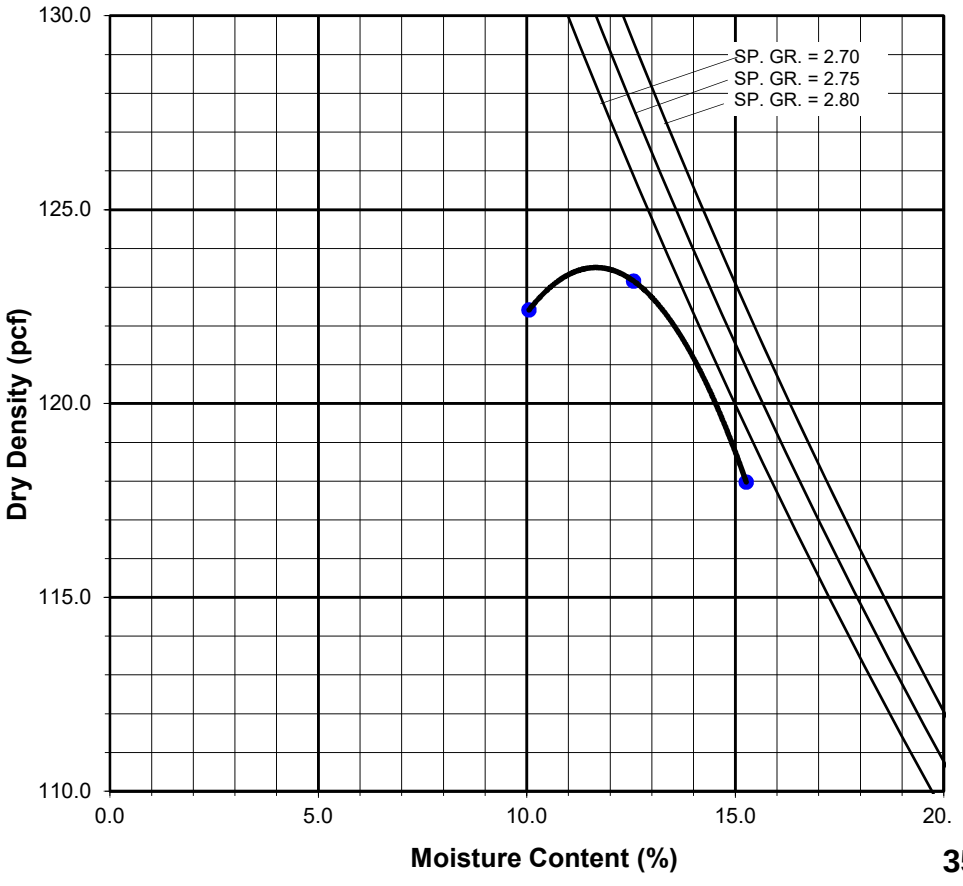
[ ] **Procedure C**
Soil Passing 3/4 in. (19.0 mm) Sieve
Mold : 6 in. (152.4 mm) diameter
Layers : 5 (Five)
Blows per layer : 56 (fifty-six)
Use if +3/8 in. is >20% and +¾ in. is <30%

Particle-Size Distribution:

GR:SA:FI

Atterberg Limits:

LL,PL,PI



3541

MX LB-2, B-1 @ 0-5

MODIFIED PROCTOR COMPACTION TEST

ASTM D 1557

Project Name:	Legacy-Collier, Proposed Euclid & Walnut Mixed-Use, Ontario CA	Tested By:	J. Gonzalez	Date:	04/13/22
Project No.:	13493.001	Checked By:	A. Santos	Date:	04/25/22
Boring No.:	LB-3	Depth (ft.):	0-5		
Sample No.:	B-1				
Soil Identification:	Olive brown silty sand (SM)				

Preparation Method: [X] Moist [ ] Dry

[X] Mechanical Ram [ ] Manual Ram

Mold Volume (ft³) 0.03330 *Ram Weight = 10 lb.; Drop = 18 in.*

TEST NO.	1	2	3	4	5	6
Wt. Compacted Soil + Mold (g)	3839	3913	3850			
Weight of Mold (g)	1826	1826	1826			
Net Weight of Soil (g)	2013	2087	2024			
Wet Weight of Soil + Cont. (g)	499.8	520.0	518.3			
Dry Weight of Soil + Cont. (g)	469.3	477.3	466.0			
Weight of Container (g)	41.0	39.1	37.8			
Moisture Content (%)	7.12	9.74	12.21			
Wet Density (pcf)	133.3	138.2	134.0			
Dry Density (pcf)	124.4	125.9	119.4			

Maximum Dry Density (pcf) **126.4** **Optimum Moisture Content (%)** **9.0**

PROCEDURE USED

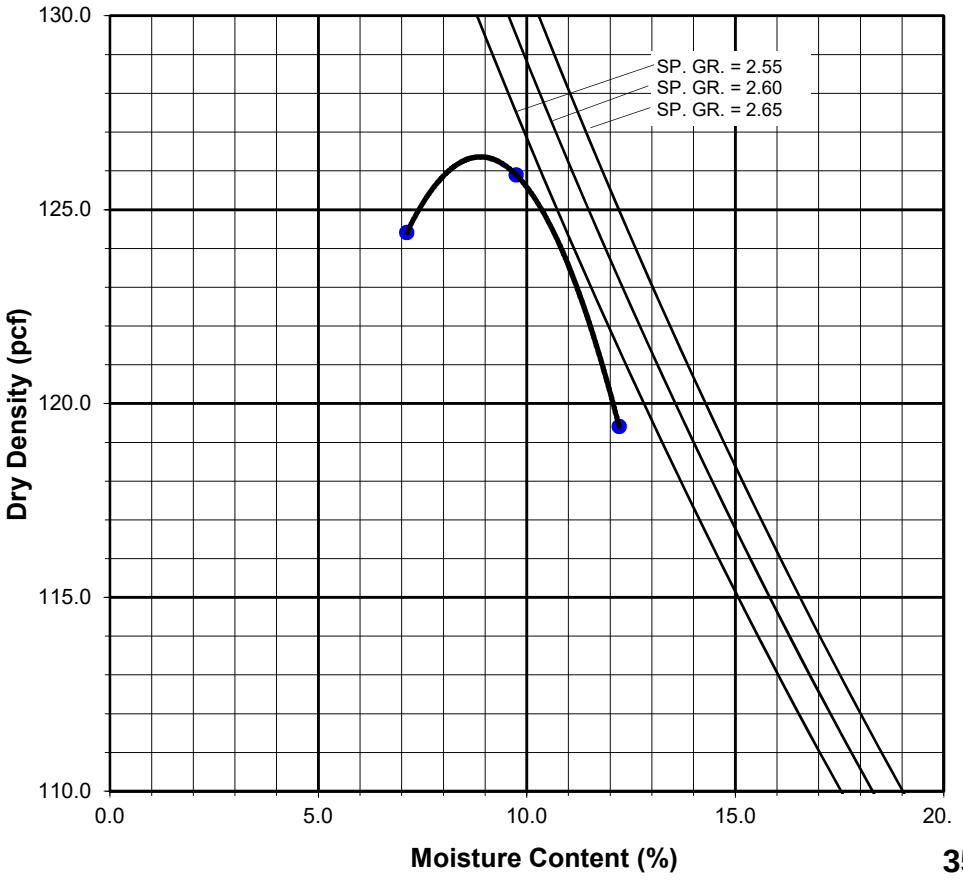
[X] **Procedure A**
Soil Passing No. 4 (4.75 mm) Sieve
Mold : 4 in. (101.6 mm) diameter
Layers : 5 (Five)
Blows per layer : 25 (twenty-five)
May be used if +#4 is 20% or less

[ ] **Procedure B**
Soil Passing 3/8 in. (9.5 mm) Sieve
Mold : 4 in. (101.6 mm) diameter
Layers : 5 (Five)
Blows per layer : 25 (twenty-five)
Use if +#4 is >20% and +3/8 in. is 20% or less

[ ] **Procedure C**
Soil Passing 3/4 in. (19.0 mm) Sieve
Mold : 6 in. (152.4 mm) diameter
Layers : 5 (Five)
Blows per layer : 56 (fifty-six)
Use if +3/8 in. is >20% and +¾ in. is <30%

Particle-Size Distribution:
GR:SA:FI

Atterberg Limits:
LL,PL,PI



3542

MX LB-3, B-1 @ 0-5

ATTERBERG LIMITS

ASTM D 4318

Project Name:	Legacy-Collier, Proposed Euclid & Walnut Mixed-Use, Onratio CA	Tested By:	J. Domingo	Date:	04/22/22
Project No. :	13493.001	Input By:	G. Bathala	Date:	04/25/22
Boring No.:	LB-2	Checked By:	A. Santos		
Sample No.:	R-3	Depth (ft.)	10.0		
Soil Identification:	Olive gray lean clay (CL)				

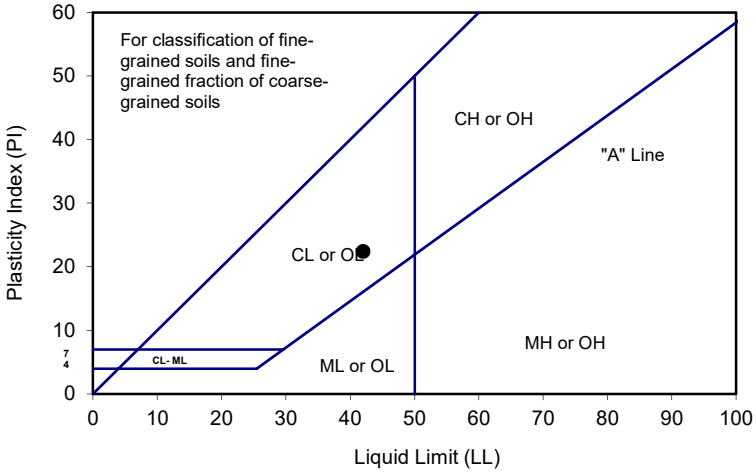
TEST	PLASTIC LIMIT		LIQUID LIMIT			
NO.	1	2	1	2	3	4
Number of Blows [N]			26	21	16	
Wet Wt. of Soil + Cont. (g)	8.64	8.87	20.09	21.49	20.68	
Dry Wt. of Soil + Cont. (g)	7.38	7.61	14.48	15.38	14.70	
Wt. of Container (g)	1.06	1.07	1.11	1.03	1.00	
Moisture Content (%) [Wn]	19.94	19.27	41.96	42.58	43.65	

Liquid Limit	**42**
Plastic Limit	**20**
Plasticity Index	**22**
Classification	**CL**

PI at "A" - Line = 0.73(LL-20) 16.06

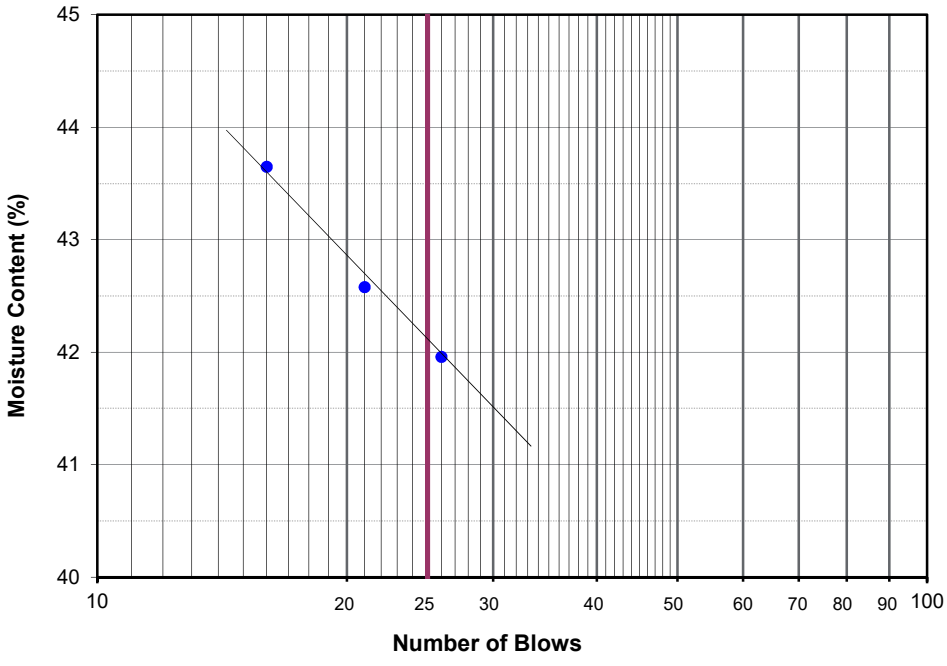
One - Point Liquid Limit Calculation

$LL = Wn(N/25)^{0.121}$



PROCEDURES USED

- [ ] Wet Preparation
  Multipoint - Wet
- [X] Dry Preparation
  Multipoint - Dry
- [X] Procedure A
  Multipoint Test
- [ ] Procedure B
  One-point Test



Project Name: Legacy-Collier, Proposed Euclid & Walnut Mixed-Use, Ontario CA
Project No.: 13493.001

Summary of Pocket Penetrometer Test Results

Tested by:	S. Felter	Date:	04/19/22
Prepared by:	G. Bathala	Date:	04/22/22

Boring No.	Sample No.	Depth (ft.)	Readings	Remarks
LB-1	R-2	7.5	2.50	
	R-3	10	>4.50	
	R-4	15	4.25	
	R-5	20	>4.50	
	R-10	45	3.50	
LB-2	R-2	7.5	1.75	
	R-4	15	3.75	
	R-5	20	3.50	
	R-6	25	>4.50	
LB-3	R-1	5	>4.50	
	R-3	10	>4.50	
	R-4	15	4.25	
	R-5	20	4.50	
	R-6	25	>4.50	
LP-1	R-3	15	2.75	
	R-4	18.5	>4.50	
LP-2	R-3	15	>4.50	
	R-4	18.5	>4.50	

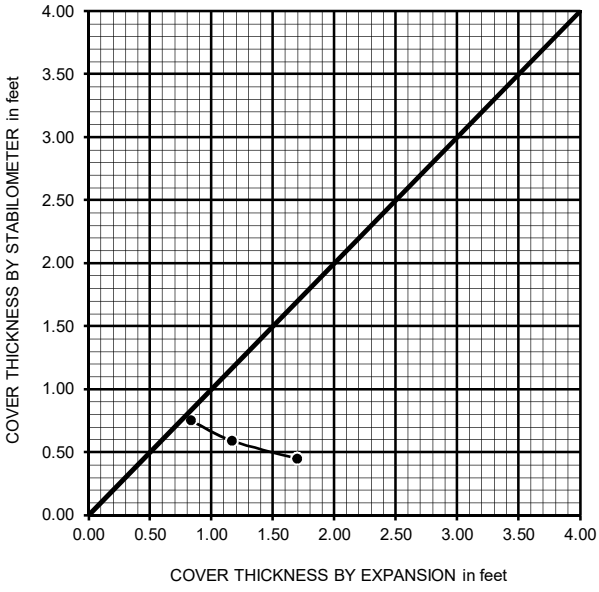
R-VALUE TEST RESULTS
DOT CA Test 301

PROJECT NAME:	Legacy-Collier, Proposed Euclid & Walnut Mixed-Use Ontario CA	PROJECT NUMBER:	13493.001
BORING NUMBER:	LB-1	DEPTH (FT.):	0-5
SAMPLE NUMBER:	B-1	TECHNICIAN:	O. Figueroa
SAMPLE DESCRIPTION:	Olive brown sandy silt s(ML)	DATE COMPLETED:	4/13/2022

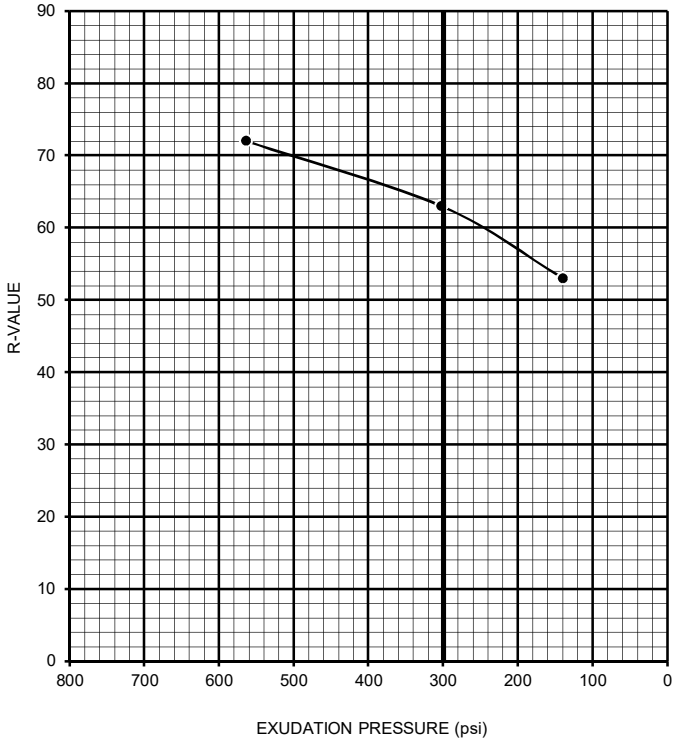
TEST SPECIMEN	a	b	c
MOISTURE AT COMPACTION %	12.7	13.7	14.6
HEIGHT OF SAMPLE, Inches	2.45	2.50	2.53
DRY DENSITY, pcf	120.2	118.7	116.2
COMPACTOR PRESSURE, psi	325	250	150
EXUDATION PRESSURE, psi	564	302	139
EXPANSION, Inches x 10exp-4	51	35	25
STABILITY Ph 2,000 lbs (160 psi)	28	36	46
TURNS DISPLACEMENT	4.60	5.13	5.45
R-VALUE UNCORRECTED	72	63	53
R-VALUE CORRECTED	72	63	53

DESIGN CALCULATION DATA	a	b	c
GRAVEL EQUIVALENT FACTOR	1.0	1.0	1.0
TRAFFIC INDEX	5.0	5.0	5.0
STABILOMETER THICKNESS, ft.	0.45	0.59	0.75
EXPANSION PRESSURE THICKNESS, ft.	1.70	1.17	0.83

EXPANSION PRESSURE CHART



EXUDATION PRESSURE CHART



R-VALUE BY EXPANSION:	50
R-VALUE BY EXUDATION:	63
EQUILIBRIUM R-VALUE:	50

SAND EQUIVALENT TEST

DOT CA Test 217

Project Name: Legacy-Collier, Proposed Euclid & Walnut Mixed-Use, Ontario CA Tested By: A Santos Date: 04/25/22

Project No. : 13493.001 Input By: J. Ward Date: 04/25/22

Boring No.	Sample No.	Depth (ft.)	Soil Type	T1	T2	T3	T4	R1	R2	SE	Average SE
LB-2	B-1	0-5	Olive brown sandy silts(ML)	11:20	11:30	11:33	11:53	13.5	1.2	9	**9**
				11:24	11:34	11:37	11:57	13.4	1.1	9	
				11:28	11:38	11:41	12:01	13.5	1.1	9	
LB-5	B-1	0-5	Olive brown silty sand (SM)	13:40	13:50	13:53	14:13	12.6	1.4	12	**12**
				13:44	13:54	13:57	14:17	12.6	1.4	12	
				13:48	13:58	14:01	14:21	12.7	1.3	11	

T1 = Starting Time

T2 = (T1 + 10 min) Begin Agitation

(131 cycles in 45 sec)

T3 = Settlement Starting Time

T4 = (T3 + 20 min) Take Clay Reading (R1)

and Sand Reading (R2)

Sand Equivalent = R2 / R1 * 100

Record SE as Next Higher Integer

3546

PARTICLE-SIZE DISTRIBUTION (GRADATION) of SOILS USING SIEVE ANALYSIS

ASTM D 6913

Project Name:	Legacy-Collier, Proposed Euclid & Walnut Mixed-Use, Ontario CA	Tested By:	S. Felter	Date:	04/20/22
Project No.:	13493.001	Checked By:	A. Santos	Date:	04/25/22
Boring No.:	LP-1	Depth (feet):	15.0		
Sample No.:	R-3				
Soil Identification:	Grayish brown silty sand (SM)				

		Moisture Content of Total Air - Dry Soil	
Container No.:	2	Wt. of Air-Dry Soil + Cont. (g)	0.0
Wt. of Air-Dried Soil + Cont.(g)	712.3	Wt. of Dry Soil + Cont. (g)	0.0
Wt. of Container (g)	110.0	Wt. of Container No._____ (g)	1.0
Dry Wt. of Soil (g)	602.3	Moisture Content (%)	0.0

After Wet Sieve	Container No.	2
	Wt. of Dry Soil + Container (g)	582.3
	Wt. of Container (g)	110.0
	Dry Wt. of Soil Retained on # 200 Sieve (g)	472.3

U. S. Sieve Size (in.)	U. S. Sieve Size (mm.)	Cumulative Weight Dry Soil Retained (g)	Percent Passing (%)
1 1/2"	37.5		
1"	25.0		
3/4"	19.0		
1/2"	12.5		
3/8"	9.5	0.0	100.0
#4	4.75	1.2	99.8
#8	2.36	3.6	99.4
#16	1.18	17.0	97.2
#30	0.600	54.5	91.0
#50	0.300	166.8	72.3
#100	0.150	343.0	43.1
#200	0.075	464.2	22.9
PAN			

GRAVEL: **0 %**

SAND: **77 %**

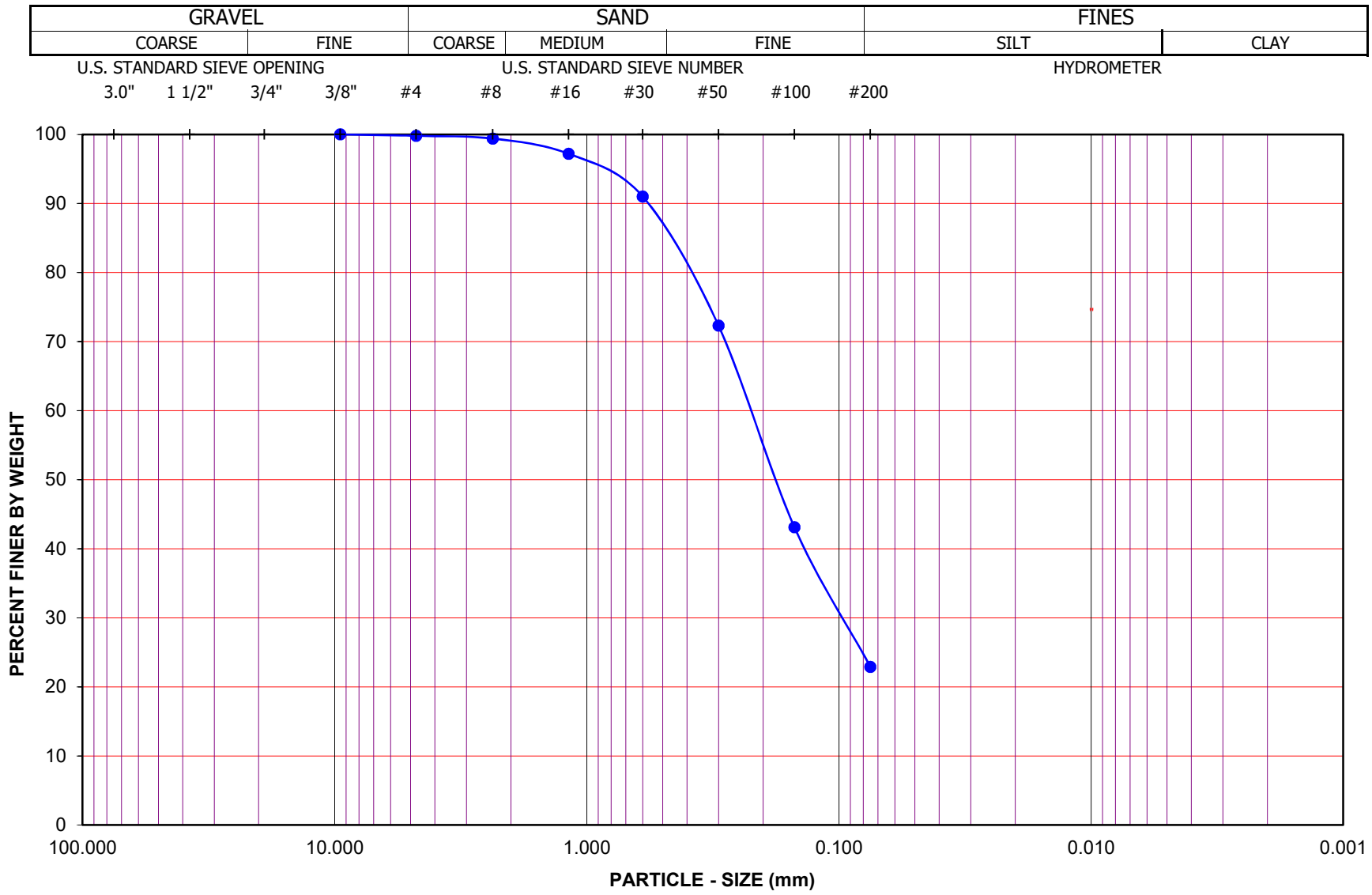
FINES: **23 %**

GROUP SYMBOL: **SM**

Cu = D60/D10 = _____

Cc = $(D30)^2/(D60*D10)$ = _____

Remarks: _____



Project Name: Legacy-Collier, Proposed Euclid & Walnut Mixed-Use, Ontario CA

Project No.: 13493.001

Boring No.: LP-1 Sample No.: R-3

Depth (feet): 15.0 Soil Type : SM

Soil Identification: Grayish brown silty sand (SM)

GR:SA:FI : (%) 0 : 77 : 23

Leighton

PARTICLE - SIZE DISTRIBUTION ASTM D 6913

3548

PARTICLE-SIZE DISTRIBUTION (GRADATION) of SOILS USING SIEVE ANALYSIS

ASTM D 6913

Project Name:	Legacy-Collier, Proposed Euclid & Walnut Mixed Use, Ontario CA	Tested By:	S. Felter	Date:	04/20/22
Project No.:	13493.001	Checked By:	A. Santos	Date:	04/25/22
Boring No.:	LP-1	Depth (feet):	18.5		
Sample No.:	R-4				
Soil Identification:	Olive brown sandy silt s(ML)				

		Moisture Content of Total Air - Dry Soil	
Container No.:	9545	Wt. of Air-Dry Soil + Cont. (g)	0.0
Wt. of Air-Dried Soil + Cont.(g)	774.5	Wt. of Dry Soil + Cont. (g)	0.0
Wt. of Container (g)	106.2	Wt. of Container No._____ (g)	1.0
Dry Wt. of Soil (g)	668.3	Moisture Content (%)	0.0

After Wet Sieve	Container No.	9545
	Wt. of Dry Soil + Container (g)	426.4
	Wt. of Container (g)	106.2
	Dry Wt. of Soil Retained on # 200 Sieve (g)	320.2

U. S. Sieve Size (in.)	U. S. Sieve Size (mm.)	Cumulative Weight Dry Soil Retained (g)	Percent Passing (%)
1 1/2"	37.5		
1"	25.0		
3/4"	19.0		
1/2"	12.5		
3/8"	9.5	0.0	100.0
#4	4.75	2.9	99.6
#8	2.36	8.0	98.8
#16	1.18	15.3	97.7
#30	0.600	41.7	93.8
#50	0.300	106.5	84.1
#100	0.150	206.4	69.1
#200	0.075	315.8	52.7
PAN			

GRAVEL: **0 %**

SAND: **47 %**

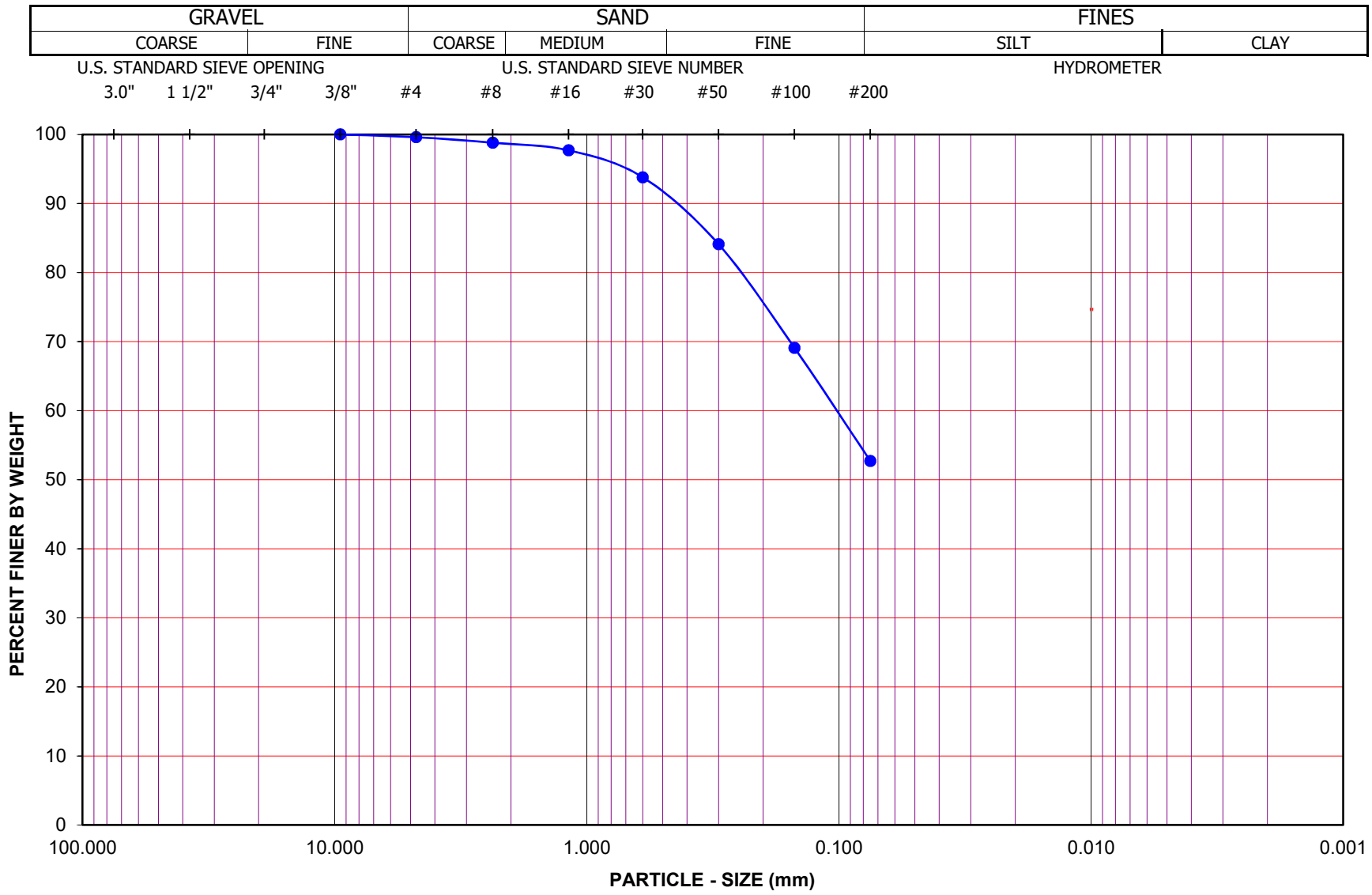
FINES: **53 %**

GROUP SYMBOL: **s(ML)**

Cu = D60/D10 = _____

Cc = $(D30)^2/(D60*D10)$ = _____

Remarks: _____



Project Name: Legacy-Collier, Proposed Euclid & Walnut Mixed Use, Ontario CA

Project No.: 13493.001

Boring No.: LP-1 Sample No.: R-4

Depth (feet): 18.5 Soil Type : s(ML)

Soil Identification: Olive brown sandy silt s(ML)

GR:SA:FI : (%) 0 : 47 : 53

PARTICLE - SIZE DISTRIBUTION ASTM D 6913

3550

Sieve LP-1, R-4 @ 18.5

PARTICLE-SIZE DISTRIBUTION (GRADATION) of SOILS USING SIEVE ANALYSIS

ASTM D 6913

Project Name:	Legacy-Collier, Proposed Euclid & Walnut Mixed-Use, Ontario CA	Tested By:	S. Felter	Date:	04/19/22
Project No.:	13493.001	Checked By:	A. Santos	Date:	04/25/22
Boring No.:	LP-1	Depth (feet):	23.5		
Sample No.:	S-5				
Soil Identification:	Brown sandy lean clay s(CL)				

		Moisture Content of Total Air - Dry Soil	
Container No.:	969	Wt. of Air-Dry Soil + Cont. (g)	0.0
Wt. of Air-Dried Soil + Cont.(g)	538.7	Wt. of Dry Soil + Cont. (g)	0.0
Wt. of Container (g)	109.4	Wt. of Container No._____ (g)	1.0
Dry Wt. of Soil (g)	429.3	Moisture Content (%)	0.0

After Wet Sieve	Container No.	969
	Wt. of Dry Soil + Container (g)	344.3
	Wt. of Container (g)	109.4
	Dry Wt. of Soil Retained on # 200 Sieve (g)	234.9

U. S. Sieve Size (in.)	U. S. Sieve Size (mm.)	Cumulative Weight Dry Soil Retained (g)	Percent Passing (%)
1 1/2"	37.5		
1"	25.0		
3/4"	19.0		
1/2"	12.5		
3/8"	9.5	0.0	100.0
#4	4.75	1.1	99.7
#8	2.36	4.2	99.0
#16	1.18	12.8	97.0
#30	0.600	36.0	91.6
#50	0.300	83.7	80.5
#100	0.150	148.7	65.4
#200	0.075	220.7	48.6
PAN			

GRAVEL: **0 %**

SAND: **51 %**

FINES: **49 %**

GROUP SYMBOL: **s(CL)**

Cu = D60/D10 = _____

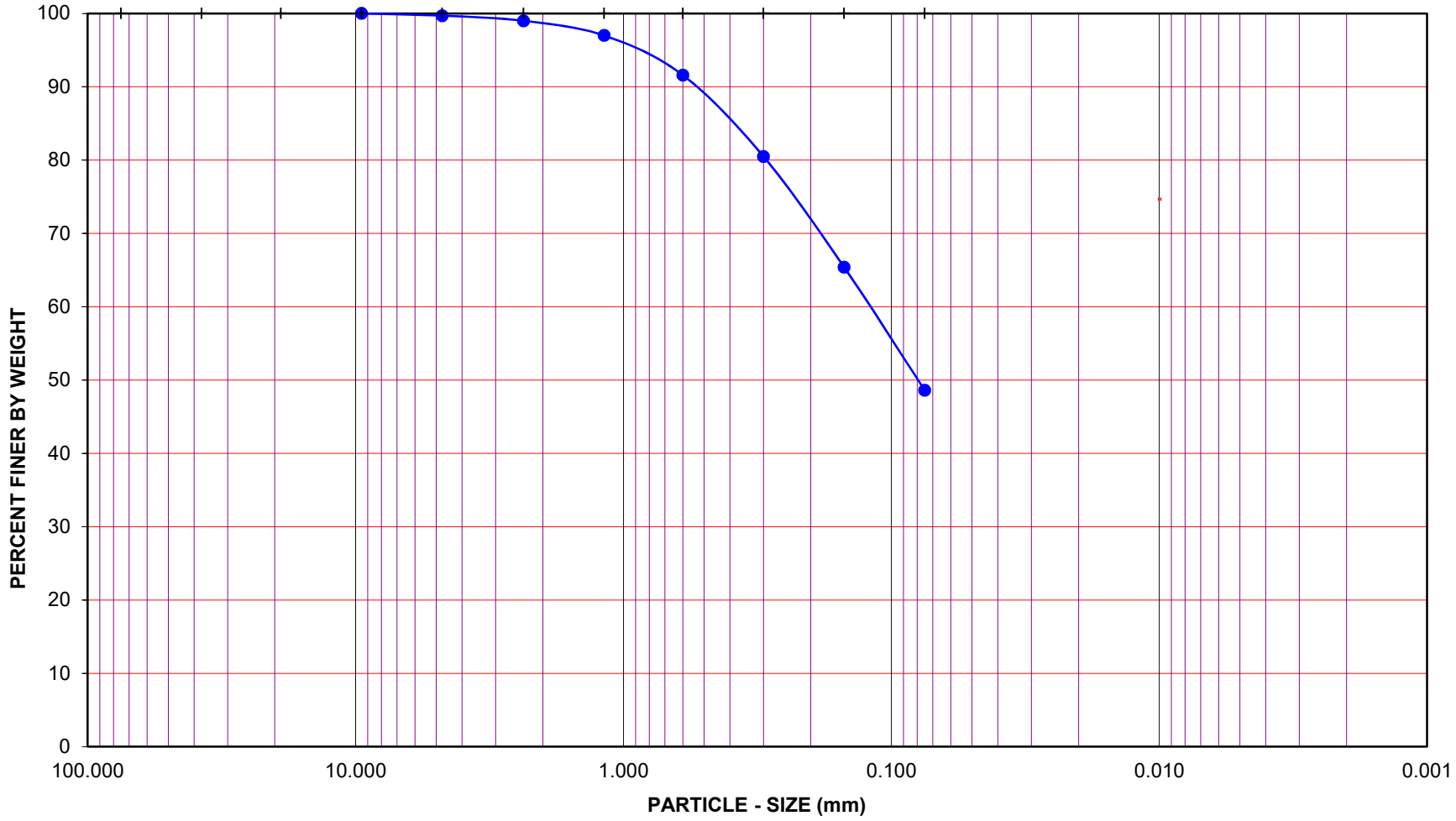
Cc = $(D30)^2/(D60*D10)$ = _____

Remarks: _____

GRAVEL		SAND			FINES	
COARSE	FINE	COARSE	MEDIUM	FINE	SILT	CLAY

U.S. STANDARD SIEVE OPENING — U.S. STANDARD SIEVE NUMBER — HYDROMETER

3.0" 1 1/2" 3/4" 3/8" #4 #8 #16 #30 #50 #100 #200



Project Name: Legacy-Collier, Proposed Euclid & Walnut Mixed-Use, Ontario CA

Project No.: 13493.001

Boring No.: LP-1 Sample No.: S-5

Depth (feet): 23.5 Soil Type : s(CL)

Soil Identification: Brown sandy lean clay s(CL)

GR:SA:FI : (%) 0 : 51 : 49

Leighton

PARTICLE - SIZE DISTRIBUTION ASTM D 6913

3552

Sieve LP-1, S-5 @ 23.5

PARTICLE-SIZE DISTRIBUTION (GRADATION) of SOILS USING SIEVE ANALYSIS

ASTM D 6913

Project Name:	Legacy-Collier, Proposed Euclid & Walnut Mixed-Use, Ontario CA	Tested By:	S. Felter	Date:	04/19/22
Project No.:	13493.001	Checked By:	A. Santos	Date:	04/25/22
Boring No.:	LP-2	Depth (feet):	15.0		
Sample No.:	R-3				
Soil Identification:	Olive brown silty clay (CL-ML)				

		Moisture Content of Total Air - Dry Soil	
Container No.:	V-1	Wt. of Air-Dry Soil + Cont. (g)	0.0
Wt. of Air-Dried Soil + Cont.(g)	635.6	Wt. of Dry Soil + Cont. (g)	0.0
Wt. of Container (g)	108.7	Wt. of Container No._____ (g)	1.0
Dry Wt. of Soil (g)	526.9	Moisture Content (%)	0.0

After Wet Sieve	Container No.	V-1
	Wt. of Dry Soil + Container (g)	139.2
	Wt. of Container (g)	108.7
	Dry Wt. of Soil Retained on # 200 Sieve (g)	30.5

U. S. Sieve Size (in.)	U. S. Sieve Size (mm.)	Cumulative Weight Dry Soil Retained (g)	Percent Passing (%)
1 1/2"	37.5		
1"	25.0		
3/4"	19.0		
1/2"	12.5		
3/8"	9.5		
#4	4.75		
#8	2.36		
#16	1.18	0.0	100.0
#30	0.600	0.4	99.9
#50	0.300	4.4	99.2
#100	0.150	12.6	97.6
#200	0.075	28.4	94.6
PAN			

GRAVEL: **0 %**

SAND: **5 %**

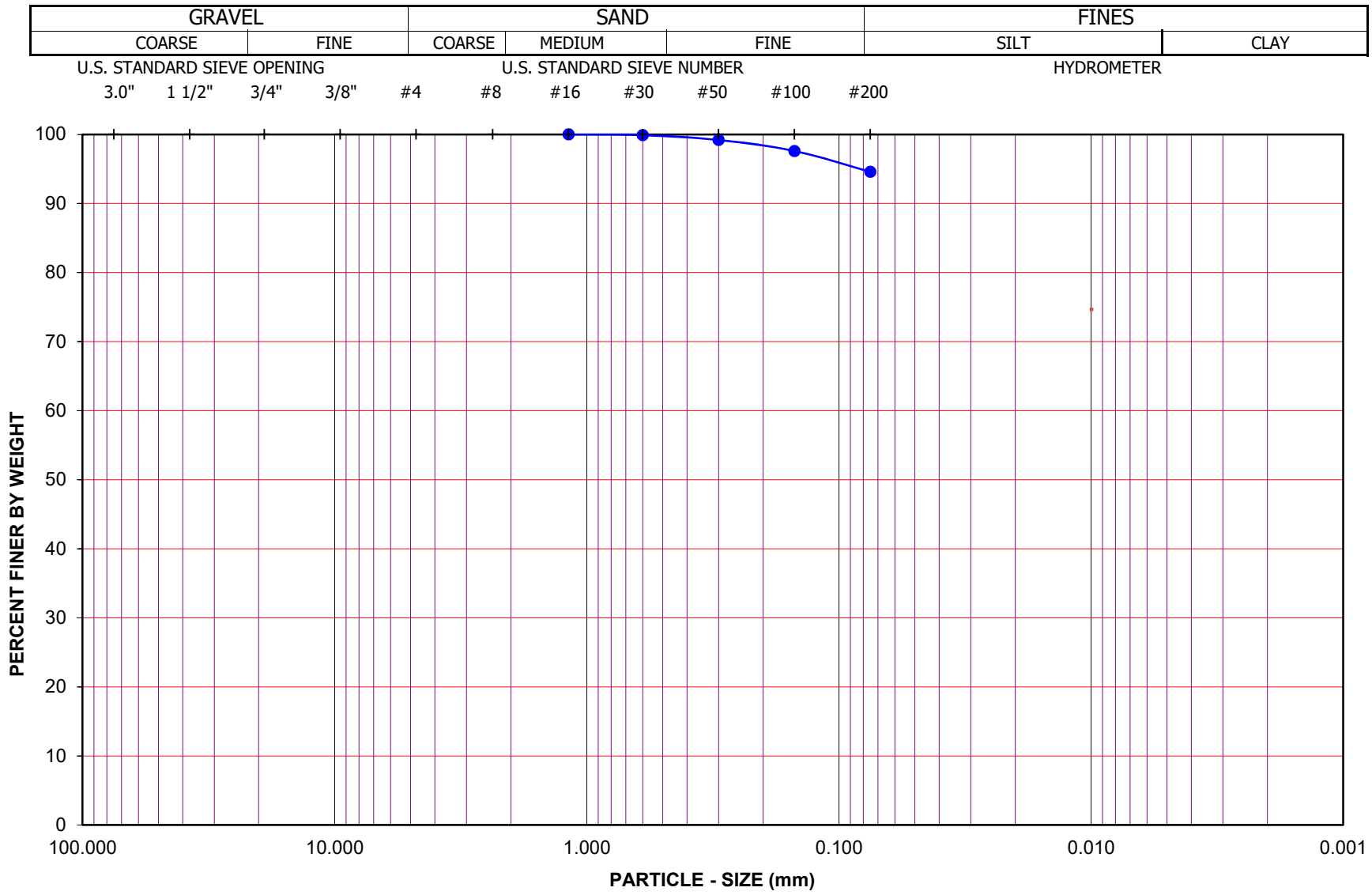
FINES: **95 %**

GROUP SYMBOL: **CL-ML**

Cu = D60/D10 = _____

Cc = $(D30)^2/(D60*D10)$ = _____

Remarks: _____



Project Name: Legacy-Collier, Proposed Euclid & Walnut Mixed-Use, Ontario CA

Project No.: 13493.001

Boring No.: LP-2 Sample No.: R-3

Depth (feet): 15.0 Soil Type : CL-ML

Soil Identification: Olive brown silty clay (CL-ML)

GR:SA:FI : (%) 0 : 5 : 95

Leighton

PARTICLE - SIZE DISTRIBUTION ASTM D 6913

3554

PARTICLE-SIZE DISTRIBUTION (GRADATION) of SOILS USING SIEVE ANALYSIS

ASTM D 6913

Project Name:	Legacy-Collier, Proposed Euclid & Walnut Mixed Use, Ontario CA	Tested By:	S. Felter	Date:	04/20/22
Project No.:	13493.001	Checked By:	A. Santos	Date:	04/25/22
Boring No.:	LP-2	Depth (feet):	18.5		
Sample No.:	R-4				
Soil Identification:	Olive brown silty sand (SM)				

		Moisture Content of Total Air - Dry Soil	
Container No.:	R-2	Wt. of Air-Dry Soil + Cont. (g)	0.0
Wt. of Air-Dried Soil + Cont.(g)	799.6	Wt. of Dry Soil + Cont. (g)	0.0
Wt. of Container (g)	107.7	Wt. of Container No._____ (g)	1.0
Dry Wt. of Soil (g)	691.9	Moisture Content (%)	0.0

After Wet Sieve	Container No.	R-2
	Wt. of Dry Soil + Container (g)	576.0
	Wt. of Container (g)	107.7
	Dry Wt. of Soil Retained on # 200 Sieve (g)	468.3

U. S. Sieve Size (in.)	U. S. Sieve Size (mm.)	Cumulative Weight Dry Soil Retained (g)	Percent Passing (%)
1 1/2"	37.5		
1"	25.0		
3/4"	19.0		
1/2"	12.5		
3/8"	9.5	0.0	100.0
#4	4.75	0.9	99.9
#8	2.36	3.8	99.5
#16	1.18	13.1	98.1
#30	0.600	43.5	93.7
#50	0.300	150.5	78.2
#100	0.150	340.6	50.8
#200	0.075	464.3	32.9
PAN			

GRAVEL: **0 %**

SAND: **67 %**

FINES: **33 %**

GROUP SYMBOL: **SM**

Cu = D60/D10 = _____

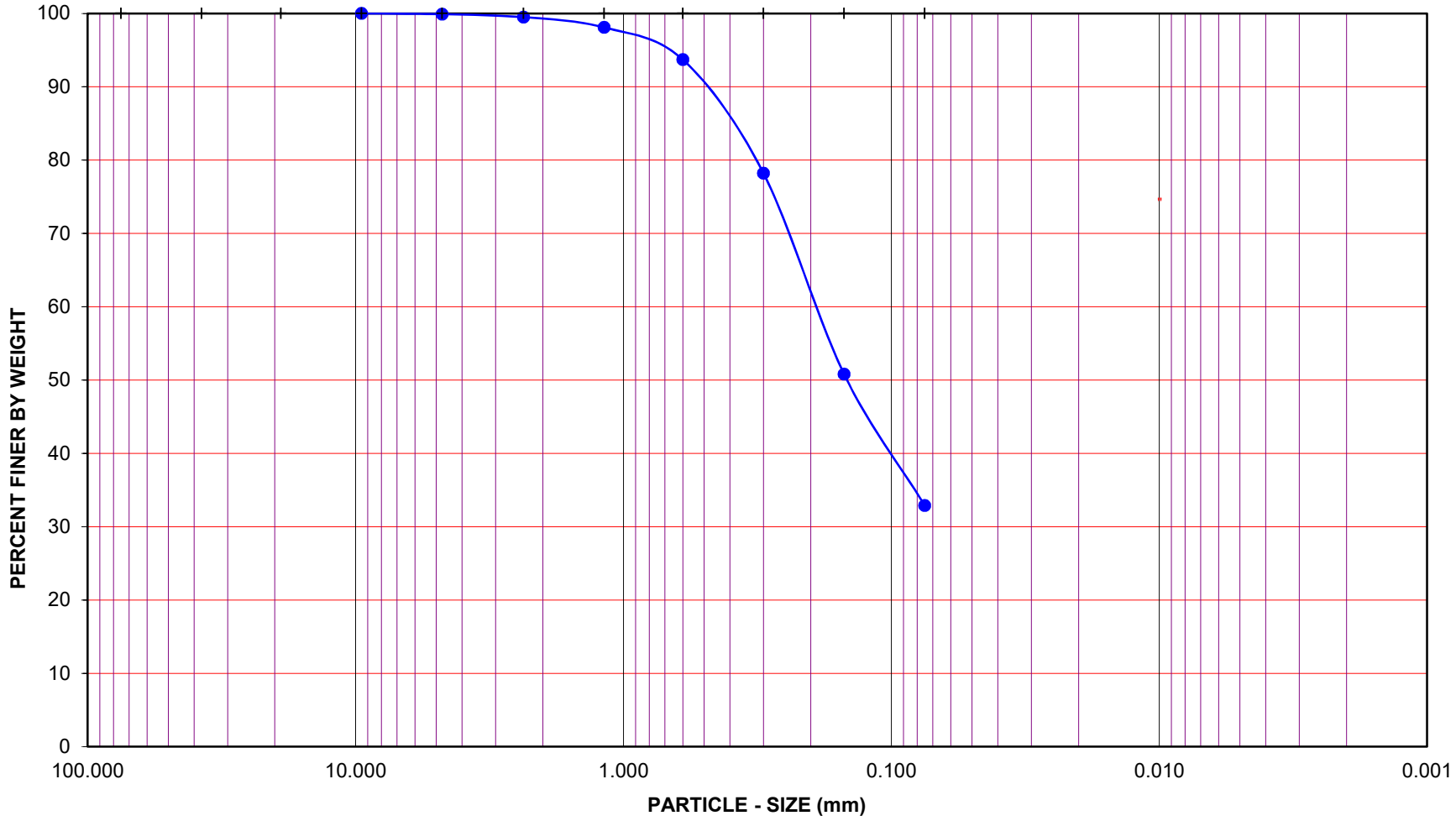
Cc = $(D30)^2/(D60*D10)$ = _____

Remarks: _____

GRAVEL		SAND			FINES	
COARSE	FINE	COARSE	MEDIUM	FINE	SILT	CLAY

U.S. STANDARD SIEVE OPENING — U.S. STANDARD SIEVE NUMBER — HYDROMETER

3.0" 1 1/2" 3/4" 3/8" #4 #8 #16 #30 #50 #100 #200



Project Name: Legacy-Collier, Proposed Euclid & Walnut Mixed Use, Ontario CA

Project No.: 13493.001

Boring No.: LP-2 Sample No.: R-4

Depth (feet): 18.5 Soil Type : SM

Soil Identification: Olive brown silty sand (SM)

GR:SA:FI : (%) 0 : 67 : 33

Leighton

PARTICLE - SIZE DISTRIBUTION ASTM D 6913

3556

Sieve LP-2, R-4 @ 18.5

ONE-DIMENSIONAL SWELL OR SETTLEMENT POTENTIAL OF COHESIVE SOILS

ASTM D 4546

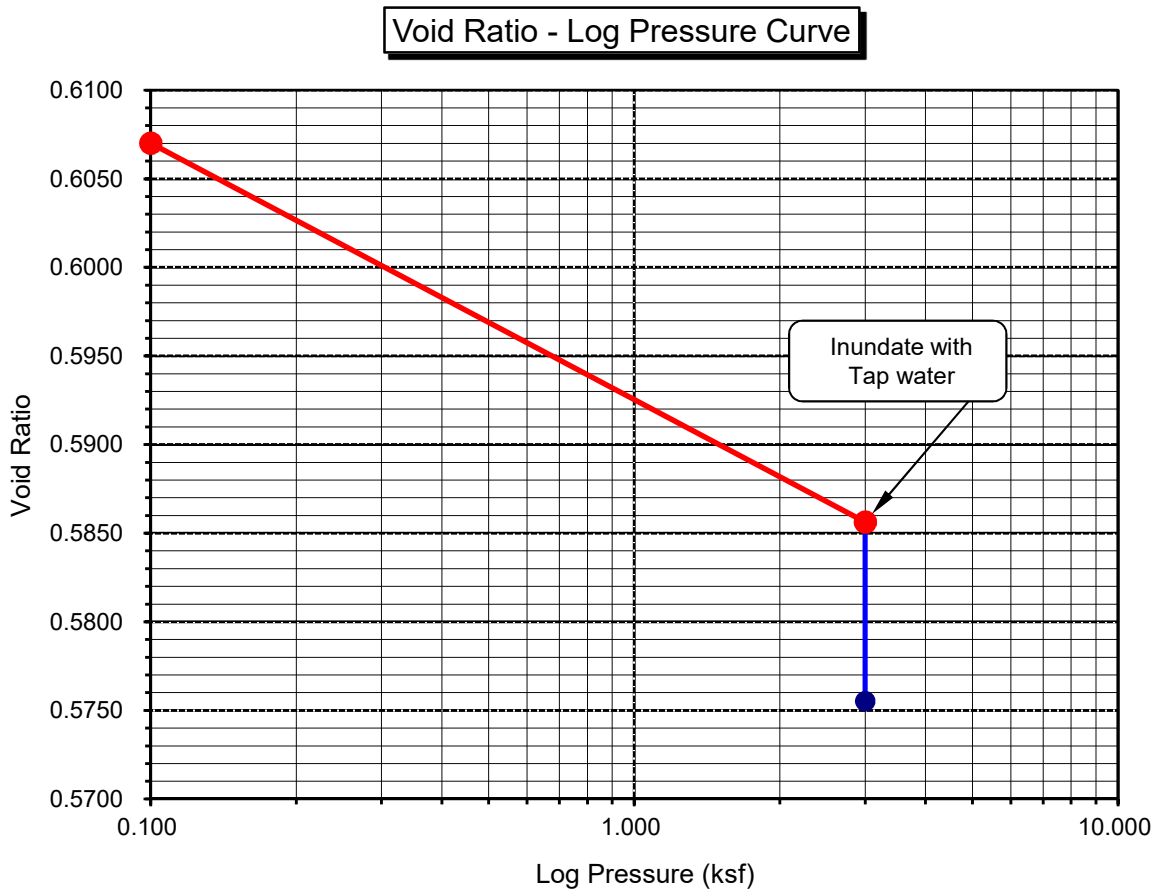
Project Name:	Legacy-Collier, Proposed Euclid & Walnut Mixed-Use, Ontario CA	Tested By:	G. Bathala	Date:	04/18/22
Project No.:	13493.001	Checked By:	A. Santos	Date:	04/26/22
Boring No.:	LB-1	Sample Type:	Ring		
Sample No.:	R-6	Depth (ft.)	25.0		
Sample Description:	Yellowish brown poorly-graded sand with silt (SP-SM)				

Initial Dry Density (pcf):	104.9
Initial Moisture (%):	3.61
Initial Length (in.):	1.0000
Initial Dial Reading:	0.3076
Diameter(in):	2.415

Final Dry Density (pcf):	107.0
Final Moisture (%) :	18.2
Initial Void Ratio:	0.6072
Specific Gravity(assumed):	2.70
Initial Saturation (%)	16.0

Pressure (p) (ksf)	Final Reading (in)	Apparent Thickness (in)	Load Compliance (%)	Swell (+) Settlement (-) % of Sample Thickness	Void Ratio	Corrected Deformation (%)
0.100	0.3075	0.9999	0.00	-0.01	0.6070	-0.01
3.000	0.2890	0.9814	0.52	-1.86	0.5856	-1.34
H2O	0.2827	0.9751	0.52	-2.49	0.5755	-1.97

Percent Swell (+) / Settlement (-) After Inundation = -0.64



ONE-DIMENSIONAL SWELL OR SETTLEMENT POTENTIAL OF COHESIVE SOILS

ASTM D 4546

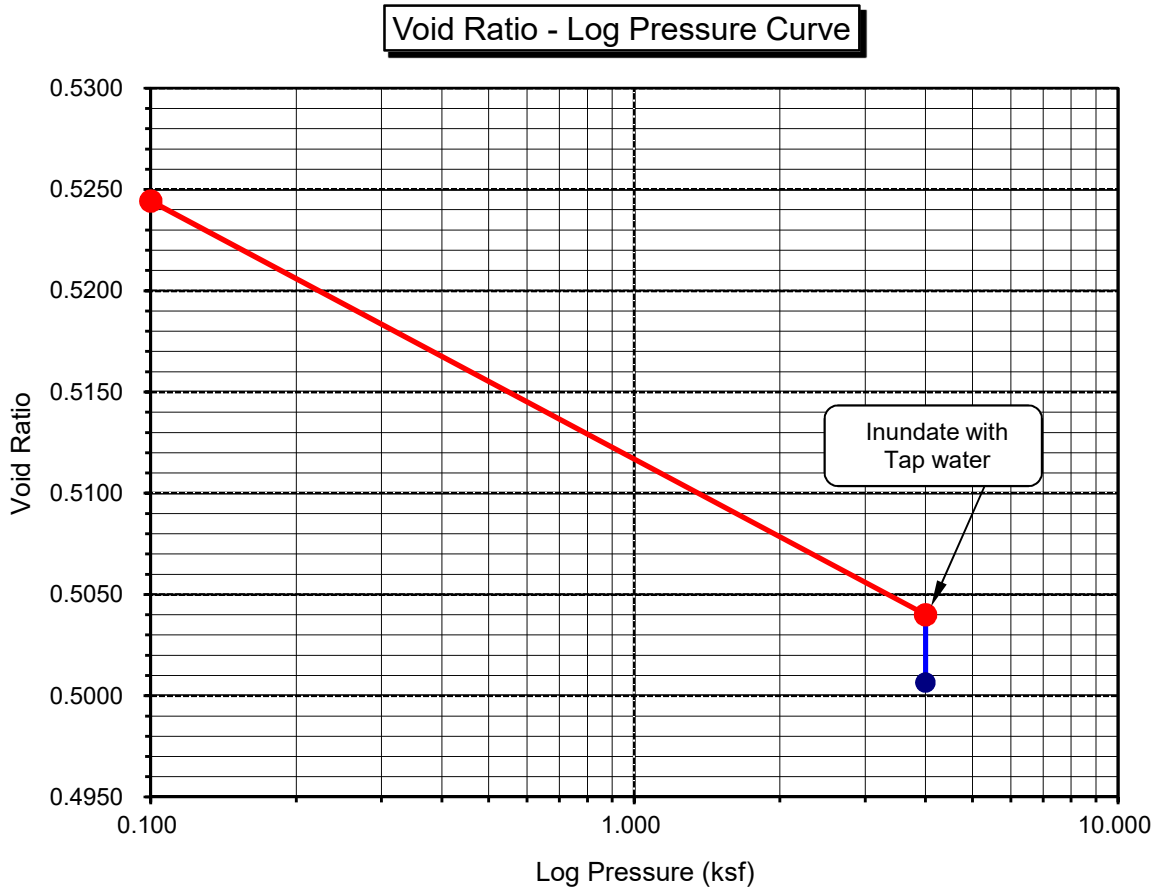
Project Name:	Legacy-Collier, Proposed Euclid & Walnut Mixed-Use, Ontario CA	Tested By:	G. Bathala	Date:	04/18/22
Project No.:	13493.001	Checked By:	A. Santos	Date:	04/26/22
Boring No.:	LB-1	Sample Type:	Ring		
Sample No.:	R-8	Depth (ft.)	35.0		
Sample Description:	Yellowish brown poorly-graded sand with silt (SP-SM)				

Initial Dry Density (pcf):	110.6
Initial Moisture (%):	3.30
Initial Length (in.):	1.0000
Initial Dial Reading:	0.3373
Diameter(in):	2.415

Final Dry Density (pcf):	112.3
Final Moisture (%) :	15.9
Initial Void Ratio:	0.5246
Specific Gravity(assumed):	2.70
Initial Saturation (%)	17.0

Pressure (p) (ksf)	Final Reading (in)	Apparent Thickness (in)	Load Compliance (%)	Swell (+) Settlement (-) % of Sample Thickness	Void Ratio	Corrected Deformation (%)
0.100	0.3372	0.9999	0.00	-0.01	0.5244	-0.01
4.000	0.3220	0.9847	0.18	-1.53	0.5040	-1.35
H2O	0.3198	0.9825	0.18	-1.75	0.5007	-1.57

Percent Swell (+) / Settlement (-) After Inundation = -0.22



November 29, 2022

Project No. 13493.002

Legacy/Collier Residential, LLC
5154 California Avenue
Irvine, California 92617

Attention: Mr. David Pinto

Subject: **Addendum to Geotechnical Exploration Report**
Infiltration Testing
Proposed "Euclid and Walnut Mixed Use" Development
112 Walnut Street, 2502 and 2530 Euclid Avenue
Ontario, San Bernardino County, California

Reference: Leighton and Associates, Inc., 2022, *Geotechnical Exploration Report, Proposed "Euclid and Walnut Mixed Use" Development, 112 Walnut Street, 2502 and 2530 Euclid Avenue, Ontario, California*, Project No. 13493.001, dated May 13, 2022.

Introduction

Per your request, Leighton and Associates, Inc. (Leighton) performed supplemental infiltration testing for the subject mixed use development. Additional field infiltration testing was performed in coordination with Mr. Steve Ellis of Fuscoe Engineering, Inc. (project civil engineer) to target the locations and depths planned for infiltration. While official infiltration plans were not available, we understand that stormwater infiltration is intended to be achieved utilizing a drywell system to be located in the southern portion of the site extending to approximate depths of no greater than 45 feet below ground surface (bgs).

Purpose and Scope

Purpose of our exploration was to perform field infiltration tests at the proposed device locations and invert depths. The test locations and depths were selected by the project civil engineer. Our Scope of Work included the following:

- ***Pre-Field Exploration Activities*** – Site reconnaissance performed by a professional geologist to mark the proposed infiltration test locations. Underground Service Alert

(USA) was notified to locate and mark existing underground utilities prior to our subsurface exploration.

- ***Field Exploration*** – Our supplemental subsurface exploration was performed on August 24, 2022 and included drilling, logging, and sampling of two (2) hollow-stem auger borings (designated LP-3 and LP-4) to depths ranging from approximately 40 to 45 feet below the existing ground surface. The approximate locations of these explorations are shown on Figure 1, *Geotechnical Map*. The corresponding boring logs are presented in Appendix A, *Exploration Logs.*

  During drilling of the hollow-stem auger borings drive samples were obtained from the borings for geotechnical laboratory testing. Sample collection was performed by conducting the Standard Penetration Test (SPT) within the borings in accordance with ASTM Test Method D 1586. Samples were collected within the proposed test infiltration zone at 5-foot intervals. During sampling, the sampler was driven below the bottom of the borehole by a 140-pound weight (hammer) free-falling 30 inches. The drilling rig was equipped with an automatic hammer to provide greater consistency in the drop height and striking frequency. The number of blows to drive the sampler the final 12 inches of the 18-inch drive interval is termed the “blowcount” or SPT N-value. N-values provide a measure of relative density in granular (non-cohesive) soils and comparative consistency in cohesive soils. Number of blows per 6 inches of penetration was recorded on the boring logs included in Appendix A.

  The borings were logged in the field by a geologist from our firm. Each soil sample collected was reviewed and described in accordance with the Unified Soil Classification System (USCS). The samples were sealed and packaged for transportation to our laboratory for testing. After completion of drilling, the borings were converted to percolation wells for subsequent testing.

- ***Percolation Testing*** – Borings LP-3 and LP-4 (Figure 1) were converted to temporary percolation test wells upon completion of drilling and sampling. The test wells consisted of 2-inch diameter slotted (0.020-inch) PVC well casing screened within the proposed test zone. In-situ percolation testing was performed in general accordance with the County of San Bernardino guidelines Upon completion of the percolation testing, the well casing was removed from each boring and the borings were backfilled with soil cuttings and patched at the surface to match existing site conditions.

- ***Laboratory Testing*** – Selected soil samples obtained from our hollow-stem-auger borings were tested at our in-house geotechnical laboratory. This laboratory testing

program was designed to evaluate the fines content of the soils within the tested zone (i.e. soil particles finer than the No. 200 sieve). . Results are included in Appendix C.

- ***Report Preparation*** – This report presents our findings, conclusions, and recommendations for the proposed infiltration devices.

Infiltration Testing

Percolation testing was performed in temporary wells installed within borings LP-3 and LP-4 located in the southern region of the site with test zone at depths of 25 to 45 feet bgs and 25 to 40 feet bgs, respectively. The percolation tests were conducted in general accordance with the *San Bernardino County Technical Guidance Document (TGD) for Water Quality Management Plans* (2013). Results of the percolation testing are presented in Appendix B. The test locations and tested depth intervals are shown on Plate 1.

A boring percolation test is useful for field measurements of the infiltration rate of soils, and is suited for testing when the design depth of the infiltration device is deeper than current existing grades, especially in areas where it is difficult to dig test pits, or where the depths of these test pits would be considerably deep. At the subject site, testing consisted of advancing the borings to the anticipated depth for the invert of the proposed infiltration devices.

The *Percolation Test Procedure* (falling-head test method) as outlined in the County Guidelines was implemented at each percolation test well location. The infiltration rate was calculated by dividing the rate of discharge by the infiltration surface area, or flow area. The volume of discharge was calculated by adding the total volume of water that dropped within the PVC pipe and within the annulus, and incorporating a porosity reduction factor to account for the porosity of the annulus material. The flow area was based on the average water height within the test well.

Detailed results of the field testing data and measured infiltration rate for the test well are presented in Appendix B. The test results are summarized in the table below:

Table 1 – Measured (Unfactored) Infiltration Rate

Test Well Designation	Approximate Depth of Test Zone (feet bgs)	Measured Infiltration Rate (inches per hour)
LB-3	25 to 45	0.14
LP-4	25 to 40	0.47

Based on the results of our field percolation testing that was performed at the site, the measured (unfactored) infiltration rates for the two (2) tests performed were 0.14 inches per hour (LP-3) and 0.47 inches per hour (LP-2), respectively. According to the *San Bernardino County Technical Guidance Document (TGD) for Water Quality Management Plans* (2013), the measured infiltration rate at the LP-4 well location technically exceeds the minimum feasibility criteria of 0.3 inch per hour. However, implementation of a minimum factor of safety of 2.0 as required for the design infiltration rate indicates the depth and location tested for both wells are considered infeasible for infiltration.

Closure

We appreciate the opportunity to work with you on this project. If you have any questions regarding this report, please contact us directly at the phone extensions and/or e-mail addresses listed below.





Respectfully submitted,

LEIGHTON AND ASSOCIATES, INC.

Eric M. Holliday, PG, 9219
Senior Project Geologist
Ext 4252, eholliday@leightongroup.com

John E. Haertle, PE, GE 2352
Principal Engineer
Ext: 4268, jhaertle@leightongroup.com

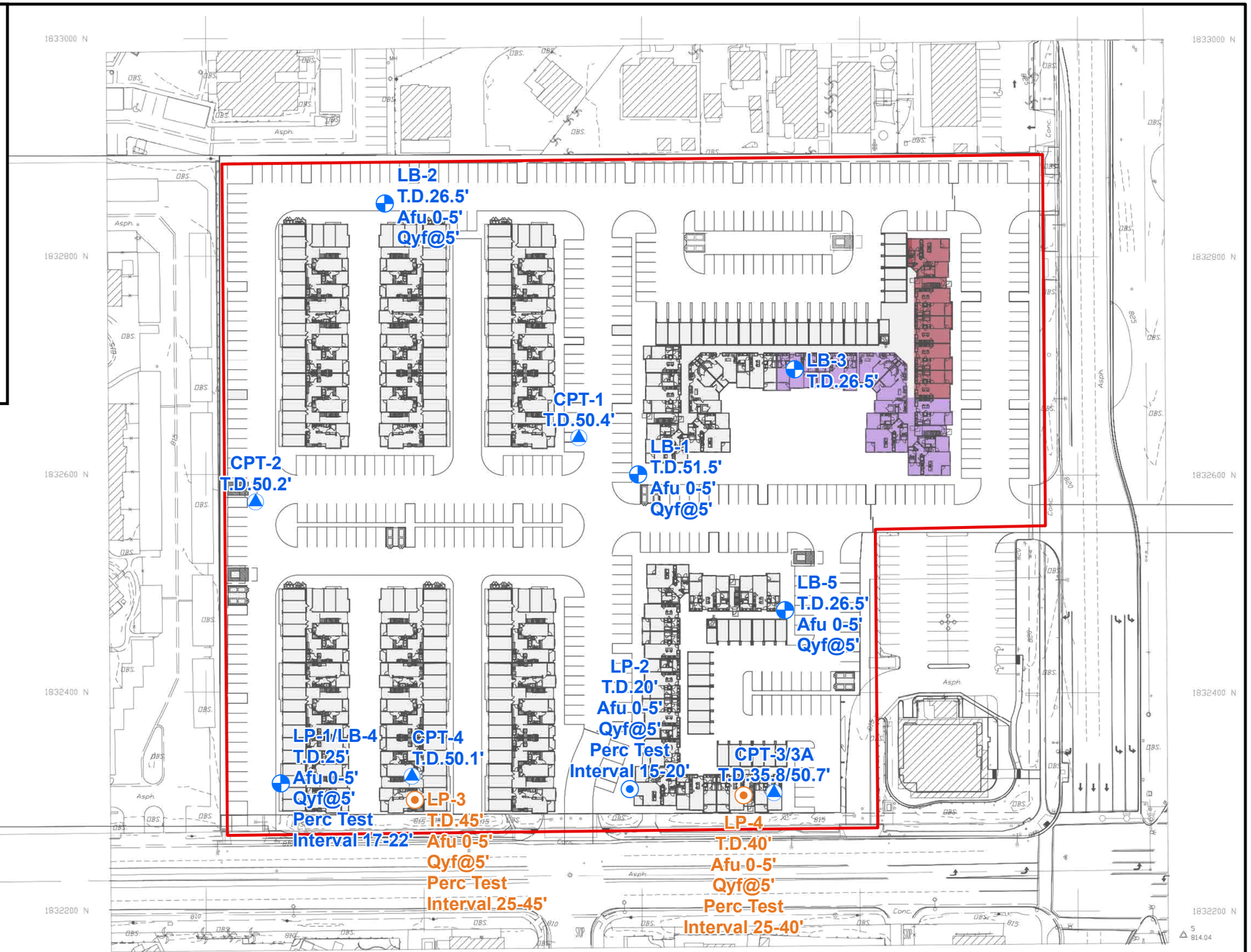
EMH/JEH/lr

Attachments: Figure 1 – *Geotechnical Map*
Appendix A - *Exploration Logs*
Appendix B - *Percolation Test Data*
Appendix C - *Geotechnical Laboratory Testing*

Distribution: (1) Addressee

LEGEND

Afu	Artificial Fill
Qyf	Quaternary Young Alluvial Fan Deposits
LP-4	Approximate location of current percolation test well showing percolation test interval in feet below ground surface.
LB-5	Approximate location of previous hollow-stem auger boring showing total depth (T.D.) and depth to earth units in feet below ground surface. (Leighton, 2022)
LP-2	Approximate location of previous percolation test well showing percolation test interval in feet below ground surface. (Leighton, 2022)
CPT-4	Approximate location of previous cone penetrometer test sounding showing total depth (T.D.) in feet below ground surface (Leighton, 2022)
	Approximate Site Boundary



N

0 100 200

Feet

Project: 13493.002	Eng/Geol: JEH/EMH
Scale: 1 " = 100 '	Date: November 2022

Base Map: Option A Site Plan, Euclid and Walnut Mixed Use
Sheet 01, Dated: 03/10/2022
by AO Architecture Design Relationships

GEOTECHNICAL MAP

Proposed Euclid and Walnut Mixed-Use Development
2502 and 2530 S. Euclid Avenue
Ontario, California

FIGURE 1

Leighton

Map Saved as J:\Drafting\13493\002\Maps\13493-002_F01_GM_2022-11-18.mxd on 11/18/2022 10:57:40 AM Author: KVM (btran)

APPENDIX A
Exploration Logs

GEOTECHNICAL BORING LOG LP-3

Project No.	13493.002	**Date Drilled**	8-24-22
Project	Proposed Euclid and Walnut Mixed-Use Development	**Logged By**	BTM
Drilling Co.	Martini Drilling, Corp.	**Hole Diameter**	8"
Drilling Method	Hollow Stem Auger - 140lb - Autohammer - 30" Drop	**Ground Elevation**	'
Location	See Figure 1 - *Geotechnical Map*	**Sampled By**	BTM

Elevation Feet	Depth Feet	Graphic Log	Attitudes	Sample No.	Bulk / Driven	Blows Per 6 Inches	Dry Density pcf	Moisture Content, %	Soil Class. (U.S.C.S.)	SOIL DESCRIPTION	Type of Tests
	0	N S								@Surface: 3 -inches Asphalt Concrete over 6 -inches Base	
									SM	**Artificial Fill, undocumented (Afu)** @0.75': Silty SAND, brown, slightly moist, very fine sand, trace medium to coarse sand and fine subrounded gravel	
	5									**Quaternary-Aged Young Alluvial Valley Deposits (Qyf)**	
	10										
	15										
	20			S-1		3 7 11			SM-ML	@20': Clayey Sandy SILT to Clayey Silty SAND, medium dense/very stiff, olive brown, slightly moist, very fine sand, low plasticity, slightly micaceous, friable, pockets of higher clay content	
	25			S-2		4 8 9			SM	@25': Silty SAND, medium dense, mottled reddish brown and grayish brown, slightly moist, very fine sand, nonplastic, slightly micaceous, friable, grading slightly finer toward bottom	-200
	30										

SAMPLE TYPES:

- B BULK SAMPLE
- C CORE SAMPLE
- G GRAB SAMPLE
- R RING SAMPLE
- S SPLIT SPOON SAMPLE
- T TUBE SAMPLE

TYPE OF TESTS:

- -200 % FINES PASSING
- AL ATTERBERG LIMITS
- CN CONSOLIDATION
- CO COLLAPSE
- CR CORROSION
- CU UNDRAINED TRIAXIAL
- DS DIRECT SHEAR
- EI EXPANSION INDEX
- H HYDROMETER
- MD MAXIMUM DENSITY
- PP POCKET PENETROMETER
- RV R VALUE
- SA SIEVE ANALYSIS
- SE SAND EQUIVALENT
- SG SPECIFIC GRAVITY
- UC UNCONFINED COMPRESSIVE STRENGTH

Leighton

*** This log is a part of a report by Leighton and should not be used as a stand-alone document. ***

GEOTECHNICAL BORING LOG LP-3

Project No.	13493.002	**Date Drilled**	8-24-22
Project	Proposed Euclid and Walnut Mixed-Use Development	**Logged By**	BTM
Drilling Co.	Martini Drilling, Corp.	**Hole Diameter**	8"
Drilling Method	Hollow Stem Auger - 140lb - Autohammer - 30" Drop	**Ground Elevation**	'
Location	See Figure 1 - *Geotechnical Map*	**Sampled By**	BTM

Elevation Feet	Depth Feet	Graphic Log (N / S)	Attitudes	Sample No.	Bulk / Driven	Blows Per 6 Inches	Dry Density pcf	Moisture Content, %	Soil Class. (U.S.C.S.)	SOIL DESCRIPTION	Type of Tests
	30			S-3		9 11 11			ML	@30': Sandy SILT, very stiff, mottled orange brown and grayish brown, slightly moist, very fine sand, trace coarse sand, nonplastic, friable, slightly micaceous	
	35			S-4		7 11 14			SM	@35': Silty SAND, medium dense, olive brown, moist, very fine sand, micaceous, friable	-200
				S-5		10 11 11			ML	@38.5': Sandy SILT, medium dense, brown, moist, very fine sand, nonplastic, micaceous, friable, trace medium sand	
	40										
				S-6		7 14 37			SM-ML	@43.5': Interbedded Clayey Sandy SILT and Silty SAND; Clayey Sandy SILT, hard, brown, slightly moist, fine to medium sand, low plasticity, slightly micaceous	
	45									Silty SAND, very dense, yellowish brown, slightly moist, very fine to fine sand, micaceous, nonplastic, friable	
										Total Depth: 45' bgs No groundwater encountered during drilling Temporary percolation well installed; screened from 25-45' Upon completion of percolation testing, boring backfilled with soil cuttings and patched with asphalt concrete.	
	50										
	55										
	60										

This Soil Description applies only to a location of the exploration at the time of sampling. Subsurface conditions may differ at other locations and may change with time. The description is a simplification of the actual conditions encountered. Transitions between soil types may be gradual.

SAMPLE TYPES:

B	BULK SAMPLE
C	CORE SAMPLE
G	GRAB SAMPLE
R	RING SAMPLE
S	SPLIT SPOON SAMPLE
T	TUBE SAMPLE

TYPE OF TESTS:

-200	% FINES PASSING	DS	DIRECT SHEAR	SA	SIEVE ANALYSIS
AL	ATTERBERG LIMITS	EI	EXPANSION INDEX	SE	SAND EQUIVALENT
CN	CONSOLIDATION	H	HYDROMETER	SG	SPECIFIC GRAVITY
CO	COLLAPSE	MD	MAXIMUM DENSITY	UC	UNCONFINED COMPRESSIVE STRENGTH
CR	CORROSION	PP	POCKET PENETROMETER		
CU	UNDRAINED TRIAXIAL	RV	R VALUE		

Leighton

*** * * This log is a part of a report by Leighton and should not be used as a stand-alone document. * * ***

GEOTECHNICAL BORING LOG LP-4

Project No.	13493.002	**Date Drilled**	8-24-22
Project	Proposed Euclid and Walnut Mixed-Use Development	**Logged By**	BTM
Drilling Co.	Martini Drilling, Corp.	**Hole Diameter**	8"
Drilling Method	Hollow Stem Auger - 140lb - Autohammer - 30" Drop	**Ground Elevation**	'
Location	See Figure 1 - *Geotechnical Map*	**Sampled By**	BTM

Elevation Feet	Depth Feet	Graphic Log	Attitudes	Sample No.	Bulk / Driven	Blows Per 6 Inches	Dry Density pcf	Moisture Content, %	Soil Class. (U.S.C.S.)	SOIL DESCRIPTION	Type of Tests
		N S								*This Soil Description applies only to a location of the exploration at the time of sampling. Subsurface conditions may differ at other locations and may change with time. The description is a simplification of the actual conditions encountered. Transitions between soil types may be gradual.*	
	0									@Surface: 4 -inches Asphalt Concrete over 5 -inches Base	
									SM	**Artificial Fill, undocumented (Afu)** @0.75': Silty SAND, brown, slightly moist, very fine sand, trace medium to coarse sand and fine subrounded gravel	
	5									**Quaternary-Aged Young Alluvial Valley Deposits (Qyf)**	
	10										
	15										
	20			S-1		4 5 5			CL/SM	@20': Silty CLAY, stiff, gray-brown, slightly moist, medium plasticity, few very fine sand; grading to Silty SAND, loose, brown, slightly moist, very fine sand, some silt, nonplastic, trace fine subangular gravel	-200
	25			S-2		5 7 8			SM-SC	@25': Silty SAND, medium dense, grayish brown to yellowish brown, slightly moist, very fine to fine sand, slightly micaceous, some silt; grading to Sandy CLAY/Clayey SAND, medium dense/stiff, reddish brown, slightly moist, very fine to fine sand, low plasticity, slightly micaceous	
	30										

SAMPLE TYPES:

- B BULK SAMPLE
- C CORE SAMPLE
- G GRAB SAMPLE
- R RING SAMPLE
- S SPLIT SPOON SAMPLE
- T TUBE SAMPLE

TYPE OF TESTS:

- -200 % FINES PASSING
- AL ATTERBERG LIMITS
- CN CONSOLIDATION
- CO COLLAPSE
- CR CORROSION
- CU UNDRAINED TRIAXIAL
- DS DIRECT SHEAR
- EI EXPANSION INDEX
- H HYDROMETER
- MD MAXIMUM DENSITY
- PP POCKET PENETROMETER
- RV R VALUE
- SA SIEVE ANALYSIS
- SE SAND EQUIVALENT
- SG SPECIFIC GRAVITY
- UC UNCONFINED COMPRESSIVE STRENGTH

Leighton

*** This log is a part of a report by Leighton and should not be used as a stand-alone document. ***

GEOTECHNICAL BORING LOG LP-4

Project No.	13493.002	**Date Drilled**	8-24-22
Project	Proposed Euclid and Walnut Mixed-Use Development	**Logged By**	BTM
Drilling Co.	Martini Drilling, Corp.	**Hole Diameter**	8"
Drilling Method	Hollow Stem Auger - 140lb - Autohammer - 30" Drop	**Ground Elevation**	'
Location	See Figure 1 - *Geotechnical Map*	**Sampled By**	BTM

Elevation Feet	Depth Feet	Graphic Log (N / S)	Attitudes	Sample No.	Bulk / Driven	Blows Per 6 Inches	Dry Density pcf	Moisture Content, %	Soil Class. (U.S.C.S.)	SOIL DESCRIPTION	Type of Tests
	30			S-3		8 9 12			SM	@30': Silty SAND, medium dense, orange brown, slightly moist, very fine sand, slightly micaceous, nonplastic, friable	
	35			S-4		8 38 50/5"			SP	@35': Grading to Silty Gravelly SAND, very dense, whitish tan, slightly moist, fine to coarse sand, some fine subangular to subrounded gravel (granitic)	-200
				S-5		15 21 25			SM	@38.5': Silty SAND, dense, brown, slightly moist, very fine to fine sand, some silt, nonplastic, slightly micaceous, friable	
	40									Total Depth: 40' bgs No groundwater encountered during drilling Temporary percolation well installed; screened from 25-40' Upon completion of percolation testing, boring backfilled with soil cuttings and patched with asphalt concrete.	
	45										
	50										
	55										
	60										

SAMPLE TYPES:

- B BULK SAMPLE
- C CORE SAMPLE
- G GRAB SAMPLE
- R RING SAMPLE
- S SPLIT SPOON SAMPLE
- T TUBE SAMPLE

TYPE OF TESTS:

- -200 % FINES PASSING
- AL ATTERBERG LIMITS
- CN CONSOLIDATION
- CO COLLAPSE
- CR CORROSION
- CU UNDRAINED TRIAXIAL
- DS DIRECT SHEAR
- EI EXPANSION INDEX
- H HYDROMETER
- MD MAXIMUM DENSITY
- PP POCKET PENETROMETER
- RV R VALUE
- SA SIEVE ANALYSIS
- SE SAND EQUIVALENT
- SG SPECIFIC GRAVITY
- UC UNCONFINED COMPRESSIVE STRENGTH

Leighton

*** This log is a part of a report by Leighton and should not be used as a stand-alone document. ***

APPENDIX B

Percolation Test Data

Boring Percolation Test Data Sheet

Project Number:	13493.002	**Test Hole Number:**	LP-3	
Project Name:	Legacy - Collier	**Date Excavated:**	8/24/2022	
Earth Description:	Alluvium	**Date Tested:**	8/24/2022	
Liquid Description:	Tap water	**Depth of boring (ft):**	45	
Tested By:	BTM	**Radius of boring (in):**	4	
Time Interval Standard		**Radius of casing (in):**	1	
Start Time for Pre-Soak:	11:25	**Length of slotted of casing (ft):**		20
Start Time for Standard:	12:21	**Depth to Initial Water Depth (ft):**		25.05
Standard Time Interval		**Porosity of Annulus Material, *n* :**		1
Between Readings, mins:	10	**Bentonite Plug at Bottom:** No		

Percolation Data

Reading	Time	Time Interval, Δt (min.)	Initial/Final Depth to Water (ft.)	Initial/Final Water Height, H_0/H_f (in.)	Total Water Drop, Δd (in.)	Percolation Rate (min./in.)	Infiltration Rate (in./hr.)
1	11:25	25	25.05	239.4	17.5	1.43	0.36
	11:50		26.51	221.9			
2	11:54	25	25.00	240.0	15.4	1.63	0.31
	12:19		26.28	224.6			
3	12:21	10	25.00	240.0	6.4	1.57	0.32
	12:31		25.53	233.6			
4	12:33	10	25.00	240.0	5.4	1.85	0.27
	12:43		25.45	234.6			
5	12:44	10	25.00	240.0	4.6	2.19	0.23
	12:54		25.38	235.4			
6	12:58	10	25.00	240.0	4.2	2.38	0.21
	13:08		25.35	235.8			
7	13:17	10	25.00	240.0	3.1	3.21	0.16
	13:27		25.26	236.9			
8	13:29	10	25.00	240.0	2.9	3.47	0.14
	13:39		25.24	237.1			

Infiltration Rate (I) = Discharge Volume/Surface Area of Test Section/Time Interval

Infiltration Rate, I (Last Reading) = **0.14** **in./hr.**

Boring Percolation Test Data Sheet

Project Number:	13493.002	**Test Hole Number:**	LP-4	
Project Name:	Legacy - Collier	**Date Excavated:**	8/24/2022	
Earth Description:	Alluvium	**Date Tested:**	8/24/2022	
Liquid Description:	Tap water	**Depth of boring (ft):**	40	
Tested By:	BTM	**Radius of boring (in):**	4	
Time Interval Standard		**Radius of casing (in):**	1	
Start Time for Pre-Soak:	10:21	**Length of slotted of casing (ft):**		15
Start Time for Standard:	11:20	**Depth to Initial Water Depth (ft):**		25.00
Standard Time Interval		**Porosity of Annulus Material, *n* :**		1
Between Readings, mins:	10	**Bentonite Plug at Bottom:** No		

Percolation Data

Reading	Time	Time Interval, Δt (min.)	Initial/Final Depth to Water (ft.)	Initial/Final Water Height, H_0/H_f (in.)	Total Water Drop, Δd (in.)	Percolation Rate (min./in.)	Infiltration Rate (in./hr.)
1	10:21	25	25.00	180.0	38.6	0.65	1.14
	10:46		28.22	141.4			
2	10:51	25	25.02	179.8	32.5	0.77	0.94
	11:16		27.73	147.2			
3	11:20	10	25.00	180.0	12.6	0.79	0.86
	11:30		26.05	167.4			
4	11:32	10	25.00	180.0	10.8	0.93	0.73
	11:42		25.90	169.2			
5	11:46	10	25.00	180.0	10.2	0.98	0.69
	11:56		25.85	169.8			
6	12:00	10	25.00	180.0	8.5	1.17	0.58
	12:10		25.71	171.5			
7	12:13	10	25.00	180.0	8.4	1.19	0.57
	12:23		25.70	171.6			
8	12:27	10	25.00	180.0	7.0	1.44	0.47
	12:37		25.58	173.0			
9	12:38	10	25.02	179.8	6.8	1.46	0.46
	12:48		25.59	172.9			
10	12:50	10	25.00	180.0	7.0	1.44	0.47
	13:00		25.58	173.0			

Infiltration Rate (I) = Discharge Volume/Surface Area of Test Section/Time Interval

Infiltration Rate, I (Last Reading) = **0.47** **in./hr.**

APPENDIX C

Geotechnical Laboratory Testing

Boring No.	LP-3	LP-3	LP-4	LP-4				
Sample No.	S-2	S-4	S-1	S-4				
Depth (ft.)	25.0	35.0	20.0	35.0				
Sample Type	SPT	SPT	SPT	SPT				
Soil Identification	Yellowish brown silty sand (SM)	Light olive brown silty sand (SM)	Light olive brown sandy silt s(ML)	Light olive brown silty sand with gravel (SM)g				
Moisture Correction								
Wet Weight of Soil + Container (g)	0.00	0.00	0.00	0.00				
Dry Weight of Soil + Container (g)	0.00	0.00	0.00	0.00				
Weight of Container (g)	1.00	1.00	1.00	1.00				
Moisture Content (%)	0.00	0.00	0.00	0.00				
Sample Dry Weight Determination								
Weight of Sample + Container (g)	616.90	794.40	588.90	847.80				
Weight of Container (g)	108.60	108.50	107.30	108.00				
Weight of Dry Sample (g)	508.30	685.90	481.60	739.80				
Container No.:	V-1	927	936	957				
After Wash								
Method (A or B)	A	A	A	A				
Dry Weight of Sample + Cont. (g)	411.10	609.70	340.00	732.50				
Weight of Container (g)	108.60	108.50	107.30	108.00				
Dry Weight of Sample (g)	302.50	501.20	232.70	624.50				
% Passing No. 200 Sieve	**40.5**	**26.9**	**51.7**	**15.6**				
% Retained No. 200 Sieve	59.5	73.1	48.3	84.4				

Leighton

PERCENT PASSING
No. 200 SIEVE
ASTM D 1140

Project Name: Legacy - Ontario
Project No.: 13493.002

Tested By: J. Domingo Date: 09/12/22

3573

Passing #200 LP-3 and LP-4

DESIGN INFILTRATION RATE AND FACTOR OF SAFETY CALCULATION

VII.4.1. Site Suitability Considerations

Suitability assessment related considerations include (**Table VII.3**):

- Soil assessment methods – the site assessment extent (e.g., number of borings, test pits, etc.) and the measurement method used to estimate the short-term infiltration rate.
- Predominant soil texture/percent fines – soil texture and the percent of fines can greatly influence the potential for clogging.
- Site soil variability – site with spatially heterogeneous soils (vertically or horizontally) as determined from site investigations are more difficult to estimate average properties for resulting in a higher level of uncertainty associated with initial estimates.
- Depth to seasonal high groundwater/impervious layer – groundwater mounding may become an issue during excessively wet conditions where shallow aquifers or shallow clay lenses are present.

Table VII.3: Suitability Assessment Related Considerations for Infiltration Facility Safety Factors

Consideration	High Concern	Medium Concern	Low Concern
Assessment methods (see explanation below)	Use of soil survey maps or simple texture analysis to estimate short-term infiltration rates	Direct measurement of ≥ 20 percent of infiltration area with localized infiltration measurement methods (e.g., infiltrometer)	Direct measurement of ≥ 50 percent of infiltration area with localized infiltration measurement methods or Use of extensive test pit infiltration measurement methods
Texture Class	Silty and clayey soils with significant fines	Loamy soils	Granular to slightly loamy soils
Site soil variability	Highly variable soils indicated from site assessment or limited soil borings collected during site assessment	Soil borings/test pits indicate moderately homogeneous soils	Multiple soil borings/test pits indicate relatively homogeneous soils
Depth to groundwater/ impervious layer	<5 ft below facility bottom	5-10 ft below facility bottom	>10 below facility bottom

Localized infiltration testing refers to methods such as the double ring infiltrometer test (ASTM D3385-88) which measure infiltration rates over an area less than 10 sq-ft, may include lateral

Table VII.4: Design Related Considerations for Infiltration Facility Safety Factors

Consideration	High Concern	Medium Concern	Low Concern
Tributary area size	Greater than 10 acres.	Greater than 2 acres but less than 10 acres.	2 acres or less.
Level of pretreatment/ expected influent sediment loads	Pretreatment from gross solids removal devices only, such as hydrodynamic separators, racks and screens AND tributary area includes landscaped areas, steep slopes, high traffic areas, or any other areas expected to produce high sediment, trash, or debris loads.	Good pretreatment with BMPs that mitigate coarse sediments such as vegetated swales AND influent sediment loads from the tributary area are expected to be relatively low (e.g., low traffic, mild slopes, disconnected impervious areas, etc.).	Excellent pretreatment with BMPs that mitigate fine sediments such as bioretention or media filtration OR sedimentation or facility only treats runoff from relatively clean surfaces, such as rooftops.
Redundancy of treatment	No redundancy in BMP treatment train.	Medium redundancy, other BMPs available in treatment train to maintain at least 50% of function of facility in event of failure.	High redundancy, multiple components capable of operating independently and in parallel, maintaining at least 90% of facility functionality in event of failure.
Compaction during construction	Construction of facility on a compacted site or elevated probability of unintended/ indirect compaction.	Medium probability of unintended/ indirect compaction.	Heavy equipment actively prohibited from infiltration areas during construction and low probability of unintended/ indirect compaction.

VII.4.3. Determining Factor of Safety

A factor of safety shall be used. To assist in selecting the appropriate design infiltration rate, the measured short term infiltration rate should be adjusted using a weighted average of several safety factors using the worksheet shown in **Worksheet H** below. The design infiltration rate would be determined as follows:

1. For each consideration shown in **Table VII.3** and **Table VII.4** above, determine whether the consideration is a high, medium, or low concern.
2. For all high concerns, assign a factor value of 3, for medium concerns, assign a factor value of 2, and for low concerns assign a factor value of 1.
3. Multiply each of the factors by the corresponding weight to get a product.
4. Sum the products within each factor category to obtain a safety factor for each.
5. Multiply the two safety factors together to get the final combined safety factor. If the combined safety factor is less than 2, then 2 shall be used as the safety factor.
6. Divide the measured short term infiltration rate by the combined safety factor to obtain the adjusted design infiltration rate for use in sizing the infiltration facility.

The design infiltration rate shall be used to size BMPs and to evaluate their expected long term performance. This rate shall not be less than 2, but may be higher at the discretion of the design engineer.

Worksheet H: Factor of Safety and Design Infiltration Rate and Worksheet

Factor Category		Factor Description	Assigned Weight (w)	Factor Value (v)	Product (p) p = w x v
A	Suitability Assessment	Soil assessment methods	0.25	**1**	**0.25**
		Predominant soil texture	0.25	**1**	**0.25**
		Site soil variability	0.25	**2**	**0.50**
		Depth to groundwater / impervious layer	0.25	**1**	**0.25**
		Suitability Assessment Safety Factor, $S_A = \Sigma p$			**1.25**
B	Design	Tributary area size **Area is < 10ac**	0.25	**2**	**0.50**
		Level of pretreatment/ expected sediment loads	0.25	**3**	**0.75**
		Redundancy	0.25	**3**	**0.75**
		Compaction during construction	0.25	**3**	**0.75**
		Design Safety Factor, $S_B = \Sigma p$			**2.75**
Combined Safety Factor, $S_{TOT} = S_A \times S_B$			**1.25X2.75**		**3.44**
Measured Infiltration Rate, inch/hr, K_M (corrected for test-specific bias)			**@ Test LP2:** **@ Test LP4:**		**0.69 in/hr** **0.47 in/hr**
Design Infiltration Rate, in/hr, $K_{DESIGN} = S_{TOT} \times K_M$			**0.69/3.44** **0.47/3.44**		**0.20 in/hr** **0.14 in/hr**

Supporting Data

Briefly describe infiltration test and provide reference to test forms:
Please see attached Infiltration test report for detail of testing.

As the design infiltration rates are less than 0.33 in/hour, the INFILTRATION BMP's are not recommended and not proposed

Note: The minimum combined adjustment factor shall not be less than 2.0 and the maximum combined adjustment factor shall not exceed 9.0.

Addendum Appendix D

LINSCOTT LAW & GREENSPAN
engineers

Engineers & Planners
Traffic
Transportation
Parking

Linscott, Law & Greenspan, Engineers
2 Executive Circle
Suite 250
Irvine, CA 92614
949.825.6175 T
949.825.6173 F
www.llgengineers.com

Pasadena
Irvine
San Diego
Woodland Hills

June 23, 2022

Benjamin Mount
Legacy/Colliers Residential, LLC
5141 California Avenue, Suite 100
Irvine, CA 92617
Email: bmount@legacypartners.com

LLG Reference: 2.22.4563.1

Subject: **Trip Generation Assessment for the Euclid Avenue Mixed-Use Apartment Project**
Ontario, California

Dear Mr. Mount:

Linscott, Law & Greenspan, Engineers (LLG) is pleased to submit this Trip Generation Assessment associated for the Euclid Avenue Mixed-Use Apartment Project (hereinafter referred to as "Project") in the City of Ontario, California.

This letter summarizes the traffic generation forecast potential for the proposed demolition of an existing commercial center consisting of an 11,450 SF strip retail center, 4,100 SF fast-food restaurant with drive-through (Carl's Jr.), and an 89,500 SF K-Mart/Sears appliance repair shop and the construction of 376 apartment units with 10,898 SF of ground floor retail space.

PROJECT DESCRIPTION

The Project site is a 9.4±-acre parcel of land that is located north of Walnut Street and west of Euclid Avenue in the City of Ontario, California. The subject property is currently developed with a 11,450 SF strip retail center, 4,100 SF fast-food restaurant with drive-through (Carl's Jr.), and a vacant 89,500 SF K-Mart/Sears appliance repair shop. ***Figure 1***, located at the rear of this letter report, presents a Vicinity Map, which illustrates the general location of the project and the surrounding street system.

The Project is proposing to demolish the existing commercial center and construct a total of 376 apartment units with 10,898 SF of ground floor retail. The Project is expected to be completed in two phases. Phase 1 would leave the existing Carl's Jr. site untouched and includes of the development of 4,500 SF ground floor retail space and 346 apartment units consisting of 18 studio units, 190 one-bedroom units, and 138 two-bedroom units. Phase 2 would consist of replacing the existing Carl's Jr. with additional 30 apartment units and 6,398 SF of ground floor retail space.

Philip M. Linscott, PE (1924-2000)
Jack M. Greenspan, PE (Ret.)
William A. Law, PE (Ret.)
Paul W. Wilkinson, PE
John P. Keating, PE
David S. Shender, PE
John A. Boarman, PE
Clare M. Look-Jaeger, PE
Richard E. Barretto, PE
Keil D. Maberry, PE

The proposed Project will provide a total of 625 parking spaces for the residential component and 44 parking spaces for the retail component. Out of the total parking provided, Phase 1 will provide 587 residential spaces and 18 retail spaces, and Phase 2 will provide 38 residential spaces and 26 retail spaces.

Vehicular access is proposed via two right-turn only driveways located along Euclid Avenue and three full access unsignalized driveways located along Walnut Street in close proximity to the site's current driveways. It should be noted that the project is proposing gated access to the residential component.

Figure 2 presents an existing aerial photograph of the Project site. ***Figure 3*** presents the proposed site plan for the Project Site.

PROJECT TRAFFIC CHARACTERISTICS

Trip Generation Forecast

Traffic generation is expressed in vehicle trip ends, defined as one-way vehicular movements, either entering or exiting the generating land use. Generation factors and/or equations used in this analysis are based on information found in the 11th Edition of *Trip Generation,* published by the Institute of Transportation Engineers (ITE) [Washington, D.C., 2021].

As presented in upper portion of ***Table 1,*** the trip generation potential of the proposed Project and the existing/entitled land use has been estimated using the average rates for the following:

- ITE Land Use Code 221: Multifamily Housing (Mid-Rise)
- ITE Land Use Code 822: Strip Retail Plaza (<40K)
- ITE Land Use Coed 875: Department Store
- ITE Land Use Code 934: Fast Food Restaurant with Drive-Through Window

The middle portion of *Table 1* summarizes the trip generation potential of the existing/entitled land uses and the proposed Project for Phase 1. As shown, the existing/entitled land use is forecast to generate 2,605 daily trips, with 71 trips (44 inbound, 27 outbound) produced in the AM peak hour and 150 trips (76 inbound, 74 outbound) produced in the PM peak hour. The proposed Project is forecast to generate 1,791 daily trips, with 138 trips (35 inbound, 103 outbound) produced in the AM peak hour and 153 trips (91 inbound, 62 outbound) produced in the PM peak hour. Comparison of the trips generated by the proposed Project to the trips generated by the existing/entitled land use indicates that the proposed Project will generate 814

fewer daily trips, 67 *more* AM peak hour trips, and 3 *fewer* PM peak hour trips as part of Phase 1.

The lower portion of *Table 1* summarizes the trip generation potential of the existing/entitled land use and the proposed Project for Phase 2. As shown, the existing/entitled land use is forecast to generate 1,438 daily trips, with 91 trips (46 inbound, 45 outbound) produced in the AM peak hour and 61 trips (31 inbound, 30 outbound) produced in the PM peak hour. The proposed Project is forecast to generate 449 daily trips, with 24 trips (11 inbound, 13 outbound) produced in the AM peak hour and 37 trips (20 inbound, 17 outbound) produced in the PM peak hour. Comparison of the trips generated by the proposed Project to the trips generated by the existing/entitled land use indicates that the proposed Project will generate 989 *fewer* daily trips, 67 *fewer* AM peak hour trips, and 24 *fewer* PM peak hour trips as part of Phase 2.

The last row of *Table 1* shows the "net" trip generation potential of both Phases 1 and 2 of the proposed Project combined. As shown, the entirety of the proposed Project is forecast to result in 1,803 *fewer* daily trips, 0 AM peak hour trips, and 21 *fewer* PM peak hour trips when compared to the existing/entitled land uses.

CONCLUSION

Based on the findings above, the proposed Project (Phase 1 and 2) results in a lower trip generation forecast when compared to the existing/entitled land use. Therefore, it is concluded that the proposed Project can be expected to generate trips that would be within the trip budget originally approved for the Project site and would not create any new traffic impacts.

* * * * * * * * * *

We appreciate the opportunity to be of service on this Project. Should you need further assistance, or have any questions regarding this analysis, please call us at (949) 825-6175.

Sincerely,

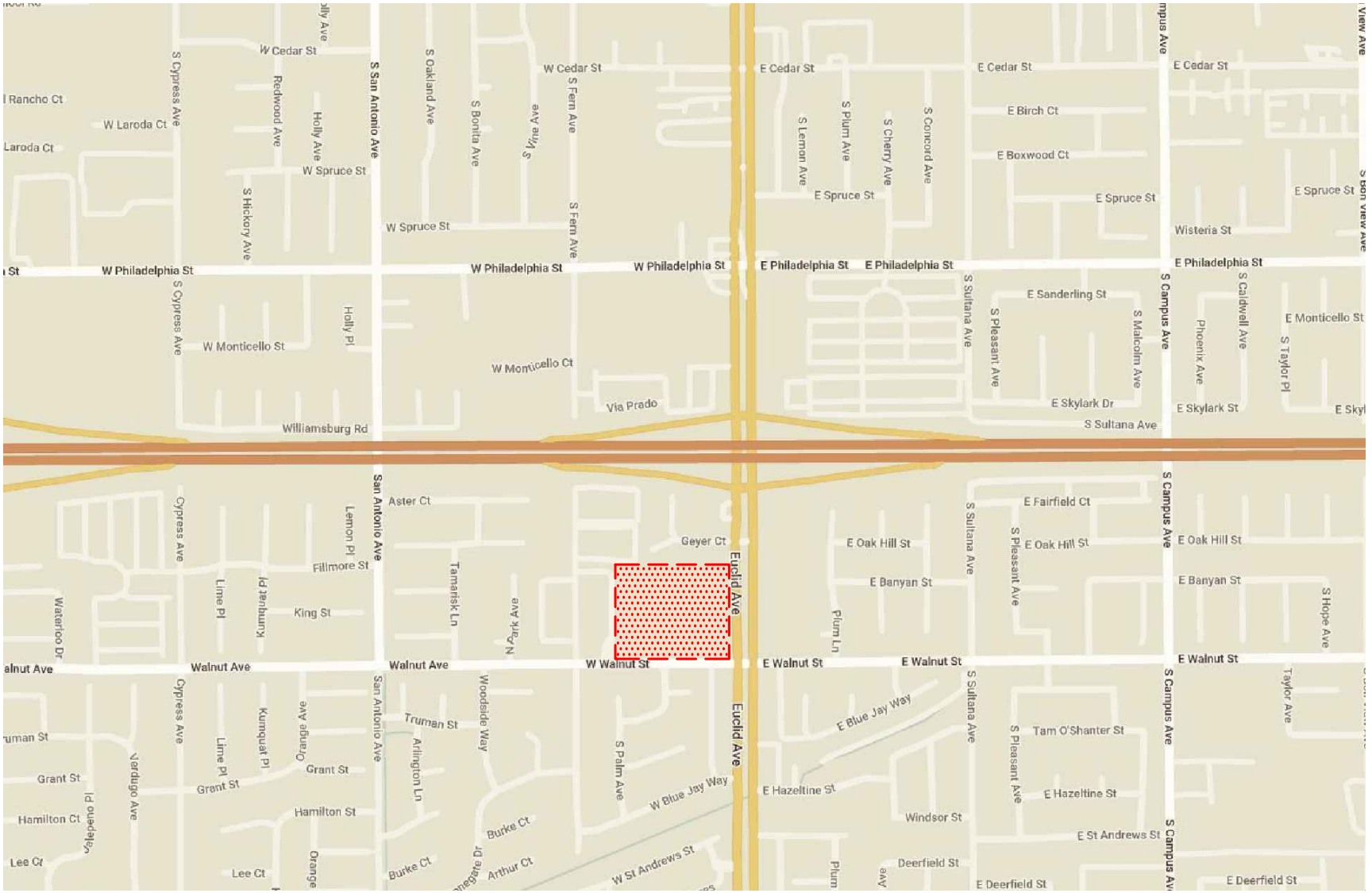
Linscott, Law & Greenspan, Engineers



Richard E. Barretto, P.E.
Principal

Cc. Shane S. Green, P.E., Senior Transportation Engineer

Attachments



n:\4500\2224563 – euclid residential, ontario\dwg\4563 f-1.dwg LDP 15:35:07 06-09-2022 kopulsky

LINSCOTT LAW & GREENSPAN engineers

N NO SCALE

SOURCE: GOOGLE

KEY

= PROJECT SITE

FIGURE 1

VICINITY MAP

EUCLID AVENUE MIXED–USE APARTMENTS, ONTARIO



n:\4500\2224563 - euclid residential, ontario\dwg\4563 f-2.dwg LDP 15:49:35 06-09-2022 kopulsky

LINSCOTT LAW & GREENSPAN engineers

N NO SCALE

SOURCE: GOOGLE

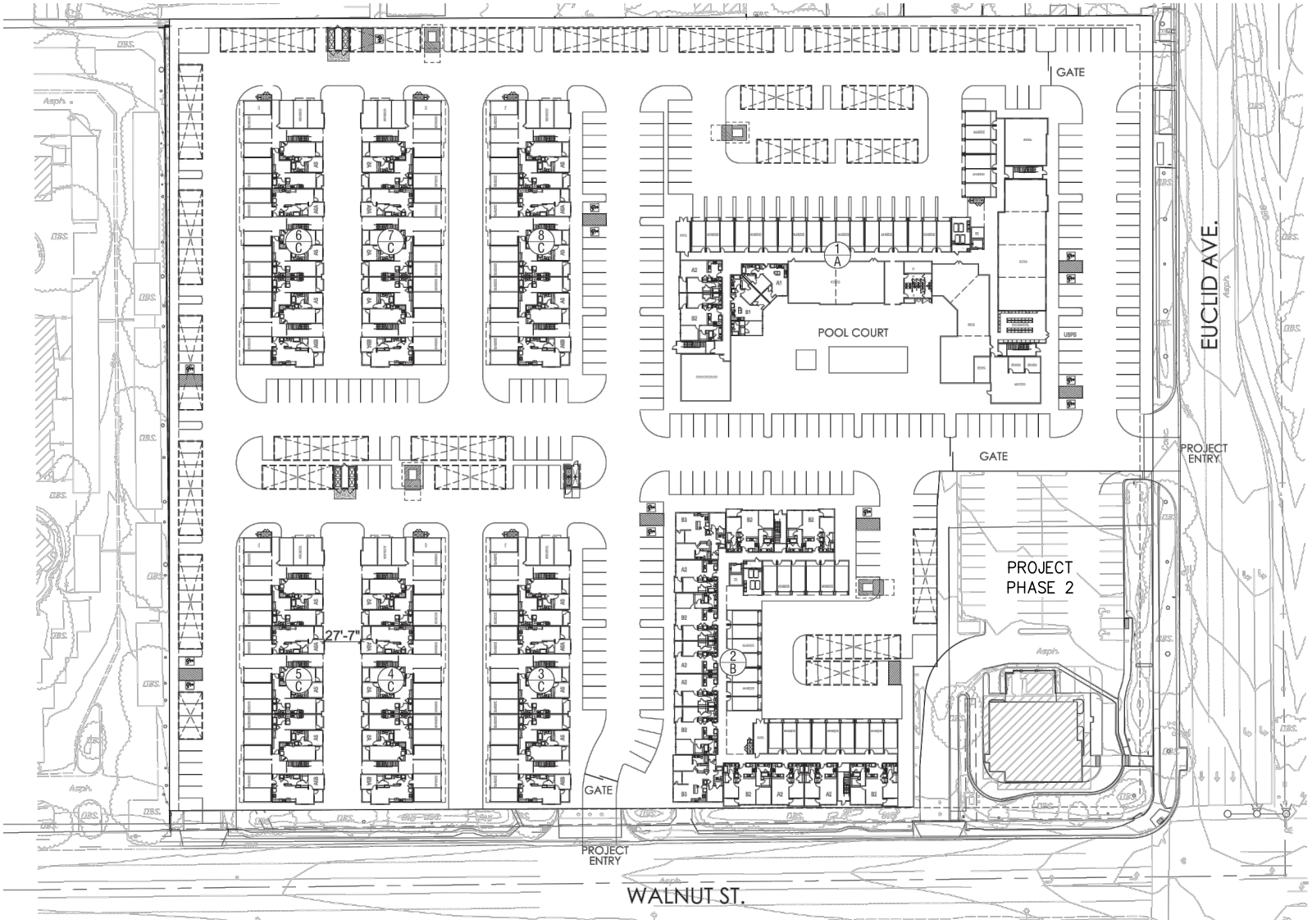
KEY

= PROJECT SITE

FIGURE 2

EXISTING AERIAL PHOTOGRAPH

EUCLID AVENUE MIXED-USE APARTMENTS, ONTARIO



n:\4500\2224563 - euclid residential, ontario\dwg\4563 f-3.dwg LDP 16:00:09 06-09-2022 kopulsky

LINSCOTT LAW & GREENSPAN engineers

N NO SCALE

SOURCE: AO ARCHITECTS

FIGURE 3

PROPOSED SITE PLAN

EUCLID AVENUE MIXED-USE APARTMENTS, ONTARIO

LINSCOTT LAW & GREENSPAN engineers

TABLE 1
PROJECT TRAFFIC GENERATION RATES AND FORECAST[1]

Project Description	Daily 2-Way	AM Peak Hour			PM Peak Hour		
		Enter	Exit	Total	Enter	Exit	Total
Trip Generation Rates:							
▪ 221: Multifamily Housing (Mid-Rise) (TE/DU)	4.54	23%	77%	0.37	61%	39%	0.39
▪ 822: Strip Retail Plaza (<40K) (TE/TSF)	54.45	60%	40%	2.36	50%	50%	6.59
▪ 875: Department Store (TE/TSF)	25.37[2]	64%	36%	0.58	50%	50%	1.95
▪ 934: Fast Food Restaurant with Drive-Through Window (TE/TSF)	467.48	51%	49%	44.61	52%	48%	33.03
Phase 1 – Entitled/Existing Land Use Trip Generation:							
▪ K-Mart (89,500 SF)	2,271	33	19	52	88	87	175
Pass-by Reduction[3]	-227	-3	-2	-5	-35	-35	-70
Shopping Plaza Subtotal	2,044	30	17	47	53	52	105
▪ Strip Retail (11,450 SF)	623	16	11	27	38	37	75
Pass-by Reduction[3]	-62	-2	-1	-3	-15	-15	-30
Shopping Plaza Subtotal	561	14	10	24	23	22	45
Phase 1 Entitled/Existing Land Use Trip Generation Total	**2,605**	**44**	**27**	**71**	**76**	**74**	**150**
Phase 1 – Proposed Project Trip Generation:							
▪ Apartments (346 DU)	1,571	29	99	128	82	53	135
▪ Ground Floor Retail (4,500 SF)	245	7	4	11	15	15	30
Pass-by Reduction[3]	-25	-1	0	-1	-6	-6	-12
Ground Floor Retail Subtotal	220	6	4	10	9	9	18
Phase 1 Proposed Project Trip Generation Total	**1,791**	**35**	**103**	**138**	**91**	**62**	**153**
[A] Phase 1 Net Project Trip Generation Total	**-814**	**-9**	**76**	**67**	**15**	**-12**	**3**
Phase 2 – Entitled/Existing Land Use Trip Generation:							
▪ Carl's Jr. (4,100 SF)	1,917	93	90	183	70	65	135
Pass-by Reduction[3]	-479	-47	-45	-92	-39	-35	-74
Carl's Jr. Subtotal	1,438	46	45	91	31	30	61
Phase 2 Entitled/Existing Land Use Trip Generation Total	**1,438**	**46**	**45**	**91**	**31**	**30**	**61**
Phase 2 – Proposed Project Trip Generation:							
▪ Apartments (30 DU)	136	3	8	11	7	5	12
▪ Ground Floor Retail (6,398 SF)	348	9	6	15	21	21	42
Pass-by Reduction[3]	-35	-1	-1	-2	-8	-9	-17
Ground Floor Retail Subtotal	313	8	5	13	13	12	25
Phase 2 Proposed Project Trip Generation Total	**449**	**11**	**13**	**24**	**20**	**17**	**37**
[B] Phase 2 Net Project Trip Generation Total	**-989**	**-35**	**-32**	**-67**	**-11**	**-13**	**-24**
Phases 1 and 2 Total Net Project Trip Generation ([A] + [B])	**-1,803**	**-44**	**44**	**0**	**4**	**-25**	**-21**

Notes:
TE/TSF = Trip ends per 1,000 SF of development
TE/DU = Trip ends per dwelling unit

1 Source: *Trip Generation*, 11th Edition, Institute of Transportation Engineers (ITE), Washington, D.C. (2021).

2 ITE's *Trip Generation* 11th Edition does not provide a Daily trip rate for ITE LU 875 Department Store. Therefore, the daily trip rate has been estimated using the PM peak hour trip rate and the relationship between the Daily and PM peak hour trip rates of ITE LU 821 Shopping Plaza (40-150K).

3 Pass-by trips are trips made as intermediate stops on the way from an origin to a primary trip destination. Pass-by trips are attracted from traffic passing the site on adjacent streets, which contain direct access to the generator. For this analysis, the following pass-by reduction factors were used (Source: *Trip Generation, 11th Edition, Institute of Transportation Engineers (ITE), Washington, D.C. (2021)*):
- ITE LU 822 Strip Retail Plaza (<40K): Daily and AM Peak Hour - Estimated to be 10% / PM Peak Hour – Estimated to be 40% which is consistent with ITE LU 821.
- ITE LU 875 Department Store: Daily and AM Peak Hour - Estimated to be 10% / PM Peak Hour – Estimated to be 40% which is consistent with ITE LU 821.
- ITE LU 934 Fast Food Restaurant with Drive-Through Window: Daily - Estimated to be 25% / AM Peak Hour – 50% / PM Peak Hour – 55%

1650 SPRUCE STREET, STE 106
RIVERSIDE, CA 92507
951.787.9222
WWW.MIGCOM.COM

MEMO

To: David Pinto, Legacy Partners
CC: Benjamin Mount and Tim O'Brien, Legacy Partners; Dale Goldsmith, Armbruster Goldsmith & Delvac LLP
From: Chris Dugan and William Deeman
Date: September 8, 2023
SUBJECT: Technical Air Quality Assessment for PDEV22-027 Euclid/Walnut Planned Unit Development (PUD22-004) Project

MIG, Inc. (MIG) has prepared this memorandum at the request of Legacy Partners. This technical assessment estimates the potential construction and operational air quality emissions associated with the proposed Euclid/Walnut Planned Unit Development Project (proposed Project) in the City of Ontario, California (City) and determines the proposed Project's consistency with The Ontario Plan (TOP). This technical assessment is intended to satisfy TOP Environmental Impact Report (EIR) Mitigation Measure AQ 3-1, which states that prior to discretionary approval for development projects subject to CEQA (California Environmental Quality Act) review (i.e., nonexempt projects), the City shall require project applicants prepare and submit a technical assessment evaluating potential project construction-related air quality impacts to the City of Ontario Planning Department for review and approval (City of Ontario, 2022). Please see Attachment 1 for the complete requirements of TOP EIR Mitigation Measure AQ 3-1. As explained in more detail in this memo, the proposed Project would not result in a new or more severe air quality impact than identified in the TOP EIR.

EMISSIONS ESTIMATE METHODOLOGY

The proposed Project would generate both short-term construction emissions and long-term operational emissions. The Project's potential air quality emissions were estimated using the California Emissions Estimator Model (CalEEMod), Version (V.) 2022.1. CalEEMod is a computer program recommended for use by the South Coast Air Quality Management District (SCAQMD) for use in preparing emission estimates for land use and development projects. The proposed Project's construction and operational characteristics are based on the Project Description contained in the Project's California Environmental Quality Act (CEQA) Addendum. Emissions were generated using CalEEMod default assumptions, modified as follows to reflect the following Project-specific context, information, and details:

- Construction Phases: Phase 1 construction was modified to add a trenching phase and the building construction phase was changed to occur in three phases foundation, vertical, and mechanical electrical plumbing/other (MEP/other) based on project-specific information from the project construction team.
- Construction Schedule: Phase 1 was modeled as an 18-month project with overlapping site preparation, grading, trenching, building construction foundation, vertical, MEP/other, paving, and coating phases to provide a more conservative analysis, as explained below.
- Hauling: 9,105 cubic yards of soil was added to Phase 1 construction grading activities. 101,620 square feet of demolition was added to Phase 1 construction and 6,000 square feet of demolition was added to Phase 2 construction based on project-specific information from the project construction team.

- Fugitive Dust: Watering twice per day was added to Phase 1 construction and Phase 2 construction in accordance with SCAQMD Rule 403.
- Vehicle Trips: Vehicle trip rates and primary/pass-by trip percentages were updated based on the Projected Left-Turn Warrant for the Euclid Avenue Mixed-Use Apartment Project report (LLG 2023).
- Area Sources: All wood burning stoves were removed from Phase 1 and Phase 2 residential development in compliance with SCAQMD Rule 445. In addition, all fireplaces were updated to be electric as indicated by the Project Applicant.

Emissions estimates were calculated for the following regional and local air quality emissions scenarios:

- Phase 1 Construction
- Phase 1 Operations
- Combined Phase 1 Operations and Phase 2 Construction
- Combined Phase 1 Operations and Phase 2 Operations

MIG notes the emissions modeling conducted for the Project is considered very conservative (i.e., likely to substantially overestimate daily Project emissions) for the following reasons:

- As the Project Applicant indicated, Phase 1 construction is estimated to last up to a total of approximately 28 months; however, the modeling conducted for the project condenses these activities to 18 months and conservatively estimates potential emissions from overlapping site development and construction of the eight buildings. This compressed schedule with overlapping phases results in more daily construction activity, and therefore more daily emissions than would occur with a 28-month schedule with no overlapping phases. Thus, modeled maximum daily emissions are based on overlapping construction phases that most likely will not actually occur.
- Phase 2 construction was modeled to occur directly after Phase 1 construction was completed. The specific timing of development of Phase 2 has not yet been determined and due to existing long term lease conditions may not actually occur for approximately 10 years or more. Emissions are expected to decrease in the future as construction fleets turnover with newer (i.e., less emissive) equipment and updated standards are adopted. Thus, modeling of Phase 2 immediately after Phase 1 provides an overestimate of potential emissions.
- Comparing the combined Phase 1 Operations and Phase 2 Construction emissions to regional and local operational significance thresholds is considered a conservative approach as operational thresholds are more stringent than construction thresholds.
- The localized significance thresholds applied to the Project site are based on a 5-acre site, i.e., the largest site acreage for which screening threshold values are established. However, Phase 1 of the proposed Project would disturb approximately 9.4-acres of the site and in total the Project is approximately 10.6 acres, therefore the 5-acre threshold values would be overly stringent for the proposed Project.
- Project emissions were modeled and presented as gross Project emissions rather than net Project emissions. The Project site is currently developed, but no credit has been applied. This approach overestimates the net change in emissions associated with the Project.

Please refer to Attachments 2 and 3 for detailed CalEEMod emissions estimates.

RESULTS

The results of the CalEEMod emissions modeling conducted for the proposed Project are summarized in Tables 1 to 5 below.

Table 1 below shows the modeled air quality emissions associated with Phase 1 unmitigated construction activities:

Table 1: Phase 1 Unmitigated Maximum Daily Construction Emissions

Scenario/Metric	Maximum Daily Regional Pollutant Emissions (Pounds Per Day)					
	VOC	**NO_X**	**CO**	**SO_2**	**PM_{10}**	**$PM_{2.5}$**
Phase 1 Max Daily – 2024 Summer	8.5	83.8	80.0	0.1	17.1	9.2
Phase 1 Max Daily – 2024 Winter	7.4	42.2	89.7	0.1	12.4	4.0
Phase 1 Max Daily – 2025 Summer	155	39.1	85.4	0.1	12.2	3.8
Phase 1 Max Daily – 2025 Winter	4.6	25.7	66.6	0.1	7.3	2.5
SCAQMD Regional Threshold	**75**	**100**	**550**	**150**	**150**	**55**
Exceeds Threshold?	***Yes***	***No***	***No***	***No***	***No***	***No***
Scenario/Metric	**Maximum Daily Localized Pollutant Emissions (Pounds Per Day)**					
	VOC	**NO_X**	**CO**	**SO_2**	**PM_{10}**	**$PM_{2.5}$**
Phase 1 Max Daily – 2024 Summer(A)	--	83.8	80.0	--	15.4	8.7
Phase 1 Max Daily – 2024 Winter(A)	--	42.2	89.7	--	1.7	1.4
Phase 1 Max Daily – 2025 Summer(A)	--	25.7	66.6	--	1.0	0.8
Phase 1 Max Daily – 2025 Winter(A)	--	39.1	85.4	--	1.5	1.2
SCAQMD Localized Threshold(B)	**--**	**270**	**2,193**	**--**	**16**	**9**
Exceeds Threshold?	**--**	***No***	***No***	**--**	***No***	***No***

Source: MIG (see Attachment 2) and SCAQMD 2023.

(A) On-site PM emissions derived using 2% of Mobile Exhaust and On-Road Fugitive Dust emissions.

(B) LST construction threshold values conservatively based on SRA 33 Southwest San Bernardino Valley for a 5-acre site with receptor distance of 25 meters (since the Phase 1 size is 9.4 acres).

As shown in Table 1, the Phase 1 unmitigated construction emissions would exceed regional SCAQMD VOC thresholds. Accordingly, as required by TOP EIR Mitigation Measure AQ 3-1, the Project shall incorporate measures to reduce construction emissions, including the use of Super-Compliant VOC paints for residential buildings (to reduce VOC emissions). Refer to the "TOP EIR Mitigation" discussion below for additional details on emission reduction measures incorporated into the Project.

Table 2 below shows modeled air quality emissions associated with Phase 1 mitigated construction activities:

Table 2: Phase 1 Mitigated Maximum Daily Construction Emissions

Scenario/Metric	Maximum Daily Regional Pollutant Emissions (Pounds Per Day)					
	VOC	**NO_X**	**CO**	**SO_2**	**PM_{10}**	**$PM_{2.5}$**
Phase 1 Max Daily – 2024 Summer	2.6	83.8	80.0	0.1	17.1	9.2
Phase 1 Max Daily – 2024 Winter	5.3	42.2	89.7	0.1	12.4	4.0
Phase 1 Max Daily – 2025 Summer	38.6	39.1	85.4	0.1	12.2	3.8
Phase 1 Max Daily – 2025 Winter	3.3	25.7	66.6	0.1	7.3	2.5
SCAQMD Regional Threshold	**75**	**100**	**550**	**150**	**150**	**55**
Exceeds Threshold?	***No***	***No***	***No***	***No***	***No***	***No***
Scenario/Metric	**Maximum Daily Localized Pollutant Emissions (Pounds Per Day)**					
	VOC	**NO_X**	**CO**	**SO_2**	**PM_{10}**	**$PM_{2.5}$**
Phase 1 Max Daily – 2024 Summer(A)	--	83.8	80.0	--	15.4	8.7
Phase 1 Max Daily – 2024 Winter(A)	--	42.2	89.7	--	1.7	1.4
Phase 1 Max Daily – 2025 Summer(A)	--	25.7	66.6	--	1.0	0.8
Phase 1 Max Daily – 2025 Winter(A)	--	39.1	85.4	--	1.5	1.2
SCAQMD Localized Threshold(B)	**--**	**270**	**2,193**	**--**	**16**	**9**
Exceeds Threshold?	**--**	***No***	***No***	**--**	***No***	***No***

Source: MIG (see Attachment 2) and SCAQMD 2023.

(A) On-site PM emissions derived using 2% of Mobile Exhaust and On-Road Fugitive Dust emissions.

(B) LST construction threshold values conservatively based on SRA 33 Southwest San Bernardino Valley for a 5-acre site with receptor distance of 25 meters (since the Phase 1 size is 9.4 acres).

As shown in Table 2, the Phase 1 mitigated construction emissions would not exceed regional SCAQMD thresholds or localized thresholds.

Table 3 below shows modeled air quality emissions associated with Phase 1 operations:

Table 3: Phase 1 Maximum Daily Operational Emissions

Scenario/Metric	Maximum Daily Regional Pollutant Emissions (Pounds Per Day)					
	VOC	**NO_X**	**CO**	**SO_2**	**PM_{10}**	**$PM_{2.5}$**
Phase 1 Operations Max Daily Emissions(A)	19.7	7.8	80.7	0.2	13.1	3.5
SCAQMD Regional Threshold(B)	**55**	**55**	**550**	**150**	**150**	**55**
Exceeds Threshold?	***No***	***No***	***No***	***No***	***No***	***No***
Scenario/Metric	**Maximum Daily Localized Pollutant Emissions (Pounds Per Day)**					
	VOC	**NO_X**	**CO**	**SO_2**	**PM_{10}**	**$PM_{2.5}$**
Phase 1 Operations Max Daily Emissions©	--	1.8	26.4	--	0.4	0.2
SCAQMD Localized Threshold(D)	**--**	**270**	**2,193**	**--**	***4***	***2***
Exceeds Threshold?	**--**	***No***	***No***	**--**	***No***	***No***

Source: MIG (see Attachment 2) and SCAQMD 2023

(A) Emissions presented are worst-case emissions and may reflect summer or winter daily emissions levels.

(B) SCAQMD Operational threshold presented.

(C) Emissions presented are worst-case emissions and may reflect summer or winter daily emissions levels. Mobile emissions assumed 2% occur on-site.

(D) LST operations threshold values conservatively based on SRA 33 Southwest San Bernardino Valley for a 5-acre site with receptor distance of 25 meters (since the Phase 1 size is 9.4 acres).

As shown in Table 3, Phase 1 operational emissions would not exceed regional SCAQMD thresholds or localized thresholds.

Table 4 shows modeled air quality emissions associated with Phase 1 operations and Phase 2 construction:

Table 4: Phase 1 Maximum Daily Operational Emissions and Phase 2 Maximum Daily Construction Emissions

Scenario/Metric	Maximum Daily Regional Pollutant Emissions (Pounds Per Day)					
	VOC	**NO_X**	**CO**	**SO_2**	**PM_{10}**	**$PM_{2.5}$**
Phase 1 Operations Max Daily Emissions(A)	19.7	7.8	80.7	0.2	13.1	3.5
Phase 2 Construction Max Daily Emissions(A)	21	13.3	15.5	<0.1	3.5	1.9
Total Daily Emissions(B)	40.7	21.1	96.2	0.2	16.6	5.4
SCAQMD Regional Threshold(C)	**55**	**55**	**550**	**150**	**150**	**55**
Exceeds Threshold?	***No***	***No***	***No***	***No***	***No***	***No***
Scenario/Metric	**Maximum Daily Local Pollutant Emissions (Pounds Per Day)**					
	VOC	**NO_X**	**CO**	**SO_2**	**PM_{10}**	**$PM_{2.5}$**
Phase 1 Operations Max Daily Emissions(D)	--	1.8	26.4	--	0.4	0.2
Phase 2 Construction Max Daily Emissions(A)	--	12.9	14.6	--	3.3	1.8
Total Daily Emissions(B)	--	15.1	41.9	--	3.9	2.0
SCAQMD Localized Threshold(E)	**--**	**270**	**2,193**	**--**	***4***	***2***
Exceeds Threshold?	**--**	***No***	***No***	**--**	***No***	***No***

Source: MIG (see Attachment 2 and 3) and SCAQMD 2023

(A) Emissions presented are worst-case emissions and may reflect summer or winter daily emissions levels.

(B) Totals may not equal due to rounding.

(C) SCAQMD Operational threshold presented.

(D) Emissions presented are worst-case emissions and may reflect summer or winter daily emissions levels. Mobile emissions assumed 2% occur on-site.

(E) LST operations threshold values conservatively based on SRA 33 Southwest San Bernardino Valley for a 5-acre site with receptor distance of 25 meters. Application of these thresholds are considered overly conservative as the above estimates include both construction and operations emissions, the Project site is approximately 10.6-acres as opposed to 5-acres, and the nearest off-site receptor would be more than 25 meters from the Phase 2 construction area.

As shown in Table 4, the combined emissions of Phase 1 operations and Phase 2 construction would not exceed regional SCAQMD thresholds or localized thresholds.

Table 5 below shows modeled air quality emissions associated with Phase 1 and Phase 2 operations:

Table 5: Phase 1 Maximum Daily Operational Emissions and Phase 2 Maximum Daily Operational Emissions

Scenario/Metric	Maximum Daily Regional Pollutant Emissions (Pounds Per Day)					
	VOC	**NO_X**	**CO**	**SO_2**	**PM_{10}**	**$PM_{2.5}$**
Phase 1 Operations Max Daily Emissions(A)	19.7	7.8	80.7	0.2	13.1	3.5
Phase 2 Operations Max Daily Emissions(A)	2.6	1.8	17.7	<0.1	3.7	1.0
Total Daily Emissions(B)	22.3	9.6	98.4	0.2	16.8	4.5
SCAQMD Regional Threshold	**55**	**55**	**550**	**150**	**150**	**55**
Exceeds Threshold?	***No***	***No***	***No***	***No***	***No***	***No***
Scenario/Metric	**Maximum Daily Local Pollutant Emissions (Pounds Per Day)**					
	VOC	**NO_X**	**CO**	**SO_2**	**PM_{10}**	**$PM_{2.5}$**
Phase 1 Operations Max Daily Emissions(C)	13.4	1.8	26.4	<0.1	0.4	0.2
Phase 2 Operations Max Daily Emissions(C)	0.1	0.1	2.0	<0.1	0.1	<0.1
Total Daily Emissions(B)	13.5	1.9	28.4	<0.1	0.5	0.2
SCAQMD Localized Threshold(D)	**--**	**270**	**2,193**	**--**	***4***	***2***
Exceeds Threshold?	**--**	***No***	***No***	**--**	***No***	***No***

Source: MIG (see Attachment 2 and 3) and SCAQMD 2023

(A) Emissions presented are worst-case emissions and may reflect summer or winter daily emissions levels.

(B) Totals may not equal due to rounding.

(C) Emissions presented are worst-case emissions and may reflect summer or winter daily emissions levels. Mobile emissions assumed 2% occur on-site.

(D) LST operations threshold values conservatively based on SRA 33 Southwest San Bernardino Valley for a 5-acre site with receptor distance of 25 meters (since the combined site size is 10.6 acres).

As shown in Table 5, combined emissions associated with operations of Phase 1 and Phase 2 would not exceed regional SCAQMD thresholds or localized thresholds.

TOP EIR MITIGATION

As stated in TOP EIR Mitigation Measure AQ 3-1, if construction emissions are determined to potentially exceed the SCAQMD regional significance thresholds, the City shall require feasible mitigation measures to reduce construction emissions. As shown in Table 1, modeled Phase 1 construction VOC maximum daily emissions would exceed the SCAQMD regional threshold of 75 pounds per day. To ensure Project modeled emissions would not exceed regional or localized significance thresholds, the following mitigation measures in compliance with TOP EIR air quality Mitigation Measure AQ 3-1 are necessary for the Project:

- Using Super-Compliant VOC paints during construction for residential interior and exterior paints, i.e., using paints with 10 grams per liter (g/L) or lower VOC content for residential interior and exterior surfaces.

Incorporating the above mitigation measures would result in less than significant regional emissions from the proposed Project.

CONCLUSION

As described in this memo, the construction and operational emissions from proposed Project would not exceed any applicable SCAQMD-recommended CEQA thresholds of significance and is consistent with TOP with mitigation incorporated. The proposed Project, therefore, would not result in a new or substantially greater significant air quality impact than identified in the TOP EIR.

PREPARERS AND REFERENCES

This memorandum was prepared by MIG under contract to Legacy Partners. This report reflects the independent, objective, professional opinion of MIG. The following individuals were involved in the preparation and review of this Report:

MIG
Chris Dugan, Director of Air Quality, GHG, and Noise Services 1650 Spruce Street, Suite 106
cdugan@migcom.com / 916-956-3802 Riverside, California 92507

William Deeman, Environmental Analyst I

The following references were used to prepare this memorandum:

City of Ontario, 2022. The Ontario Plan 2050 Final Supplemental EIR. August 2022.

Linscott Law & Greenspan (LLG). 2023. Protected Left-Turn Warrant for the Euclid Avenue Mixed-Use Apartment Project. July 31, 2023.

South Coast Air Quality Management District (SCAQMD). 2023. Air Quality Analysis Handbook – South Coast AQMD Air Quality Significance Thresholds (Updated March 2023). Available online at: https://www.aqmd.gov/home/rules-compliance/ceqa/air-quality-analysis-handbook

.

Attachment 1

TOP EIR Mitigation Measures

This page intentionally left blank.

- **M-3.5: Light Rail.** We support extension of the Metro Rail Gold Line to Ontario, and will work to secure station locations ~~adjacent to the Meredith site and~~ at the proposed multimodal transit center.

- **M-3.10: Multimodal ~~Transit~~ Transportation Center.** We intend to ensure the development of a multimodal ~~transit~~ transportation center near ~~LA~~ONT airport to serve as a transit hub with amenities for transit riders, pedestrians, and bicyclists transitioning to local buses, BRT, the Gold Line, high-speed rail, the proposed Ontario Airport Metro Center ~~c~~Circulator, and other future transit modes. We support locations for the multimodal transportation center that are north of ONT airport, between Vineyard Avenue and Interstate 15.

- **M-4.4: Environmental Considerations** We support both local and regional efforts to reduce/eliminate the negative environmental impacts of goods movement through the planning and implementation of truck routing and the development of a plan to evaluate the future needs of clean fueling/recharging and electrified truck parking.

5.3.6 Level of Significance Before Mitigation

Upon implementation of regulatory requirements and standard conditions of approval, some impacts would be less than significant: Impact 5.3-5.

Without mitigation, these impacts would be **potentially significant**:

- **Impact 5.3-1** The additional population growth forecast for TOP 2050 and the associated emissions would not be consistent with the assumptions of the South Coast AQMD's AQMP.

- **Impact 5.3-2** Construction activities associated with future development that would be accommodated under TOP 2050 could generate short-term emissions in exceedance of the South Coast AQMD's threshold criteria.

- **Impact 5.3-3** Implementation of TOP 2050 would generate additional, long-term emissions in exceedance of South Coast AQMD's threshold criteria and cumulatively contribute to the South Coast Air Basin's nonattainment designations.

- **Impact 5.3-4** Operation of industrial and warehousing land uses accommodated under TOP 2050 could expose sensitive receptors to substantial toxic air contaminant concentrations.

5.3.7 Mitigation Measures

5.3.7.1 MITIGATION MEASURES FROM THE 2010 CERTIFIED EIR

The following mitigation measures were taken directly from the 2010 Certified EIR. Any modifications to the mitigation measures from the certified EIR are shown in ~~strikethrough~~ for deleted text and underline for new, inserted text. Mitigation Measure 3-1 was modified to reflect changes in technology since the 2010 Certified

EIR. Mitigation Measure 3-3 is deleted because it pertains to impacts of the environment on a project, which are not subject to CEQA.

Impact 5.3-2

3-1 Prior to discretionary approval by the City of Ontario for development projects subject to CEQA (California Environmental Quality Act) review (i.e., nonexempt projects), project applicants shall prepare and submit a technical assessment evaluating potential project construction-related air quality impacts to the City of Ontario Planning Department for review and approval. The evaluation shall be prepared in conformance with South Coast Air Quality Management District (South Coast AQMD) methodology for assessing air quality impacts. If construction-related criteria air pollutants are determined to have the potential to exceed the South Coast AQMD–adopted thresholds of significance, ~~The~~ City of Ontario ~~b~~Building ~~d~~Department shall require ~~that all new construction projects incorporate~~ feasible mitigation measures to reduce air quality emissions. Potential measures shall be incorporated as conditions of approval for a project and may include:

- Require fugitive dust control measures that exceed South Coast Air Quality Management District's Rule 403, such as:
  - Requiring use of nontoxic soil stabilizers to reduce wind erosion.
  - Applying water every four hours to active soil disturbing activities.
  - Tarping and/or maintaining a minimum of 24 inches of freeboard on trucks hauling dirt, sand, soil, or other loose materials.
- Using construction equipment rated by the United States Environmental Protection Agency as having ~~Tier 3~~ Tier 4 interim or higher exhaust emission limits.
- Ensuring construction equipment is properly serviced and maintained to the manufacturer's standards.
- Limiting nonessential idling of construction equipment to no more than five consecutive minutes.
- Using Super-Compliant VOC paints for coating of architectural surfaces whenever possible. A list of Super-Compliant architectural coating manufactures can be found on the South Coast Air Quality Management District's website at: http://www.aqmd.gov/prdas/brochures/Super-Compliant_AIM.pdf.

These identified measures shall be incorporated into all appropriate construction documents (e.g., construction management plans) submitted to the City and shall be verified by the City's Planning Department.

Impact 5.3-3

3-2 The City of Ontario shall evaluate new development proposals within the City and require all developments to include access or linkages to alternative modes of transportation, such as transit stops, bike paths, and/or pedestrian paths (e.g. sidewalks).

~~3-3 The City of Ontario shall evaluate new development proposals within the City for potential incompatibilities with regard to the California Air Resources Board's Air Quality and Land Use Handbook: A Community Health Perspective (April 2005). New development that is inconsistent with the recommended buffer distances shall only be approved if feasible mitigation measures, such as high efficiency Minimum Efficiency Reporting Value (MERV) filters have incorporated into the project design to protect future sensitive receptors from harmful concentrations of air pollutants as a result of proximity to existing air pollution sources.~~

5.3.7.2 NEW MITIGATION MEASURES

Impact 5.3-1

Mitigation measures applied to a development project's construction (Mitigation Measure 3-1) and operational phase (Mitigation Measures 3-2 and new Mitigation Measure AQ-1) would reduce impacts associated with consistency with the South Coast AQMD.

Impact 5.3-1

No new mitigation measures are warranted for construction-related impacts under Impact 5.3-1.

Impact 5.3-3

AQ 1 Prior to discretionary approval by the City of Ontario for development projects subject to CEQA (California Environmental Quality Act) review (i.e., nonexempt projects), project applicants shall prepare and submit a technical assessment evaluating potential project operation-phase-related air quality impacts to the City of Ontario Planning Department for review and approval. The evaluation shall be prepared in conformance with South Coast Air Quality Management District (South Coast AQMD) methodology in assessing air quality impacts. If operation-related air pollutants are determined to have the potential to exceed the South Coast AQMD–adopted thresholds of significance, the City of Ontario Planning Department shall require that applicants for new development projects incorporate mitigation measures to reduce air pollutant emissions during operational activities. The identified measures shall be included as part of the conditions of approval. Possible mitigation measures to reduce long-term emissions could include, but are not limited to the following:

- For site-specific development that requires refrigerated vehicles, the construction documents shall demonstrate an adequate number of electrical service connections at

This page intentionally left blank.

Attachment 2

Phase 1 CalEEMod Emissions Estimates and Fugitive Dust Calculations

This page intentionally left blank.

Legacy Ontario PUD Construction Phase 1 Mitigated Detailed Report

Table of Contents

1. Basic Project Information

1.1. Basic Project Information

1.2. Land Use Types

1.3. User-Selected Emission Reduction Measures by Emissions Sector

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

2.2. Construction Emissions by Year, Unmitigated

2.3. Construction Emissions by Year, Mitigated

2.4. Operations Emissions Compared Against Thresholds

2.5. Operations Emissions by Sector, Unmitigated

2.6. Operations Emissions by Sector, Mitigated

3. Construction Emissions Details

3.1. Demolition (2024) - Unmitigated

3.2. Demolition (2024) - Mitigated

3603

3.3. Site Preparation (2024) - Unmitigated

3.4. Site Preparation (2024) - Mitigated

3.5. Grading (2024) - Unmitigated

3.6. Grading (2024) - Mitigated

3.7. Foundation (2024) - Unmitigated

3.8. Foundation (2024) - Mitigated

3.9. Foundation (2025) - Unmitigated

3.10. Foundation (2025) - Mitigated

3.11. Vertical (2024) - Unmitigated

3.12. Vertical (2024) - Mitigated

3.13. Vertical (2025) - Unmitigated

3.14. Vertical (2025) - Mitigated

3.15. MEP/Other (2024) - Unmitigated

3.16. MEP/Other (2024) - Mitigated

3.17. MEP/Other (2025) - Unmitigated

3.18. MEP/Other (2025) - Mitigated

3.19. Paving (2025) - Unmitigated

3.20. Paving (2025) - Mitigated

3.21. Coatings (2025) - Unmitigated

3.22. Coatings (2025) - Mitigated

3.23. Trenching (2024) - Unmitigated

3.24. Trenching (2024) - Mitigated

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

4.1.2. Mitigated

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

4.2.2. Electricity Emissions By Land Use - Mitigated

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

4.2.4. Natural Gas Emissions By Land Use - Mitigated

4.3. Area Emissions by Source

4.3.1. Unmitigated

4.3.2. Mitigated

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

4.4.2. Mitigated

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

4.5.2. Mitigated

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

4.6.2. Mitigated

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

4.7.2. Mitigated

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

4.8.2. Mitigated

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

4.9.2. Mitigated

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

4.10.4. Soil Carbon Accumulation By Vegetation Type - Mitigated

4.10.5. Above and Belowground Carbon Accumulation by Land Use Type - Mitigated

4.10.6. Avoided and Sequestered Emissions by Species - Mitigated

5. Activity Data

5.1. Construction Schedule

5.2. Off-Road Equipment

5.2.1. Unmitigated

5.2.2. Mitigated

5.3. Construction Vehicles

5.3.1. Unmitigated

5.3.2. Mitigated

5.4. Vehicles

3607

5.4.1. Construction Vehicle Control Strategies

5.5. Architectural Coatings

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

5.6.2. Construction Earthmoving Control Strategies

5.7. Construction Paving

5.8. Construction Electricity Consumption and Emissions Factors

5.9. Operational Mobile Sources

5.9.1. Unmitigated

5.9.2. Mitigated

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

5.10.1.2. Mitigated

5.10.2. Architectural Coatings

5.10.3. Landscape Equipment

5.10.4. Landscape Equipment - Mitigated

5.11. Operational Energy Consumption

5.11.1. Unmitigated

5.11.2. Mitigated

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

5.12.2. Mitigated

5.13. Operational Waste Generation

5.13.1. Unmitigated

5.13.2. Mitigated

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

5.14.2. Mitigated

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

5.15.2. Mitigated

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

5.16.2. Process Boilers

5.17. User Defined

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

5.18.1.2. Mitigated

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

5.18.1.2. Mitigated

5.18.2. Sequestration

5.18.2.1. Unmitigated

5.18.2.2. Mitigated

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

6.2. Initial Climate Risk Scores

6.3. Adjusted Climate Risk Scores

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

7.2. Healthy Places Index Scores

7.3. Overall Health & Equity Scores

7.4. Health & Equity Measures

7.5. Evaluation Scorecard

7.6. Health & Equity Custom Measures

8. User Changes to Default Data

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	Legacy Ontario PUD Construction Phase 1 Mitigated
Construction Start Date	6/1/2024
Operational Year	2026
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.60
Precipitation (days)	9.20
Location	34.02755638431904, -117.65236816489812
County	San Bernardino-South Coast
City	Ontario
Air District	South Coast AQMD
Air Basin	South Coast
TAZ	5251
EDFZ	10
Electric Utility	Southern California Edison
Gas Utility	Southern California Gas
App Version	2022.1.1.19

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description

3612

Apartments Mid Rise	346	Dwelling Unit	2.92	458,974	29,928	0.00	1,145	—
Strip Mall	5.40	1000sqft	0.12	5,400	0.00	0.00	—	—
Other Asphalt Surfaces	6.36	Acre	6.36	0.00	0.00	0.00	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

Sector	#	Measure Title
Construction	C-13	Use Low-VOC Paints for Construction

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	10.5	8.48	83.8	80.0	0.13	3.57	13.5	17.1	3.26	5.91	9.17	—	16,016	16,016	0.91	0.71	32.8	16,259
Mit.	10.5	8.48	83.8	80.0	0.13	3.57	13.5	17.1	3.26	5.91	9.17	—	16,016	16,016	0.91	0.71	32.8	16,259
% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	8.78	155	42.2	89.7	0.10	1.54	10.8	12.4	1.42	2.57	4.00	—	20,687	20,687	1.04	0.96	1.38	21,001
Mit.	8.78	39.7	42.2	89.7	0.10	1.54	10.8	12.4	1.42	2.57	4.00	—	20,687	20,687	1.04	0.96	1.38	21,001
% Reduced	—	74%	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	3.65	11.3	18.1	40.3	0.04	0.62	4.89	5.51	0.57	1.16	1.74	—	9,355	9,355	0.46	0.43	9.65	9,506
Mit.	3.65	5.02	18.1	40.3	0.04	0.62	4.89	5.51	0.57	1.16	1.74	—	9,355	9,355	0.46	0.43	9.65	9,506
% Reduced	—	56%	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.67	2.07	3.30	7.35	0.01	0.11	0.89	1.01	0.10	0.21	0.32	—	1,549	1,549	0.08	0.07	1.60	1,574
Mit.	0.67	0.92	3.30	7.35	0.01	0.11	0.89	1.01	0.10	0.21	0.32	—	1,549	1,549	0.08	0.07	1.60	1,574
% Reduced	—	56%	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

2.2. Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	10.5	8.48	83.8	80.0	0.13	3.57	13.5	17.1	3.26	5.91	9.17	—	16,016	16,016	0.91	0.71	22.8	16,259
2025	5.47	4.62	25.7	66.6	0.06	0.90	7.21	8.10	0.83	1.72	2.54	—	14,201	14,201	0.67	0.64	32.8	14,442
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	8.78	7.41	42.2	89.7	0.10	1.54	10.8	12.4	1.42	2.57	4.00	—	20,687	20,687	1.04	0.96	1.38	21,001
2025	7.99	155	39.0	85.4	0.10	1.35	10.8	12.2	1.24	2.57	3.82	—	20,422	20,422	1.02	0.96	1.27	20,735
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	2.38	1.97	14.8	22.0	0.03	0.59	2.84	3.43	0.54	0.89	1.43	—	4,840	4,840	0.26	0.23	4.02	4,919
2025	3.65	11.3	18.1	40.3	0.04	0.62	4.89	5.51	0.57	1.16	1.74	—	9,355	9,355	0.46	0.43	9.65	9

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	0.43	0.36	2.70	4.01	0.01	0.11	0.52	0.63	0.10	0.16	0.26	—	801	801	0.04	0.04	0.67	814
2025	0.67	2.07	3.30	7.35	0.01	0.11	0.89	1.01	0.10	0.21	0.32	—	1,549	1,549	0.08	0.07	1.60	1,574

2.3. Construction Emissions by Year, Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	10.5	8.48	83.8	80.0	0.13	3.57	13.5	17.1	3.26	5.91	9.17	—	16,016	16,016	0.91	0.71	22.8	16,259
2025	5.47	4.62	25.7	66.6	0.06	0.90	7.21	8.10	0.83	1.72	2.54	—	14,201	14,201	0.67	0.64	32.8	14,442
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	8.78	7.41	42.2	89.7	0.10	1.54	10.8	12.4	1.42	2.57	4.00	—	20,687	20,687	1.04	0.96	1.38	21,001
2025	7.99	39.7	39.0	85.4	0.10	1.35	10.8	12.2	1.24	2.57	3.82	—	20,422	20,422	1.02	0.96	1.27	20,735
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	2.38	1.97	14.8	22.0	0.03	0.59	2.84	3.43	0.54	0.89	1.43	—	4,840	4,840	0.26	0.23	4.02	4,919
2025	3.65	5.02	18.1	40.3	0.04	0.62	4.89	5.51	0.57	1.16	1.74	—	9,355	9,355	0.46	0.43	9.65	9,506
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	0.43	0.36	2.70	4.01	0.01	0.11	0.52	0.63	0.10	0.16	0.26	—	801	801	0.04	0.04	0.67	814
2025	0.67	0.92	3.30	7.35	0.01	0.11	0.89	1.01	0.10	0.21	0.32	—	1,549	1,549	0.08	0.07	1.60	1,574

2.4. Operations Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	9.81	19.7	7.51	80.7	0.16	0.19	12.9	13.1	0.18	3.27	3.45	169	19,223	19,392	18.1	0.80	55.1	20,136
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	7.44	17.4	7.79	51.2	0.14	0.18	12.9	13.1	0.17	3.27	3.44	169	18,221	18,390	18.1	0.82	4.66	19,092
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	8.68	18.6	8.03	66.6	0.15	0.19	12.8	13.0	0.18	3.25	3.43	169	17,317	17,487	18.0	0.81	25.7	18,204
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.58	3.40	1.47	12.2	0.03	0.03	2.34	2.37	0.03	0.59	0.63	28.0	2,867	2,895	2.98	0.13	4.25	3,014

2.5. Operations Emissions by Sector, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	7.82	7.11	6.35	60.4	0.15	0.10	12.9	13.0	0.09	3.27	3.36	—	15,202	15,202	0.71	0.69	51.8	15,478
Area	1.88	12.6	0.19	19.9	< 0.005	0.01	—	0.01	0.01	—	0.01	0.00	1,221	1,221	0.11	0.01	—	1,228
Energy	0.11	0.06	0.97	0.42	0.01	0.08	—	0.08	0.08	—	0.08	—	2,700	2,700	0.25	0.02	—	2,712
Water	—	—	—	—	—	—	—	—	—	—	—	28.4	98.7	127	2.92	0.07	—	221
Waste	—	—	—	—	—	—	—	—	—	—	—	141	0.00	141	14.1	0.00	—	493
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.32	3.32
Total	9.81	19.7	7.51	80.7	0.16	0.19	12.9	13.1	0.18	3.27	3.45	169	19,223	19,392	18.1	0.80	55.1	20,136

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	7.33	6.61	6.81	50.7	0.14	0.10	12.9	13.0	0.09	3.27	3.36	—	14,254	14,254	0.73	0.72	1.34	14,487
Area	0.00	10.8	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	1,168	1,168	0.11	0.01	—	1,175
Energy	0.11	0.06	0.97	0.42	0.01	0.08	—	0.08	0.08	—	0.08	—	2,700	2,700	0.25	0.02	—	2,712
Water	—	—	—	—	—	—	—	—	—	—	—	28.4	98.7	127	2.92	0.07	—	221
Waste	—	—	—	—	—	—	—	—	—	—	—	141	0.00	141	14.1	0.00	—	493
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.32	3.32
Total	7.44	17.4	7.79	51.2	0.14	0.18	12.9	13.1	0.17	3.27	3.44	169	18,221	18,390	18.1	0.82	4.66	19,092
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	7.28	6.56	6.93	52.6	0.14	0.10	12.8	12.9	0.09	3.25	3.35	—	14,402	14,402	0.73	0.72	22.4	14,657
Area	1.29	12.0	0.13	13.6	< 0.005	0.01	—	0.01	0.01	—	0.01	0.00	117	117	0.01	< 0.005	—	117
Energy	0.11	0.06	0.97	0.42	0.01	0.08	—	0.08	0.08	—	0.08	—	2,700	2,700	0.25	0.02	—	2,712
Water	—	—	—	—	—	—	—	—	—	—	—	28.4	98.7	127	2.92	0.07	—	221
Waste	—	—	—	—	—	—	—	—	—	—	—	141	0.00	141	14.1	0.00	—	493
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.32	3.32
Total	8.68	18.6	8.03	66.6	0.15	0.19	12.8	13.0	0.18	3.25	3.43	169	17,317	17,487	18.0	0.81	25.7	18,204
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	1.33	1.20	1.26	9.60	0.03	0.02	2.34	2.35	0.02	0.59	0.61	—	2,384	2,384	0.12	0.12	3.70	2,427
Area	0.23	2.19	0.02	2.48	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.00	19.3	19.3	< 0.005	< 0.005	—	19.4
Energy	0.02	0.01	0.18	0.08	< 0.005	0.01	—	0.01	0.01	—	0.01	—	447	447	0.04	< 0.005	—	449
Water	—	—	—	—	—	—	—	—	—	—	—	4.70	16.3	21.0	0.48	0.01	—	36.6
Waste	—	—	—	—	—	—	—	—	—	—	—	23.3	0.00	23.3	2.33	0.00	—	81.6
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.55	0.55
Total	1.58	3.40	1.47	12.2	0.03	0.03	2.34	2.37	0.03	0.59	0.63	28.0	2,867	2,895	2.98	0.13	4.25	3,014

2.6. Operations Emissions by Sector, Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	7.82	7.11	6.35	60.4	0.15	0.10	12.9	13.0	0.09	3.27	3.36	—	15,202	15,202	0.71	0.69	51.8	15,478
Area	1.88	12.6	0.19	19.9	< 0.005	0.01	—	0.01	0.01	—	0.01	0.00	1,221	1,221	0.11	0.01	—	1,228
Energy	0.11	0.06	0.97	0.42	0.01	0.08	—	0.08	0.08	—	0.08	—	2,700	2,700	0.25	0.02	—	2,712
Water	—	—	—	—	—	—	—	—	—	—	—	28.4	98.7	127	2.92	0.07	—	221
Waste	—	—	—	—	—	—	—	—	—	—	—	141	0.00	141	14.1	0.00	—	493
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.32	3.32
Total	9.81	19.7	7.51	80.7	0.16	0.19	12.9	13.1	0.18	3.27	3.45	169	19,223	19,392	18.1	0.80	55.1	20,136
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	7.33	6.61	6.81	50.7	0.14	0.10	12.9	13.0	0.09	3.27	3.36	—	14,254	14,254	0.73	0.72	1.34	14,487
Area	0.00	10.8	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	1,168	1,168	0.11	0.01	—	1,175
Energy	0.11	0.06	0.97	0.42	0.01	0.08	—	0.08	0.08	—	0.08	—	2,700	2,700	0.25	0.02	—	2,712
Water	—	—	—	—	—	—	—	—	—	—	—	28.4	98.7	127	2.92	0.07	—	221
Waste	—	—	—	—	—	—	—	—	—	—	—	141	0.00	141	14.1	0.00	—	493
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.32	3.32
Total	7.44	17.4	7.79	51.2	0.14	0.18	12.9	13.1	0.17	3.27	3.44	169	18,221	18,390	18.1	0.82	4.66	19,092
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	7.28	6.56	6.93	52.6	0.14	0.10	12.8	12.9	0.09	3.25	3.35	—	14,402	14,402	0.73	0.72	22.4	14,657
Area	1.29	12.0	0.13	13.6	< 0.005	0.01	—	0.01	0.01	—	0.01	0.00	117	117	0.01	< 0.005	—	117
Energy	0.11	0.06	0.97	0.42	0.01	0.08	—	0.08	0.08	—	0.08	—	2,700	2,700	0.25	0.02	—	2,712
Water	—	—	—	—	—	—	—	—	—	—	—	28.4	98.7	127	2.92	0.07	—	2

Waste	—	—	—	—	—	—	—	—	—	—	—	141	0.00	141	14.1	0.00	—	493
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.32	3.32
Total	8.68	18.6	8.03	66.6	0.15	0.19	12.8	13.0	0.18	3.25	3.43	169	17,317	17,487	18.0	0.81	25.7	18,204
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	1.33	1.20	1.26	9.60	0.03	0.02	2.34	2.35	0.02	0.59	0.61	—	2,384	2,384	0.12	0.12	3.70	2,427
Area	0.23	2.19	0.02	2.48	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.00	19.3	19.3	< 0.005	< 0.005	—	19.4
Energy	0.02	0.01	0.18	0.08	< 0.005	0.01	—	0.01	0.01	—	0.01	—	447	447	0.04	< 0.005	—	449
Water	—	—	—	—	—	—	—	—	—	—	—	4.70	16.3	21.0	0.48	0.01	—	36.6
Waste	—	—	—	—	—	—	—	—	—	—	—	23.3	0.00	23.3	2.33	0.00	—	81.6
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.55	0.55
Total	1.58	3.40	1.47	12.2	0.03	0.03	2.34	2.37	0.03	0.59	0.63	28.0	2,867	2,895	2.98	0.13	4.25	3,014

3. Construction Emissions Details

3.1. Demolition (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.12	2.62	24.9	21.7	0.03	1.06	—	1.06	0.98	—	0.98	—	3,425	3,425	0.14	0.03	—	3,437
Demolition	—	—	—	—	—	—	1.47	1.47	—	0.22	0.22	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.38	0.32	3.00	2.62	< 0.005	0.13	—	0.13	0.12	—	0.12	—	413	413	0.02	< 0.005	—	414
Demolition	—	—	—	—	—	—	0.18	0.18	—	0.03	0.03	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.07	0.06	0.55	0.48	< 0.005	0.02	—	0.02	0.02	—	0.02	—	68.4	68.4	< 0.005	< 0.005	—	68.6
Demolition	—	—	—	—	—	—	0.03	0.03	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09	0.08	0.07	1.27	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	216	216	0.01	0.01	0.86	219
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.25	0.04	2.30	1.29	0.01	0.04	0.49	0.53	0.02	0.13	0.16	—	1,870	1,870	0.21	0.30	3.94	1,969
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.12	0.00	0.00	0.02	0.02	0.00	0.01	0.01	—	24.2	24.2	< 0.005	< 0.005	0.04	24.5
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.03	< 0.005	0.29	0.16	< 0.005	< 0.005	0.06	0.06	< 0.005	0.02	0.02	—	226	226	0.02	0.04	0.20	237
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	4.01	4.01	< 0.005	< 0.005	0.01	4.06

Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.01	< 0.005	0.05	0.03	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	37.3	37.3	< 0.005	0.01	0.03	39.3

3.2. Demolition (2024) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.12	2.62	24.9	21.7	0.03	1.06	—	1.06	0.98	—	0.98	—	3,425	3,425	0.14	0.03	—	3,437
Demolition	—	—	—	—	—	—	1.47	1.47	—	0.22	0.22	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.38	0.32	3.00	2.62	< 0.005	0.13	—	0.13	0.12	—	0.12	—	413	413	0.02	< 0.005	—	414
Demolition	—	—	—	—	—	—	0.18	0.18	—	0.03	0.03	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.07	0.06	0.55	0.48	< 0.005	0.02	—	0.02	0.02	—	0.02	—	68.4	68.4	< 0.005	< 0.005	—	68.6
Demolition	—	—	—	—	—	—	0.03	0.03	—	< 0.005	< 0.005	—	—	—	—	—	—	—

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09	0.08	0.07	1.27	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	216	216	0.01	0.01	0.86	219
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.25	0.04	2.30	1.29	0.01	0.04	0.49	0.53	0.02	0.13	0.16	—	1,870	1,870	0.21	0.30	3.94	1,969
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.12	0.00	0.00	0.02	0.02	0.00	0.01	0.01	—	24.2	24.2	< 0.005	< 0.005	0.04	24.5
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.03	< 0.005	0.29	0.16	< 0.005	< 0.005	0.06	0.06	< 0.005	0.02	0.02	—	226	226	0.02	0.04	0.20	237
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	4.01	4.01	< 0.005	< 0.005	0.01	4.06
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.01	< 0.005	0.05	0.03	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	37.3	37.3	< 0.005	0.01	0.03	39.3

3.3. Site Preparation (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	4.34	3.65	36.0	32.9	0.05	1.60	—	1.60	1.47	—	1.47	—	5,296	5,296	0.21	0.04	—	5,314
Dust From Material Movement	—	—	—	—	—	—	7.67	7.67	—	3.94	3.94	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.29	0.24	2.36	2.17	< 0.005	0.11	—	0.11	0.10	—	0.10	—	348	348	0.01	< 0.005	—	349
Dust From Material Movement	—	—	—	—	—	—	0.50	0.50	—	0.26	0.26	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05	0.04	0.43	0.40	< 0.005	0.02	—	0.02	0.02	—	0.02	—	57.7	57.7	< 0.005	< 0.005	—	57.8
Dust From Material Movement	—	—	—	—	—	—	0.09	0.09	—	0.05	0.05	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.10	0.09	0.08	1.48	0.00	0.00	0.23	0.23	0.00	0.05	0.05	—	252	252	0.01	0.01	1.01	256

Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.08	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	15.4	15.4	< 0.005	< 0.005	0.03	15.6
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	2.55	2.55	< 0.005	< 0.005	< 0.005	2.59
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.4. Site Preparation (2024) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	4.34	3.65	36.0	32.9	0.05	1.60	—	1.60	1.47	—	1.47	—	5,296	5,296	0.21	0.04	—	5,314
Dust From Material Movement	—	—	—	—	—	—	7.67	7.67	—	3.94	3.94	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.29	0.24	2.36	2.17	< 0.005	0.11	—	0.11	0.10	—	0.10	—	348	348	0.01	< 0.005	—	349
Dust From Material Movement	—	—	—	—	—	—	0.50	0.50	—	0.26	0.26	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05	0.04	0.43	0.40	< 0.005	0.02	—	0.02	0.02	—	0.02	—	57.7	57.7	< 0.005	< 0.005	—	57.8
Dust From Material Movement	—	—	—	—	—	—	0.09	0.09	—	0.05	0.05	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.10	0.09	0.08	1.48	0.00	0.00	0.23	0.23	0.00	0.05	0.05	—	252	252	0.01	0.01	1.01	256
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	0.01	0.01	0.01	0.08	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	15.4	15.4	< 0.005	< 0.005	0.03	15.6
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	2.55	2.55	< 0.005	< 0.005	< 0.005	2.59
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.5. Grading (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.26	1.90	18.2	18.8	0.03	0.84	—	0.84	0.77	—	0.77	—	2,958	2,958	0.12	0.02	—	2,969
Dust From Material Movement	—	—	—	—	—	—	2.77	2.77	—	1.34	1.34	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.28	0.23	2.25	2.32	< 0.005	0.10	—	0.10	0.10	—	0.10	—	365	365	0.01	< 0.005	—	366

Dust From Material Movement	—	—	—	—	—	—	0.34	0.34	—	0.16	0.16	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05	0.04	0.41	0.42	< 0.005	0.02	—	0.02	0.02	—	0.02	—	60.4	60.4	< 0.005	< 0.005	—	60.6
Dust From Material Movement	—	—	—	—	—	—	0.06	0.06	—	0.03	0.03	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09	0.08	0.07	1.27	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	216	216	0.01	0.01	0.86	219
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.24	0.04	2.19	1.22	0.01	0.03	0.47	0.50	0.02	0.13	0.15	—	1,782	1,782	0.20	0.29	3.75	1,876
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.12	0.00	0.00	0.02	0.02	0.00	0.01	0.01	—	24.7	24.7	< 0.005	< 0.005	0.05	25.1
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.03	< 0.005	0.28	0.15	< 0.005	< 0.005	0.06	0.06	< 0.005	0.02	0.02	—	220	220	0.02	0.04	0.20	231
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	4.10	4.10	< 0.005	< 0.005	0.01	4.15
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0

Hauling	0.01	< 0.005	0.05	0.03	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	36.4	36.4	< 0.005	0.01	0.03	38.3

3.6. Grading (2024) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.26	1.90	18.2	18.8	0.03	0.84	—	0.84	0.77	—	0.77	—	2,958	2,958	0.12	0.02	—	2,969
Dust From Material Movement	—	—	—	—	—	—	2.77	2.77	—	1.34	1.34	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.28	0.23	2.25	2.32	< 0.005	0.10	—	0.10	0.10	—	0.10	—	365	365	0.01	< 0.005	—	366
Dust From Material Movement	—	—	—	—	—	—	0.34	0.34	—	0.16	0.16	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05	0.04	0.41	0.42	< 0.005	0.02	—	0.02	0.02	—	0.02	—	60.4	60.4	< 0.005	< 0.005	—	60.6

Dust From Material Movement	—	—	—	—	—	—	0.06	0.06	—	0.03	0.03	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09	0.08	0.07	1.27	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	216	216	0.01	0.01	0.86	219
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.24	0.04	2.19	1.22	0.01	0.03	0.47	0.50	0.02	0.13	0.15	—	1,782	1,782	0.20	0.29	3.75	1,876
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.12	0.00	0.00	0.02	0.02	0.00	0.01	0.01	—	24.7	24.7	< 0.005	< 0.005	0.05	25.1
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.03	< 0.005	0.28	0.15	< 0.005	< 0.005	0.06	0.06	< 0.005	0.02	0.02	—	220	220	0.02	0.04	0.20	231
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	4.10	4.10	< 0.005	< 0.005	0.01	4.15
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.01	< 0.005	0.05	0.03	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	36.4	36.4	< 0.005	0.01	0.03	38.3

3.7. Foundation (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

3629

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.44	1.20	11.2	13.1	0.02	0.50	—	0.50	0.46	—	0.46	—	2,398	2,398	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.44	1.20	11.2	13.1	0.02	0.50	—	0.50	0.46	—	0.46	—	2,398	2,398	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.30	0.25	2.37	2.77	< 0.005	0.11	—	0.11	0.10	—	0.10	—	507	507	0.02	< 0.005	—	508
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.06	0.05	0.43	0.51	< 0.005	0.02	—	0.02	0.02	—	0.02	—	83.9	83.9	< 0.005	< 0.005	—	84.2
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.44	1.31	1.22	21.2	0.00	0.00	3.28	3.28	0.00	0.77	0.77	—	3,611	3,611	0.15	0.12	14.4	3,667
Vendor	0.13	0.03	1.36	0.73	0.01	0.02	0.32	0.34	0.02	0.09	0.11	—	1,187	1,187	0.09	0.18	3.31	1,246
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.37	1.24	1.43	16.0	0.00	0.00	3.28	3.28	0.00	0.77	0.77	—	3,310	3,310	0.16	0.12	0.37	3,351
Vendor	0.12	0.03	1.42	0.74	0.01	0.02	0.32	0.34	0.02	0.09	0.11	—	1,188	1,188	0.09	0.18	0.09	1,243
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.29	0.26	0.30	3.56	0.00	0.00	0.69	0.69	0.00	0.16	0.16	—	709	709	0.03	0.03	1.32	719
Vendor	0.03	0.01	0.30	0.16	< 0.005	< 0.005	0.07	0.07	< 0.005	0.02	0.02	—	251	251	0.02	0.04	0.30	263
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.05	0.06	0.65	0.00	0.00	0.13	0.13	0.00	0.03	0.03	—	117	117	0.01	< 0.005	0.22	119
Vendor	< 0.005	< 0.005	0.06	0.03	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	41.6	41.6	< 0.005	0.01	0.05	43.5
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.8. Foundation (2024) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.44	1.20	11.2	13.1	0.02	0.50	—	0.50	0.46	—	0.46	—	2,398	2,398	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	1.44	1.20	11.2	13.1	0.02	0.50	—	0.50	0.46	—	0.46	—	2,398	2,398	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.30	0.25	2.37	2.77	< 0.005	0.11	—	0.11	0.10	—	0.10	—	507	507	0.02	< 0.005	—	508
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.06	0.05	0.43	0.51	< 0.005	0.02	—	0.02	0.02	—	0.02	—	83.9	83.9	< 0.005	< 0.005	—	84.2
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.44	1.31	1.22	21.2	0.00	0.00	3.28	3.28	0.00	0.77	0.77	—	3,611	3,611	0.15	0.12	14.4	3,667
Vendor	0.13	0.03	1.36	0.73	0.01	0.02	0.32	0.34	0.02	0.09	0.11	—	1,187	1,187	0.09	0.18	3.31	1,246
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.37	1.24	1.43	16.0	0.00	0.00	3.28	3.28	0.00	0.77	0.77	—	3,310	3,310	0.16	0.12	0.37	3,351
Vendor	0.12	0.03	1.42	0.74	0.01	0.02	0.32	0.34	0.02	0.09	0.11	—	1,188	1,188	0.09	0.18	0.09	1,243
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.29	0.26	0.30	3.56	0.00	0.00	0.69	0.69	0.00	0.16	0.16	—	709	709	0.03	0.03	1.32	719
Vendor	0.03	0.01	0.30	0.16	< 0.005	< 0.005	0.07	0.07	< 0.005	0.02	0.02	—	251	251	0.02	0.04	0.30	263

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.05	0.06	0.65	0.00	0.00	0.13	0.13	0.00	0.03	0.03	—	117	117	0.01	< 0.005	0.22	119
Vendor	< 0.005	< 0.005	0.06	0.03	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	41.6	41.6	< 0.005	0.01	0.05	43.5
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.9. Foundation (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.35	1.13	10.4	13.0	0.02	0.43	—	0.43	0.40	—	0.40	—	2,398	2,398	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.20	0.16	1.51	1.89	< 0.005	0.06	—	0.06	0.06	—	0.06	—	347	347	0.01	< 0.005	—	348
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.03	0.28	0.34	< 0.005	0.01	—	0.01	0.01	—	0.01	—	57.5	57.5	< 0.005	< 0.005	—	57.7
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.20	1.08	1.22	14.7	0.00	0.00	3.28	3.28	0.00	0.77	0.77	—	3,241	3,241	0.15	0.12	0.34	3,282
Vendor	0.11	0.03	1.36	0.70	0.01	0.02	0.32	0.34	0.02	0.09	0.11	—	1,169	1,169	0.09	0.18	0.09	1,224
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.17	0.15	0.19	2.25	0.00	0.00	0.47	0.47	0.00	0.11	0.11	—	476	476	0.02	0.02	0.82	483
Vendor	0.02	< 0.005	0.20	0.10	< 0.005	< 0.005	0.05	0.05	< 0.005	0.01	0.02	—	169	169	0.01	0.03	0.21	177
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.03	0.41	0.00	0.00	0.09	0.09	0.00	0.02	0.02	—	78.8	78.8	< 0.005	< 0.005	0.14	79.9
Vendor	< 0.005	< 0.005	0.04	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	28.0	28.0	< 0.005	< 0.005	0.03	29.4
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.10. Foundation (2025) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

3634

Off-Road Equipment	1.35	1.13	10.4	13.0	0.02	0.43	—	0.43	0.40	—	0.40	—	2,398	2,398	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.20	0.16	1.51	1.89	< 0.005	0.06	—	0.06	0.06	—	0.06	—	347	347	0.01	< 0.005	—	348
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.03	0.28	0.34	< 0.005	0.01	—	0.01	0.01	—	0.01	—	57.5	57.5	< 0.005	< 0.005	—	57.7
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.20	1.08	1.22	14.7	0.00	0.00	3.28	3.28	0.00	0.77	0.77	—	3,241	3,241	0.15	0.12	0.34	3,282
Vendor	0.11	0.03	1.36	0.70	0.01	0.02	0.32	0.34	0.02	0.09	0.11	—	1,169	1,169	0.09	0.18	0.09	1,224
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.17	0.15	0.19	2.25	0.00	0.00	0.47	0.47	0.00	0.11	0.11	—	476	476	0.02	0.02	0.82	483
Vendor	0.02	< 0.005	0.20	0.10	< 0.005	< 0.005	0.05	0.05	< 0.005	0.01	0.02	—	169	169	0.01	0.03	0.21	177
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.03	0.41	0.00	0.00	0.09	0.09	0.00	0.02	0.02	—	78.8	78.8	< 0.005	< 0.005	0.14	79.9

Vendor	< 0.005	< 0.005	0.04	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	28.0	28.0	< 0.005	< 0.005	0.03	29.4
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.11. Vertical (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.44	1.20	11.2	13.1	0.02	0.50	—	0.50	0.46	—	0.46	—	2,398	2,398	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.22	0.18	1.71	2.00	< 0.005	0.08	—	0.08	0.07	—	0.07	—	366	366	0.01	< 0.005	—	367
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.03	0.31	0.37	< 0.005	0.01	—	0.01	0.01	—	0.01	—	60.6	60.6	< 0.005	< 0.005	—	60.8
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.37	1.24	1.43	16.0	0.00	0.00	3.28	3.28	0.00	0.77	0.77	—	3,310	3,310	0.16	0.12	0.37	3,351
Vendor	0.12	0.03	1.42	0.74	0.01	0.02	0.32	0.34	0.02	0.09	0.11	—	1,188	1,188	0.09	0.18	0.09	1,243
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.21	0.19	0.22	2.57	0.00	0.00	0.50	0.50	0.00	0.12	0.12	—	512	512	0.02	0.02	0.95	520
Vendor	0.02	< 0.005	0.22	0.11	< 0.005	< 0.005	0.05	0.05	< 0.005	0.01	0.02	—	181	181	0.01	0.03	0.22	190
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.03	0.04	0.47	0.00	0.00	0.09	0.09	0.00	0.02	0.02	—	84.8	84.8	< 0.005	< 0.005	0.16	86.0
Vendor	< 0.005	< 0.005	0.04	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	30.0	30.0	< 0.005	< 0.005	0.04	31.4
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.12. Vertical (2024) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.44	1.20	11.2	13.1	0.02	0.50	—	0.50	0.46	—	0.46	—	2,398	2,398	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.22	0.18	1.71	2.00	< 0.005	0.08	—	0.08	0.07	—	0.07	—	366	366	0.01	< 0.005	—	367
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.03	0.31	0.37	< 0.005	0.01	—	0.01	0.01	—	0.01	—	60.6	60.6	< 0.005	< 0.005	—	60.8
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.37	1.24	1.43	16.0	0.00	0.00	3.28	3.28	0.00	0.77	0.77	—	3,310	3,310	0.16	0.12	0.37	3,351
Vendor	0.12	0.03	1.42	0.74	0.01	0.02	0.32	0.34	0.02	0.09	0.11	—	1,188	1,188	0.09	0.18	0.09	1,243
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.21	0.19	0.22	2.57	0.00	0.00	0.50	0.50	0.00	0.12	0.12	—	512	512	0.02	0.02	0.95	520
Vendor	0.02	< 0.005	0.22	0.11	< 0.005	< 0.005	0.05	0.05	< 0.005	0.01	0.02	—	181	181	0.01	0.03	0.22	190
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.03	0.04	0.47	0.00	0.00	0.09	0.09	0.00	0.02	0.02	—	84.8	84.8	< 0.005	< 0.005	0.16	86.0
Vendor	< 0.005	< 0.005	0.04	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	30.0	30.0	< 0.005	< 0.005	0.04	31.4
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.13. Vertical (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.35	1.13	10.4	13.0	0.02	0.43	—	0.43	0.40	—	0.40	—	2,398	2,398	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.35	1.13	10.4	13.0	0.02	0.43	—	0.43	0.40	—	0.40	—	2,398	2,398	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.76	0.64	5.89	7.35	0.01	0.24	—	0.24	0.22	—	0.22	—	1,351	1,351	0.05	0.01	—	1,356
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.14	0.12	1.07	1.34	< 0.005	0.04	—	0.04	0.04	—	0.04	—	224	224	0.01	< 0.005	—	224
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.27	1.15	1.10	19.5	0.00	0.00	3.28	3.28	0.00	0.77	0.77	—	3,535	3,535	0.15	0.12	13.1	3,588
Vendor	0.12	0.03	1.30	0.70	0.01	0.02	0.32	0.34	0.02	0.09	0.11	—	1,168	1,168	0.09	0.18	3.29	1,227
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.20	1.08	1.22	14.7	0.00	0.00	3.28	3.28	0.00	0.77	0.77	—	3,241	3,241	0.15	0.12	0.34	3,282
Vendor	0.11	0.03	1.36	0.70	0.01	0.02	0.32	0.34	0.02	0.09	0.11	—	1,169	1,169	0.09	0.18	0.09	1,224
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.67	0.60	0.74	8.76	0.00	0.00	1.84	1.84	0.00	0.43	0.43	—	1,852	1,852	0.09	0.07	3.19	1,878
Vendor	0.06	0.02	0.77	0.39	< 0.005	0.01	0.18	0.19	0.01	0.05	0.06	—	659	659	0.05	0.10	0.80	690
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.12	0.11	0.14	1.60	0.00	0.00	0.34	0.34	0.00	0.08	0.08	—	307	307	0.01	0.01	0.53	311
Vendor	0.01	< 0.005	0.14	0.07	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	109	109	0.01	0.02	0.13	114
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.14. Vertical (2025) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	1.35	1.13	10.4	13.0	0.02	0.43	—	0.43	0.40	—	0.40	—	2,398	2,398	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.35	1.13	10.4	13.0	0.02	0.43	—	0.43	0.40	—	0.40	—	2,398	2,398	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.76	0.64	5.89	7.35	0.01	0.24	—	0.24	0.22	—	0.22	—	1,351	1,351	0.05	0.01	—	1,356
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.14	0.12	1.07	1.34	< 0.005	0.04	—	0.04	0.04	—	0.04	—	224	224	0.01	< 0.005	—	224
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.27	1.15	1.10	19.5	0.00	0.00	3.28	3.28	0.00	0.77	0.77	—	3,535	3,535	0.15	0.12	13.1	3,588
Vendor	0.12	0.03	1.30	0.70	0.01	0.02	0.32	0.34	0.02	0.09	0.11	—	1,168	1,168	0.09	0.18	3.29	1,227
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.20	1.08	1.22	14.7	0.00	0.00	3.28	3.28	0.00	0.77	0.77	—	3,241	3,241	0.15	0.12	0.34	3,282

Vendor	0.11	0.03	1.36	0.70	0.01	0.02	0.32	0.34	0.02	0.09	0.11	—	1,169	1,169	0.09	0.18	0.09	1,224
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.67	0.60	0.74	8.76	0.00	0.00	1.84	1.84	0.00	0.43	0.43	—	1,852	1,852	0.09	0.07	3.19	1,878
Vendor	0.06	0.02	0.77	0.39	< 0.005	0.01	0.18	0.19	0.01	0.05	0.06	—	659	659	0.05	0.10	0.80	690
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.12	0.11	0.14	1.60	0.00	0.00	0.34	0.34	0.00	0.08	0.08	—	307	307	0.01	0.01	0.53	311
Vendor	0.01	< 0.005	0.14	0.07	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	109	109	0.01	0.02	0.13	114
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.15. MEP/Other (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.44	1.20	11.2	13.1	0.02	0.50	—	0.50	0.46	—	0.46	—	2,398	2,398	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.13	0.11	1.03	1.21	< 0.005	0.05	—	0.05	0.04	—	0.04	—	221	221	0.01	< 0.005	—	221

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.19	0.22	< 0.005	0.01	—	0.01	0.01	—	0.01	—	36.5	36.5	< 0.005	< 0.005	—	36.6
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.37	1.24	1.43	16.0	0.00	0.00	3.28	3.28	0.00	0.77	0.77	—	3,310	3,310	0.16	0.12	0.37	3,351
Vendor	0.12	0.03	1.42	0.74	0.01	0.02	0.32	0.34	0.02	0.09	0.11	—	1,188	1,188	0.09	0.18	0.09	1,243
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.12	0.11	0.13	1.55	0.00	0.00	0.30	0.30	0.00	0.07	0.07	—	309	309	0.01	0.01	0.57	313
Vendor	0.01	< 0.005	0.13	0.07	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	109	109	0.01	0.02	0.13	114
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.02	0.28	0.00	0.00	0.05	0.05	0.00	0.01	0.01	—	51.1	51.1	< 0.005	< 0.005	0.09	51.8
Vendor	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	18.1	18.1	< 0.005	< 0.005	0.02	18.9
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.16. MEP/Other (2024) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.44	1.20	11.2	13.1	0.02	0.50	—	0.50	0.46	—	0.46	—	2,398	2,398	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.13	0.11	1.03	1.21	< 0.005	0.05	—	0.05	0.04	—	0.04	—	221	221	0.01	< 0.005	—	221
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.19	0.22	< 0.005	0.01	—	0.01	0.01	—	0.01	—	36.5	36.5	< 0.005	< 0.005	—	36.6
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.37	1.24	1.43	16.0	0.00	0.00	3.28	3.28	0.00	0.77	0.77	—	3,310	3,310	0.16	0.12	0.37	3,351
Vendor	0.12	0.03	1.42	0.74	0.01	0.02	0.32	0.34	0.02	0.09	0.11	—	1,188	1,188	0.09	0.18	0.09	1,243
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.12	0.11	0.13	1.55	0.00	0.00	0.30	0.30	0.00	0.07	0.07	—	309	309	0.01	0.01	0.57	313
Vendor	0.01	< 0.005	0.13	0.07	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	109	109	0.01	0.02	0.13	114
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.02	0.28	0.00	0.00	0.05	0.05	0.00	0.01	0.01	—	51.1	51.1	< 0.005	< 0.005	0.09	51.8
Vendor	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	18.1	18.1	< 0.005	< 0.005	0.02	18.9
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.17. MEP/Other (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.35	1.13	10.4	13.0	0.02	0.43	—	0.43	0.40	—	0.40	—	2,398	2,398	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.35	1.13	10.4	13.0	0.02	0.43	—	0.43	0.40	—	0.40	—	2,398	2,398	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.84	0.70	6.52	8.14	0.01	0.27	—	0.27	0.25	—	0.25	—	1,497	1,497	0.06	0.01	—	1,502
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.15	0.13	1.19	1.49	< 0.005	0.05	—	0.05	0.05	—	0.05	—	248	248	0.01	< 0.005	—	249
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.27	1.15	1.10	19.5	0.00	0.00	3.28	3.28	0.00	0.77	0.77	—	3,535	3,535	0.15	0.12	13.1	3,588
Vendor	0.12	0.03	1.30	0.70	0.01	0.02	0.32	0.34	0.02	0.09	0.11	—	1,168	1,168	0.09	0.18	3.29	1,227
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.20	1.08	1.22	14.7	0.00	0.00	3.28	3.28	0.00	0.77	0.77	—	3,241	3,241	0.15	0.12	0.34	3,282
Vendor	0.11	0.03	1.36	0.70	0.01	0.02	0.32	0.34	0.02	0.09	0.11	—	1,169	1,169	0.09	0.18	0.09	1,224
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.74	0.66	0.82	9.70	0.00	0.00	2.03	2.03	0.00	0.48	0.48	—	2,052	2,052	0.09	0.08	3.53	2,081
Vendor	0.07	0.02	0.85	0.44	0.01	0.01	0.20	0.21	0.01	0.06	0.07	—	730	730	0.06	0.11	0.89	765
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.14	0.12	0.15	1.77	0.00	0.00	0.37	0.37	0.00	0.09	0.09	—	340	340	0.02	0.01	0.59	344
Vendor	0.01	< 0.005	0.16	0.08	< 0.005	< 0.005	0.04	0.04	< 0.005	0.01	0.01	—	121	121	0.01	0.02	0.15	127
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0

3.18. MEP/Other (2025) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.35	1.13	10.4	13.0	0.02	0.43	—	0.43	0.40	—	0.40	—	2,398	2,398	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.35	1.13	10.4	13.0	0.02	0.43	—	0.43	0.40	—	0.40	—	2,398	2,398	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.84	0.70	6.52	8.14	0.01	0.27	—	0.27	0.25	—	0.25	—	1,497	1,497	0.06	0.01	—	1,502
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.15	0.13	1.19	1.49	< 0.005	0.05	—	0.05	0.05	—	0.05	—	248	248	0.01	< 0.005	—	249
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.27	1.15	1.10	19.5	0.00	0.00	3.28	3.28	0.00	0.77	0.77	—	3,535	3,535	0.15	0.12	13.1	3,588
Vendor	0.12	0.03	1.30	0.70	0.01	0.02	0.32	0.34	0.02	0.09	0.11	—	1,168	1,168	0.09	0.18	3.29	1,227
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.20	1.08	1.22	14.7	0.00	0.00	3.28	3.28	0.00	0.77	0.77	—	3,241	3,241	0.15	0.12	0.34	3,282
Vendor	0.11	0.03	1.36	0.70	0.01	0.02	0.32	0.34	0.02	0.09	0.11	—	1,169	1,169	0.09	0.18	0.09	1,224
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.74	0.66	0.82	9.70	0.00	0.00	2.03	2.03	0.00	0.48	0.48	—	2,052	2,052	0.09	0.08	3.53	2,081
Vendor	0.07	0.02	0.85	0.44	0.01	0.01	0.20	0.21	0.01	0.06	0.07	—	730	730	0.06	0.11	0.89	765
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.14	0.12	0.15	1.77	0.00	0.00	0.37	0.37	0.00	0.09	0.09	—	340	340	0.02	0.01	0.59	344
Vendor	0.01	< 0.005	0.16	0.08	< 0.005	< 0.005	0.04	0.04	< 0.005	0.01	0.01	—	121	121	0.01	0.02	0.15	127
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.19. Paving (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.95	0.80	7.45	9.98	0.01	0.35	—	0.35	0.32	—	0.32	—	1,511	1,511	0.06	0.01	—	1,517
Paving	—	0.72	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.06	0.05	0.47	0.63	< 0.005	0.02	—	0.02	0.02	—	0.02	—	95.2	95.2	< 0.005	< 0.005	—	95.6
Paving	—	0.05	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.09	0.11	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	15.8	15.8	< 0.005	< 0.005	—	15.8
Paving	—	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.06	0.07	0.88	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	194	194	0.01	0.01	0.02	196
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	< 0.005	< 0.005	< 0.005	0.06	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	12.4	12.4	< 0.005	< 0.005	0.02	12.6
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	2.05	2.05	< 0.005	< 0.005	< 0.005	2.08
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.20. Paving (2025) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.95	0.80	7.45	9.98	0.01	0.35	—	0.35	0.32	—	0.32	—	1,511	1,511	0.06	0.01	—	1,517
Paving	—	0.72	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.06	0.05	0.47	0.63	< 0.005	0.02	—	0.02	0.02	—	0.02	—	95.2	95.2	< 0.005	< 0.005	—	95.6
Paving	—	0.05	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.09	0.11	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	15.8	15.8	< 0.005	< 0.005	—	15.8
Paving	—	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.06	0.07	0.88	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	194	194	0.01	0.01	0.02	196
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.06	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	12.4	12.4	< 0.005	< 0.005	0.02	12.6
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	2.05	2.05	< 0.005	< 0.005	< 0.005	2.08
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.21. Coatings (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.15	0.13	0.88	1.14	< 0.005	0.03	—	0.03	0.03	—	0.03	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	—	150	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.05	0.06	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	7.32	7.32	< 0.005	< 0.005	—	7.34
Architectural Coatings	—	8.22	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.21	1.21	< 0.005	< 0.005	—	1.22
Architectural Coatings	—	1.50	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.72	0.65	0.73	8.84	0.00	0.00	1.97	1.97	0.00	0.46	0.46	—	1,944	1,944	0.09	0.07	0.20	1,969
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.03	0.04	0.51	0.00	0.00	0.11	0.11	0.00	0.03	0.03	—	108	108	< 0.005	< 0.005	0.19	110
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.09	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	17.9	17.9	< 0.005	< 0.005	0.03	18.1
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.22. Coatings (2025) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.15	0.13	0.88	1.14	< 0.005	0.03	—	0.03	0.03	—	0.03	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	—	35.1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.05	0.06	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	7.32	7.32	< 0.005	< 0.005	—	7.34
Architectural Coatings	—	1.92	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.21	1.21	< 0.005	< 0.005	—	1.22
Architectural Coatings	—	0.35	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.72	0.65	0.73	8.84	0.00	0.00	1.97	1.97	0.00	0.46	0.46	—	1,944	1,944	0.09	0.07	0.20	1,969
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.03	0.04	0.51	0.00	0.00	0.11	0.11	0.00	0.03	0.03	—	108	108	< 0.005	< 0.005	0.19	110
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.09	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	17.9	17.9	< 0.005	< 0.005	0.03	18.1
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.23. Trenching (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.45	0.38	2.91	3.71	0.01	0.14	—	0.14	0.13	—	0.13	—	547	547	0.02	< 0.005	—	549
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.45	0.38	2.91	3.71	0.01	0.14	—	0.14	0.13	—	0.13	—	547	547	0.02	< 0.005	—	549
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.02	0.18	0.22	< 0.005	0.01	—	0.01	0.01	—	0.01	—	33.0	33.0	< 0.005	< 0.005	—	33.1
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	< 0.005	< 0.005	0.03	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	5.46	5.46	< 0.005	< 0.005	—	5.48
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.04	0.04	0.63	0.00	0.00	0.10	0.10	0.00	0.02	0.02	—	108	108	< 0.005	< 0.005	0.43	110
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.04	0.04	0.48	0.00	0.00	0.10	0.10	0.00	0.02	0.02	—	99.0	99.0	< 0.005	< 0.005	0.01	100
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	6.05	6.05	< 0.005	< 0.005	0.01	6.13
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.00	1.00	< 0.005	< 0.005	< 0.005	1.02
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.24. Trenching (2024) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	C

Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.45	0.38	2.91	3.71	0.01	0.14	—	0.14	0.13	—	0.13	—	547	547	0.02	< 0.005	—	549
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.45	0.38	2.91	3.71	0.01	0.14	—	0.14	0.13	—	0.13	—	547	547	0.02	< 0.005	—	549
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.02	0.18	0.22	< 0.005	0.01	—	0.01	0.01	—	0.01	—	33.0	33.0	< 0.005	< 0.005	—	33.1
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.03	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	5.46	5.46	< 0.005	< 0.005	—	5.48
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.04	0.04	0.63	0.00	0.00	0.10	0.10	0.00	0.02	0.02	—	108	108	< 0.005	< 0.005	0.43	110
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.04	0.04	0.48	0.00	0.00	0.10	0.10	0.00	0.02	0.02	—	99.0	99.0	< 0.005	< 0.005	0.01	100
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	6.05	6.05	< 0.005	< 0.005	0.01	6.13
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.00	1.00	< 0.005	< 0.005	< 0.005	1.02
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	6.52	5.94	5.19	49.3	0.12	0.08	10.4	10.5	0.08	2.65	2.73	—	12,326	12,326	0.58	0.57	41.9	12,551

Strip Mall	1.29	1.16	1.15	11.1	0.03	0.02	2.45	2.47	0.02	0.62	0.64	—	2,876	2,876	0.13	0.13	9.84	2,927
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	7.82	7.11	6.35	60.4	0.15	0.10	12.9	13.0	0.09	3.27	3.36	—	15,202	15,202	0.71	0.69	51.8	15,478
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	6.11	5.53	5.57	41.5	0.11	0.08	10.4	10.5	0.08	2.65	2.73	—	11,558	11,558	0.61	0.58	1.09	11,749
Strip Mall	1.22	1.09	1.24	9.24	0.03	0.02	2.45	2.47	0.02	0.62	0.64	—	2,696	2,696	0.13	0.13	0.26	2,739
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	7.33	6.61	6.81	50.7	0.14	0.10	12.9	13.0	0.09	3.27	3.36	—	14,254	14,254	0.73	0.72	1.34	14,487
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	1.11	1.00	1.03	7.85	0.02	0.01	1.89	1.91	0.01	0.48	0.49	—	1,933	1,933	0.10	0.10	3.00	1,968
Strip Mall	0.22	0.20	0.23	1.75	< 0.005	< 0.005	0.44	0.45	< 0.005	0.11	0.12	—	451	451	0.02	0.02	0.70	459
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	1.33	1.20	1.26	9.60	0.03	0.02	2.34	2.35	0.02	0.59	0.61	—	2,384	2,384	0.12	0.12	3.70	2,427

4.1.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Apartme Mid Rise	6.52	5.94	5.19	49.3	0.12	0.08	10.4	10.5	0.08	2.65	2.73	—	12,326	12,326	0.58	0.57	41.9	12,551
Strip Mall	1.29	1.16	1.15	11.1	0.03	0.02	2.45	2.47	0.02	0.62	0.64	—	2,876	2,876	0.13	0.13	9.84	2,927
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	7.82	7.11	6.35	60.4	0.15	0.10	12.9	13.0	0.09	3.27	3.36	—	15,202	15,202	0.71	0.69	51.8	15,478
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	6.11	5.53	5.57	41.5	0.11	0.08	10.4	10.5	0.08	2.65	2.73	—	11,558	11,558	0.61	0.58	1.09	11,749
Strip Mall	1.22	1.09	1.24	9.24	0.03	0.02	2.45	2.47	0.02	0.62	0.64	—	2,696	2,696	0.13	0.13	0.26	2,739
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	7.33	6.61	6.81	50.7	0.14	0.10	12.9	13.0	0.09	3.27	3.36	—	14,254	14,254	0.73	0.72	1.34	14,487
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	1.11	1.00	1.03	7.85	0.02	0.01	1.89	1.91	0.01	0.48	0.49	—	1,933	1,933	0.10	0.10	3.00	1,968
Strip Mall	0.22	0.20	0.23	1.75	< 0.005	< 0.005	0.44	0.45	< 0.005	0.11	0.12	—	451	451	0.02	0.02	0.70	459
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	1.33	1.20	1.26	9.60	0.03	0.02	2.34	2.35	0.02	0.59	0.61	—	2,384	2,384	0.12	0.12	3.70	2,427

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

3660

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	1,416	1,416	0.14	0.02	—	1,425
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	49.8	49.8	< 0.005	< 0.005	—	50.1
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	1,466	1,466	0.14	0.02	—	1,475
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	1,416	1,416	0.14	0.02	—	1,425
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	49.8	49.8	< 0.005	< 0.005	—	50.1
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	1,466	1,466	0.14	0.02	—	1,475
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	235	235	0.02	< 0.005	—	236
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	8.25	8.25	< 0.005	< 0.005	—	8.30
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	243	243	0.02	< 0.005	—	244

4.2.2. Electricity Emissions By Land Use - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	1,416	1,416	0.14	0.02	—	1,425
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	49.8	49.8	< 0.005	< 0.005	—	50.1
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	1,466	1,466	0.14	0.02	—	1,475
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	1,416	1,416	0.14	0.02	—	1,425
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	49.8	49.8	< 0.005	< 0.005	—	50.1
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	1,466	1,466	0.14	0.02	—	1,475
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	235	235	0.02	< 0.005	—	236
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	8.25	8.25	< 0.005	< 0.005	—	8.30

Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	243	243	0.02	< 0.005	—	244

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	0.11	0.06	0.96	0.41	0.01	0.08	—	0.08	0.08	—	0.08	—	1,224	1,224	0.11	< 0.005	—	1,227
Strip Mall	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	10.2	10.2	< 0.005	< 0.005	—	10.2
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.11	0.06	0.97	0.42	0.01	0.08	—	0.08	0.08	—	0.08	—	1,234	1,234	0.11	< 0.005	—	1,238
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	0.11	0.06	0.96	0.41	0.01	0.08	—	0.08	0.08	—	0.08	—	1,224	1,224	0.11	< 0.005	—	1,227
Strip Mall	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	10.2	10.2	< 0.005	< 0.005	—	10.2
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.11	0.06	0.97	0.42	0.01	0.08	—	0.08	0.08	—	0.08	—	1,234	1,234	0.11	< 0.005	—	1,238
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Apartments	0.02	0.01	0.18	0.07	< 0.005	0.01	—	0.01	0.01	—	0.01	—	203	203	0.02	< 0.005	—	203
Strip Mall	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.69	1.69	< 0.005	< 0.005	—	1.69
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.02	0.01	0.18	0.08	< 0.005	0.01	—	0.01	0.01	—	0.01	—	204	204	0.02	< 0.005	—	205

4.2.4. Natural Gas Emissions By Land Use - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	0.11	0.06	0.96	0.41	0.01	0.08	—	0.08	0.08	—	0.08	—	1,224	1,224	0.11	< 0.005	—	1,227
Strip Mall	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	10.2	10.2	< 0.005	< 0.005	—	10.2
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.11	0.06	0.97	0.42	0.01	0.08	—	0.08	0.08	—	0.08	—	1,234	1,234	0.11	< 0.005	—	1,238
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	0.11	0.06	0.96	0.41	0.01	0.08	—	0.08	0.08	—	0.08	—	1,224	1,224	0.11	< 0.005	—	1,227
Strip Mall	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	10.2	10.2	< 0.005	< 0.005	—	10.2
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00

Total	0.11	0.06	0.97	0.42	0.01	0.08	—	0.08	0.08	—	0.08	—	1,234	1,234	0.11	< 0.005	—	1,238
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	0.02	0.01	0.18	0.07	< 0.005	0.01	—	0.01	0.01	—	0.01	—	203	203	0.02	< 0.005	—	203
Strip Mall	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.69	1.69	< 0.005	< 0.005	—	1.69
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.02	0.01	0.18	0.08	< 0.005	0.01	—	0.01	0.01	—	0.01	—	204	204	0.02	< 0.005	—	205

4.3. Area Emissions by Source

4.3.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	1,168	1,168	0.11	0.01	—	1,175
Consumer Products	—	9.96	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.82	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	1.88	1.78	0.19	19.9	< 0.005	0.01	—	0.01	0.01	—	0.01	—	53.4	53.4	< 0.005	< 0.005	—	53.6
Total	1.88	12.6	0.19	19.9	< 0.005	0.01	—	0.01	0.01	—	0.01	0.00	1,221	1,221	0.11	0.01	—	1,228

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	1,168	1,168	0.11	0.01	—	1,175
Consumer Products	—	9.96	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.82	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	0.00	10.8	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	1,168	1,168	0.11	0.01	—	1,175
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	13.2	13.2	< 0.005	< 0.005	—	13.3
Consumer Products	—	1.82	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.15	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.23	0.22	0.02	2.48	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	6.06	6.06	< 0.005	< 0.005	—	6.08
Total	0.23	2.19	0.02	2.48	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.00	19.3	19.3	< 0.005	< 0.005	—	19.4

4.3.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	1,168	1,168	0.11	0.01	—	1,175

Consumer	—	9.96	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.82	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	1.88	1.78	0.19	19.9	< 0.005	0.01	—	0.01	0.01	—	0.01	—	53.4	53.4	< 0.005	< 0.005	—	53.6
Total	1.88	12.6	0.19	19.9	< 0.005	0.01	—	0.01	0.01	—	0.01	0.00	1,221	1,221	0.11	0.01	—	1,228
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	1,168	1,168	0.11	0.01	—	1,175
Consumer Products	—	9.96	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.82	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	0.00	10.8	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	1,168	1,168	0.11	0.01	—	1,175
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	13.2	13.2	< 0.005	< 0.005	—	13.3
Consumer Products	—	1.82	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.15	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.23	0.22	0.02	2.48	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	6.06	6.06	< 0.005	< 0.005	—	6.08
Total	0.23	2.19	0.02	2.48	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.00	19.3	19.3	< 0.005	< 0.005	—	19.4

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	27.6	96.1	124	2.84	0.07	—	215
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	0.77	2.58	3.35	0.08	< 0.005	—	5.89
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	28.4	98.7	127	2.92	0.07	—	221
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	27.6	96.1	124	2.84	0.07	—	215
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	0.77	2.58	3.35	0.08	< 0.005	—	5.89
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	28.4	98.7	127	2.92	0.07	—	221
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	4.58	15.9	20.5	0.47	0.01	—	35.6
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	0.13	0.43	0.55	0.01	< 0.005	—	0.07

Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	4.70	16.3	21.0	0.48	0.01	—	36.6

4.4.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	27.6	96.1	124	2.84	0.07	—	215
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	0.77	2.58	3.35	0.08	< 0.005	—	5.89
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	28.4	98.7	127	2.92	0.07	—	221
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	27.6	96.1	124	2.84	0.07	—	215
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	0.77	2.58	3.35	0.08	< 0.005	—	5.89
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	28.4	98.7	127	2.92	0.07	—	221
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Apartments	—	—	—	—	—	—	—	—	—	—	—	4.58	15.9	20.5	0.47	0.01	—	35.6
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	0.13	0.43	0.55	0.01	< 0.005	—	0.97
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	4.70	16.3	21.0	0.48	0.01	—	36.6

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	138	0.00	138	13.8	0.00	—	482
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	3.06	0.00	3.06	0.31	0.00	—	10.7
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	141	0.00	141	14.1	0.00	—	493
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	138	0.00	138	13.8	0.00	—	482
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	3.06	0.00	3.06	0.31	0.00	—	10.7

Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	141	0.00	141	14.1	0.00	—	493
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	22.8	0.00	22.8	2.28	0.00	—	79.9
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	0.51	0.00	0.51	0.05	0.00	—	1.77
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	23.3	0.00	23.3	2.33	0.00	—	81.6

4.5.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	138	0.00	138	13.8	0.00	—	482
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	3.06	0.00	3.06	0.31	0.00	—	10.7
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	141	0.00	141	14.1	0.00	—	493
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Apartments	—	—	—	—	—	—	—	—	—	—	—	138	0.00	138	13.8	0.00	—	482
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	3.06	0.00	3.06	0.31	0.00	—	10.7
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	141	0.00	141	14.1	0.00	—	493
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	22.8	0.00	22.8	2.28	0.00	—	79.9
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	0.51	0.00	0.51	0.05	0.00	—	1.77
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	23.3	0.00	23.3	2.33	0.00	—	81.6

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.29	3.29
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.03	0.03
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.32	3.32

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.29	3.29
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.03	0.03
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.32	3.32
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.54	0.54
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.01	0.01
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.55	0.55

4.6.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.29	3.29
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.03	0.03
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.32	3.32
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.29	3.29

Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.03	0.03
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.32	3.32
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.54	0.54
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.01	0.01
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.55	0.55

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.7.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.9.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Sequest	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.4. Soil Carbon Accumulation By Vegetation Type - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.5. Above and Belowground Carbon Accumulation by Land Use Type - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.6. Avoided and Sequestered Emissions by Species - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Remove	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Demolition	Demolition	6/1/2024	8/1/2024	5.00	44.0	—
Site Preparation	Site Preparation	7/1/2024	8/1/2024	5.00	24.0	—
Grading	Grading	7/24/2024	9/24/2024	5.00	45.0	—
Foundation	Building Construction	9/15/2024	3/15/2025	5.00	130	—
Vertical	Building Construction	10/15/2024	10/15/2025	5.00	262	—
MEP/Other	Building Construction	11/15/2024	11/15/2025	5.00	261	—
Paving	Paving	10/1/2025	11/1/2025	5.00	23.0	—
Coatings	Architectural Coating	11/1/2025	11/30/2025	5.00	20.0	—
Trenching	Trenching	9/1/2024	10/1/2024	5.00	22.0	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Demolition	Rubber Tired Dozers	Diesel	Average	2.00	8.00	367	0.40
Demolition	Excavators	Diesel	Average	3.00	8.00	36.0	0.38
Demolition	Concrete/Industrial Saws	Diesel	Average	1.00	8.00	33.0	0.73
Site Preparation	Rubber Tired Dozers	Diesel	Average	3.00	8.00	367	0.40

Site Preparation	Tractors/Loaders/Backh	Diesel	Average	4.00	8.00	84.0	0.37
Grading	Graders	Diesel	Average	1.00	8.00	148	0.41
Grading	Excavators	Diesel	Average	1.00	8.00	36.0	0.38
Grading	Tractors/Loaders/Backhoes	Diesel	Average	3.00	8.00	84.0	0.37
Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Foundation	Forklifts	Diesel	Average	3.00	8.00	82.0	0.20
Foundation	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Foundation	Cranes	Diesel	Average	1.00	7.00	367	0.29
Foundation	Welders	Diesel	Average	1.00	8.00	46.0	0.45
Foundation	Tractors/Loaders/Backhoes	Diesel	Average	3.00	7.00	84.0	0.37
Vertical	Forklifts	Diesel	Average	3.00	8.00	82.0	0.20
Vertical	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Vertical	Cranes	Diesel	Average	1.00	7.00	367	0.29
Vertical	Welders	Diesel	Average	1.00	8.00	46.0	0.45
Vertical	Tractors/Loaders/Backhoes	Diesel	Average	3.00	7.00	84.0	0.37
MEP/Other	Forklifts	Diesel	Average	3.00	8.00	82.0	0.20
MEP/Other	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
MEP/Other	Cranes	Diesel	Average	1.00	7.00	367	0.29
MEP/Other	Welders	Diesel	Average	1.00	8.00	46.0	0.45
MEP/Other	Tractors/Loaders/Backhoes	Diesel	Average	3.00	7.00	84.0	0.37
Paving	Pavers	Diesel	Average	2.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Average	2.00	8.00	89.0	0.36
Paving	Rollers	Diesel	Average	2.00	8.00	36.0	0.38
Coatings	Air Compressors	Diesel	Average	1.00	6.00	37.0	0.48
Trenching	Trenchers	Diesel	Average	1.00	8.00	40.0	0.50

Trenching	Tractors/Loaders/Backh	Diesel	Average	1.00	8.00	84.0	0.37
Trenching	Signal Boards	Diesel	Average	1.00	8.00	6.00	0.82

5.2.2. Mitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Demolition	Rubber Tired Dozers	Diesel	Average	2.00	8.00	367	0.40
Demolition	Excavators	Diesel	Average	3.00	8.00	36.0	0.38
Demolition	Concrete/Industrial Saws	Diesel	Average	1.00	8.00	33.0	0.73
Site Preparation	Rubber Tired Dozers	Diesel	Average	3.00	8.00	367	0.40
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Average	4.00	8.00	84.0	0.37
Grading	Graders	Diesel	Average	1.00	8.00	148	0.41
Grading	Excavators	Diesel	Average	1.00	8.00	36.0	0.38
Grading	Tractors/Loaders/Backhoes	Diesel	Average	3.00	8.00	84.0	0.37
Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Foundation	Forklifts	Diesel	Average	3.00	8.00	82.0	0.20
Foundation	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Foundation	Cranes	Diesel	Average	1.00	7.00	367	0.29
Foundation	Welders	Diesel	Average	1.00	8.00	46.0	0.45
Foundation	Tractors/Loaders/Backhoes	Diesel	Average	3.00	7.00	84.0	0.37
Vertical	Forklifts	Diesel	Average	3.00	8.00	82.0	0.20
Vertical	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Vertical	Cranes	Diesel	Average	1.00	7.00	367	0.29
Vertical	Welders	Diesel	Average	1.00	8.00	46.0	0.45
Vertical	Tractors/Loaders/Backhoes	Diesel	Average	3.00	7.00	84.0	0.37

MEP/Other	Forklifts	Diesel	Average	3.00	8.00	82.0	0.20
MEP/Other	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
MEP/Other	Cranes	Diesel	Average	1.00	7.00	367	0.29
MEP/Other	Welders	Diesel	Average	1.00	8.00	46.0	0.45
MEP/Other	Tractors/Loaders/Backhoes	Diesel	Average	3.00	7.00	84.0	0.37
Paving	Pavers	Diesel	Average	2.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Average	2.00	8.00	89.0	0.36
Paving	Rollers	Diesel	Average	2.00	8.00	36.0	0.38
Coatings	Air Compressors	Diesel	Average	1.00	6.00	37.0	0.48
Trenching	Trenchers	Diesel	Average	1.00	8.00	40.0	0.50
Trenching	Tractors/Loaders/Backhoes	Diesel	Average	1.00	8.00	84.0	0.37
Trenching	Signal Boards	Diesel	Average	1.00	8.00	6.00	0.82

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Demolition	—	—	—	—
Demolition	Worker	15.0	18.5	LDA,LDT1,LDT2
Demolition	Vendor	—	10.2	HHDT,MHDT
Demolition	Hauling	26.6	20.0	HHDT
Demolition	Onsite truck	—	—	HHDT
Site Preparation	—	—	—	—
Site Preparation	Worker	17.5	18.5	LDA,LDT1,LDT2
Site Preparation	Vendor	—	10.2	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT

Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	15.0	18.5	LDA,LDT1,LDT2
Grading	Vendor	—	10.2	HHDT,MHDT
Grading	Hauling	25.3	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Foundation	—	—	—	—
Foundation	Worker	251	18.5	LDA,LDT1,LDT2
Foundation	Vendor	37.9	10.2	HHDT,MHDT
Foundation	Hauling	0.00	20.0	HHDT
Foundation	Onsite truck	—	—	HHDT
Vertical	—	—	—	—
Vertical	Worker	251	18.5	LDA,LDT1,LDT2
Vertical	Vendor	37.9	10.2	HHDT,MHDT
Vertical	Hauling	0.00	20.0	HHDT
Vertical	Onsite truck	—	—	HHDT
MEP/Other	—	—	—	—
MEP/Other	Worker	251	18.5	LDA,LDT1,LDT2
MEP/Other	Vendor	37.9	10.2	HHDT,MHDT
MEP/Other	Hauling	0.00	20.0	HHDT
MEP/Other	Onsite truck	—	—	HHDT
Coatings	—	—	—	—
Coatings	Worker	151	18.5	LDA,LDT1,LDT2
Coatings	Vendor	—	10.2	HHDT,MHDT
Coatings	Hauling	0.00	20.0	HHDT
Coatings	Onsite truck	—	—	HHDT
Trenching	—	—	—	—

Trenching	Worker	7.50	18.5	LDA,LDT1,LDT2
Trenching	Vendor	—	10.2	HHDT,MHDT
Trenching	Hauling	0.00	20.0	HHDT
Trenching	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	15.0	18.5	LDA,LDT1,LDT2
Paving	Vendor	—	10.2	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT

5.3.2. Mitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Demolition	—	—	—	—
Demolition	Worker	15.0	18.5	LDA,LDT1,LDT2
Demolition	Vendor	—	10.2	HHDT,MHDT
Demolition	Hauling	26.6	20.0	HHDT
Demolition	Onsite truck	—	—	HHDT
Site Preparation	—	—	—	—
Site Preparation	Worker	17.5	18.5	LDA,LDT1,LDT2
Site Preparation	Vendor	—	10.2	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	15.0	18.5	LDA,LDT1,LDT2
Grading	Vendor	—	10.2	HHDT,MHDT
Grading	Hauling	25.3	20.0	HHDT
Grading	Onsite truck	—	—	HHDT

Foundation	—	—	—	—
Foundation	Worker	251	18.5	LDA,LDT1,LDT2
Foundation	Vendor	37.9	10.2	HHDT,MHDT
Foundation	Hauling	0.00	20.0	HHDT
Foundation	Onsite truck	—	—	HHDT
Vertical	—	—	—	—
Vertical	Worker	251	18.5	LDA,LDT1,LDT2
Vertical	Vendor	37.9	10.2	HHDT,MHDT
Vertical	Hauling	0.00	20.0	HHDT
Vertical	Onsite truck	—	—	HHDT
MEP/Other	—	—	—	—
MEP/Other	Worker	251	18.5	LDA,LDT1,LDT2
MEP/Other	Vendor	37.9	10.2	HHDT,MHDT
MEP/Other	Hauling	0.00	20.0	HHDT
MEP/Other	Onsite truck	—	—	HHDT
Coatings	—	—	—	—
Coatings	Worker	151	18.5	LDA,LDT1,LDT2
Coatings	Vendor	—	10.2	HHDT,MHDT
Coatings	Hauling	0.00	20.0	HHDT
Coatings	Onsite truck	—	—	HHDT
Trenching	—	—	—	—
Trenching	Worker	7.50	18.5	LDA,LDT1,LDT2
Trenching	Vendor	—	10.2	HHDT,MHDT
Trenching	Hauling	0.00	20.0	HHDT
Trenching	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	15.0	18.5	LDA,LDT1,LDT2

Paving	Vendor	—	10.2	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
Coatings	929,422	309,807	8,100	2,700	16,624

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (Cubic Yards)	Material Exported (Cubic Yards)	Acres Graded (acres)	Material Demolished (Building Square Footage)	Acres Paved (acres)
Demolition	0.00	0.00	0.00	101,620	—
Site Preparation	0.00	0.00	33.0	0.00	—
Grading	9,105	0.00	44.0	0.00	—
Paving	0.00	0.00	0.00	0.00	6.36

5.6.2. Construction Earthmoving Control Strategies

Control Strategies Applied	Frequency (per day)	PM10 Reduction	PM2.5 Reduction
Water Exposed Area	2	61%	61%
Water Demolished Area	2	36%	36%

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
Apartments Mid Rise	—	0%
Strip Mall	0.00	0%
Other Asphalt Surfaces	6.36	100%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2024	0.00	532	0.03	< 0.005
2025	0.00	532	0.03	< 0.005

5.9. Operational Mobile Sources

5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Apartments Mid Rise	1,571	1,571	1,571	573,357	14,708	14,708	14,708	5,368,476
Strip Mall	294	294	294	107,321	3,449	3,449	3,449	1,258,840
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

5.9.2. Mitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Apartments Mid Rise	1,571	1,571	1,571	573,357	14,708	14,708	14,708	5,368,476
Strip Mall	294	294	294	107,321	3,449	3,449	3,449	1,258,840

Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

Hearth Type	Unmitigated (number)
Apartments Mid Rise	—
Wood Fireplaces	0
Gas Fireplaces	0
Propane Fireplaces	0
Electric Fireplaces	311
No Fireplaces	35
Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0

5.10.1.2. Mitigated

Hearth Type	Unmitigated (number)
Apartments Mid Rise	—
Wood Fireplaces	0
Gas Fireplaces	0
Propane Fireplaces	0
Electric Fireplaces	311
No Fireplaces	35

Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0

5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
929422.35	309,807	8,100	2,700	16,624

5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	250

5.10.4. Landscape Equipment - Mitigated

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	250

5.11. Operational Energy Consumption

5.11.1. Unmitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Apartments Mid Rise	1,493,392	346	0.0330	0.0040	3,818,864
Strip Mall	52,533	346	0.0330	0.0040	31,836

Other Asphalt Surfaces	0.00	346	0.0330	0.0040	0.00

5.11.2. Mitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Apartments Mid Rise	1,493,392	346	0.0330	0.0040	3,818,864
Strip Mall	52,533	346	0.0330	0.0040	31,836
Other Asphalt Surfaces	0.00	346	0.0330	0.0040	0.00

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Apartments Mid Rise	14,421,687	587,421
Strip Mall	399,992	0.00
Other Asphalt Surfaces	0.00	0.00

5.12.2. Mitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Apartments Mid Rise	14,421,687	587,421
Strip Mall	399,992	0.00
Other Asphalt Surfaces	0.00	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)

Apartments Mid Rise	256	—
Strip Mall	5.67	—
Other Asphalt Surfaces	0.00	—

5.13.2. Mitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Apartments Mid Rise	256	—
Strip Mall	5.67	—
Other Asphalt Surfaces	0.00	—

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Apartments Mid Rise	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Apartments Mid Rise	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
Strip Mall	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Strip Mall	Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00
Strip Mall	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0

5.14.2. Mitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced

Apartments Mid Rise	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Apartments Mid Rise	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
Strip Mall	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Strip Mall	Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00
Strip Mall	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor

5.15.2. Mitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

Equipment Type	Fuel Type	Number per Day	Hours per Day	Hours per Year	Horsepower	Load Factor

5.16.2. Process Boilers

Equipment Type	Fuel Type	Number	Boiler Rating (MMBtu/hr)	Daily Heat Input (MMBtu/day)	Annual Heat Input (MMBtu/yr)

3695

5.17. User Defined

Equipment Type	Fuel Type

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

3696

5.18.2.2. Mitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	19.8	annual days of extreme heat
Extreme Precipitation	4.05	annual days with precipitation above 20 mm
Sea Level Rise	0.00	meters of inundation depth
Wildfire	0.00	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider different increments of sea level rise coupled with extreme storm events. Users may select from four model simulations to view the range in potential inundation depth for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 50 meters (m) by 50 m, or about 164 feet (ft) by 164 ft.
Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	2	0	0	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	1	0	0	N/A

Wildfire	1	0	0	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	0	0	0	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	2	1	1	3
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	1	1	1	2
Wildfire	1	1	1	2
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	1	1	1	2

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	80.0
AQ-PM	95.0
AQ-DPM	96.7
Drinking Water	99.7
Lead Risk Housing	26.8
Pesticides	19.2
Toxic Releases	65.3
Traffic	91.1
Effect Indicators	—
CleanUp Sites	40.8
Groundwater	37.8
Haz Waste Facilities/Generators	26.7
Impaired Water Bodies	0.00
Solid Waste	35.7
Sensitive Population	—
Asthma	43.9
Cardio-vascular	72.2
Low Birth Weights	23.3
Socioeconomic Factor Indicators	—
Education	64.1
Housing	29.7
Linguistic	50.5
Poverty	41.0

Unemployment	33.6

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	52.03387656
Employed	54.83125882
Median HI	65.14820993
Education	—
Bachelor's or higher	49.15950212
High school enrollment	100
Preschool enrollment	14.78249711
Transportation	—
Auto Access	78.96830489
Active commuting	27.28089311
Social	—
2-parent households	81.31656615
Voting	64.17297575
Neighborhood	—
Alcohol availability	41.75542153
Park access	22.69985885
Retail density	45.77184653
Supermarket access	57.37200051
Tree canopy	18.41396125
Housing	—
Homeownership	86.56486591

3700

Housing habitability	75.79879379
Low-inc homeowner severe housing cost burden	60.87514436
Low-inc renter severe housing cost burden	87.5914282
Uncrowded housing	53.4838958
Health Outcomes	—
Insured adults	49.96791993
Arthritis	31.2
Asthma ER Admissions	51.4
High Blood Pressure	43.5
Cancer (excluding skin)	42.8
Asthma	37.3
Coronary Heart Disease	47.4
Chronic Obstructive Pulmonary Disease	35.3
Diagnosed Diabetes	41.8
Life Expectancy at Birth	68.4
Cognitively Disabled	43.0
Physically Disabled	69.8
Heart Attack ER Admissions	19.3
Mental Health Not Good	43.4
Chronic Kidney Disease	55.3
Obesity	43.5
Pedestrian Injuries	65.5
Physical Health Not Good	42.2
Stroke	51.7
Health Risk Behaviors	—
Binge Drinking	47.1
Current Smoker	44.4

3701

No Leisure Time for Physical Activity	50.7
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	0.0
Children	33.8
Elderly	56.5
English Speaking	35.7
Foreign-born	48.2
Outdoor Workers	65.0
Climate Change Adaptive Capacity	—
Impervious Surface Cover	53.7
Traffic Density	89.6
Traffic Access	23.0
Other Indices	—
Hardship	57.1
Other Decision Support	—
2016 Voting	73.7

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	64.0
Healthy Places Index Score for Project Location (b)	52.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	No
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

3702

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Land Use	Updated lot acreage and building square feet based on project site plan received 6/29/23.
Construction: Construction Phases	Updated construction building construction phases and schedule based on data request response received 8/28/23.
Construction: Off-Road Equipment	Updated Trenching equipment to include one trencher, one backhoe and one signal board.
Construction: Architectural Coatings	—
Construction: Dust From Material Movement	Updated Grading soil import based on data request response received 8/28/23.
Operations: Vehicle Data	Updated trip rates and primary/pass-by trip percentages based on LLG traffic information received 7/31/23.
Operations: Hearths	Updated number of fireplaces based on data request response received 8/28/23. Removed wood stoves based on SCAQMD Rule 445.

This page intentionally left blank.

Attachment 3

Phase 2 CalEEMod Emissions Estimates and Fugitive Dust Calculations

This page intentionally left blank.

Legacy Ontario PUD Construction Phase 2 Detailed Report

Table of Contents

1. Basic Project Information

1.1. Basic Project Information

1.2. Land Use Types

1.3. User-Selected Emission Reduction Measures by Emissions Sector

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

2.2. Construction Emissions by Year, Unmitigated

2.4. Operations Emissions Compared Against Thresholds

2.5. Operations Emissions by Sector, Unmitigated

3. Construction Emissions Details

3.1. Demolition (2026) - Unmitigated

3.3. Site Preparation (2026) - Unmitigated

3.5. Grading (2026) - Unmitigated

3.7. Building Construction (2026) - Unmitigated

3.9. Paving (2026) - Unmitigated

3.11. Architectural Coating (2026) - Unmitigated

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

4.3. Area Emissions by Source

4.3.1. Unmitigated

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

5. Activity Data

5.1. Construction Schedule

5.2. Off-Road Equipment

5.2.1. Unmitigated

5.3. Construction Vehicles

5.3.1. Unmitigated

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

5.5. Architectural Coatings

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

5.6.2. Construction Earthmoving Control Strategies

5.7. Construction Paving

5.8. Construction Electricity Consumption and Emissions Factors

5.9. Operational Mobile Sources

5.9.1. Unmitigated

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

5.10.2. Architectural Coatings

5.10.3. Landscape Equipment

5.11. Operational Energy Consumption

5.11.1. Unmitigated

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

5.13. Operational Waste Generation

5.13.1. Unmitigated

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

5.16.2. Process Boilers

5.17. User Defined

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

5.18.2. Sequestration

5.18.2.1. Unmitigated

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

6.2. Initial Climate Risk Scores

6.3. Adjusted Climate Risk Scores

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

7.2. Healthy Places Index Scores

7.3. Overall Health & Equity Scores

7.4. Health & Equity Measures

7.5. Evaluation Scorecard

7.6. Health & Equity Custom Measures

8. User Changes to Default Data

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	Legacy Ontario PUD Construction Phase 2
Construction Start Date	1/1/2026
Operational Year	2027
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.60
Precipitation (days)	9.20
Location	34.0271018753637, -117.65141705846071
County	San Bernardino-South Coast
City	Ontario
Air District	South Coast AQMD
Air Basin	South Coast
TAZ	5251
EDFZ	10
Electric Utility	Southern California Edison
Gas Utility	Southern California Gas
App Version	2022.1.1.18

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description

3713

Apartments Mid Rise	23.0	Dwelling Unit	0.61	22,080	0.00	0.00	76.0	—
Strip Mall	6.60	1000sqft	0.15	6,600	0.00	0.00	—	—
Other Asphalt Surfaces	0.75	Acre	0.75	0.00	0.00	0.00	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.32	1.10	8.76	11.4	0.02	0.29	0.27	0.57	0.27	0.07	0.34	—	2,166	2,166	0.09	0.04	1.17	2,181
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.74	21.0	13.3	15.5	0.03	0.58	2.89	3.47	0.53	1.37	1.90	—	2,886	2,886	0.13	0.06	0.03	2,909
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.86	1.30	5.89	7.38	0.01	0.20	0.22	0.43	0.19	0.06	0.25	—	1,412	1,412	0.06	0.03	0.31	1,422
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.16	0.24	1.07	1.35	< 0.005	0.04	0.04	0.08	0.03	0.01	0.05	—	234	234	0.01	< 0.005	0.05	235

2.2. Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	1.32	1.10	8.76	11.4	0.02	0.29	0.27	0.57	0.27	0.07	0.34	—	2,166	2,166	0.09	0.04	1.17	2,181
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	1.74	21.0	13.3	15.5	0.03	0.58	2.89	3.47	0.53	1.37	1.90	—	2,886	2,886	0.13	0.06	0.03	2,909
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	0.86	1.30	5.89	7.38	0.01	0.20	0.22	0.43	0.19	0.06	0.25	—	1,412	1,412	0.06	0.03	0.31	1,422
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	0.16	0.24	1.07	1.35	< 0.005	0.04	0.04	0.08	0.03	0.01	0.05	—	234	234	0.01	< 0.005	0.05	235

2.4. Operations Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	2.10	2.57	1.73	17.7	0.04	0.03	3.68	3.72	0.03	0.94	0.97	15.7	4,589	4,605	1.79	0.20	13.4	4,722
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.82	2.30	1.84	13.4	0.04	0.03	3.68	3.72	0.03	0.94	0.97	15.7	4,319	4,335	1.79	0.20	0.54	4,441
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.92	2.39	1.88	15.0	0.04	0.03	3.66	3.70	0.03	0.93	0.96	15.7	4,291	4,307	1.79	0.20	5.89	4,419

Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.35	0.44	0.34	2.74	0.01	0.01	0.67	0.67	0.01	0.17	0.18	2.59	710	713	0.30	0.03	0.98	732

2.5. Operations Emissions by Sector, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	1.92	1.73	1.64	16.1	0.04	0.03	3.68	3.71	0.03	0.94	0.96	—	4,248	4,248	0.18	0.19	13.2	4,322
Area	0.17	0.84	0.01	1.59	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.00	82.3	82.3	0.01	< 0.005	—	82.8
Energy	0.01	< 0.005	0.07	0.04	< 0.005	0.01	—	0.01	0.01	—	0.01	—	249	249	0.02	< 0.005	—	250
Water	—	—	—	—	—	—	—	—	—	—	—	2.77	9.35	12.1	0.29	0.01	—	21.3
Waste	—	—	—	—	—	—	—	—	—	—	—	12.9	0.00	12.9	1.29	0.00	—	45.1
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.20	0.20
Total	2.10	2.57	1.73	17.7	0.04	0.03	3.68	3.72	0.03	0.94	0.97	15.7	4,589	4,605	1.79	0.20	13.4	4,722
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	1.81	1.62	1.77	13.4	0.04	0.03	3.68	3.71	0.03	0.94	0.96	—	3,983	3,983	0.19	0.19	0.34	4,047
Area	0.00	0.67	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	77.6	77.6	0.01	< 0.005	—	78.1
Energy	0.01	< 0.005	0.07	0.04	< 0.005	0.01	—	0.01	0.01	—	0.01	—	249	249	0.02	< 0.005	—	250
Water	—	—	—	—	—	—	—	—	—	—	—	2.77	9.35	12.1	0.29	0.01	—	21.3
Waste	—	—	—	—	—	—	—	—	—	—	—	12.9	0.00	12.9	1.29	0.00	—	45.1
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.20	0.20
Total	1.82	2.30	1.84	13.4	0.04	0.03	3.68	3.72	0.03	0.94	0.97	15.7	4,319	4,335	1.79	0.20	0.54	4,441
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Mobile	1.79	1.60	1.79	13.9	0.04	0.03	3.66	3.69	0.03	0.93	0.96	—	4,025	4,025	0.19	0.20	5.69	4,094
Area	0.12	0.78	0.01	1.09	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.00	8.52	8.52	< 0.005	< 0.005	—	8.56
Energy	0.01	< 0.005	0.07	0.04	< 0.005	0.01	—	0.01	0.01	—	0.01	—	249	249	0.02	< 0.005	—	250
Water	—	—	—	—	—	—	—	—	—	—	—	2.77	9.35	12.1	0.29	0.01	—	21.3
Waste	—	—	—	—	—	—	—	—	—	—	—	12.9	0.00	12.9	1.29	0.00	—	45.1
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.20	0.20
Total	1.92	2.39	1.88	15.0	0.04	0.03	3.66	3.70	0.03	0.93	0.96	15.7	4,291	4,307	1.79	0.20	5.89	4,419
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.33	0.29	0.33	2.53	0.01	< 0.005	0.67	0.67	< 0.005	0.17	0.17	—	666	666	0.03	0.03	0.94	678
Area	0.02	0.14	< 0.005	0.20	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.00	1.41	1.41	< 0.005	< 0.005	—	1.42
Energy	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	41.2	41.2	< 0.005	< 0.005	—	41.4
Water	—	—	—	—	—	—	—	—	—	—	—	0.46	1.55	2.01	0.05	< 0.005	—	3.53
Waste	—	—	—	—	—	—	—	—	—	—	—	2.13	0.00	2.13	0.21	0.00	—	7.46
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.03	0.03
Total	0.35	0.44	0.34	2.74	0.01	0.01	0.67	0.67	0.01	0.17	0.18	2.59	710	713	0.30	0.03	0.98	732

3. Construction Emissions Details

3.1. Demolition (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	1.66	1.39	12.9	14.6	0.02	0.51	—	0.51	0.47	—	0.47	—	2,494	2,494	0.10	0.02	—	2,503
Demolition	—	—	—	—	—	—	0.19	0.19	—	0.03	0.03	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.09	0.08	0.71	0.80	< 0.005	0.03	—	0.03	0.03	—	0.03	—	137	137	0.01	< 0.005	—	137
Demolition	—	—	—	—	—	—	0.01	0.01	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.01	0.13	0.15	< 0.005	0.01	—	0.01	< 0.005	—	< 0.005	—	22.6	22.6	< 0.005	< 0.005	—	22.7
Demolition	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.05	0.05	0.68	0.00	0.00	0.16	0.16	0.00	0.04	0.04	—	158	158	< 0.005	0.01	0.02	—
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Hauling	0.03	< 0.005	0.29	0.16	< 0.005	< 0.005	0.06	0.07	< 0.005	0.02	0.02	—	234	234	0.02	0.04	0.01	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	< 0.005	< 0.005	< 0.005	0.04	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	8.79	8.79	< 0.005	< 0.005	0.01	—
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Hauling	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	12.8	12.8	< 0.005	< 0.005	0.01	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.46	1.46	< 0.005	< 0.005	< 0.005	—
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	2.13	2.13	< 0.005	< 0.005	< 0.005	—

3.3. Site Preparation (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.47	1.24	11.0	11.7	0.02	0.51	—	0.51	0.47	—	0.47	—	2,065	2,065	0.08	0.02	—	2,072
Dust From Material Movement	—	—	—	—	—	—	2.44	2.44	—	1.17	1.17	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.06	0.06	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	11.3	11.3	< 0.005	< 0.005	—	11.4

Dust From Material Movement	—	—	—	—	—	—	0.01	0.01	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.87	1.87	< 0.005	< 0.005	—	1.88
Dust From Material Movement	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.03	0.41	0.00	0.00	0.10	0.10	0.00	0.02	0.02	—	94.9	94.9	< 0.005	< 0.005	0.01	—
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.53	0.53	< 0.005	< 0.005	< 0.005	—
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.09	0.09	< 0.005	< 0.005	< 0.005	—
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—

3.5. Grading (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.70	1.42	12.9	14.0	0.02	0.58	—	0.58	0.53	—	0.53	—	2,455	2,455	0.10	0.02	—	2,463
Dust From Material Movement	—	—	—	—	—	—	2.76	2.76	—	1.34	1.34	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.14	0.15	< 0.005	0.01	—	0.01	0.01	—	0.01	—	26.9	26.9	< 0.005	< 0.005	—	27.0
Dust From Material Movement	—	—	—	—	—	—	0.03	0.03	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.03	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	4.45	4.45	< 0.005	< 0.005	—	4.47

Dust From Material Movement	—	—	—	—	—	—	0.01	0.01	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.04	0.04	0.54	0.00	0.00	0.13	0.13	0.00	0.03	0.03	—	127	127	< 0.005	< 0.005	0.01	—
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.41	1.41	< 0.005	< 0.005	< 0.005	—
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.23	0.23	< 0.005	< 0.005	< 0.005	—
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—

3.7. Building Construction (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

3722

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.22	1.01	8.57	9.96	0.02	0.29	—	0.29	0.27	—	0.27	—	1,801	1,801	0.07	0.01	—	1,807
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.22	1.01	8.57	9.96	0.02	0.29	—	0.29	0.27	—	0.27	—	1,801	1,801	0.07	0.01	—	1,807
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.67	0.56	4.70	5.46	0.01	0.16	—	0.16	0.15	—	0.15	—	987	987	0.04	0.01	—	990
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.12	0.10	0.86	1.00	< 0.005	0.03	—	0.03	0.03	—	0.03	—	163	163	0.01	< 0.005	—	164
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09	0.08	0.07	1.34	0.00	0.00	0.24	0.24	0.00	0.06	0.06	—	258	258	0.01	0.01	0.88	—
Vendor	0.01	< 0.005	0.12	0.06	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	107	107	0.01	0.02	0.28	—
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.08	0.08	1.02	0.00	0.00	0.24	0.24	0.00	0.06	0.06	—	236	236	< 0.005	0.01	0.02	—
Vendor	0.01	< 0.005	0.12	0.06	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	107	107	0.01	0.02	0.01	—
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.04	0.05	0.59	0.00	0.00	0.13	0.13	0.00	0.03	0.03	—	131	131	< 0.005	0.01	0.21	—
Vendor	0.01	< 0.005	0.07	0.03	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	0.01	—	58.9	58.9	< 0.005	0.01	0.07	—
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.11	0.00	0.00	0.02	0.02	0.00	0.01	0.01	—	21.7	21.7	< 0.005	< 0.005	0.03	—
Vendor	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	9.74	9.74	< 0.005	< 0.005	0.01	—
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—

3.9. Paving (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.56	0.47	4.41	6.48	0.01	0.18	—	0.18	0.17	—	0.17	—	991	991	0.04	0.01	—	995
Paving	—	0.20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.01	0.12	0.18	< 0.005	0.01	—	0.01	< 0.005	—	< 0.005	—	27.2	27.2	< 0.005	< 0.005	—	27.3
Paving	—	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.02	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	4.50	4.50	< 0.005	< 0.005	—	4.51
Paving	—	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.05	0.05	0.68	0.00	0.00	0.16	0.16	0.00	0.04	0.04	—	158	158	< 0.005	0.01	0.02	—
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	4.40	4.40	< 0.005	< 0.005	0.01	—
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.73	0.73	< 0.005	< 0.005	< 0.005	—

Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—

3.11. Architectural Coating (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.15	0.12	0.86	1.13	< 0.005	0.02	—	0.02	0.02	—	0.02	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	—	20.8	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.02	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	3.66	3.66	< 0.005	< 0.005	—	3.67
Architectural Coatings	—	0.57	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	< 0.005	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.61	0.61	< 0.005	< 0.005	—	0.61

Architect Coatings	—	0.10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.02	0.20	0.00	0.00	0.05	0.05	0.00	0.01	0.01	—	47.3	47.3	< 0.005	< 0.005	< 0.005	—
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.31	1.31	< 0.005	< 0.005	< 0.005	—
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.22	0.22	< 0.005	< 0.005	< 0.005	—
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	0.41	0.38	0.32	3.11	0.01	0.01	0.69	0.70	< 0.005	0.18	0.18	—	803	803	0.04	0.04	2.48	817
Strip Mall	1.51	1.36	1.32	12.9	0.03	0.02	2.99	3.01	0.02	0.76	0.78	—	3,445	3,445	0.15	0.15	10.7	3,505
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	1.92	1.73	1.64	16.1	0.04	0.03	3.68	3.71	0.03	0.94	0.96	—	4,248	4,248	0.18	0.19	13.2	4,322
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	0.39	0.35	0.35	2.63	0.01	0.01	0.69	0.70	< 0.005	0.18	0.18	—	753	753	0.04	0.04	0.06	766
Strip Mall	1.42	1.27	1.42	10.8	0.03	0.02	2.99	3.01	0.02	0.76	0.78	—	3,230	3,230	0.15	0.16	0.28	3,281
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	1.81	1.62	1.77	13.4	0.04	0.03	3.68	3.71	0.03	0.94	0.96	—	3,983	3,983	0.19	0.19	0.34	4,047
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	0.07	0.06	0.06	0.50	< 0.005	< 0.005	0.13	0.13	< 0.005	0.03	0.03	—	126	126	0.01	0.01	0.18	128
Strip Mall	0.26	0.23	0.26	2.04	0.01	< 0.005	0.54	0.55	< 0.005	0.14	0.14	—	540	540	0.03	0.03	0.77	550
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.33	0.29	0.33	2.53	0.01	< 0.005	0.67	0.67	< 0.005	0.17	0.17	—	666	666	0.03	0.03	0.94	678

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	94.2	94.2	0.01	< 0.005	—	94.7
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	60.9	60.9	0.01	< 0.005	—	61.3
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	155	155	0.01	< 0.005	—	156
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	94.2	94.2	0.01	< 0.005	—	94.7
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	60.9	60.9	0.01	< 0.005	—	61.3
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	155	155	0.01	< 0.005	—	156
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	15.6	15.6	< 0.005	< 0.005	—	15.7
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	10.1	10.1	< 0.005	< 0.005	—	1[illegible]

Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	25.7	25.7	< 0.005	< 0.005	—	25.8

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	0.01	< 0.005	0.06	0.03	< 0.005	0.01	—	0.01	0.01	—	0.01	—	81.4	81.4	0.01	< 0.005	—	81.6
Strip Mall	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	12.5	12.5	< 0.005	< 0.005	—	12.5
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.01	< 0.005	0.07	0.04	< 0.005	0.01	—	0.01	0.01	—	0.01	—	93.8	93.8	0.01	< 0.005	—	94.1
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	0.01	< 0.005	0.06	0.03	< 0.005	0.01	—	0.01	0.01	—	0.01	—	81.4	81.4	0.01	< 0.005	—	81.6
Strip Mall	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	12.5	12.5	< 0.005	< 0.005	—	12.5
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.01	< 0.005	0.07	0.04	< 0.005	0.01	—	0.01	0.01	—	0.01	—	93.8	93.8	0.01	< 0.005	—	94.1
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Apartments	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	13.5	13.5	< 0.005	< 0.005	—	13.5
Strip Mall	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	2.06	2.06	< 0.005	< 0.005	—	2.07
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	15.5	15.5	< 0.005	< 0.005	—	15.6

4.3. Area Emissions by Source

4.3.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	77.6	77.6	0.01	< 0.005	—	78.1
Consumer Products	—	0.62	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.06	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.17	0.16	0.01	1.59	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	4.67	4.67	< 0.005	< 0.005	—	4.69
Total	0.17	0.84	0.01	1.59	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.00	82.3	82.3	0.01	< 0.005	—	82.8
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	77.6	77.6	0.01	< 0.005	—	78.1

Consumer	—	0.62	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.06	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	0.00	0.67	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	77.6	77.6	0.01	< 0.005	—	78.1
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	0.88	0.88	< 0.005	< 0.005	—	0.89
Consumer Products	—	0.11	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.02	0.02	< 0.005	0.20	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.53	0.53	< 0.005	< 0.005	—	0.53
Total	0.02	0.14	< 0.005	0.20	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.00	1.41	1.41	< 0.005	< 0.005	—	1.42

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	1.84	6.19	8.03	0.19	< 0.005	—	14.1
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	0.94	3.16	4.09	0.10	< 0.005	—	7.19

Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	2.77	9.35	12.1	0.29	0.01	—	21.3
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	1.84	6.19	8.03	0.19	< 0.005	—	14.1
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	0.94	3.16	4.09	0.10	< 0.005	—	7.19
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	2.77	9.35	12.1	0.29	0.01	—	21.3
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	0.30	1.02	1.33	0.03	< 0.005	—	2.34
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	0.16	0.52	0.68	0.02	< 0.005	—	1.19
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	0.46	1.55	2.01	0.05	< 0.005	—	3.53

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	9.15	0.00	9.15	0.91	0.00	—	32.0
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	3.73	0.00	3.73	0.37	0.00	—	13.1
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	12.9	0.00	12.9	1.29	0.00	—	45.1
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	9.15	0.00	9.15	0.91	0.00	—	32.0
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	3.73	0.00	3.73	0.37	0.00	—	13.1
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	12.9	0.00	12.9	1.29	0.00	—	45.1
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	1.51	0.00	1.51	0.15	0.00	—	5.30
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	0.62	0.00	0.62	0.06	0.00	—	2.16
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	2.13	0.00	2.13	0.21	0.00	—	7.46

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.16	0.16
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.04	0.04
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.20	0.20
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.16	0.16
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.04	0.04
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.20	0.20
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.03	0.03
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.01	0.01
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.03	0.03

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Remove	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Demolition	Demolition	1/1/2026	1/29/2026	5.00	20.0	—
Site Preparation	Site Preparation	1/30/2026	2/1/2026	5.00	2.00	—
Grading	Grading	2/2/2026	2/7/2026	5.00	4.00	—
Building Construction	Building Construction	2/8/2026	11/15/2026	5.00	200	—
Paving	Paving	11/16/2026	11/30/2026	5.00	10.0	—
Architectural Coating	Architectural Coating	12/1/2026	12/15/2026	5.00	10.0	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Demolition	Tractors/Loaders/Backhoes	Diesel	Average	3.00	8.00	84.0	0.37
Demolition	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Demolition	Concrete/Industrial Saws	Diesel	Average	1.00	8.00	33.0	0.73
Site Preparation	Graders	Diesel	Average	1.00	8.00	148	0.41
Site Preparation	Rubber Tired Dozers	Diesel	Average	1.00	7.00	367	0.40
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Average	1.00	8.00	84.0	0.37
Grading	Graders	Diesel	Average	1.00	8.00	148	0.41
Grading	Tractors/Loaders/Backhoes	Diesel	Average	2.00	7.00	84.0	0.37
Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Building Construction	Cranes	Diesel	Average	1.00	6.00	367	0.29
Building Construction	Forklifts	Diesel	Average	1.00	6.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74

Building Construction	Tractors/Loaders/Backhoes	Diesel	Average	1.00	6.00	84.0	0.37
Building Construction	Welders	Diesel	Average	3.00	8.00	46.0	0.45
Paving	Tractors/Loaders/Backhoes	Diesel	Average	1.00	8.00	84.0	0.37
Paving	Pavers	Diesel	Average	1.00	6.00	81.0	0.42
Paving	Paving Equipment	Diesel	Average	1.00	8.00	89.0	0.36
Paving	Rollers	Diesel	Average	1.00	7.00	36.0	0.38
Paving	Cement and Mortar Mixers	Diesel	Average	1.00	6.00	10.0	0.56
Architectural Coating	Air Compressors	Diesel	Average	1.00	6.00	37.0	0.48

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Demolition	—	—	—	—
Demolition	Worker	12.5	18.5	LDA,LDT1,LDT2
Demolition	Vendor	—	10.2	HHDT,MHDT
Demolition	Hauling	3.45	20.0	HHDT
Demolition	Onsite truck	—	—	HHDT
Site Preparation	—	—	—	—
Site Preparation	Worker	7.50	18.5	LDA,LDT1,LDT2
Site Preparation	Vendor	—	10.2	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	10.0	18.5	LDA,LDT1,LDT2

Grading	Vendor	—	10.2	HHDT,MHDT
Grading	Hauling	0.00	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	18.7	18.5	LDA,LDT1,LDT2
Building Construction	Vendor	3.54	10.2	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	12.5	18.5	LDA,LDT1,LDT2
Paving	Vendor	—	10.2	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	3.73	18.5	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	10.2	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
Architectural Coating	44,712	14,904	9,900	3,300	1,950

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (Cubic Yards)	Material Exported (Cubic Yards)	Acres Graded (acres)	Material Demolished (Building Square Footage)	Acres Paved (acres)
Demolition	0.00	0.00	0.00	6,000	—
Site Preparation	0.00	0.00	1.88	0.00	—
Grading	0.00	0.00	4.00	0.00	—
Paving	0.00	0.00	0.00	0.00	0.75

5.6.2. Construction Earthmoving Control Strategies

Control Strategies Applied	Frequency (per day)	PM10 Reduction	PM2.5 Reduction
Water Exposed Area	2	61%	61%
Water Demolished Area	2	36%	36%

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
Apartments Mid Rise	—	0%
Strip Mall	0.00	0%
Other Asphalt Surfaces	0.75	100%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2026	0.00	532	0.03	< 0.005

5.9. Operational Mobile Sources

5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Apartments Mid Rise	104	104	104	38,113	978	978	978	356,864
Strip Mall	359	359	359	131,170	4,215	4,215	4,215	1,538,582
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

Hearth Type	Unmitigated (number)
Apartments Mid Rise	—
Wood Fireplaces	0
Gas Fireplaces	0
Propane Fireplaces	0
Electric Fireplaces	21
No Fireplaces	2
Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0

5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
44712	14,904	9,900	3,300	1,950

5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	250

5.11. Operational Energy Consumption

5.11.1. Unmitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Apartments Mid Rise	99,272	346	0.0330	0.0040	253,855
Strip Mall	64,207	346	0.0330	0.0040	38,910
Other Asphalt Surfaces	0.00	346	0.0330	0.0040	0.00

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Apartments Mid Rise	958,667	0.00
Strip Mall	488,879	0.00
Other Asphalt Surfaces	0.00	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Apartments Mid Rise	17.0	—
Strip Mall	6.93	—
Other Asphalt Surfaces	0.00	—

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Apartments Mid Rise	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Apartments Mid Rise	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
Strip Mall	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Strip Mall	Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00
Strip Mall	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

Equipment Type	Fuel Type	Number per Day	Hours per Day	Hours per Year	Horsepower	Load Factor

5.16.2. Process Boilers

Equipment Type	Fuel Type	Number	Boiler Rating (MMBtu/hr)	Daily Heat Input (MMBtu/day)	Annual Heat Input (MMBtu/yr)

5.17. User Defined

Equipment Type	Fuel Type

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	19.8	annual days of extreme heat
Extreme Precipitation	4.05	annual days with precipitation above 20 mm
Sea Level Rise	0.00	meters of inundation depth
Wildfire	0.00	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider different increments of sea level rise coupled with extreme storm events. Users may select from four model simulations to view the range in potential inundation depth for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 50 meters (m) by 50 m, or about 164 feet (ft) by 164 ft.
Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	2	0	0	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	1	0	0	N/A
Wildfire	1	0	0	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A

Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	0	0	0	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	2	1	1	3
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	1	1	1	2
Wildfire	1	1	1	2
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	1	1	1	2

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
	3749

Exposure Indicators	—
AQ-Ozone	80.0
AQ-PM	95.0
AQ-DPM	96.7
Drinking Water	99.7
Lead Risk Housing	26.8
Pesticides	19.2
Toxic Releases	65.3
Traffic	91.1
Effect Indicators	—
CleanUp Sites	40.8
Groundwater	37.8
Haz Waste Facilities/Generators	26.7
Impaired Water Bodies	0.00
Solid Waste	35.7
Sensitive Population	—
Asthma	43.9
Cardio-vascular	72.2
Low Birth Weights	23.3
Socioeconomic Factor Indicators	—
Education	64.1
Housing	29.7
Linguistic	50.5
Poverty	41.0
Unemployment	33.6

7.2. Healthy Places Index Scores

3750

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	52.03387656
Employed	54.83125882
Median HI	65.14820993
Education	—
Bachelor's or higher	49.15950212
High school enrollment	100
Preschool enrollment	14.78249711
Transportation	—
Auto Access	78.96830489
Active commuting	27.28089311
Social	—
2-parent households	81.31656615
Voting	64.17297575
Neighborhood	—
Alcohol availability	41.75542153
Park access	22.69985885
Retail density	45.77184653
Supermarket access	57.37200051
Tree canopy	18.41396125
Housing	—
Homeownership	86.56486591
Housing habitability	75.79879379
Low-inc homeowner severe housing cost burden	60.87514436
Low-inc renter severe housing cost burden	87.5914282
Uncrowded housing	53.4838958

Health Outcomes	—
Insured adults	49.96791993
Arthritis	31.2
Asthma ER Admissions	51.4
High Blood Pressure	43.5
Cancer (excluding skin)	42.8
Asthma	37.3
Coronary Heart Disease	47.4
Chronic Obstructive Pulmonary Disease	35.3
Diagnosed Diabetes	41.8
Life Expectancy at Birth	68.4
Cognitively Disabled	43.0
Physically Disabled	69.8
Heart Attack ER Admissions	19.3
Mental Health Not Good	43.4
Chronic Kidney Disease	55.3
Obesity	43.5
Pedestrian Injuries	65.5
Physical Health Not Good	42.2
Stroke	51.7
Health Risk Behaviors	—
Binge Drinking	47.1
Current Smoker	44.4
No Leisure Time for Physical Activity	50.7
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	0.0

3752

Children	33.8
Elderly	56.5
English Speaking	35.7
Foreign-born	48.2
Outdoor Workers	65.0
Climate Change Adaptive Capacity	—
Impervious Surface Cover	53.7
Traffic Density	89.6
Traffic Access	23.0
Other Indices	—
Hardship	57.1
Other Decision Support	—
2016 Voting	73.7

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	64.0
Healthy Places Index Score for Project Location (b)	52.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	No
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Operations: Vehicle Data	Updated trip rates and primary/pass-by trip percentages based on LLG traffic information received 7/31/23.
Operations: Hearths	Updated number of fireplaces based on data request response received 8/28/23. Removed wood stoves based on SCAQMD Rule 445.

1650 SPRUCE STREET, STE 106
RIVERSIDE, CA 92507
951.787.9222
WWW.MIGCOM.COM

Memo

To: David Pinto, Legacy Partners

CC: Benjamin Mount and Tim O'Brien, Legacy Partners; Dale Goldsmith, Armbruster Goldsmith & Delvac LLP

From: Chris Dugan and William Deeman

Date: September 8, 2023

SUBJECT: Technical Greenhouse Gas Assessment for PDEV22-027 Euclid/Walnut Planned Unit Development (PUD22-004) Project

MIG, Inc. (MIG) has prepared this memorandum at the request of Legacy Partners. This technical assessment estimates the potential greenhouse gas (GHG) emissions associated with the proposed Euclid/Walnut Planned Unit Development Project (proposed Project) in the City of Ontario, California (City) and determines whether the proposed Project's GHG impacts are within the envelope of impacts set forth in the certified The Ontario Plan Environmental Impact Report (TOP EIR) for City's The Ontario Plan (TOP). The TOP EIR found that the GHG impacts of the TOP would be less than significant with compliance with the applicable GHG reduction measures under state law and the City's Community Climate Action Plan (CCAP). This technical assessment is intended to show consistency between the proposed Project and the City's Community Climate Action Plan (CCAP).

EMISSIONS ESTIMATE METHODOLOGY

The proposed Project would generate both short-term construction emissions and long-term operational emissions. The Project's potential GHG emissions were estimated using the California Emissions Estimator Model (CalEEMod), Version (V.) 2022.1. CalEEMod is a computer program recommended for use by the South Coast Air Quality Management District (SCAQMD) for use in preparing emission estimates for land use and development projects. The proposed Project's construction and operational characteristics are based on the Project Description contained in the Project's California Environmental Quality Act (CEQA) Addendum. Emissions were generated using CalEEMod default assumptions, modified as follows to reflect the following Project-specific context, information, and details:

- Construction Phases: Phase 1 construction was modified to add a trenching phase and the building construction phase was changed to occur in three phases foundation, vertical, and mechanical electrical plumbing/other (MEP/other) based on project-specific information from the project construction team.
- Construction Schedule: Phase 1 was modeled as an 18 month project with overlapping site preparation, grading, trenching, building construction foundation, vertical, MEP/other, paving, and coating phases for consistency with the conservative approach taken in the Air Quality Memorandum.
- Hauling: 9,105 cubic yards of soil was added to Phase 1 construction grading activities. 101,620 square feet of demolition was added to Phase 1 construction and 6,000 square feet of demolition was added to Phase 2 construction, based on project-specific information from the project construction team.

- Fugitive Dust: Watering twice per day was added to Phase 1 construction and Phase 2 construction in accordance with SCAQMD Rule 403.
- Vehicle Trips: Vehicle trip rates and primary/pass-by trip percentages were updated based on the Projected Left-Turn Warrant for the Euclid Avenue Mixed-Use Apartment Project report (LLG 2023).
- Area Sources: All wood burning stoves were removed from Phase 1 and Phase 2 residential development in compliance with SCAQMD Rule 445. In addition, all fireplaces were updated to be electric as indicated by the Project Applicant.

Emissions estimates are presented for:

- Existing site operations of Carl's Jr. fast food restaurant, former Kmart Shopping Center, and a strip retail building.
- Combined Project Phase 1 and Phase 2 emissions (construction and operation).

MIG notes the emissions modeling conducted for the Project is considered very conservative (i.e., likely to substantially overestimate daily Project emissions) for the following reasons:

- Project modeled emissions do not account for applicable reduction measures as described in the City's CCAP Greenhouse Gas Emissions Screening Tables (City of Ontario, 2023, Table 3).
- Phase 2 construction was modeled to occur directly after Phase 1 construction was completed. The specific timing of development of Phase 2 has not yet been determined and due to existing long-term lease conditions may not actually occur for approximately 10 years or more. Emissions are expected to decrease in the future as construction fleets turnover with newer (i.e., less emissive) equipment and updated standards are adopted. Thus, modeling of Phase 2 after Phase 1 provides an overestimate of potential emissions.

Please refer to Attachments 1, 2, and 3 for detailed CalEEMod emissions estimates.

RESULTS

The proposed Project's total net GHG emissions are shown in Table 1 below:

Table 1: Project Greenhouse Gas Emissions

GHG Emissions Scenario	GHG Emissions ($MTCO_2e$ Per Year)
Proposed Project	
Phase 1 Operational and Construction GHG Emissions(A)	3,094
Phase 2 Operational and Construction GHG Emissions(A)	740
Subtotal Project Annual Emissions(B)	3,833
Existing Site Operations	
Operational Emissions	7,878
Net Change in GHG Emissions(B)	**-4,045**

Source: MIG 2023 (See Attachment 1, 2, and 3).
(A) Construction emissions averaged over a 30-year assumed project lifetime.
(B) Totals may not equal due to rounding.

As shown in Table 1, the proposed Project would result in the net reduction of approximately 4,405 $MTCO_2e$ per year.[1] It is probable that the proposed Project will replace at least some existing GHG emissions associated current operations at the site rather than displace them elsewhere.

CCAP CONSISTENCY

CEQA Guidelines Section 15183.5(b) provides:

(b) Plans for the Reduction of Greenhouse Gas Emissions. Public agencies may choose to analyze and mitigate significant greenhouse gas emissions in a plan for the reduction of greenhouse gas emissions or similar document. A plan to reduce greenhouse gas emissions may be used in a cumulative impacts analysis as set forth below. Pursuant to sections 15064(h)(3) and 15130(d), a lead agency may determine that a project's incremental contribution to a cumulative effect is not cumulatively considerable if the project complies with the requirements in a previously adopted plan or mitigation program under specified circumstances.

The City's CCAP qualifies as a GHG reduction plan under CEQA Guidelines Section 15183.5(b). The CCAP sets froth per capita GHG emissions targets, identifies GHG reduction strategies to achieve these targets, and quantifies the GHG reductions from implementing these strategies.

To implement the CCAP, the City has established GHG Emissions Screening Tables to provide guidance on how to analyze project level GHG emissions and determine the significance of those emissions during the discretionary review of proposed development projects in Ontario. The analysis, methodology, and significance determination (thresholds) presented in the Screening Tables and guidance are based on the CCAP. The Screening Tables provide a menu of options that ensures both implementation of the reduction strategies and flexibility on how development projects would implement the reduction strategies to achieve an overall reduction of emissions, consistent with the reduction targets of the 2022 CCAP.

In accordance with the City's CCAP GHG Emissions Screening Tables document, the proposed Project is subject to the City's Development Plan Review (DPR) and is required to demonstrate consistency with the CCAP. As the Project includes both residential and non-residential spaces, these components are assessed separately against their respective applicable thresholds. The City's CCAP GHG Emissions Screening Tables document states that multi-family residential projects less than 20 units in size would be exempt from the Screening Table requirements and would therefore be consistent with the CCAP. It also states retail projects less than 20,000 square feet in size would be exempt from the Screening Table requirements and would therefore be consistent with the CCAP. The proposed Project would include 12,000 square feet of retail space, thus GHG emissions associated with this retail space would be less than the CCAP non-residential exemption size threshold (20,000 square feet) and may be presumed to be less than significant. Since the proposed Project would have more than 20 units, the Applicant has used the CCAP's Screening Table 3 checklist to evaluate consistency with the CCAP. The CCAP GHG Emissions Screening Tables document requires a project to achieve at least 100 points per applicable Screening Table to be found consistent with the CCAP. As shown in detail in Attachment 4, the Project would include features such as electric space heaters and appliances, installation of Level 2 electric vehicle (EV) or higher charging stations,

[1] Kmart has been substantially downsizing and has closed most of its stores in recent years. It is reasonable to assume that this store will not reopen elsewhere, and therefore GHG emissions will not be displaced from the Project site.

space for storage and collection of green waste, organic waste, and recyclables, solar photovoltaic (PV) energy generation, and other GHG reduction measures that reduce area and mobile source GHG emissions. Based on the completed checklist, the Project's multi-family residential component would achieve approximately 100 points, as required to be consistent with the CCAP. Thus, the GHG emissions associated with the Project's residential space would be consistent with the CCAP and may be presumed to be less than significant.

CONCLUSION

As described in this memo, the proposed Project would be consistent with the City's qualified CCAP. The proposed Project would also likely result in a net reduction in GHG emissions compared to existing operations at the site. The proposed Project, therefore, would not result in a new or substantially more adverse GHG impact than identified in the TOP EIR or CCAP.

PREPARERS AND REFERENCES

This memorandum was prepared by MIG under contract to Legacy Partners. This report reflects the independent, objective, professional opinion of MIG. The following individuals were involved in the preparation and review of this Report:

MIG

Chris Dugan, Director of Air Quality, GHG, and Noise Services 1650 Spruce Street, Suite 106
cdugan@migcom.com / 916-956-3802 Riverside, California 92507

William Deeman, Environmental Analyst I

The following references were used to prepare this memorandum:

City of Ontario 2022. Ontario Community Climate Action Plan. August 2022. https://www.ontarioca.gov/sites/default/files/Ontario-Files/Planning/The%20Ontario%20Plann/CCAP/Ontario-CCAP_Adopted_20220816.pdf

_____2023. Ontario Community Climate Action Plan Greenhouse Gas Emissions Screening Tables. March 2023. https://www.ontarioca.gov/sites/default/files/Ontario-Files/Planning/CCAP/Screening%20Table/Ontario-CCAP_Screening-Tables-MARCH%202023.pdf

Linscott Law & Greenspan (LLG). 2023. Protected Left-Turn Warrant for the Euclid Avenue Mixed-Use Apartment Project. July 31, 2023.

This page was intentionally left blank.

Attachment 1

Phase 1 CalEEMod Project File Outputs

This page was intentionally left blank.

Legacy Ontario PUD Construction Phase 1 Mitigated Detailed Report

Table of Contents

1. Basic Project Information

1.1. Basic Project Information

1.2. Land Use Types

1.3. User-Selected Emission Reduction Measures by Emissions Sector

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

2.2. Construction Emissions by Year, Unmitigated

2.3. Construction Emissions by Year, Mitigated

2.4. Operations Emissions Compared Against Thresholds

2.5. Operations Emissions by Sector, Unmitigated

2.6. Operations Emissions by Sector, Mitigated

3. Construction Emissions Details

3.1. Demolition (2024) - Unmitigated

3.2. Demolition (2024) - Mitigated

3.3. Site Preparation (2024) - Unmitigated

3.4. Site Preparation (2024) - Mitigated

3.5. Grading (2024) - Unmitigated

3.6. Grading (2024) - Mitigated

3.7. Foundation (2024) - Unmitigated

3.8. Foundation (2024) - Mitigated

3.9. Foundation (2025) - Unmitigated

3.10. Foundation (2025) - Mitigated

3.11. Vertical (2024) - Unmitigated

3.12. Vertical (2024) - Mitigated

3.13. Vertical (2025) - Unmitigated

3.14. Vertical (2025) - Mitigated

3.15. MEP/Other (2024) - Unmitigated

3.16. MEP/Other (2024) - Mitigated

3.17. MEP/Other (2025) - Unmitigated

3.18. MEP/Other (2025) - Mitigated

3.19. Paving (2025) - Unmitigated

3.20. Paving (2025) - Mitigated

3.21. Coatings (2025) - Unmitigated

3.22. Coatings (2025) - Mitigated

3.23. Trenching (2024) - Unmitigated

3.24. Trenching (2024) - Mitigated

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

4.1.2. Mitigated

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

4.2.2. Electricity Emissions By Land Use - Mitigated

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

4.2.4. Natural Gas Emissions By Land Use - Mitigated

4.3. Area Emissions by Source

4.3.1. Unmitigated

4.3.2. Mitigated

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

4.4.2. Mitigated

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

4.5.2. Mitigated

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

4.6.2. Mitigated

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

4.7.2. Mitigated

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

4.8.2. Mitigated

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

4.9.2. Mitigated

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

4.10.4. Soil Carbon Accumulation By Vegetation Type - Mitigated

4.10.5. Above and Belowground Carbon Accumulation by Land Use Type - Mitigated

4.10.6. Avoided and Sequestered Emissions by Species - Mitigated

5. Activity Data

5.1. Construction Schedule

5.2. Off-Road Equipment

5.2.1. Unmitigated

5.2.2. Mitigated

5.3. Construction Vehicles

5.3.1. Unmitigated

5.3.2. Mitigated

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

5.5. Architectural Coatings

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

5.6.2. Construction Earthmoving Control Strategies

5.7. Construction Paving

5.8. Construction Electricity Consumption and Emissions Factors

5.9. Operational Mobile Sources

5.9.1. Unmitigated

5.9.2. Mitigated

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

5.10.1.2. Mitigated

5.10.2. Architectural Coatings

5.10.3. Landscape Equipment

5.10.4. Landscape Equipment - Mitigated

5.11. Operational Energy Consumption

5.11.1. Unmitigated

5.11.2. Mitigated

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

5.12.2. Mitigated

5.13. Operational Waste Generation

5.13.1. Unmitigated

5.13.2. Mitigated

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

5.14.2. Mitigated

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

5.15.2. Mitigated

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

5.16.2. Process Boilers

5.17. User Defined

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

5.18.1.2. Mitigated

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

5.18.1.2. Mitigated

5.18.2. Sequestration

5.18.2.1. Unmitigated

5.18.2.2. Mitigated

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

6.2. Initial Climate Risk Scores

6.3. Adjusted Climate Risk Scores

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

7.2. Healthy Places Index Scores

7.3. Overall Health & Equity Scores

7.4. Health & Equity Measures

7.5. Evaluation Scorecard

7.6. Health & Equity Custom Measures

8. User Changes to Default Data

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	Legacy Ontario PUD Construction Phase 1 Mitigated
Construction Start Date	6/1/2024
Operational Year	2026
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.60
Precipitation (days)	9.20
Location	34.02755638431904, -117.65236816489812
County	San Bernardino-South Coast
City	Ontario
Air District	South Coast AQMD
Air Basin	South Coast
TAZ	5251
EDFZ	10
Electric Utility	Southern California Edison
Gas Utility	Southern California Gas
App Version	2022.1.1.19

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description

3771

Apartments Mid Rise	346	Dwelling Unit	2.92	458,974	29,928	0.00	1,145	—
Strip Mall	5.40	1000sqft	0.12	5,400	0.00	0.00	—	—
Other Asphalt Surfaces	6.36	Acre	6.36	0.00	0.00	0.00	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

Sector	#	Measure Title
Construction	C-13	Use Low-VOC Paints for Construction

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	10.5	8.48	83.8	80.0	0.13	3.57	13.5	17.1	3.26	5.91	9.17	—	16,016	16,016	0.91	0.71	32.8	16,259
Mit.	10.5	8.48	83.8	80.0	0.13	3.57	13.5	17.1	3.26	5.91	9.17	—	16,016	16,016	0.91	0.71	32.8	16,259
% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	8.78	155	42.2	89.7	0.10	1.54	10.8	12.4	1.42	2.57	4.00	—	20,687	20,687	1.04	0.96	1.38	21,001
Mit.	8.78	39.7	42.2	89.7	0.10	1.54	10.8	12.4	1.42	2.57	4.00	—	20,687	20,687	1.04	0.96	1.38	21,001
% Reduced	—	74%	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	3.65	11.3	18.1	40.3	0.04	0.62	4.89	5.51	0.57	1.16	1.74	—	9,355	9,355	0.46	0.43	9.65	9,506
Mit.	3.65	5.02	18.1	40.3	0.04	0.62	4.89	5.51	0.57	1.16	1.74	—	9,355	9,355	0.46	0.43	9.65	9,506
% Reduced	—	56%	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.67	2.07	3.30	7.35	0.01	0.11	0.89	1.01	0.10	0.21	0.32	—	1,549	1,549	0.08	0.07	1.60	1,574
Mit.	0.67	0.92	3.30	7.35	0.01	0.11	0.89	1.01	0.10	0.21	0.32	—	1,549	1,549	0.08	0.07	1.60	1,574
% Reduced	—	56%	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

2.2. Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	10.5	8.48	83.8	80.0	0.13	3.57	13.5	17.1	3.26	5.91	9.17	—	16,016	16,016	0.91	0.71	22.8	16,259
2025	5.47	4.62	25.7	66.6	0.06	0.90	7.21	8.10	0.83	1.72	2.54	—	14,201	14,201	0.67	0.64	32.8	14,442
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	8.78	7.41	42.2	89.7	0.10	1.54	10.8	12.4	1.42	2.57	4.00	—	20,687	20,687	1.04	0.96	1.38	21,001
2025	7.99	155	39.0	85.4	0.10	1.35	10.8	12.2	1.24	2.57	3.82	—	20,422	20,422	1.02	0.96	1.27	20,735
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	2.38	1.97	14.8	22.0	0.03	0.59	2.84	3.43	0.54	0.89	1.43	—	4,840	4,840	0.26	0.23	4.02	4,919
2025	3.65	11.3	18.1	40.3	0.04	0.62	4.89	5.51	0.57	1.16	1.74	—	9,355	9,355	0.46	0.43	9.65	9

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	0.43	0.36	2.70	4.01	0.01	0.11	0.52	0.63	0.10	0.16	0.26	—	801	801	0.04	0.04	0.67	814
2025	0.67	2.07	3.30	7.35	0.01	0.11	0.89	1.01	0.10	0.21	0.32	—	1,549	1,549	0.08	0.07	1.60	1,574

2.3. Construction Emissions by Year, Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	10.5	8.48	83.8	80.0	0.13	3.57	13.5	17.1	3.26	5.91	9.17	—	16,016	16,016	0.91	0.71	22.8	16,259
2025	5.47	4.62	25.7	66.6	0.06	0.90	7.21	8.10	0.83	1.72	2.54	—	14,201	14,201	0.67	0.64	32.8	14,442
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	8.78	7.41	42.2	89.7	0.10	1.54	10.8	12.4	1.42	2.57	4.00	—	20,687	20,687	1.04	0.96	1.38	21,001
2025	7.99	39.7	39.0	85.4	0.10	1.35	10.8	12.2	1.24	2.57	3.82	—	20,422	20,422	1.02	0.96	1.27	20,735
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	2.38	1.97	14.8	22.0	0.03	0.59	2.84	3.43	0.54	0.89	1.43	—	4,840	4,840	0.26	0.23	4.02	4,919
2025	3.65	5.02	18.1	40.3	0.04	0.62	4.89	5.51	0.57	1.16	1.74	—	9,355	9,355	0.46	0.43	9.65	9,506
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	0.43	0.36	2.70	4.01	0.01	0.11	0.52	0.63	0.10	0.16	0.26	—	801	801	0.04	0.04	0.67	814
2025	0.67	0.92	3.30	7.35	0.01	0.11	0.89	1.01	0.10	0.21	0.32	—	1,549	1,549	0.08	0.07	1.60	1,574

2.4. Operations Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	9.81	19.7	7.51	80.7	0.16	0.19	12.9	13.1	0.18	3.27	3.45	169	19,223	19,392	18.1	0.80	55.1	20,136
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	7.44	17.4	7.79	51.2	0.14	0.18	12.9	13.1	0.17	3.27	3.44	169	18,221	18,390	18.1	0.82	4.66	19,092
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	8.68	18.6	8.03	66.6	0.15	0.19	12.8	13.0	0.18	3.25	3.43	169	17,317	17,487	18.0	0.81	25.7	18,204
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.58	3.40	1.47	12.2	0.03	0.03	2.34	2.37	0.03	0.59	0.63	28.0	2,867	2,895	2.98	0.13	4.25	3,014

2.5. Operations Emissions by Sector, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	7.82	7.11	6.35	60.4	0.15	0.10	12.9	13.0	0.09	3.27	3.36	—	15,202	15,202	0.71	0.69	51.8	15,478
Area	1.88	12.6	0.19	19.9	< 0.005	0.01	—	0.01	0.01	—	0.01	0.00	1,221	1,221	0.11	0.01	—	1,228
Energy	0.11	0.06	0.97	0.42	0.01	0.08	—	0.08	0.08	—	0.08	—	2,700	2,700	0.25	0.02	—	2,712
Water	—	—	—	—	—	—	—	—	—	—	—	28.4	98.7	127	2.92	0.07	—	221
Waste	—	—	—	—	—	—	—	—	—	—	—	141	0.00	141	14.1	0.00	—	493
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.32	3.32
Total	9.81	19.7	7.51	80.7	0.16	0.19	12.9	13.1	0.18	3.27	3.45	169	19,223	19,392	18.1	0.80	55.1	20,136

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	7.33	6.61	6.81	50.7	0.14	0.10	12.9	13.0	0.09	3.27	3.36	—	14,254	14,254	0.73	0.72	1.34	14,487
Area	0.00	10.8	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	1,168	1,168	0.11	0.01	—	1,175
Energy	0.11	0.06	0.97	0.42	0.01	0.08	—	0.08	0.08	—	0.08	—	2,700	2,700	0.25	0.02	—	2,712
Water	—	—	—	—	—	—	—	—	—	—	—	28.4	98.7	127	2.92	0.07	—	221
Waste	—	—	—	—	—	—	—	—	—	—	—	141	0.00	141	14.1	0.00	—	493
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.32	3.32
Total	7.44	17.4	7.79	51.2	0.14	0.18	12.9	13.1	0.17	3.27	3.44	169	18,221	18,390	18.1	0.82	4.66	19,092
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	7.28	6.56	6.93	52.6	0.14	0.10	12.8	12.9	0.09	3.25	3.35	—	14,402	14,402	0.73	0.72	22.4	14,657
Area	1.29	12.0	0.13	13.6	< 0.005	0.01	—	0.01	0.01	—	0.01	0.00	117	117	0.01	< 0.005	—	117
Energy	0.11	0.06	0.97	0.42	0.01	0.08	—	0.08	0.08	—	0.08	—	2,700	2,700	0.25	0.02	—	2,712
Water	—	—	—	—	—	—	—	—	—	—	—	28.4	98.7	127	2.92	0.07	—	221
Waste	—	—	—	—	—	—	—	—	—	—	—	141	0.00	141	14.1	0.00	—	493
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.32	3.32
Total	8.68	18.6	8.03	66.6	0.15	0.19	12.8	13.0	0.18	3.25	3.43	169	17,317	17,487	18.0	0.81	25.7	18,204
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	1.33	1.20	1.26	9.60	0.03	0.02	2.34	2.35	0.02	0.59	0.61	—	2,384	2,384	0.12	0.12	3.70	2,427
Area	0.23	2.19	0.02	2.48	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.00	19.3	19.3	< 0.005	< 0.005	—	19.4
Energy	0.02	0.01	0.18	0.08	< 0.005	0.01	—	0.01	0.01	—	0.01	—	447	447	0.04	< 0.005	—	449
Water	—	—	—	—	—	—	—	—	—	—	—	4.70	16.3	21.0	0.48	0.01	—	36.6
Waste	—	—	—	—	—	—	—	—	—	—	—	23.3	0.00	23.3	2.33	0.00	—	81.6
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.55	0.55
Total	1.58	3.40	1.47	12.2	0.03	0.03	2.34	2.37	0.03	0.59	0.63	28.0	2,867	2,895	2.98	0.13	4.25	3,014

2.6. Operations Emissions by Sector, Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	7.82	7.11	6.35	60.4	0.15	0.10	12.9	13.0	0.09	3.27	3.36	—	15,202	15,202	0.71	0.69	51.8	15,478
Area	1.88	12.6	0.19	19.9	< 0.005	0.01	—	0.01	0.01	—	0.01	0.00	1,221	1,221	0.11	0.01	—	1,228
Energy	0.11	0.06	0.97	0.42	0.01	0.08	—	0.08	0.08	—	0.08	—	2,700	2,700	0.25	0.02	—	2,712
Water	—	—	—	—	—	—	—	—	—	—	—	28.4	98.7	127	2.92	0.07	—	221
Waste	—	—	—	—	—	—	—	—	—	—	—	141	0.00	141	14.1	0.00	—	493
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.32	3.32
Total	9.81	19.7	7.51	80.7	0.16	0.19	12.9	13.1	0.18	3.27	3.45	169	19,223	19,392	18.1	0.80	55.1	20,136
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	7.33	6.61	6.81	50.7	0.14	0.10	12.9	13.0	0.09	3.27	3.36	—	14,254	14,254	0.73	0.72	1.34	14,487
Area	0.00	10.8	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	1,168	1,168	0.11	0.01	—	1,175
Energy	0.11	0.06	0.97	0.42	0.01	0.08	—	0.08	0.08	—	0.08	—	2,700	2,700	0.25	0.02	—	2,712
Water	—	—	—	—	—	—	—	—	—	—	—	28.4	98.7	127	2.92	0.07	—	221
Waste	—	—	—	—	—	—	—	—	—	—	—	141	0.00	141	14.1	0.00	—	493
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.32	3.32
Total	7.44	17.4	7.79	51.2	0.14	0.18	12.9	13.1	0.17	3.27	3.44	169	18,221	18,390	18.1	0.82	4.66	19,092
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	7.28	6.56	6.93	52.6	0.14	0.10	12.8	12.9	0.09	3.25	3.35	—	14,402	14,402	0.73	0.72	22.4	14,657
Area	1.29	12.0	0.13	13.6	< 0.005	0.01	—	0.01	0.01	—	0.01	0.00	117	117	0.01	< 0.005	—	117
Energy	0.11	0.06	0.97	0.42	0.01	0.08	—	0.08	0.08	—	0.08	—	2,700	2,700	0.25	0.02	—	2,712
Water	—	—	—	—	—	—	—	—	—	—	—	28.4	98.7	127	2.92	0.07	—	2

Waste	—	—	—	—	—	—	—	—	—	—	—	141	0.00	141	14.1	0.00	—	493
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.32	3.32
Total	8.68	18.6	8.03	66.6	0.15	0.19	12.8	13.0	0.18	3.25	3.43	169	17,317	17,487	18.0	0.81	25.7	18,204
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	1.33	1.20	1.26	9.60	0.03	0.02	2.34	2.35	0.02	0.59	0.61	—	2,384	2,384	0.12	0.12	3.70	2,427
Area	0.23	2.19	0.02	2.48	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.00	19.3	19.3	< 0.005	< 0.005	—	19.4
Energy	0.02	0.01	0.18	0.08	< 0.005	0.01	—	0.01	0.01	—	0.01	—	447	447	0.04	< 0.005	—	449
Water	—	—	—	—	—	—	—	—	—	—	—	4.70	16.3	21.0	0.48	0.01	—	36.6
Waste	—	—	—	—	—	—	—	—	—	—	—	23.3	0.00	23.3	2.33	0.00	—	81.6
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.55	0.55
Total	1.58	3.40	1.47	12.2	0.03	0.03	2.34	2.37	0.03	0.59	0.63	28.0	2,867	2,895	2.98	0.13	4.25	3,014

3. Construction Emissions Details

3.1. Demolition (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.12	2.62	24.9	21.7	0.03	1.06	—	1.06	0.98	—	0.98	—	3,425	3,425	0.14	0.03	—	3,437
Demolition	—	—	—	—	—	—	1.47	1.47	—	0.22	0.22	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.38	0.32	3.00	2.62	< 0.005	0.13	—	0.13	0.12	—	0.12	—	413	413	0.02	< 0.005	—	414
Demolition	—	—	—	—	—	—	0.18	0.18	—	0.03	0.03	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.07	0.06	0.55	0.48	< 0.005	0.02	—	0.02	0.02	—	0.02	—	68.4	68.4	< 0.005	< 0.005	—	68.6
Demolition	—	—	—	—	—	—	0.03	0.03	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09	0.08	0.07	1.27	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	216	216	0.01	0.01	0.86	219
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.25	0.04	2.30	1.29	0.01	0.04	0.49	0.53	0.02	0.13	0.16	—	1,870	1,870	0.21	0.30	3.94	1,969
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.12	0.00	0.00	0.02	0.02	0.00	0.01	0.01	—	24.2	24.2	< 0.005	< 0.005	0.04	24.5
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.03	< 0.005	0.29	0.16	< 0.005	< 0.005	0.06	0.06	< 0.005	0.02	0.02	—	226	226	0.02	0.04	0.20	237
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	4.01	4.01	< 0.005	< 0.005	0.01	4.06

Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.01	< 0.005	0.05	0.03	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	37.3	37.3	< 0.005	0.01	0.03	39.3

3.2. Demolition (2024) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.12	2.62	24.9	21.7	0.03	1.06	—	1.06	0.98	—	0.98	—	3,425	3,425	0.14	0.03	—	3,437
Demolition	—	—	—	—	—	—	1.47	1.47	—	0.22	0.22	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.38	0.32	3.00	2.62	< 0.005	0.13	—	0.13	0.12	—	0.12	—	413	413	0.02	< 0.005	—	414
Demolition	—	—	—	—	—	—	0.18	0.18	—	0.03	0.03	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.07	0.06	0.55	0.48	< 0.005	0.02	—	0.02	0.02	—	0.02	—	68.4	68.4	< 0.005	< 0.005	—	68.6
Demolition	—	—	—	—	—	—	0.03	0.03	—	< 0.005	< 0.005	—	—	—	—	—	—	—

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09	0.08	0.07	1.27	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	216	216	0.01	0.01	0.86	219
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.25	0.04	2.30	1.29	0.01	0.04	0.49	0.53	0.02	0.13	0.16	—	1,870	1,870	0.21	0.30	3.94	1,969
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.12	0.00	0.00	0.02	0.02	0.00	0.01	0.01	—	24.2	24.2	< 0.005	< 0.005	0.04	24.5
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.03	< 0.005	0.29	0.16	< 0.005	< 0.005	0.06	0.06	< 0.005	0.02	0.02	—	226	226	0.02	0.04	0.20	237
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	4.01	4.01	< 0.005	< 0.005	0.01	4.06
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.01	< 0.005	0.05	0.03	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	37.3	37.3	< 0.005	0.01	0.03	39.3

3.3. Site Preparation (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	4.34	3.65	36.0	32.9	0.05	1.60	—	1.60	1.47	—	1.47	—	5,296	5,296	0.21	0.04	—	5,314
Dust From Material Movement	—	—	—	—	—	—	7.67	7.67	—	3.94	3.94	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.29	0.24	2.36	2.17	< 0.005	0.11	—	0.11	0.10	—	0.10	—	348	348	0.01	< 0.005	—	349
Dust From Material Movement	—	—	—	—	—	—	0.50	0.50	—	0.26	0.26	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05	0.04	0.43	0.40	< 0.005	0.02	—	0.02	0.02	—	0.02	—	57.7	57.7	< 0.005	< 0.005	—	57.8
Dust From Material Movement	—	—	—	—	—	—	0.09	0.09	—	0.05	0.05	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.10	0.09	0.08	1.48	0.00	0.00	0.23	0.23	0.00	0.05	0.05	—	252	252	0.01	0.01	1.01	256

Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.08	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	15.4	15.4	< 0.005	< 0.005	0.03	15.6
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	2.55	2.55	< 0.005	< 0.005	< 0.005	2.59
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.4. Site Preparation (2024) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	4.34	3.65	36.0	32.9	0.05	1.60	—	1.60	1.47	—	1.47	—	5,296	5,296	0.21	0.04	—	5,314
Dust From Material Movement	—	—	—	—	—	—	7.67	7.67	—	3.94	3.94	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.29	0.24	2.36	2.17	< 0.005	0.11	—	0.11	0.10	—	0.10	—	348	348	0.01	< 0.005	—	349
Dust From Material Movement	—	—	—	—	—	—	0.50	0.50	—	0.26	0.26	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05	0.04	0.43	0.40	< 0.005	0.02	—	0.02	0.02	—	0.02	—	57.7	57.7	< 0.005	< 0.005	—	57.8
Dust From Material Movement	—	—	—	—	—	—	0.09	0.09	—	0.05	0.05	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.10	0.09	0.08	1.48	0.00	0.00	0.23	0.23	0.00	0.05	0.05	—	252	252	0.01	0.01	1.01	256
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	0.01	0.01	0.01	0.08	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	15.4	15.4	< 0.005	< 0.005	0.03	15.6
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	2.55	2.55	< 0.005	< 0.005	< 0.005	2.59
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.5. Grading (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.26	1.90	18.2	18.8	0.03	0.84	—	0.84	0.77	—	0.77	—	2,958	2,958	0.12	0.02	—	2,969
Dust From Material Movement	—	—	—	—	—	—	2.77	2.77	—	1.34	1.34	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.28	0.23	2.25	2.32	< 0.005	0.10	—	0.10	0.10	—	0.10	—	365	365	0.01	< 0.005	—	366

Dust From Material Movement	—	—	—	—	—	—	0.34	0.34	—	0.16	0.16	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05	0.04	0.41	0.42	< 0.005	0.02	—	0.02	0.02	—	0.02	—	60.4	60.4	< 0.005	< 0.005	—	60.6
Dust From Material Movement	—	—	—	—	—	—	0.06	0.06	—	0.03	0.03	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09	0.08	0.07	1.27	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	216	216	0.01	0.01	0.86	219
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.24	0.04	2.19	1.22	0.01	0.03	0.47	0.50	0.02	0.13	0.15	—	1,782	1,782	0.20	0.29	3.75	1,876
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.12	0.00	0.00	0.02	0.02	0.00	0.01	0.01	—	24.7	24.7	< 0.005	< 0.005	0.05	25.1
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.03	< 0.005	0.28	0.15	< 0.005	< 0.005	0.06	0.06	< 0.005	0.02	0.02	—	220	220	0.02	0.04	0.20	231
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	4.10	4.10	< 0.005	< 0.005	0.01	4.15
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0

Hauling	0.01	< 0.005	0.05	0.03	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	36.4	36.4	< 0.005	0.01	0.03	38.3

3.6. Grading (2024) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.26	1.90	18.2	18.8	0.03	0.84	—	0.84	0.77	—	0.77	—	2,958	2,958	0.12	0.02	—	2,969
Dust From Material Movement	—	—	—	—	—	—	2.77	2.77	—	1.34	1.34	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.28	0.23	2.25	2.32	< 0.005	0.10	—	0.10	0.10	—	0.10	—	365	365	0.01	< 0.005	—	366
Dust From Material Movement	—	—	—	—	—	—	0.34	0.34	—	0.16	0.16	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05	0.04	0.41	0.42	< 0.005	0.02	—	0.02	0.02	—	0.02	—	60.4	60.4	< 0.005	< 0.005	—	60.6

Dust From Material Movement	—	—	—	—	—	—	0.06	0.06	—	0.03	0.03	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09	0.08	0.07	1.27	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	216	216	0.01	0.01	0.86	219
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.24	0.04	2.19	1.22	0.01	0.03	0.47	0.50	0.02	0.13	0.15	—	1,782	1,782	0.20	0.29	3.75	1,876
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.12	0.00	0.00	0.02	0.02	0.00	0.01	0.01	—	24.7	24.7	< 0.005	< 0.005	0.05	25.1
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.03	< 0.005	0.28	0.15	< 0.005	< 0.005	0.06	0.06	< 0.005	0.02	0.02	—	220	220	0.02	0.04	0.20	231
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	4.10	4.10	< 0.005	< 0.005	0.01	4.15
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.01	< 0.005	0.05	0.03	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	36.4	36.4	< 0.005	0.01	0.03	38.3

3.7. Foundation (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

3788

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.44	1.20	11.2	13.1	0.02	0.50	—	0.50	0.46	—	0.46	—	2,398	2,398	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.44	1.20	11.2	13.1	0.02	0.50	—	0.50	0.46	—	0.46	—	2,398	2,398	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.30	0.25	2.37	2.77	< 0.005	0.11	—	0.11	0.10	—	0.10	—	507	507	0.02	< 0.005	—	508
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.06	0.05	0.43	0.51	< 0.005	0.02	—	0.02	0.02	—	0.02	—	83.9	83.9	< 0.005	< 0.005	—	84.2
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.44	1.31	1.22	21.2	0.00	0.00	3.28	3.28	0.00	0.77	0.77	—	3,611	3,611	0.15	0.12	14.4	3,667
Vendor	0.13	0.03	1.36	0.73	0.01	0.02	0.32	0.34	0.02	0.09	0.11	—	1,187	1,187	0.09	0.18	3.31	1,246
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.37	1.24	1.43	16.0	0.00	0.00	3.28	3.28	0.00	0.77	0.77	—	3,310	3,310	0.16	0.12	0.37	3,351
Vendor	0.12	0.03	1.42	0.74	0.01	0.02	0.32	0.34	0.02	0.09	0.11	—	1,188	1,188	0.09	0.18	0.09	1,243
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.29	0.26	0.30	3.56	0.00	0.00	0.69	0.69	0.00	0.16	0.16	—	709	709	0.03	0.03	1.32	719
Vendor	0.03	0.01	0.30	0.16	< 0.005	< 0.005	0.07	0.07	< 0.005	0.02	0.02	—	251	251	0.02	0.04	0.30	263
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.05	0.06	0.65	0.00	0.00	0.13	0.13	0.00	0.03	0.03	—	117	117	0.01	< 0.005	0.22	119
Vendor	< 0.005	< 0.005	0.06	0.03	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	41.6	41.6	< 0.005	0.01	0.05	43.5
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.8. Foundation (2024) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.44	1.20	11.2	13.1	0.02	0.50	—	0.50	0.46	—	0.46	—	2,398	2,398	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

3790

Off-Road Equipment	1.44	1.20	11.2	13.1	0.02	0.50	—	0.50	0.46	—	0.46	—	2,398	2,398	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.30	0.25	2.37	2.77	< 0.005	0.11	—	0.11	0.10	—	0.10	—	507	507	0.02	< 0.005	—	508
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.06	0.05	0.43	0.51	< 0.005	0.02	—	0.02	0.02	—	0.02	—	83.9	83.9	< 0.005	< 0.005	—	84.2
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.44	1.31	1.22	21.2	0.00	0.00	3.28	3.28	0.00	0.77	0.77	—	3,611	3,611	0.15	0.12	14.4	3,667
Vendor	0.13	0.03	1.36	0.73	0.01	0.02	0.32	0.34	0.02	0.09	0.11	—	1,187	1,187	0.09	0.18	3.31	1,246
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.37	1.24	1.43	16.0	0.00	0.00	3.28	3.28	0.00	0.77	0.77	—	3,310	3,310	0.16	0.12	0.37	3,351
Vendor	0.12	0.03	1.42	0.74	0.01	0.02	0.32	0.34	0.02	0.09	0.11	—	1,188	1,188	0.09	0.18	0.09	1,243
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.29	0.26	0.30	3.56	0.00	0.00	0.69	0.69	0.00	0.16	0.16	—	709	709	0.03	0.03	1.32	719
Vendor	0.03	0.01	0.30	0.16	< 0.005	< 0.005	0.07	0.07	< 0.005	0.02	0.02	—	251	251	0.02	0.04	0.30	263

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.05	0.06	0.65	0.00	0.00	0.13	0.13	0.00	0.03	0.03	—	117	117	0.01	< 0.005	0.22	119
Vendor	< 0.005	< 0.005	0.06	0.03	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	41.6	41.6	< 0.005	0.01	0.05	43.5
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.9. Foundation (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.35	1.13	10.4	13.0	0.02	0.43	—	0.43	0.40	—	0.40	—	2,398	2,398	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.20	0.16	1.51	1.89	< 0.005	0.06	—	0.06	0.06	—	0.06	—	347	347	0.01	< 0.005	—	348
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.03	0.28	0.34	< 0.005	0.01	—	0.01	0.01	—	0.01	—	57.5	57.5	< 0.005	< 0.005	—	57.7
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.20	1.08	1.22	14.7	0.00	0.00	3.28	3.28	0.00	0.77	0.77	—	3,241	3,241	0.15	0.12	0.34	3,282
Vendor	0.11	0.03	1.36	0.70	0.01	0.02	0.32	0.34	0.02	0.09	0.11	—	1,169	1,169	0.09	0.18	0.09	1,224
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.17	0.15	0.19	2.25	0.00	0.00	0.47	0.47	0.00	0.11	0.11	—	476	476	0.02	0.02	0.82	483
Vendor	0.02	< 0.005	0.20	0.10	< 0.005	< 0.005	0.05	0.05	< 0.005	0.01	0.02	—	169	169	0.01	0.03	0.21	177
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.03	0.41	0.00	0.00	0.09	0.09	0.00	0.02	0.02	—	78.8	78.8	< 0.005	< 0.005	0.14	79.9
Vendor	< 0.005	< 0.005	0.04	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	28.0	28.0	< 0.005	< 0.005	0.03	29.4
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.10. Foundation (2025) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	1.35	1.13	10.4	13.0	0.02	0.43	—	0.43	0.40	—	0.40	—	2,398	2,398	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.20	0.16	1.51	1.89	< 0.005	0.06	—	0.06	0.06	—	0.06	—	347	347	0.01	< 0.005	—	348
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.03	0.28	0.34	< 0.005	0.01	—	0.01	0.01	—	0.01	—	57.5	57.5	< 0.005	< 0.005	—	57.7
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.20	1.08	1.22	14.7	0.00	0.00	3.28	3.28	0.00	0.77	0.77	—	3,241	3,241	0.15	0.12	0.34	3,282
Vendor	0.11	0.03	1.36	0.70	0.01	0.02	0.32	0.34	0.02	0.09	0.11	—	1,169	1,169	0.09	0.18	0.09	1,224
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.17	0.15	0.19	2.25	0.00	0.00	0.47	0.47	0.00	0.11	0.11	—	476	476	0.02	0.02	0.82	483
Vendor	0.02	< 0.005	0.20	0.10	< 0.005	< 0.005	0.05	0.05	< 0.005	0.01	0.02	—	169	169	0.01	0.03	0.21	177
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.03	0.41	0.00	0.00	0.09	0.09	0.00	0.02	0.02	—	78.8	78.8	< 0.005	< 0.005	0.14	79.9

Vendor	< 0.005	< 0.005	0.04	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	28.0	28.0	< 0.005	< 0.005	0.03	29.4
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.11. Vertical (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.44	1.20	11.2	13.1	0.02	0.50	—	0.50	0.46	—	0.46	—	2,398	2,398	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.22	0.18	1.71	2.00	< 0.005	0.08	—	0.08	0.07	—	0.07	—	366	366	0.01	< 0.005	—	367
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.03	0.31	0.37	< 0.005	0.01	—	0.01	0.01	—	0.01	—	60.6	60.6	< 0.005	< 0.005	—	60.8
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.37	1.24	1.43	16.0	0.00	0.00	3.28	3.28	0.00	0.77	0.77	—	3,310	3,310	0.16	0.12	0.37	3,351
Vendor	0.12	0.03	1.42	0.74	0.01	0.02	0.32	0.34	0.02	0.09	0.11	—	1,188	1,188	0.09	0.18	0.09	1,243
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.21	0.19	0.22	2.57	0.00	0.00	0.50	0.50	0.00	0.12	0.12	—	512	512	0.02	0.02	0.95	520
Vendor	0.02	< 0.005	0.22	0.11	< 0.005	< 0.005	0.05	0.05	< 0.005	0.01	0.02	—	181	181	0.01	0.03	0.22	190
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.03	0.04	0.47	0.00	0.00	0.09	0.09	0.00	0.02	0.02	—	84.8	84.8	< 0.005	< 0.005	0.16	86.0
Vendor	< 0.005	< 0.005	0.04	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	30.0	30.0	< 0.005	< 0.005	0.04	31.4
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.12. Vertical (2024) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.44	1.20	11.2	13.1	0.02	0.50	—	0.50	0.46	—	0.46	—	2,398	2,398	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3796

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.22	0.18	1.71	2.00	< 0.005	0.08	—	0.08	0.07	—	0.07	—	366	366	0.01	< 0.005	—	367
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.03	0.31	0.37	< 0.005	0.01	—	0.01	0.01	—	0.01	—	60.6	60.6	< 0.005	< 0.005	—	60.8
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.37	1.24	1.43	16.0	0.00	0.00	3.28	3.28	0.00	0.77	0.77	—	3,310	3,310	0.16	0.12	0.37	3,351
Vendor	0.12	0.03	1.42	0.74	0.01	0.02	0.32	0.34	0.02	0.09	0.11	—	1,188	1,188	0.09	0.18	0.09	1,243
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.21	0.19	0.22	2.57	0.00	0.00	0.50	0.50	0.00	0.12	0.12	—	512	512	0.02	0.02	0.95	520
Vendor	0.02	< 0.005	0.22	0.11	< 0.005	< 0.005	0.05	0.05	< 0.005	0.01	0.02	—	181	181	0.01	0.03	0.22	190
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.03	0.04	0.47	0.00	0.00	0.09	0.09	0.00	0.02	0.02	—	84.8	84.8	< 0.005	< 0.005	0.16	86.0
Vendor	< 0.005	< 0.005	0.04	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	30.0	30.0	< 0.005	< 0.005	0.04	31.4
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.13. Vertical (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.35	1.13	10.4	13.0	0.02	0.43	—	0.43	0.40	—	0.40	—	2,398	2,398	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.35	1.13	10.4	13.0	0.02	0.43	—	0.43	0.40	—	0.40	—	2,398	2,398	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.76	0.64	5.89	7.35	0.01	0.24	—	0.24	0.22	—	0.22	—	1,351	1,351	0.05	0.01	—	1,356
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.14	0.12	1.07	1.34	< 0.005	0.04	—	0.04	0.04	—	0.04	—	224	224	0.01	< 0.005	—	224
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.27	1.15	1.10	19.5	0.00	0.00	3.28	3.28	0.00	0.77	0.77	—	3,535	3,535	0.15	0.12	13.1	3,588
Vendor	0.12	0.03	1.30	0.70	0.01	0.02	0.32	0.34	0.02	0.09	0.11	—	1,168	1,168	0.09	0.18	3.29	1,227
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.20	1.08	1.22	14.7	0.00	0.00	3.28	3.28	0.00	0.77	0.77	—	3,241	3,241	0.15	0.12	0.34	3,282
Vendor	0.11	0.03	1.36	0.70	0.01	0.02	0.32	0.34	0.02	0.09	0.11	—	1,169	1,169	0.09	0.18	0.09	1,224
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.67	0.60	0.74	8.76	0.00	0.00	1.84	1.84	0.00	0.43	0.43	—	1,852	1,852	0.09	0.07	3.19	1,878
Vendor	0.06	0.02	0.77	0.39	< 0.005	0.01	0.18	0.19	0.01	0.05	0.06	—	659	659	0.05	0.10	0.80	690
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.12	0.11	0.14	1.60	0.00	0.00	0.34	0.34	0.00	0.08	0.08	—	307	307	0.01	0.01	0.53	311
Vendor	0.01	< 0.005	0.14	0.07	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	109	109	0.01	0.02	0.13	114
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.14. Vertical (2025) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	1.35	1.13	10.4	13.0	0.02	0.43	—	0.43	0.40	—	0.40	—	2,398	2,398	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.35	1.13	10.4	13.0	0.02	0.43	—	0.43	0.40	—	0.40	—	2,398	2,398	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.76	0.64	5.89	7.35	0.01	0.24	—	0.24	0.22	—	0.22	—	1,351	1,351	0.05	0.01	—	1,356
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.14	0.12	1.07	1.34	< 0.005	0.04	—	0.04	0.04	—	0.04	—	224	224	0.01	< 0.005	—	224
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.27	1.15	1.10	19.5	0.00	0.00	3.28	3.28	0.00	0.77	0.77	—	3,535	3,535	0.15	0.12	13.1	3,588
Vendor	0.12	0.03	1.30	0.70	0.01	0.02	0.32	0.34	0.02	0.09	0.11	—	1,168	1,168	0.09	0.18	3.29	1,227
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.20	1.08	1.22	14.7	0.00	0.00	3.28	3.28	0.00	0.77	0.77	—	3,241	3,241	0.15	0.12	0.34	3,282

Vendor	0.11	0.03	1.36	0.70	0.01	0.02	0.32	0.34	0.02	0.09	0.11	—	1,169	1,169	0.09	0.18	0.09	1,224
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.67	0.60	0.74	8.76	0.00	0.00	1.84	1.84	0.00	0.43	0.43	—	1,852	1,852	0.09	0.07	3.19	1,878
Vendor	0.06	0.02	0.77	0.39	< 0.005	0.01	0.18	0.19	0.01	0.05	0.06	—	659	659	0.05	0.10	0.80	690
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.12	0.11	0.14	1.60	0.00	0.00	0.34	0.34	0.00	0.08	0.08	—	307	307	0.01	0.01	0.53	311
Vendor	0.01	< 0.005	0.14	0.07	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	109	109	0.01	0.02	0.13	114
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.15. MEP/Other (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.44	1.20	11.2	13.1	0.02	0.50	—	0.50	0.46	—	0.46	—	2,398	2,398	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.13	0.11	1.03	1.21	< 0.005	0.05	—	0.05	0.04	—	0.04	—	221	221	0.01	< 0.005	—	221

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.19	0.22	< 0.005	0.01	—	0.01	0.01	—	0.01	—	36.5	36.5	< 0.005	< 0.005	—	36.6
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.37	1.24	1.43	16.0	0.00	0.00	3.28	3.28	0.00	0.77	0.77	—	3,310	3,310	0.16	0.12	0.37	3,351
Vendor	0.12	0.03	1.42	0.74	0.01	0.02	0.32	0.34	0.02	0.09	0.11	—	1,188	1,188	0.09	0.18	0.09	1,243
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.12	0.11	0.13	1.55	0.00	0.00	0.30	0.30	0.00	0.07	0.07	—	309	309	0.01	0.01	0.57	313
Vendor	0.01	< 0.005	0.13	0.07	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	109	109	0.01	0.02	0.13	114
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.02	0.28	0.00	0.00	0.05	0.05	0.00	0.01	0.01	—	51.1	51.1	< 0.005	< 0.005	0.09	51.8
Vendor	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	18.1	18.1	< 0.005	< 0.005	0.02	18.9
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.16. MEP/Other (2024) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.44	1.20	11.2	13.1	0.02	0.50	—	0.50	0.46	—	0.46	—	2,398	2,398	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.13	0.11	1.03	1.21	< 0.005	0.05	—	0.05	0.04	—	0.04	—	221	221	0.01	< 0.005	—	221
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.19	0.22	< 0.005	0.01	—	0.01	0.01	—	0.01	—	36.5	36.5	< 0.005	< 0.005	—	36.6
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.37	1.24	1.43	16.0	0.00	0.00	3.28	3.28	0.00	0.77	0.77	—	3,310	3,310	0.16	0.12	0.37	3,351
Vendor	0.12	0.03	1.42	0.74	0.01	0.02	0.32	0.34	0.02	0.09	0.11	—	1,188	1,188	0.09	0.18	0.09	1,243
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.12	0.11	0.13	1.55	0.00	0.00	0.30	0.30	0.00	0.07	0.07	—	309	309	0.01	0.01	0.57	313
Vendor	0.01	< 0.005	0.13	0.07	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	109	109	0.01	0.02	0.13	114
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.02	0.28	0.00	0.00	0.05	0.05	0.00	0.01	0.01	—	51.1	51.1	< 0.005	< 0.005	0.09	51.8
Vendor	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	18.1	18.1	< 0.005	< 0.005	0.02	18.9
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.17. MEP/Other (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.35	1.13	10.4	13.0	0.02	0.43	—	0.43	0.40	—	0.40	—	2,398	2,398	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.35	1.13	10.4	13.0	0.02	0.43	—	0.43	0.40	—	0.40	—	2,398	2,398	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.84	0.70	6.52	8.14	0.01	0.27	—	0.27	0.25	—	0.25	—	1,497	1,497	0.06	0.01	—	1,502
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.15	0.13	1.19	1.49	< 0.005	0.05	—	0.05	0.05	—	0.05	—	248	248	0.01	< 0.005	—	249
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.27	1.15	1.10	19.5	0.00	0.00	3.28	3.28	0.00	0.77	0.77	—	3,535	3,535	0.15	0.12	13.1	3,588
Vendor	0.12	0.03	1.30	0.70	0.01	0.02	0.32	0.34	0.02	0.09	0.11	—	1,168	1,168	0.09	0.18	3.29	1,227
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.20	1.08	1.22	14.7	0.00	0.00	3.28	3.28	0.00	0.77	0.77	—	3,241	3,241	0.15	0.12	0.34	3,282
Vendor	0.11	0.03	1.36	0.70	0.01	0.02	0.32	0.34	0.02	0.09	0.11	—	1,169	1,169	0.09	0.18	0.09	1,224
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.74	0.66	0.82	9.70	0.00	0.00	2.03	2.03	0.00	0.48	0.48	—	2,052	2,052	0.09	0.08	3.53	2,081
Vendor	0.07	0.02	0.85	0.44	0.01	0.01	0.20	0.21	0.01	0.06	0.07	—	730	730	0.06	0.11	0.89	765
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.14	0.12	0.15	1.77	0.00	0.00	0.37	0.37	0.00	0.09	0.09	—	340	340	0.02	0.01	0.59	344
Vendor	0.01	< 0.005	0.16	0.08	< 0.005	< 0.005	0.04	0.04	< 0.005	0.01	0.01	—	121	121	0.01	0.02	0.15	127
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0

3.18. MEP/Other (2025) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.35	1.13	10.4	13.0	0.02	0.43	—	0.43	0.40	—	0.40	—	2,398	2,398	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.35	1.13	10.4	13.0	0.02	0.43	—	0.43	0.40	—	0.40	—	2,398	2,398	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.84	0.70	6.52	8.14	0.01	0.27	—	0.27	0.25	—	0.25	—	1,497	1,497	0.06	0.01	—	1,502
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.15	0.13	1.19	1.49	< 0.005	0.05	—	0.05	0.05	—	0.05	—	248	248	0.01	< 0.005	—	249
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.27	1.15	1.10	19.5	0.00	0.00	3.28	3.28	0.00	0.77	0.77	—	3,535	3,535	0.15	0.12	13.1	3,588
Vendor	0.12	0.03	1.30	0.70	0.01	0.02	0.32	0.34	0.02	0.09	0.11	—	1,168	1,168	0.09	0.18	3.29	1,227
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.20	1.08	1.22	14.7	0.00	0.00	3.28	3.28	0.00	0.77	0.77	—	3,241	3,241	0.15	0.12	0.34	3,282
Vendor	0.11	0.03	1.36	0.70	0.01	0.02	0.32	0.34	0.02	0.09	0.11	—	1,169	1,169	0.09	0.18	0.09	1,224
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.74	0.66	0.82	9.70	0.00	0.00	2.03	2.03	0.00	0.48	0.48	—	2,052	2,052	0.09	0.08	3.53	2,081
Vendor	0.07	0.02	0.85	0.44	0.01	0.01	0.20	0.21	0.01	0.06	0.07	—	730	730	0.06	0.11	0.89	765
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.14	0.12	0.15	1.77	0.00	0.00	0.37	0.37	0.00	0.09	0.09	—	340	340	0.02	0.01	0.59	344
Vendor	0.01	< 0.005	0.16	0.08	< 0.005	< 0.005	0.04	0.04	< 0.005	0.01	0.01	—	121	121	0.01	0.02	0.15	127
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.19. Paving (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.95	0.80	7.45	9.98	0.01	0.35	—	0.35	0.32	—	0.32	—	1,511	1,511	0.06	0.01	—	1,517
Paving	—	0.72	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.06	0.05	0.47	0.63	< 0.005	0.02	—	0.02	0.02	—	0.02	—	95.2	95.2	< 0.005	< 0.005	—	95.6
Paving	—	0.05	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.09	0.11	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	15.8	15.8	< 0.005	< 0.005	—	15.8
Paving	—	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.06	0.07	0.88	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	194	194	0.01	0.01	0.02	196
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	< 0.005	< 0.005	< 0.005	0.06	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	12.4	12.4	< 0.005	< 0.005	0.02	12.6
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	2.05	2.05	< 0.005	< 0.005	< 0.005	2.08
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.20. Paving (2025) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.95	0.80	7.45	9.98	0.01	0.35	—	0.35	0.32	—	0.32	—	1,511	1,511	0.06	0.01	—	1,517
Paving	—	0.72	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.06	0.05	0.47	0.63	< 0.005	0.02	—	0.02	0.02	—	0.02	—	95.2	95.2	< 0.005	< 0.005	—	95.6
Paving	—	0.05	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.09	0.11	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	15.8	15.8	< 0.005	< 0.005	—	15.8
Paving	—	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.06	0.07	0.88	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	194	194	0.01	0.01	0.02	196
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.06	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	12.4	12.4	< 0.005	< 0.005	0.02	12.6
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	2.05	2.05	< 0.005	< 0.005	< 0.005	2.08
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.21. Coatings (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.15	0.13	0.88	1.14	< 0.005	0.03	—	0.03	0.03	—	0.03	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	—	150	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.05	0.06	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	7.32	7.32	< 0.005	< 0.005	—	7.34
Architectural Coatings	—	8.22	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.21	1.21	< 0.005	< 0.005	—	1.22
Architectural Coatings	—	1.50	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.72	0.65	0.73	8.84	0.00	0.00	1.97	1.97	0.00	0.46	0.46	—	1,944	1,944	0.09	0.07	0.20	1,969
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.03	0.04	0.51	0.00	0.00	0.11	0.11	0.00	0.03	0.03	—	108	108	< 0.005	< 0.005	0.19	110
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.09	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	17.9	17.9	< 0.005	< 0.005	0.03	18.1
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.22. Coatings (2025) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.15	0.13	0.88	1.14	< 0.005	0.03	—	0.03	0.03	—	0.03	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	—	35.1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.05	0.06	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	7.32	7.32	< 0.005	< 0.005	—	7.34
Architectural Coatings	—	1.92	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.21	1.21	< 0.005	< 0.005	—	1.22
Architectural Coatings	—	0.35	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.72	0.65	0.73	8.84	0.00	0.00	1.97	1.97	0.00	0.46	0.46	—	1,944	1,944	0.09	0.07	0.20	1,969
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.03	0.04	0.51	0.00	0.00	0.11	0.11	0.00	0.03	0.03	—	108	108	< 0.005	< 0.005	0.19	110
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.09	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	17.9	17.9	< 0.005	< 0.005	0.03	18.1
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.23. Trenching (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.45	0.38	2.91	3.71	0.01	0.14	—	0.14	0.13	—	0.13	—	547	547	0.02	< 0.005	—	549
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.45	0.38	2.91	3.71	0.01	0.14	—	0.14	0.13	—	0.13	—	547	547	0.02	< 0.005	—	549
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.02	0.18	0.22	< 0.005	0.01	—	0.01	0.01	—	0.01	—	33.0	33.0	< 0.005	< 0.005	—	33.1
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	< 0.005	< 0.005	0.03	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	5.46	5.46	< 0.005	< 0.005	—	5.48
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.04	0.04	0.63	0.00	0.00	0.10	0.10	0.00	0.02	0.02	—	108	108	< 0.005	< 0.005	0.43	110
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.04	0.04	0.48	0.00	0.00	0.10	0.10	0.00	0.02	0.02	—	99.0	99.0	< 0.005	< 0.005	0.01	100
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	6.05	6.05	< 0.005	< 0.005	0.01	6.13
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.00	1.00	< 0.005	< 0.005	< 0.005	1.02
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.24. Trenching (2024) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	C

Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.45	0.38	2.91	3.71	0.01	0.14	—	0.14	0.13	—	0.13	—	547	547	0.02	< 0.005	—	549
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.45	0.38	2.91	3.71	0.01	0.14	—	0.14	0.13	—	0.13	—	547	547	0.02	< 0.005	—	549
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.02	0.18	0.22	< 0.005	0.01	—	0.01	0.01	—	0.01	—	33.0	33.0	< 0.005	< 0.005	—	33.1
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.03	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	5.46	5.46	< 0.005	< 0.005	—	5.48
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.04	0.04	0.63	0.00	0.00	0.10	0.10	0.00	0.02	0.02	—	108	108	< 0.005	< 0.005	0.43	110
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.04	0.04	0.48	0.00	0.00	0.10	0.10	0.00	0.02	0.02	—	99.0	99.0	< 0.005	< 0.005	0.01	100
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	6.05	6.05	< 0.005	< 0.005	0.01	6.13
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.00	1.00	< 0.005	< 0.005	< 0.005	1.02
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	6.52	5.94	5.19	49.3	0.12	0.08	10.4	10.5	0.08	2.65	2.73	—	12,326	12,326	0.58	0.57	41.9	12,551

Strip Mall	1.29	1.16	1.15	11.1	0.03	0.02	2.45	2.47	0.02	0.62	0.64	—	2,876	2,876	0.13	0.13	9.84	2,927
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	7.82	7.11	6.35	60.4	0.15	0.10	12.9	13.0	0.09	3.27	3.36	—	15,202	15,202	0.71	0.69	51.8	15,478
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	6.11	5.53	5.57	41.5	0.11	0.08	10.4	10.5	0.08	2.65	2.73	—	11,558	11,558	0.61	0.58	1.09	11,749
Strip Mall	1.22	1.09	1.24	9.24	0.03	0.02	2.45	2.47	0.02	0.62	0.64	—	2,696	2,696	0.13	0.13	0.26	2,739
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	7.33	6.61	6.81	50.7	0.14	0.10	12.9	13.0	0.09	3.27	3.36	—	14,254	14,254	0.73	0.72	1.34	14,487
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	1.11	1.00	1.03	7.85	0.02	0.01	1.89	1.91	0.01	0.48	0.49	—	1,933	1,933	0.10	0.10	3.00	1,968
Strip Mall	0.22	0.20	0.23	1.75	< 0.005	< 0.005	0.44	0.45	< 0.005	0.11	0.12	—	451	451	0.02	0.02	0.70	459
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	1.33	1.20	1.26	9.60	0.03	0.02	2.34	2.35	0.02	0.59	0.61	—	2,384	2,384	0.12	0.12	3.70	2,427

4.1.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Apartme Mid Rise	6.52	5.94	5.19	49.3	0.12	0.08	10.4	10.5	0.08	2.65	2.73	—	12,326	12,326	0.58	0.57	41.9	12,551
Strip Mall	1.29	1.16	1.15	11.1	0.03	0.02	2.45	2.47	0.02	0.62	0.64	—	2,876	2,876	0.13	0.13	9.84	2,927
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	7.82	7.11	6.35	60.4	0.15	0.10	12.9	13.0	0.09	3.27	3.36	—	15,202	15,202	0.71	0.69	51.8	15,478
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	6.11	5.53	5.57	41.5	0.11	0.08	10.4	10.5	0.08	2.65	2.73	—	11,558	11,558	0.61	0.58	1.09	11,749
Strip Mall	1.22	1.09	1.24	9.24	0.03	0.02	2.45	2.47	0.02	0.62	0.64	—	2,696	2,696	0.13	0.13	0.26	2,739
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	7.33	6.61	6.81	50.7	0.14	0.10	12.9	13.0	0.09	3.27	3.36	—	14,254	14,254	0.73	0.72	1.34	14,487
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	1.11	1.00	1.03	7.85	0.02	0.01	1.89	1.91	0.01	0.48	0.49	—	1,933	1,933	0.10	0.10	3.00	1,968
Strip Mall	0.22	0.20	0.23	1.75	< 0.005	< 0.005	0.44	0.45	< 0.005	0.11	0.12	—	451	451	0.02	0.02	0.70	459
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	1.33	1.20	1.26	9.60	0.03	0.02	2.34	2.35	0.02	0.59	0.61	—	2,384	2,384	0.12	0.12	3.70	2,427

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

3819

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	1,416	1,416	0.14	0.02	—	1,425
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	49.8	49.8	< 0.005	< 0.005	—	50.1
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	1,466	1,466	0.14	0.02	—	1,475
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	1,416	1,416	0.14	0.02	—	1,425
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	49.8	49.8	< 0.005	< 0.005	—	50.1
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	1,466	1,466	0.14	0.02	—	1,475
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	235	235	0.02	< 0.005	—	236
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	8.25	8.25	< 0.005	< 0.005	—	8.30
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	243	243	0.02	< 0.005	—	244

4.2.2. Electricity Emissions By Land Use - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	1,416	1,416	0.14	0.02	—	1,425
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	49.8	49.8	< 0.005	< 0.005	—	50.1
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	1,466	1,466	0.14	0.02	—	1,475
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	1,416	1,416	0.14	0.02	—	1,425
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	49.8	49.8	< 0.005	< 0.005	—	50.1
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	1,466	1,466	0.14	0.02	—	1,475
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	235	235	0.02	< 0.005	—	236
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	8.25	8.25	< 0.005	< 0.005	—	8.30

Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	243	243	0.02	< 0.005	—	244

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	0.11	0.06	0.96	0.41	0.01	0.08	—	0.08	0.08	—	0.08	—	1,224	1,224	0.11	< 0.005	—	1,227
Strip Mall	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	10.2	10.2	< 0.005	< 0.005	—	10.2
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.11	0.06	0.97	0.42	0.01	0.08	—	0.08	0.08	—	0.08	—	1,234	1,234	0.11	< 0.005	—	1,238
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	0.11	0.06	0.96	0.41	0.01	0.08	—	0.08	0.08	—	0.08	—	1,224	1,224	0.11	< 0.005	—	1,227
Strip Mall	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	10.2	10.2	< 0.005	< 0.005	—	10.2
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.11	0.06	0.97	0.42	0.01	0.08	—	0.08	0.08	—	0.08	—	1,234	1,234	0.11	< 0.005	—	1,238
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Apartments	0.02	0.01	0.18	0.07	< 0.005	0.01	—	0.01	0.01	—	0.01	—	203	203	0.02	< 0.005	—	203
Strip Mall	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.69	1.69	< 0.005	< 0.005	—	1.69
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.02	0.01	0.18	0.08	< 0.005	0.01	—	0.01	0.01	—	0.01	—	204	204	0.02	< 0.005	—	205

4.2.4. Natural Gas Emissions By Land Use - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	0.11	0.06	0.96	0.41	0.01	0.08	—	0.08	0.08	—	0.08	—	1,224	1,224	0.11	< 0.005	—	1,227
Strip Mall	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	10.2	10.2	< 0.005	< 0.005	—	10.2
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.11	0.06	0.97	0.42	0.01	0.08	—	0.08	0.08	—	0.08	—	1,234	1,234	0.11	< 0.005	—	1,238
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	0.11	0.06	0.96	0.41	0.01	0.08	—	0.08	0.08	—	0.08	—	1,224	1,224	0.11	< 0.005	—	1,227
Strip Mall	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	10.2	10.2	< 0.005	< 0.005	—	10.2
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00

Total	0.11	0.06	0.97	0.42	0.01	0.08	—	0.08	0.08	—	0.08	—	1,234	1,234	0.11	< 0.005	—	1,238
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	0.02	0.01	0.18	0.07	< 0.005	0.01	—	0.01	0.01	—	0.01	—	203	203	0.02	< 0.005	—	203
Strip Mall	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.69	1.69	< 0.005	< 0.005	—	1.69
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.02	0.01	0.18	0.08	< 0.005	0.01	—	0.01	0.01	—	0.01	—	204	204	0.02	< 0.005	—	205

4.3. Area Emissions by Source

4.3.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	1,168	1,168	0.11	0.01	—	1,175
Consumer Products	—	9.96	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.82	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	1.88	1.78	0.19	19.9	< 0.005	0.01	—	0.01	0.01	—	0.01	—	53.4	53.4	< 0.005	< 0.005	—	53.6
Total	1.88	12.6	0.19	19.9	< 0.005	0.01	—	0.01	0.01	—	0.01	0.00	1,221	1,221	0.11	0.01	—	1,228

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	1,168	1,168	0.11	0.01	—	1,175
Consumer Products	—	9.96	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.82	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	0.00	10.8	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	1,168	1,168	0.11	0.01	—	1,175
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	13.2	13.2	< 0.005	< 0.005	—	13.3
Consumer Products	—	1.82	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.15	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.23	0.22	0.02	2.48	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	6.06	6.06	< 0.005	< 0.005	—	6.08
Total	0.23	2.19	0.02	2.48	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.00	19.3	19.3	< 0.005	< 0.005	—	19.4

4.3.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	1,168	1,168	0.11	0.01	—	1,175

Consumer	—	9.96	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.82	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	1.88	1.78	0.19	19.9	< 0.005	0.01	—	0.01	0.01	—	0.01	—	53.4	53.4	< 0.005	< 0.005	—	53.6
Total	1.88	12.6	0.19	19.9	< 0.005	0.01	—	0.01	0.01	—	0.01	0.00	1,221	1,221	0.11	0.01	—	1,228
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	1,168	1,168	0.11	0.01	—	1,175
Consumer Products	—	9.96	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.82	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	0.00	10.8	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	1,168	1,168	0.11	0.01	—	1,175
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	13.2	13.2	< 0.005	< 0.005	—	13.3
Consumer Products	—	1.82	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.15	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.23	0.22	0.02	2.48	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	6.06	6.06	< 0.005	< 0.005	—	6.08
Total	0.23	2.19	0.02	2.48	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.00	19.3	19.3	< 0.005	< 0.005	—	19.4

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	27.6	96.1	124	2.84	0.07	—	215
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	0.77	2.58	3.35	0.08	< 0.005	—	5.89
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	28.4	98.7	127	2.92	0.07	—	221
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	27.6	96.1	124	2.84	0.07	—	215
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	0.77	2.58	3.35	0.08	< 0.005	—	5.89
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	28.4	98.7	127	2.92	0.07	—	221
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	4.58	15.9	20.5	0.47	0.01	—	35.6
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	0.13	0.43	0.55	0.01	< 0.005	—	0.07

Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	4.70	16.3	21.0	0.48	0.01	—	36.6

4.4.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	27.6	96.1	124	2.84	0.07	—	215
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	0.77	2.58	3.35	0.08	< 0.005	—	5.89
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	28.4	98.7	127	2.92	0.07	—	221
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	27.6	96.1	124	2.84	0.07	—	215
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	0.77	2.58	3.35	0.08	< 0.005	—	5.89
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	28.4	98.7	127	2.92	0.07	—	221
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Apartments	—	—	—	—	—	—	—	—	—	—	—	4.58	15.9	20.5	0.47	0.01	—	35.6
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	0.13	0.43	0.55	0.01	< 0.005	—	0.97
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	4.70	16.3	21.0	0.48	0.01	—	36.6

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	138	0.00	138	13.8	0.00	—	482
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	3.06	0.00	3.06	0.31	0.00	—	10.7
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	141	0.00	141	14.1	0.00	—	493
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	138	0.00	138	13.8	0.00	—	482
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	3.06	0.00	3.06	0.31	0.00	—	10.7

Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	141	0.00	141	14.1	0.00	—	493
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	22.8	0.00	22.8	2.28	0.00	—	79.9
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	0.51	0.00	0.51	0.05	0.00	—	1.77
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	23.3	0.00	23.3	2.33	0.00	—	81.6

4.5.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	138	0.00	138	13.8	0.00	—	482
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	3.06	0.00	3.06	0.31	0.00	—	10.7
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	141	0.00	141	14.1	0.00	—	493
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Apartments	—	—	—	—	—	—	—	—	—	—	—	138	0.00	138	13.8	0.00	—	482
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	3.06	0.00	3.06	0.31	0.00	—	10.7
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	141	0.00	141	14.1	0.00	—	493
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	22.8	0.00	22.8	2.28	0.00	—	79.9
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	0.51	0.00	0.51	0.05	0.00	—	1.77
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	23.3	0.00	23.3	2.33	0.00	—	81.6

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.29	3.29
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.03	0.03
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.32	3.32

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.29	3.29
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.03	0.03
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.32	3.32
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.54	0.54
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.01	0.01
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.55	0.55

4.6.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.29	3.29
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.03	0.03
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.32	3.32
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.29	3.29

Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.03	0.03
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.32	3.32
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.54	0.54
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.01	0.01
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.55	0.55

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.7.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.9.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Sequest	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.4. Soil Carbon Accumulation By Vegetation Type - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.5. Above and Belowground Carbon Accumulation by Land Use Type - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.6. Avoided and Sequestered Emissions by Species - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Remove	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Demolition	Demolition	6/1/2024	8/1/2024	5.00	44.0	—
Site Preparation	Site Preparation	7/1/2024	8/1/2024	5.00	24.0	—
Grading	Grading	7/24/2024	9/24/2024	5.00	45.0	—
Foundation	Building Construction	9/15/2024	3/15/2025	5.00	130	—
Vertical	Building Construction	10/15/2024	10/15/2025	5.00	262	—
MEP/Other	Building Construction	11/15/2024	11/15/2025	5.00	261	—
Paving	Paving	10/1/2025	11/1/2025	5.00	23.0	—
Coatings	Architectural Coating	11/1/2025	11/30/2025	5.00	20.0	—
Trenching	Trenching	9/1/2024	10/1/2024	5.00	22.0	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Demolition	Rubber Tired Dozers	Diesel	Average	2.00	8.00	367	0.40
Demolition	Excavators	Diesel	Average	3.00	8.00	36.0	0.38
Demolition	Concrete/Industrial Saws	Diesel	Average	1.00	8.00	33.0	0.73
Site Preparation	Rubber Tired Dozers	Diesel	Average	3.00	8.00	367	0.40

Site Preparation	Tractors/Loaders/Backh	Diesel	Average	4.00	8.00	84.0	0.37
Grading	Graders	Diesel	Average	1.00	8.00	148	0.41
Grading	Excavators	Diesel	Average	1.00	8.00	36.0	0.38
Grading	Tractors/Loaders/Backhoes	Diesel	Average	3.00	8.00	84.0	0.37
Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Foundation	Forklifts	Diesel	Average	3.00	8.00	82.0	0.20
Foundation	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Foundation	Cranes	Diesel	Average	1.00	7.00	367	0.29
Foundation	Welders	Diesel	Average	1.00	8.00	46.0	0.45
Foundation	Tractors/Loaders/Backhoes	Diesel	Average	3.00	7.00	84.0	0.37
Vertical	Forklifts	Diesel	Average	3.00	8.00	82.0	0.20
Vertical	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Vertical	Cranes	Diesel	Average	1.00	7.00	367	0.29
Vertical	Welders	Diesel	Average	1.00	8.00	46.0	0.45
Vertical	Tractors/Loaders/Backhoes	Diesel	Average	3.00	7.00	84.0	0.37
MEP/Other	Forklifts	Diesel	Average	3.00	8.00	82.0	0.20
MEP/Other	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
MEP/Other	Cranes	Diesel	Average	1.00	7.00	367	0.29
MEP/Other	Welders	Diesel	Average	1.00	8.00	46.0	0.45
MEP/Other	Tractors/Loaders/Backhoes	Diesel	Average	3.00	7.00	84.0	0.37
Paving	Pavers	Diesel	Average	2.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Average	2.00	8.00	89.0	0.36
Paving	Rollers	Diesel	Average	2.00	8.00	36.0	0.38
Coatings	Air Compressors	Diesel	Average	1.00	6.00	37.0	0.48
Trenching	Trenchers	Diesel	Average	1.00	8.00	40.0	0.50

Trenching	Tractors/Loaders/Backh	Diesel	Average	1.00	8.00	84.0	0.37
Trenching	Signal Boards	Diesel	Average	1.00	8.00	6.00	0.82

5.2.2. Mitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Demolition	Rubber Tired Dozers	Diesel	Average	2.00	8.00	367	0.40
Demolition	Excavators	Diesel	Average	3.00	8.00	36.0	0.38
Demolition	Concrete/Industrial Saws	Diesel	Average	1.00	8.00	33.0	0.73
Site Preparation	Rubber Tired Dozers	Diesel	Average	3.00	8.00	367	0.40
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Average	4.00	8.00	84.0	0.37
Grading	Graders	Diesel	Average	1.00	8.00	148	0.41
Grading	Excavators	Diesel	Average	1.00	8.00	36.0	0.38
Grading	Tractors/Loaders/Backhoes	Diesel	Average	3.00	8.00	84.0	0.37
Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Foundation	Forklifts	Diesel	Average	3.00	8.00	82.0	0.20
Foundation	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Foundation	Cranes	Diesel	Average	1.00	7.00	367	0.29
Foundation	Welders	Diesel	Average	1.00	8.00	46.0	0.45
Foundation	Tractors/Loaders/Backhoes	Diesel	Average	3.00	7.00	84.0	0.37
Vertical	Forklifts	Diesel	Average	3.00	8.00	82.0	0.20
Vertical	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Vertical	Cranes	Diesel	Average	1.00	7.00	367	0.29
Vertical	Welders	Diesel	Average	1.00	8.00	46.0	0.45
Vertical	Tractors/Loaders/Backhoes	Diesel	Average	3.00	7.00	84.0	0.37

MEP/Other	Forklifts	Diesel	Average	3.00	8.00	82.0	0.20
MEP/Other	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
MEP/Other	Cranes	Diesel	Average	1.00	7.00	367	0.29
MEP/Other	Welders	Diesel	Average	1.00	8.00	46.0	0.45
MEP/Other	Tractors/Loaders/Backhoes	Diesel	Average	3.00	7.00	84.0	0.37
Paving	Pavers	Diesel	Average	2.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Average	2.00	8.00	89.0	0.36
Paving	Rollers	Diesel	Average	2.00	8.00	36.0	0.38
Coatings	Air Compressors	Diesel	Average	1.00	6.00	37.0	0.48
Trenching	Trenchers	Diesel	Average	1.00	8.00	40.0	0.50
Trenching	Tractors/Loaders/Backhoes	Diesel	Average	1.00	8.00	84.0	0.37
Trenching	Signal Boards	Diesel	Average	1.00	8.00	6.00	0.82

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Demolition	—	—	—	—
Demolition	Worker	15.0	18.5	LDA,LDT1,LDT2
Demolition	Vendor	—	10.2	HHDT,MHDT
Demolition	Hauling	26.6	20.0	HHDT
Demolition	Onsite truck	—	—	HHDT
Site Preparation	—	—	—	—
Site Preparation	Worker	17.5	18.5	LDA,LDT1,LDT2
Site Preparation	Vendor	—	10.2	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT

Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	15.0	18.5	LDA,LDT1,LDT2
Grading	Vendor	—	10.2	HHDT,MHDT
Grading	Hauling	25.3	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Foundation	—	—	—	—
Foundation	Worker	251	18.5	LDA,LDT1,LDT2
Foundation	Vendor	37.9	10.2	HHDT,MHDT
Foundation	Hauling	0.00	20.0	HHDT
Foundation	Onsite truck	—	—	HHDT
Vertical	—	—	—	—
Vertical	Worker	251	18.5	LDA,LDT1,LDT2
Vertical	Vendor	37.9	10.2	HHDT,MHDT
Vertical	Hauling	0.00	20.0	HHDT
Vertical	Onsite truck	—	—	HHDT
MEP/Other	—	—	—	—
MEP/Other	Worker	251	18.5	LDA,LDT1,LDT2
MEP/Other	Vendor	37.9	10.2	HHDT,MHDT
MEP/Other	Hauling	0.00	20.0	HHDT
MEP/Other	Onsite truck	—	—	HHDT
Coatings	—	—	—	—
Coatings	Worker	151	18.5	LDA,LDT1,LDT2
Coatings	Vendor	—	10.2	HHDT,MHDT
Coatings	Hauling	0.00	20.0	HHDT
Coatings	Onsite truck	—	—	HHDT
Trenching	—	—	—	—

Trenching	Worker	7.50	18.5	LDA,LDT1,LDT2
Trenching	Vendor	—	10.2	HHDT,MHDT
Trenching	Hauling	0.00	20.0	HHDT
Trenching	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	15.0	18.5	LDA,LDT1,LDT2
Paving	Vendor	—	10.2	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT

5.3.2. Mitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Demolition	—	—	—	—
Demolition	Worker	15.0	18.5	LDA,LDT1,LDT2
Demolition	Vendor	—	10.2	HHDT,MHDT
Demolition	Hauling	26.6	20.0	HHDT
Demolition	Onsite truck	—	—	HHDT
Site Preparation	—	—	—	—
Site Preparation	Worker	17.5	18.5	LDA,LDT1,LDT2
Site Preparation	Vendor	—	10.2	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	15.0	18.5	LDA,LDT1,LDT2
Grading	Vendor	—	10.2	HHDT,MHDT
Grading	Hauling	25.3	20.0	HHDT
Grading	Onsite truck	—	—	HHDT

Foundation	—	—	—	—
Foundation	Worker	251	18.5	LDA,LDT1,LDT2
Foundation	Vendor	37.9	10.2	HHDT,MHDT
Foundation	Hauling	0.00	20.0	HHDT
Foundation	Onsite truck	—	—	HHDT
Vertical	—	—	—	—
Vertical	Worker	251	18.5	LDA,LDT1,LDT2
Vertical	Vendor	37.9	10.2	HHDT,MHDT
Vertical	Hauling	0.00	20.0	HHDT
Vertical	Onsite truck	—	—	HHDT
MEP/Other	—	—	—	—
MEP/Other	Worker	251	18.5	LDA,LDT1,LDT2
MEP/Other	Vendor	37.9	10.2	HHDT,MHDT
MEP/Other	Hauling	0.00	20.0	HHDT
MEP/Other	Onsite truck	—	—	HHDT
Coatings	—	—	—	—
Coatings	Worker	151	18.5	LDA,LDT1,LDT2
Coatings	Vendor	—	10.2	HHDT,MHDT
Coatings	Hauling	0.00	20.0	HHDT
Coatings	Onsite truck	—	—	HHDT
Trenching	—	—	—	—
Trenching	Worker	7.50	18.5	LDA,LDT1,LDT2
Trenching	Vendor	—	10.2	HHDT,MHDT
Trenching	Hauling	0.00	20.0	HHDT
Trenching	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	15.0	18.5	LDA,LDT1,LDT2

Paving	Vendor	—	10.2	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
Coatings	929,422	309,807	8,100	2,700	16,624

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (Cubic Yards)	Material Exported (Cubic Yards)	Acres Graded (acres)	Material Demolished (Building Square Footage)	Acres Paved (acres)
Demolition	0.00	0.00	0.00	101,620	—
Site Preparation	0.00	0.00	33.0	0.00	—
Grading	9,105	0.00	44.0	0.00	—
Paving	0.00	0.00	0.00	0.00	6.36

5.6.2. Construction Earthmoving Control Strategies

Control Strategies Applied	Frequency (per day)	PM10 Reduction	PM2.5 Reduction
Water Exposed Area	2	61%	61%
Water Demolished Area	2	36%	36%

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
Apartments Mid Rise	—	0%
Strip Mall	0.00	0%
Other Asphalt Surfaces	6.36	100%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2024	0.00	532	0.03	< 0.005
2025	0.00	532	0.03	< 0.005

5.9. Operational Mobile Sources

5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Apartments Mid Rise	1,571	1,571	1,571	573,357	14,708	14,708	14,708	5,368,476
Strip Mall	294	294	294	107,321	3,449	3,449	3,449	1,258,840
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

5.9.2. Mitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Apartments Mid Rise	1,571	1,571	1,571	573,357	14,708	14,708	14,708	5,368,476
Strip Mall	294	294	294	107,321	3,449	3,449	3,449	1,258,840

Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

Hearth Type	Unmitigated (number)
Apartments Mid Rise	—
Wood Fireplaces	0
Gas Fireplaces	0
Propane Fireplaces	0
Electric Fireplaces	311
No Fireplaces	35
Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0

5.10.1.2. Mitigated

Hearth Type	Unmitigated (number)
Apartments Mid Rise	—
Wood Fireplaces	0
Gas Fireplaces	0
Propane Fireplaces	0
Electric Fireplaces	311
No Fireplaces	35

Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0

5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
929422.35	309,807	8,100	2,700	16,624

5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	250

5.10.4. Landscape Equipment - Mitigated

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	250

5.11. Operational Energy Consumption

5.11.1. Unmitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Apartments Mid Rise	1,493,392	346	0.0330	0.0040	3,818,864
Strip Mall	52,533	346	0.0330	0.0040	31,836

Other Asphalt Surfaces	0.00	346	0.0330	0.0040	0.00

5.11.2. Mitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Apartments Mid Rise	1,493,392	346	0.0330	0.0040	3,818,864
Strip Mall	52,533	346	0.0330	0.0040	31,836
Other Asphalt Surfaces	0.00	346	0.0330	0.0040	0.00

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Apartments Mid Rise	14,421,687	587,421
Strip Mall	399,992	0.00
Other Asphalt Surfaces	0.00	0.00

5.12.2. Mitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Apartments Mid Rise	14,421,687	587,421
Strip Mall	399,992	0.00
Other Asphalt Surfaces	0.00	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)

Apartments Mid Rise	256	—
Strip Mall	5.67	—
Other Asphalt Surfaces	0.00	—

5.13.2. Mitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Apartments Mid Rise	256	—
Strip Mall	5.67	—
Other Asphalt Surfaces	0.00	—

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Apartments Mid Rise	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Apartments Mid Rise	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
Strip Mall	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Strip Mall	Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00
Strip Mall	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0

5.14.2. Mitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced

Apartments Mid Rise	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Apartments Mid Rise	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
Strip Mall	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Strip Mall	Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00
Strip Mall	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor

5.15.2. Mitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

Equipment Type	Fuel Type	Number per Day	Hours per Day	Hours per Year	Horsepower	Load Factor

5.16.2. Process Boilers

Equipment Type	Fuel Type	Number	Boiler Rating (MMBtu/hr)	Daily Heat Input (MMBtu/day)	Annual Heat Input (MMBtu/yr)

5.17. User Defined

Equipment Type	Fuel Type

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

3855

5.18.2.2. Mitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	19.8	annual days of extreme heat
Extreme Precipitation	4.05	annual days with precipitation above 20 mm
Sea Level Rise	0.00	meters of inundation depth
Wildfire	0.00	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider different increments of sea level rise coupled with extreme storm events. Users may select from four model simulations to view the range in potential inundation depth for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 50 meters (m) by 50 m, or about 164 feet (ft) by 164 ft.
Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	2	0	0	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	1	0	0	N/A

Wildfire	1	0	0	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	0	0	0	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	2	1	1	3
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	1	1	1	2
Wildfire	1	1	1	2
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	1	1	1	2

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	80.0
AQ-PM	95.0
AQ-DPM	96.7
Drinking Water	99.7
Lead Risk Housing	26.8
Pesticides	19.2
Toxic Releases	65.3
Traffic	91.1
Effect Indicators	—
CleanUp Sites	40.8
Groundwater	37.8
Haz Waste Facilities/Generators	26.7
Impaired Water Bodies	0.00
Solid Waste	35.7
Sensitive Population	—
Asthma	43.9
Cardio-vascular	72.2
Low Birth Weights	23.3
Socioeconomic Factor Indicators	—
Education	64.1
Housing	29.7
Linguistic	50.5
Poverty	41.0

Unemployment	33.6

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	52.03387656
Employed	54.83125882
Median HI	65.14820993
Education	—
Bachelor's or higher	49.15950212
High school enrollment	100
Preschool enrollment	14.78249711
Transportation	—
Auto Access	78.96830489
Active commuting	27.28089311
Social	—
2-parent households	81.31656615
Voting	64.17297575
Neighborhood	—
Alcohol availability	41.75542153
Park access	22.69985885
Retail density	45.77184653
Supermarket access	57.37200051
Tree canopy	18.41396125
Housing	—
Homeownership	86.56486591

Housing habitability	75.79879379
Low-inc homeowner severe housing cost burden	60.87514436
Low-inc renter severe housing cost burden	87.5914282
Uncrowded housing	53.4838958
Health Outcomes	—
Insured adults	49.96791993
Arthritis	31.2
Asthma ER Admissions	51.4
High Blood Pressure	43.5
Cancer (excluding skin)	42.8
Asthma	37.3
Coronary Heart Disease	47.4
Chronic Obstructive Pulmonary Disease	35.3
Diagnosed Diabetes	41.8
Life Expectancy at Birth	68.4
Cognitively Disabled	43.0
Physically Disabled	69.8
Heart Attack ER Admissions	19.3
Mental Health Not Good	43.4
Chronic Kidney Disease	55.3
Obesity	43.5
Pedestrian Injuries	65.5
Physical Health Not Good	42.2
Stroke	51.7
Health Risk Behaviors	—
Binge Drinking	47.1
Current Smoker	44.4

3860

No Leisure Time for Physical Activity	50.7
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	0.0
Children	33.8
Elderly	56.5
English Speaking	35.7
Foreign-born	48.2
Outdoor Workers	65.0
Climate Change Adaptive Capacity	—
Impervious Surface Cover	53.7
Traffic Density	89.6
Traffic Access	23.0
Other Indices	—
Hardship	57.1
Other Decision Support	—
2016 Voting	73.7

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	64.0
Healthy Places Index Score for Project Location (b)	52.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	No
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

3861

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Land Use	Updated lot acreage and building square feet based on project site plan received 6/29/23.
Construction: Construction Phases	Updated construction building construction phases and schedule based on data request response received 8/28/23.
Construction: Off-Road Equipment	Updated Trenching equipment to include one trencher, one backhoe and one signal board.
Construction: Architectural Coatings	—
Construction: Dust From Material Movement	Updated Grading soil import based on data request response received 8/28/23.
Operations: Vehicle Data	Updated trip rates and primary/pass-by trip percentages based on LLG traffic information received 7/31/23.
Operations: Hearths	Updated number of fireplaces based on data request response received 8/28/23. Removed wood stoves based on SCAQMD Rule 445.

This page was intentionally left blank.

Attachment 2

Phase 2 CalEEMod Project File Outputs

This page was intentionally left blank.

Legacy Ontario PUD Construction Phase 2 Detailed Report

Table of Contents

1. Basic Project Information

1.1. Basic Project Information

1.2. Land Use Types

1.3. User-Selected Emission Reduction Measures by Emissions Sector

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

2.2. Construction Emissions by Year, Unmitigated

2.4. Operations Emissions Compared Against Thresholds

2.5. Operations Emissions by Sector, Unmitigated

3. Construction Emissions Details

3.1. Demolition (2026) - Unmitigated

3.3. Site Preparation (2026) - Unmitigated

3.5. Grading (2026) - Unmitigated

3.7. Building Construction (2026) - Unmitigated

3.9. Paving (2026) - Unmitigated

3.11. Architectural Coating (2026) - Unmitigated

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

4.3. Area Emissions by Source

4.3.1. Unmitigated

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

5. Activity Data

5.1. Construction Schedule

5.2. Off-Road Equipment

5.2.1. Unmitigated

5.3. Construction Vehicles

5.3.1. Unmitigated

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

5.5. Architectural Coatings

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

5.6.2. Construction Earthmoving Control Strategies

5.7. Construction Paving

5.8. Construction Electricity Consumption and Emissions Factors

5.9. Operational Mobile Sources

5.9.1. Unmitigated

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

5.10.2. Architectural Coatings

5.10.3. Landscape Equipment

5.11. Operational Energy Consumption

5.11.1. Unmitigated

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

5.13. Operational Waste Generation

5.13.1. Unmitigated

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

5.16.2. Process Boilers

5.17. User Defined

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

5.18.2. Sequestration

5.18.2.1. Unmitigated

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

6.2. Initial Climate Risk Scores

6.3. Adjusted Climate Risk Scores

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

7.2. Healthy Places Index Scores

7.3. Overall Health & Equity Scores

7.4. Health & Equity Measures

7.5. Evaluation Scorecard

7.6. Health & Equity Custom Measures

8. User Changes to Default Data

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	Legacy Ontario PUD Construction Phase 2
Construction Start Date	1/1/2026
Operational Year	2027
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.60
Precipitation (days)	9.20
Location	34.0271018753637, -117.65141705846071
County	San Bernardino-South Coast
City	Ontario
Air District	South Coast AQMD
Air Basin	South Coast
TAZ	5251
EDFZ	10
Electric Utility	Southern California Edison
Gas Utility	Southern California Gas
App Version	2022.1.1.18

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description

3872

Apartments Mid Rise	23.0	Dwelling Unit	0.61	22,080	0.00	0.00	76.0	—
Strip Mall	6.60	1000sqft	0.15	6,600	0.00	0.00	—	—
Other Asphalt Surfaces	0.75	Acre	0.75	0.00	0.00	0.00	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.32	1.10	8.76	11.4	0.02	0.29	0.27	0.57	0.27	0.07	0.34	—	2,166	2,166	0.09	0.04	1.17	2,181
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.74	21.0	13.3	15.5	0.03	0.58	2.89	3.47	0.53	1.37	1.90	—	2,886	2,886	0.13	0.06	0.03	2,909
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.86	1.30	5.89	7.38	0.01	0.20	0.22	0.43	0.19	0.06	0.25	—	1,412	1,412	0.06	0.03	0.31	1,422
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.16	0.24	1.07	1.35	< 0.005	0.04	0.04	0.08	0.03	0.01	0.05	—	234	234	0.01	< 0.005	0.05	235

2.2. Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	1.32	1.10	8.76	11.4	0.02	0.29	0.27	0.57	0.27	0.07	0.34	—	2,166	2,166	0.09	0.04	1.17	2,181
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	1.74	21.0	13.3	15.5	0.03	0.58	2.89	3.47	0.53	1.37	1.90	—	2,886	2,886	0.13	0.06	0.03	2,909
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	0.86	1.30	5.89	7.38	0.01	0.20	0.22	0.43	0.19	0.06	0.25	—	1,412	1,412	0.06	0.03	0.31	1,422
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	0.16	0.24	1.07	1.35	< 0.005	0.04	0.04	0.08	0.03	0.01	0.05	—	234	234	0.01	< 0.005	0.05	235

2.4. Operations Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	2.10	2.57	1.73	17.7	0.04	0.03	3.68	3.72	0.03	0.94	0.97	15.7	4,589	4,605	1.79	0.20	13.4	4,722
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.82	2.30	1.84	13.4	0.04	0.03	3.68	3.72	0.03	0.94	0.97	15.7	4,319	4,335	1.79	0.20	0.54	4,441
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.92	2.39	1.88	15.0	0.04	0.03	3.66	3.70	0.03	0.93	0.96	15.7	4,291	4,307	1.79	0.20	5.89	4,419

Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.35	0.44	0.34	2.74	0.01	0.01	0.67	0.67	0.01	0.17	0.18	2.59	710	713	0.30	0.03	0.98	732

2.5. Operations Emissions by Sector, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	1.92	1.73	1.64	16.1	0.04	0.03	3.68	3.71	0.03	0.94	0.96	—	4,248	4,248	0.18	0.19	13.2	4,322
Area	0.17	0.84	0.01	1.59	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.00	82.3	82.3	0.01	< 0.005	—	82.8
Energy	0.01	< 0.005	0.07	0.04	< 0.005	0.01	—	0.01	0.01	—	0.01	—	249	249	0.02	< 0.005	—	250
Water	—	—	—	—	—	—	—	—	—	—	—	2.77	9.35	12.1	0.29	0.01	—	21.3
Waste	—	—	—	—	—	—	—	—	—	—	—	12.9	0.00	12.9	1.29	0.00	—	45.1
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.20	0.20
Total	2.10	2.57	1.73	17.7	0.04	0.03	3.68	3.72	0.03	0.94	0.97	15.7	4,589	4,605	1.79	0.20	13.4	4,722
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	1.81	1.62	1.77	13.4	0.04	0.03	3.68	3.71	0.03	0.94	0.96	—	3,983	3,983	0.19	0.19	0.34	4,047
Area	0.00	0.67	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	77.6	77.6	0.01	< 0.005	—	78.1
Energy	0.01	< 0.005	0.07	0.04	< 0.005	0.01	—	0.01	0.01	—	0.01	—	249	249	0.02	< 0.005	—	250
Water	—	—	—	—	—	—	—	—	—	—	—	2.77	9.35	12.1	0.29	0.01	—	21.3
Waste	—	—	—	—	—	—	—	—	—	—	—	12.9	0.00	12.9	1.29	0.00	—	45.1
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.20	0.20
Total	1.82	2.30	1.84	13.4	0.04	0.03	3.68	3.72	0.03	0.94	0.97	15.7	4,319	4,335	1.79	0.20	0.54	4,441
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Mobile	1.79	1.60	1.79	13.9	0.04	0.03	3.66	3.69	0.03	0.93	0.96	—	4,025	4,025	0.19	0.20	5.69	4,094
Area	0.12	0.78	0.01	1.09	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.00	8.52	8.52	< 0.005	< 0.005	—	8.56
Energy	0.01	< 0.005	0.07	0.04	< 0.005	0.01	—	0.01	0.01	—	0.01	—	249	249	0.02	< 0.005	—	250
Water	—	—	—	—	—	—	—	—	—	—	—	2.77	9.35	12.1	0.29	0.01	—	21.3
Waste	—	—	—	—	—	—	—	—	—	—	—	12.9	0.00	12.9	1.29	0.00	—	45.1
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.20	0.20
Total	1.92	2.39	1.88	15.0	0.04	0.03	3.66	3.70	0.03	0.93	0.96	15.7	4,291	4,307	1.79	0.20	5.89	4,419
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.33	0.29	0.33	2.53	0.01	< 0.005	0.67	0.67	< 0.005	0.17	0.17	—	666	666	0.03	0.03	0.94	678
Area	0.02	0.14	< 0.005	0.20	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.00	1.41	1.41	< 0.005	< 0.005	—	1.42
Energy	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	41.2	41.2	< 0.005	< 0.005	—	41.4
Water	—	—	—	—	—	—	—	—	—	—	—	0.46	1.55	2.01	0.05	< 0.005	—	3.53
Waste	—	—	—	—	—	—	—	—	—	—	—	2.13	0.00	2.13	0.21	0.00	—	7.46
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.03	0.03
Total	0.35	0.44	0.34	2.74	0.01	0.01	0.67	0.67	0.01	0.17	0.18	2.59	710	713	0.30	0.03	0.98	732

3. Construction Emissions Details

3.1. Demolition (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	1.66	1.39	12.9	14.6	0.02	0.51	—	0.51	0.47	—	0.47	—	2,494	2,494	0.10	0.02	—	2,503
Demolition	—	—	—	—	—	—	0.19	0.19	—	0.03	0.03	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.09	0.08	0.71	0.80	< 0.005	0.03	—	0.03	0.03	—	0.03	—	137	137	0.01	< 0.005	—	137
Demolition	—	—	—	—	—	—	0.01	0.01	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.01	0.13	0.15	< 0.005	0.01	—	0.01	< 0.005	—	< 0.005	—	22.6	22.6	< 0.005	< 0.005	—	22.7
Demolition	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.05	0.05	0.68	0.00	0.00	0.16	0.16	0.00	0.04	0.04	—	158	158	< 0.005	0.01	0.02	—
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Hauling	0.03	< 0.005	0.29	0.16	< 0.005	< 0.005	0.06	0.07	< 0.005	0.02	0.02	—	234	234	0.02	0.04	0.01	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	< 0.005	< 0.005	< 0.005	0.04	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	8.79	8.79	< 0.005	< 0.005	0.01	—
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Hauling	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	12.8	12.8	< 0.005	< 0.005	0.01	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.46	1.46	< 0.005	< 0.005	< 0.005	—
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	2.13	2.13	< 0.005	< 0.005	< 0.005	—

3.3. Site Preparation (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.47	1.24	11.0	11.7	0.02	0.51	—	0.51	0.47	—	0.47	—	2,065	2,065	0.08	0.02	—	2,072
Dust From Material Movement	—	—	—	—	—	—	2.44	2.44	—	1.17	1.17	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.06	0.06	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	11.3	11.3	< 0.005	< 0.005	—	11.4

Dust From Material Movement	—	—	—	—	—	—	0.01	0.01	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.87	1.87	< 0.005	< 0.005	—	1.88
Dust From Material Movement	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.03	0.41	0.00	0.00	0.10	0.10	0.00	0.02	0.02	—	94.9	94.9	< 0.005	< 0.005	0.01	—
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.53	0.53	< 0.005	< 0.005	< 0.005	—
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.09	0.09	< 0.005	< 0.005	< 0.005	—
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—

3.5. Grading (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.70	1.42	12.9	14.0	0.02	0.58	—	0.58	0.53	—	0.53	—	2,455	2,455	0.10	0.02	—	2,463
Dust From Material Movement	—	—	—	—	—	—	2.76	2.76	—	1.34	1.34	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.14	0.15	< 0.005	0.01	—	0.01	0.01	—	0.01	—	26.9	26.9	< 0.005	< 0.005	—	27.0
Dust From Material Movement	—	—	—	—	—	—	0.03	0.03	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.03	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	4.45	4.45	< 0.005	< 0.005	—	4.47

Dust From Material Movement	—	—	—	—	—	—	0.01	0.01	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.04	0.04	0.54	0.00	0.00	0.13	0.13	0.00	0.03	0.03	—	127	127	< 0.005	< 0.005	0.01	—
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.41	1.41	< 0.005	< 0.005	< 0.005	—
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.23	0.23	< 0.005	< 0.005	< 0.005	—
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—

3.7. Building Construction (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

3881

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.22	1.01	8.57	9.96	0.02	0.29	—	0.29	0.27	—	0.27	—	1,801	1,801	0.07	0.01	—	1,807
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.22	1.01	8.57	9.96	0.02	0.29	—	0.29	0.27	—	0.27	—	1,801	1,801	0.07	0.01	—	1,807
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.67	0.56	4.70	5.46	0.01	0.16	—	0.16	0.15	—	0.15	—	987	987	0.04	0.01	—	990
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.12	0.10	0.86	1.00	< 0.005	0.03	—	0.03	0.03	—	0.03	—	163	163	0.01	< 0.005	—	164
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09	0.08	0.07	1.34	0.00	0.00	0.24	0.24	0.00	0.06	0.06	—	258	258	0.01	0.01	0.88	—
Vendor	0.01	< 0.005	0.12	0.06	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	107	107	0.01	0.02	0.28	—
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.08	0.08	1.02	0.00	0.00	0.24	0.24	0.00	0.06	0.06	—	236	236	< 0.005	0.01	0.02	—
Vendor	0.01	< 0.005	0.12	0.06	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	107	107	0.01	0.02	0.01	—
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.04	0.05	0.59	0.00	0.00	0.13	0.13	0.00	0.03	0.03	—	131	131	< 0.005	0.01	0.21	—
Vendor	0.01	< 0.005	0.07	0.03	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	0.01	—	58.9	58.9	< 0.005	0.01	0.07	—
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.11	0.00	0.00	0.02	0.02	0.00	0.01	0.01	—	21.7	21.7	< 0.005	< 0.005	0.03	—
Vendor	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	9.74	9.74	< 0.005	< 0.005	0.01	—
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—

3.9. Paving (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.56	0.47	4.41	6.48	0.01	0.18	—	0.18	0.17	—	0.17	—	991	991	0.04	0.01	—	995
Paving	—	0.20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.01	0.12	0.18	< 0.005	0.01	—	0.01	< 0.005	—	< 0.005	—	27.2	27.2	< 0.005	< 0.005	—	27.3
Paving	—	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.02	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	4.50	4.50	< 0.005	< 0.005	—	4.51
Paving	—	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.05	0.05	0.68	0.00	0.00	0.16	0.16	0.00	0.04	0.04	—	158	158	< 0.005	0.01	0.02	—
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	4.40	4.40	< 0.005	< 0.005	0.01	—
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.73	0.73	< 0.005	< 0.005	< 0.005	—

Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—

3.11. Architectural Coating (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.15	0.12	0.86	1.13	< 0.005	0.02	—	0.02	0.02	—	0.02	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	—	20.8	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.02	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	3.66	3.66	< 0.005	< 0.005	—	3.67
Architectural Coatings	—	0.57	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	< 0.005	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.61	0.61	< 0.005	< 0.005	—	0.61

Architect Coatings	—	0.10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.02	0.20	0.00	0.00	0.05	0.05	0.00	0.01	0.01	—	47.3	47.3	< 0.005	< 0.005	< 0.005	—
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.31	1.31	< 0.005	< 0.005	< 0.005	—
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.22	0.22	< 0.005	< 0.005	< 0.005	—
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	0.41	0.38	0.32	3.11	0.01	0.01	0.69	0.70	< 0.005	0.18	0.18	—	803	803	0.04	0.04	2.48	817
Strip Mall	1.51	1.36	1.32	12.9	0.03	0.02	2.99	3.01	0.02	0.76	0.78	—	3,445	3,445	0.15	0.15	10.7	3,505
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	1.92	1.73	1.64	16.1	0.04	0.03	3.68	3.71	0.03	0.94	0.96	—	4,248	4,248	0.18	0.19	13.2	4,322
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	0.39	0.35	0.35	2.63	0.01	0.01	0.69	0.70	< 0.005	0.18	0.18	—	753	753	0.04	0.04	0.06	766
Strip Mall	1.42	1.27	1.42	10.8	0.03	0.02	2.99	3.01	0.02	0.76	0.78	—	3,230	3,230	0.15	0.16	0.28	3,281
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	1.81	1.62	1.77	13.4	0.04	0.03	3.68	3.71	0.03	0.94	0.96	—	3,983	3,983	0.19	0.19	0.34	4,047
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	0.07	0.06	0.06	0.50	< 0.005	< 0.005	0.13	0.13	< 0.005	0.03	0.03	—	126	126	0.01	0.01	0.18	128
Strip Mall	0.26	0.23	0.26	2.04	0.01	< 0.005	0.54	0.55	< 0.005	0.14	0.14	—	540	540	0.03	0.03	0.77	550
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.33	0.29	0.33	2.53	0.01	< 0.005	0.67	0.67	< 0.005	0.17	0.17	—	666	666	0.03	0.03	0.94	678

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	94.2	94.2	0.01	< 0.005	—	94.7
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	60.9	60.9	0.01	< 0.005	—	61.3
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	155	155	0.01	< 0.005	—	156
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	94.2	94.2	0.01	< 0.005	—	94.7
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	60.9	60.9	0.01	< 0.005	—	61.3
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	155	155	0.01	< 0.005	—	156
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	15.6	15.6	< 0.005	< 0.005	—	15.7
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	10.1	10.1	< 0.005	< 0.005	—	1[illegible]

Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	25.7	25.7	< 0.005	< 0.005	—	25.8

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	0.01	< 0.005	0.06	0.03	< 0.005	0.01	—	0.01	0.01	—	0.01	—	81.4	81.4	0.01	< 0.005	—	81.6
Strip Mall	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	12.5	12.5	< 0.005	< 0.005	—	12.5
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.01	< 0.005	0.07	0.04	< 0.005	0.01	—	0.01	0.01	—	0.01	—	93.8	93.8	0.01	< 0.005	—	94.1
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	0.01	< 0.005	0.06	0.03	< 0.005	0.01	—	0.01	0.01	—	0.01	—	81.4	81.4	0.01	< 0.005	—	81.6
Strip Mall	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	12.5	12.5	< 0.005	< 0.005	—	12.5
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.01	< 0.005	0.07	0.04	< 0.005	0.01	—	0.01	0.01	—	0.01	—	93.8	93.8	0.01	< 0.005	—	94.1
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Apartments	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	13.5	13.5	< 0.005	< 0.005	—	13.5
Strip Mall	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	2.06	2.06	< 0.005	< 0.005	—	2.07
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	15.5	15.5	< 0.005	< 0.005	—	15.6

4.3. Area Emissions by Source

4.3.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	77.6	77.6	0.01	< 0.005	—	78.1
Consumer Products	—	0.62	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.06	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.17	0.16	0.01	1.59	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	4.67	4.67	< 0.005	< 0.005	—	4.69
Total	0.17	0.84	0.01	1.59	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.00	82.3	82.3	0.01	< 0.005	—	82.8
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	77.6	77.6	0.01	< 0.005	—	78.1

Consumer	—	0.62	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.06	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	0.00	0.67	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	77.6	77.6	0.01	< 0.005	—	78.1
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	0.88	0.88	< 0.005	< 0.005	—	0.89
Consumer Products	—	0.11	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.02	0.02	< 0.005	0.20	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.53	0.53	< 0.005	< 0.005	—	0.53
Total	0.02	0.14	< 0.005	0.20	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.00	1.41	1.41	< 0.005	< 0.005	—	1.42

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	1.84	6.19	8.03	0.19	< 0.005	—	14.1
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	0.94	3.16	4.09	0.10	< 0.005	—	7.19

Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	2.77	9.35	12.1	0.29	0.01	—	21.3
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	1.84	6.19	8.03	0.19	< 0.005	—	14.1
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	0.94	3.16	4.09	0.10	< 0.005	—	7.19
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	2.77	9.35	12.1	0.29	0.01	—	21.3
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	0.30	1.02	1.33	0.03	< 0.005	—	2.34
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	0.16	0.52	0.68	0.02	< 0.005	—	1.19
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	0.46	1.55	2.01	0.05	< 0.005	—	3.53

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

3892

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	9.15	0.00	9.15	0.91	0.00	—	32.0
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	3.73	0.00	3.73	0.37	0.00	—	13.1
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	12.9	0.00	12.9	1.29	0.00	—	45.1
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	9.15	0.00	9.15	0.91	0.00	—	32.0
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	3.73	0.00	3.73	0.37	0.00	—	13.1
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	12.9	0.00	12.9	1.29	0.00	—	45.1
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	1.51	0.00	1.51	0.15	0.00	—	5.30
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	0.62	0.00	0.62	0.06	0.00	—	2.16
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	2.13	0.00	2.13	0.21	0.00	—	7.46

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.16	0.16
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.04	0.04
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.20	0.20
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.16	0.16
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.04	0.04
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.20	0.20
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.03	0.03
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.01	0.01
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.03	0.03

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Remove	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Demolition	Demolition	1/1/2026	1/29/2026	5.00	20.0	—
Site Preparation	Site Preparation	1/30/2026	2/1/2026	5.00	2.00	—
Grading	Grading	2/2/2026	2/7/2026	5.00	4.00	—
Building Construction	Building Construction	2/8/2026	11/15/2026	5.00	200	—
Paving	Paving	11/16/2026	11/30/2026	5.00	10.0	—
Architectural Coating	Architectural Coating	12/1/2026	12/15/2026	5.00	10.0	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Demolition	Tractors/Loaders/Backhoes	Diesel	Average	3.00	8.00	84.0	0.37
Demolition	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Demolition	Concrete/Industrial Saws	Diesel	Average	1.00	8.00	33.0	0.73
Site Preparation	Graders	Diesel	Average	1.00	8.00	148	0.41
Site Preparation	Rubber Tired Dozers	Diesel	Average	1.00	7.00	367	0.40
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Average	1.00	8.00	84.0	0.37
Grading	Graders	Diesel	Average	1.00	8.00	148	0.41
Grading	Tractors/Loaders/Backhoes	Diesel	Average	2.00	7.00	84.0	0.37
Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Building Construction	Cranes	Diesel	Average	1.00	6.00	367	0.29
Building Construction	Forklifts	Diesel	Average	1.00	6.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74

Building Construction	Tractors/Loaders/Backhoes	Diesel	Average	1.00	6.00	84.0	0.37
Building Construction	Welders	Diesel	Average	3.00	8.00	46.0	0.45
Paving	Tractors/Loaders/Backhoes	Diesel	Average	1.00	8.00	84.0	0.37
Paving	Pavers	Diesel	Average	1.00	6.00	81.0	0.42
Paving	Paving Equipment	Diesel	Average	1.00	8.00	89.0	0.36
Paving	Rollers	Diesel	Average	1.00	7.00	36.0	0.38
Paving	Cement and Mortar Mixers	Diesel	Average	1.00	6.00	10.0	0.56
Architectural Coating	Air Compressors	Diesel	Average	1.00	6.00	37.0	0.48

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Demolition	—	—	—	—
Demolition	Worker	12.5	18.5	LDA,LDT1,LDT2
Demolition	Vendor	—	10.2	HHDT,MHDT
Demolition	Hauling	3.45	20.0	HHDT
Demolition	Onsite truck	—	—	HHDT
Site Preparation	—	—	—	—
Site Preparation	Worker	7.50	18.5	LDA,LDT1,LDT2
Site Preparation	Vendor	—	10.2	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	10.0	18.5	LDA,LDT1,LDT2

Grading	Vendor	—	10.2	HHDT,MHDT
Grading	Hauling	0.00	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	18.7	18.5	LDA,LDT1,LDT2
Building Construction	Vendor	3.54	10.2	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	12.5	18.5	LDA,LDT1,LDT2
Paving	Vendor	—	10.2	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	3.73	18.5	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	10.2	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
Architectural Coating	44,712	14,904	9,900	3,300	1,950

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (Cubic Yards)	Material Exported (Cubic Yards)	Acres Graded (acres)	Material Demolished (Building Square Footage)	Acres Paved (acres)
Demolition	0.00	0.00	0.00	6,000	—
Site Preparation	0.00	0.00	1.88	0.00	—
Grading	0.00	0.00	4.00	0.00	—
Paving	0.00	0.00	0.00	0.00	0.75

5.6.2. Construction Earthmoving Control Strategies

Control Strategies Applied	Frequency (per day)	PM10 Reduction	PM2.5 Reduction
Water Exposed Area	2	61%	61%
Water Demolished Area	2	36%	36%

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
Apartments Mid Rise	—	0%
Strip Mall	0.00	0%
Other Asphalt Surfaces	0.75	100%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2026	0.00	532	0.03	< 0.005

5.9. Operational Mobile Sources

5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Apartments Mid Rise	104	104	104	38,113	978	978	978	356,864
Strip Mall	359	359	359	131,170	4,215	4,215	4,215	1,538,582
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

Hearth Type	Unmitigated (number)
Apartments Mid Rise	—
Wood Fireplaces	0
Gas Fireplaces	0
Propane Fireplaces	0
Electric Fireplaces	21
No Fireplaces	2
Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0

5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
44712	14,904	9,900	3,300	1,950

5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	250

5.11. Operational Energy Consumption

5.11.1. Unmitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Apartments Mid Rise	99,272	346	0.0330	0.0040	253,855
Strip Mall	64,207	346	0.0330	0.0040	38,910
Other Asphalt Surfaces	0.00	346	0.0330	0.0040	0.00

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Apartments Mid Rise	958,667	0.00
Strip Mall	488,879	0.00
Other Asphalt Surfaces	0.00	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Apartments Mid Rise	17.0	—
Strip Mall	6.93	—
Other Asphalt Surfaces	0.00	—

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Apartments Mid Rise	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Apartments Mid Rise	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
Strip Mall	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Strip Mall	Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00
Strip Mall	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

Equipment Type	Fuel Type	Number per Day	Hours per Day	Hours per Year	Horsepower	Load Factor

5.16.2. Process Boilers

Equipment Type	Fuel Type	Number	Boiler Rating (MMBtu/hr)	Daily Heat Input (MMBtu/day)	Annual Heat Input (MMBtu/yr)

5.17. User Defined

Equipment Type	Fuel Type

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	19.8	annual days of extreme heat
Extreme Precipitation	4.05	annual days with precipitation above 20 mm
Sea Level Rise	0.00	meters of inundation depth
Wildfire	0.00	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider different increments of sea level rise coupled with extreme storm events. Users may select from four model simulations to view the range in potential inundation depth for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 50 meters (m) by 50 m, or about 164 feet (ft) by 164 ft.
Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	2	0	0	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	1	0	0	N/A
Wildfire	1	0	0	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A

Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	0	0	0	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	2	1	1	3
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	1	1	1	2
Wildfire	1	1	1	2
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	1	1	1	2

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract 3908

Exposure Indicators	—
AQ-Ozone	80.0
AQ-PM	95.0
AQ-DPM	96.7
Drinking Water	99.7
Lead Risk Housing	26.8
Pesticides	19.2
Toxic Releases	65.3
Traffic	91.1
Effect Indicators	—
CleanUp Sites	40.8
Groundwater	37.8
Haz Waste Facilities/Generators	26.7
Impaired Water Bodies	0.00
Solid Waste	35.7
Sensitive Population	—
Asthma	43.9
Cardio-vascular	72.2
Low Birth Weights	23.3
Socioeconomic Factor Indicators	—
Education	64.1
Housing	29.7
Linguistic	50.5
Poverty	41.0
Unemployment	33.6

7.2. Healthy Places Index Scores

3909

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	52.03387656
Employed	54.83125882
Median HI	65.14820993
Education	—
Bachelor's or higher	49.15950212
High school enrollment	100
Preschool enrollment	14.78249711
Transportation	—
Auto Access	78.96830489
Active commuting	27.28089311
Social	—
2-parent households	81.31656615
Voting	64.17297575
Neighborhood	—
Alcohol availability	41.75542153
Park access	22.69985885
Retail density	45.77184653
Supermarket access	57.37200051
Tree canopy	18.41396125
Housing	—
Homeownership	86.56486591
Housing habitability	75.79879379
Low-inc homeowner severe housing cost burden	60.87514436
Low-inc renter severe housing cost burden	87.5914282
Uncrowded housing	53.4838958

Health Outcomes	—
Insured adults	49.96791993
Arthritis	31.2
Asthma ER Admissions	51.4
High Blood Pressure	43.5
Cancer (excluding skin)	42.8
Asthma	37.3
Coronary Heart Disease	47.4
Chronic Obstructive Pulmonary Disease	35.3
Diagnosed Diabetes	41.8
Life Expectancy at Birth	68.4
Cognitively Disabled	43.0
Physically Disabled	69.8
Heart Attack ER Admissions	19.3
Mental Health Not Good	43.4
Chronic Kidney Disease	55.3
Obesity	43.5
Pedestrian Injuries	65.5
Physical Health Not Good	42.2
Stroke	51.7
Health Risk Behaviors	—
Binge Drinking	47.1
Current Smoker	44.4
No Leisure Time for Physical Activity	50.7
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	0.0

3911

Children	33.8
Elderly	56.5
English Speaking	35.7
Foreign-born	48.2
Outdoor Workers	65.0
Climate Change Adaptive Capacity	—
Impervious Surface Cover	53.7
Traffic Density	89.6
Traffic Access	23.0
Other Indices	—
Hardship	57.1
Other Decision Support	—
2016 Voting	73.7

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	64.0
Healthy Places Index Score for Project Location (b)	52.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	No
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Operations: Vehicle Data	Updated trip rates and primary/pass-by trip percentages based on LLG traffic information received 7/31/23.
Operations: Hearths	Updated number of fireplaces based on data request response received 8/28/23. Removed wood stoves based on SCAQMD Rule 445.

This page was intentionally left blank.

Attachment 3

Existing CalEEMod Project File Outputs

This page was intentionally left blank.

Legacy Ontario PUD Existing Detailed Report

Table of Contents

1. Basic Project Information

1.1. Basic Project Information

1.2. Land Use Types

1.3. User-Selected Emission Reduction Measures by Emissions Sector

2. Emissions Summary

2.4. Operations Emissions Compared Against Thresholds

2.5. Operations Emissions by Sector, Unmitigated

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

4.3. Area Emissions by Source

4.3.1. Unmitigated

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

5. Activity Data

5.9. Operational Mobile Sources

5.9.1. Unmitigated

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

5.10.2. Architectural Coatings

5.10.3. Landscape Equipment

5.11. Operational Energy Consumption

5.11.1. Unmitigated

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

5.13. Operational Waste Generation

5.13.1. Unmitigated

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

5.16.2. Process Boilers

5.17. User Defined

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

5.18.2. Sequestration

5.18.2.1. Unmitigated

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

6.2. Initial Climate Risk Scores

6.3. Adjusted Climate Risk Scores

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

7.2. Healthy Places Index Scores

7.3. Overall Health & Equity Scores

7.4. Health & Equity Measures

7.5. Evaluation Scorecard

7.6. Health & Equity Custom Measures

8. User Changes to Default Data

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	Legacy Ontario PUD Existing
Operational Year	2023
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.60
Precipitation (days)	9.20
Location	34.02752151699114, -117.65230679839047
County	San Bernardino-South Coast
City	Ontario
Air District	South Coast AQMD
Air Basin	South Coast
TAZ	5251
EDFZ	10
Electric Utility	Southern California Edison
Gas Utility	Southern California Gas
App Version	2022.1.1.18

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
Strip Mall	11.4	1000sqft	0.26	11,450	0.00	0.00	—	—

Regional Shopping Center	89.5	1000sqft	2.05	89,500	30,000	0.00	—	—
Fast Food Restaurant with Drive Thru	4.10	1000sqft	0.09	4,100	0.00	0.00	—	—
Other Asphalt Surfaces	8.19	Acre	8.19	0.00	0.00	0.00	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

2. Emissions Summary

2.4. Operations Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	25.4	25.5	22.5	213	0.46	0.36	37.4	37.8	0.33	9.50	9.83	99.3	48,925	49,024	12.4	2.18	207	50,191
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	22.8	23.0	24.2	173	0.43	0.35	37.4	37.8	0.33	9.50	9.83	99.3	45,921	46,021	12.4	2.26	12.1	47,018
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	23.3	23.4	24.7	183	0.43	0.35	37.2	37.5	0.33	9.45	9.78	99.3	46,399	46,498	12.5	2.28	93.3	47,583
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	4.25	4.27	4.50	33.4	0.08	0.06	6.79	6.85	0.06	1.72	1.78	16.4	7,682	7,698	2.06	0.38	15.4	7,878

2.5. Operations Emissions by Sector, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	24.5	22.2	22.2	209	0.46	0.33	37.4	37.7	0.31	9.50	9.81	—	46,834	46,834	2.26	2.13	200	47,725
Area	0.81	3.32	0.04	4.57	< 0.005	0.01	—	0.01	0.01	—	0.01	—	18.8	18.8	< 0.005	< 0.005	—	18.9
Energy	0.03	0.02	0.29	0.24	< 0.005	0.02	—	0.02	0.02	—	0.02	—	1,982	1,982	0.13	0.01	—	1,989
Water	—	—	—	—	—	—	—	—	—	—	—	16.7	90.3	107	1.72	0.04	—	162
Waste	—	—	—	—	—	—	—	—	—	—	—	82.6	0.00	82.6	8.25	0.00	—	289
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	6.91	6.91
Total	25.4	25.5	22.5	213	0.46	0.36	37.4	37.8	0.33	9.50	9.83	99.3	48,925	49,024	12.4	2.18	207	50,191
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	22.8	20.4	23.9	173	0.43	0.33	37.4	37.7	0.31	9.50	9.81	—	43,849	43,849	2.35	2.21	5.18	44,571
Area	—	2.57	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.03	0.02	0.29	0.24	< 0.005	0.02	—	0.02	0.02	—	0.02	—	1,982	1,982	0.13	0.01	—	1,989
Water	—	—	—	—	—	—	—	—	—	—	—	16.7	90.3	107	1.72	0.04	—	162
Waste	—	—	—	—	—	—	—	—	—	—	—	82.6	0.00	82.6	8.25	0.00	—	289
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	6.91	6.91
Total	22.8	23.0	24.2	173	0.43	0.35	37.4	37.8	0.33	9.50	9.83	99.3	45,921	46,021	12.4	2.26	12.1	47,018
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	22.7	20.3	24.4	180	0.43	0.33	37.2	37.5	0.31	9.45	9.75	—	44,314	44,314	2.35	2.23	86.3	45,123
Area	0.56	3.08	0.03	3.13	< 0.005	0.01	—	0.01	< 0.005	—	< 0.005	—	12.9	12.9	< 0.005	< 0.005	—	12.9
Energy	0.03	0.02	0.29	0.24	< 0.005	0.02	—	0.02	0.02	—	0.02	—	1,982	1,982	0.13	0.01	—	1,989
Water	—	—	—	—	—	—	—	—	—	—	—	16.7	90.3	107	1.72	0.04	—	1

Waste	—	—	—	—	—	—	—	—	—	—	—	82.6	0.00	82.6	8.25	0.00	—	289
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	6.91	6.91
Total	23.3	23.4	24.7	183	0.43	0.35	37.2	37.5	0.33	9.45	9.78	99.3	46,399	46,498	12.5	2.28	93.3	47,583
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	4.14	3.70	4.45	32.8	0.08	0.06	6.79	6.85	0.06	1.72	1.78	—	7,337	7,337	0.39	0.37	14.3	7,471
Area	0.10	0.56	< 0.005	0.57	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	2.13	2.13	< 0.005	< 0.005	—	2.14
Energy	0.01	< 0.005	0.05	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	328	328	0.02	< 0.005	—	329
Water	—	—	—	—	—	—	—	—	—	—	—	2.77	14.9	17.7	0.28	0.01	—	26.9
Waste	—	—	—	—	—	—	—	—	—	—	—	13.7	0.00	13.7	1.37	0.00	—	47.8
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.14	1.14
Total	4.25	4.27	4.50	33.4	0.08	0.06	6.79	6.85	0.06	1.72	1.78	16.4	7,682	7,698	2.06	0.38	15.4	7,878

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Strip Mall	3.24	2.91	3.04	28.6	0.06	0.04	5.19	5.23	0.04	1.32	1.36	—	6,488	6,488	0.31	0.29	27.7	6,611
Regional Shopping Center	11.8	10.6	11.1	104	0.23	0.16	18.9	19.1	0.15	4.80	4.95	—	23,631	23,631	1.11	1.06	101	24,076

Fast Food Restaurant with Drive Thru	9.48	8.62	8.10	75.6	0.16	0.12	13.3	13.4	0.11	3.38	3.49	—	16,715	16,715	0.84	0.77	71.2	17,038
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	24.5	22.2	22.2	209	0.46	0.33	37.4	37.7	0.31	9.50	9.81	—	46,834	46,834	2.26	2.13	200	47,725
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Strip Mall	3.02	2.69	3.27	23.7	0.06	0.05	5.19	5.23	0.04	1.32	1.36	—	6,074	6,074	0.32	0.30	0.72	6,173
Regional Shopping Center	11.0	9.80	11.9	86.2	0.22	0.16	18.9	19.1	0.15	4.80	4.95	—	22,122	22,122	1.15	1.10	2.62	22,482
Fast Food Restaurant with Drive Thru	8.80	7.94	8.72	63.2	0.15	0.12	13.3	13.4	0.11	3.38	3.49	—	15,653	15,653	0.88	0.80	1.85	15,916
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	22.8	20.4	23.9	173	0.43	0.33	37.4	37.7	0.31	9.50	9.81	—	43,849	43,849	2.35	2.21	5.18	44,571
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Strip Mall	0.55	0.49	0.61	4.49	0.01	0.01	0.94	0.95	0.01	0.24	0.25	—	1,016	1,016	0.05	0.05	1.98	1,035
Regional Shopping Center	1.99	1.78	2.22	16.3	0.04	0.03	3.43	3.46	0.03	0.87	0.90	—	3,701	3,701	0.19	0.18	7.22	3,768
Fast Food Restaurant with Drive Thru	1.60	1.44	1.62	12.0	0.03	0.02	2.42	2.44	0.02	0.61	0.63	—	2,619	2,619	0.14	0.13	5.09	2,668

Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	4.14	3.70	4.45	32.8	0.08	0.06	6.79	6.85	0.06	1.72	1.78	—	7,337	7,337	0.39	0.37	14.3	7,471

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	162	162	0.01	< 0.005	—	163
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	—	1,269	1,269	0.08	0.01	—	1,274
Fast Food Restaurant with Drive Thru	—	—	—	—	—	—	—	—	—	—	—	—	210	210	0.01	< 0.005	—	210
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	1,641	1,641	0.10	0.01	—	1,647
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	162	162	0.01	< 0.005	—	163
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	—	1,269	1,269	0.08	0.01	—	1,274

Fast Food Restaurant with Drive Thru	—	—	—	—	—	—	—	—	—	—	—	—	210	210	0.01	< 0.005	—	210
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	1,641	1,641	0.10	0.01	—	1,647
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	26.9	26.9	< 0.005	< 0.005	—	27.0
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	—	210	210	0.01	< 0.005	—	211
Fast Food Restaurant with Drive Thru	—	—	—	—	—	—	—	—	—	—	—	—	34.7	34.7	< 0.005	< 0.005	—	34.8
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	272	272	0.02	< 0.005	—	273

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Strip Mall	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	21.6	21.6	< 0.005	< 0.005	—	21.7

Regional Shopping Center	0.02	0.01	0.14	0.12	< 0.005	0.01	—	0.01	0.01	—	0.01	—	169	169	0.01	< 0.005	—	170
Fast Food Restaurant with Drive Thru	0.01	0.01	0.13	0.11	< 0.005	0.01	—	0.01	0.01	—	0.01	—	150	150	0.01	< 0.005	—	151
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.03	0.02	0.29	0.24	< 0.005	0.02	—	0.02	0.02	—	0.02	—	341	341	0.03	< 0.005	—	342
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Strip Mall	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	21.6	21.6	< 0.005	< 0.005	—	21.7
Regional Shopping Center	0.02	0.01	0.14	0.12	< 0.005	0.01	—	0.01	0.01	—	0.01	—	169	169	0.01	< 0.005	—	170
Fast Food Restaurant with Drive Thru	0.01	0.01	0.13	0.11	< 0.005	0.01	—	0.01	0.01	—	0.01	—	150	150	0.01	< 0.005	—	151
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.03	0.02	0.29	0.24	< 0.005	0.02	—	0.02	0.02	—	0.02	—	341	341	0.03	< 0.005	—	342
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Strip Mall	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	3.58	3.58	< 0.005	< 0.005	—	3.59
Regional Shopping Center	< 0.005	< 0.005	0.03	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	28.0	28.0	< 0.005	< 0.005	—	28.1

Fast Food Restaurant with Drive Thru	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	24.9	24.9	< 0.005	< 0.005	—	24.9
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.01	< 0.005	0.05	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	56.4	56.4	< 0.005	< 0.005	—	56.6

4.3. Area Emissions by Source

4.3.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	2.28	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.29	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.81	0.75	0.04	4.57	< 0.005	0.01	—	0.01	0.01	—	0.01	—	18.8	18.8	< 0.005	< 0.005	—	18.9
Total	0.81	3.32	0.04	4.57	< 0.005	0.01	—	0.01	0.01	—	0.01	—	18.8	18.8	< 0.005	< 0.005	—	18.9
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	2.28	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Architect Coatings	—	0.29	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	2.57	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	0.42	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.05	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.10	0.09	< 0.005	0.57	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	2.13	2.13	< 0.005	< 0.005	—	2.14
Total	0.10	0.56	< 0.005	0.57	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	2.13	2.13	< 0.005	< 0.005	—	2.14

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	1.63	8.41	10.0	0.17	< 0.005	—	15.4
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	12.7	69.5	82.2	1.31	0.03	—	124
Fast Food Restaurant with Drive Thru	—	—	—	—	—	—	—	—	—	—	—	2.38	12.3	14.7	0.25	0.01	—	22.6

Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	16.7	90.3	107	1.72	0.04	—	162
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	1.63	8.41	10.0	0.17	< 0.005	—	15.4
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	12.7	69.5	82.2	1.31	0.03	—	124
Fast Food Restaurant with Drive Thru	—	—	—	—	—	—	—	—	—	—	—	2.38	12.3	14.7	0.25	0.01	—	22.6
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	16.7	90.3	107	1.72	0.04	—	162
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	0.27	1.39	1.66	0.03	< 0.005	—	2.55
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	2.10	11.5	13.6	0.22	0.01	—	20.6
Fast Food Restaurant with Drive Thru	—	—	—	—	—	—	—	—	—	—	—	0.39	2.04	2.44	0.04	< 0.005	—	3.75
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	2.77	14.9	17.7	0.28	0.01	—	26.9

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	6.48	0.00	6.48	0.65	0.00	—	22.7
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	50.6	0.00	50.6	5.06	0.00	—	177
Fast Food Restaurant with Drive Thru	—	—	—	—	—	—	—	—	—	—	—	25.5	0.00	25.5	2.54	0.00	—	89.1
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	82.6	0.00	82.6	8.25	0.00	—	289
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	6.48	0.00	6.48	0.65	0.00	—	22.7
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	50.6	0.00	50.6	5.06	0.00	—	177
Fast Food Restaurant with Drive Thru	—	—	—	—	—	—	—	—	—	—	—	25.5	0.00	25.5	2.54	0.00	—	89.1

Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	82.6	0.00	82.6	8.25	0.00	—	289
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	1.07	0.00	1.07	0.11	0.00	—	3.75
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	8.39	0.00	8.39	0.84	0.00	—	29.3
Fast Food Restaurant with Drive Thru	—	—	—	—	—	—	—	—	—	—	—	4.21	0.00	4.21	0.42	0.00	—	14.7
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	13.7	0.00	13.7	1.37	0.00	—	47.8

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.07	0.07
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.43	0.43

Fast Food Restaurant with Drive Thru	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	6.41	6.41
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	6.91	6.91
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.07	0.07
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.43	0.43
Fast Food Restaurant with Drive Thru	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	6.41	6.41
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	6.91	6.91
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.01	0.01
Regional Shopping Center	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.07	0.07
Fast Food Restaurant with Drive Thru	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.06	1.06
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.14	1.14

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Remove	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.9. Operational Mobile Sources

3939

5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Strip Mall	623	623	623	227,560	7,313	7,313	7,313	2,669,206
Regional Shopping Center	2,271	2,271	2,271	828,774	26,634	26,634	26,634	9,721,254
Fast Food Restaurant with Drive Thru	1,917	1,917	1,917	699,584	18,767	18,767	18,767	6,849,901
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
0	0.00	157,575	52,525	21,401

5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	250

5.11. Operational Energy Consumption

5.11.1. Unmitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Strip Mall	111,389	532	0.0330	0.0040	67,503
Regional Shopping Center	870,686	532	0.0330	0.0040	527,646
Fast Food Restaurant with Drive Thru	143,773	532	0.0330	0.0040	468,511
Other Asphalt Surfaces	0.00	532	0.0330	0.0040	0.00

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Strip Mall	848,130	0.00
Regional Shopping Center	6,629,491	481,774
Fast Food Restaurant with Drive Thru	1,244,488	0.00
Other Asphalt Surfaces	0.00	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Strip Mall	12.0	—
Regional Shopping Center	94.0	—
Fast Food Restaurant with Drive Thru	47.2	—
Other Asphalt Surfaces	0.00	—

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Strip Mall	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Strip Mall	Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00
Strip Mall	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0
Regional Shopping Center	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Regional Shopping Center	Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00
Fast Food Restaurant with Drive Thru	Household refrigerators and/or freezers	R-134a	1,430	0.00	0.60	0.00	1.00
Fast Food Restaurant with Drive Thru	Other commercial A/C and heat pumps	R-410A	2,088	1.80	4.00	4.00	18.0
Fast Food Restaurant with Drive Thru	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

Equipment Type	Fuel Type	Number per Day	Hours per Day	Hours per Year	Horsepower	Load Factor

5.16.2. Process Boilers

Equipment Type	Fuel Type	Number	Boiler Rating (MMBtu/hr)	Daily Heat Input (MMBtu/day)	Annual Heat Input (MMBtu/yr)

5.17. User Defined

Equipment Type	Fuel Type

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	19.8	annual days of extreme heat
Extreme Precipitation	4.05	annual days with precipitation above 20 mm
Sea Level Rise	0.00	meters of inundation depth
Wildfire	0.00	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider different increments of sea level rise coupled with extreme storm events. Users may select from four model simulations to view the range in potential inundation depth for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 50 meters (m) by 50 m, or about 164 feet (ft) by 164 ft.
Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	2	0	0	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	1	0	0	N/A
Wildfire	1	0	0	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	0	0	0	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	2	1	1	3
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	1	1	1	2
Wildfire	1	1	1	2
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	1	1	1	2

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	80.0

AQ-PM	95.0
AQ-DPM	96.7
Drinking Water	99.7
Lead Risk Housing	26.8
Pesticides	19.2
Toxic Releases	65.3
Traffic	91.1
Effect Indicators	—
CleanUp Sites	40.8
Groundwater	37.8
Haz Waste Facilities/Generators	26.7
Impaired Water Bodies	0.00
Solid Waste	35.7
Sensitive Population	—
Asthma	43.9
Cardio-vascular	72.2
Low Birth Weights	23.3
Socioeconomic Factor Indicators	—
Education	64.1
Housing	29.7
Linguistic	50.5
Poverty	41.0
Unemployment	33.6

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
3946	

Economic	—
Above Poverty	52.03387656
Employed	54.83125882
Median HI	65.14820993
Education	—
Bachelor's or higher	49.15950212
High school enrollment	100
Preschool enrollment	14.78249711
Transportation	—
Auto Access	78.96830489
Active commuting	27.28089311
Social	—
2-parent households	81.31656615
Voting	64.17297575
Neighborhood	—
Alcohol availability	41.75542153
Park access	22.69985885
Retail density	45.77184653
Supermarket access	57.37200051
Tree canopy	18.41396125
Housing	—
Homeownership	86.56486591
Housing habitability	75.79879379
Low-inc homeowner severe housing cost burden	60.87514436
Low-inc renter severe housing cost burden	87.5914282
Uncrowded housing	53.4838958
Health Outcomes	—

3947

Insured adults	49.96791993
Arthritis	31.2
Asthma ER Admissions	51.4
High Blood Pressure	43.5
Cancer (excluding skin)	42.8
Asthma	37.3
Coronary Heart Disease	47.4
Chronic Obstructive Pulmonary Disease	35.3
Diagnosed Diabetes	41.8
Life Expectancy at Birth	68.4
Cognitively Disabled	43.0
Physically Disabled	69.8
Heart Attack ER Admissions	19.3
Mental Health Not Good	43.4
Chronic Kidney Disease	55.3
Obesity	43.5
Pedestrian Injuries	65.5
Physical Health Not Good	42.2
Stroke	51.7
Health Risk Behaviors	—
Binge Drinking	47.1
Current Smoker	44.4
No Leisure Time for Physical Activity	50.7
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	0.0
Children	33.8

3948

Elderly	56.5
English Speaking	35.7
Foreign-born	48.2
Outdoor Workers	65.0
Climate Change Adaptive Capacity	—
Impervious Surface Cover	53.7
Traffic Density	89.6
Traffic Access	23.0
Other Indices	—
Hardship	57.1
Other Decision Support	—
2016 Voting	73.7

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	64.0
Healthy Places Index Score for Project Location (b)	52.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	No
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

3949

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Operations: Vehicle Data	Updated trip rate and pass-by trip percentages based on Protected Left-Turn Warrant for the Euclid Avenue Mixed-Use Apartment Project report prepared by LLG 7/31/2023.

Table 3. Screening Table for Implementing GHG Performance Standards for Multi-family Residential Development 2030 (Circle Applicable Project Points, 100 points minimum)

Description	Feature	Project Points
Reduction Measure 1: Building Electrification		
Replacement of gas appliance with efficient electric appliance (select all that apply)	Electric space heater	6
	Electric water heater	8
	Electric stove	5
	Electric dryer	1
Additional electric appliance measures, if applicable (select all that apply)	Electric pool heater (if applicable)	1
	Electric spa heater (if applicable)	1
Lack of natural gas infrastructure	Project site does not have any natural gas infrastructure.	10
	Total for measure	*32*
Reduction Measure 2: Green Roofs		
Installation of a roof with a planted layer of vegetation over a waterproof surface for multi-family residential buildings	Medium Green Roof – Total vegetated area makes up 25% or more of combined multi-family residential unit area (in square feet).	3
	Total for measure	*3*
Reduction Measure 3: Urban Cooling		
On-site tree planting (select one option)[2]	1 tree per each required on-site vehicle parking space.	6
	2 trees per each required on-site vehicle parking space.	12
	3 trees per each required on-site vehicle parking space.	18
	Total for measure	*18*

[2] This strategy specifies the ratio of additional trees per required vehicle parking spaces. Based upon total on-site vehicle parking spaces required per the City of Ontario Development Code for the project, the Applicant will calculate the number of trees required to meet this measure and obtain points. The landscape plan will show onsite trees and the tree matrix shall identify all trees associated with the Urban Cooling Measure compliance. The City code requires trees onsite and within paved areas to reduce the associated heat build-up from development. The Landscape Planning Division will consider these trees in the calculation to be counted toward the Urban Cooling Measure.

Description	Feature	Project Points
Reduction Measure 4: Transit Oriented Communities (TOCs)		
New development is located in a transit-oriented community (TOC)	Development site is located within ½ mile radius of one or more of the following: a Bus Rapid Transit (BRT) stop, bus transit center, light rail station, the intersection of two or more major bus routes with a frequency of service interval of 15 minutes or less during the morning and afternoon peak commute periods, and/or High-Quality Transit Corridor defined as a corridor with fixed route bus service with service intervals no longer than 15 minutes during peak commute hours.[3]	10
	Total for measure	*10*
Reduction Measure 5: Increase Transit Ridership		
Provision of free transit passes for onsite residents or tenants for a period of 5 years after completion of construction[4] (select one option)	One 50% discounted annual transit pass for every two parking spaces, or one per residential unit, whichever is greater.	2
	One 100% discounted (free) annual transit pass for every two parking spaces or one per residential unit, whichever is greater.	6
	One 100% discounted (free) annual transit pass per parking space or one per residential bedroom, whichever is greater.	12
	Total for measure	*12*
Reduction Measure 6: Vehicle Electrification[5]		
Installation of EV charging stations for resident vehicle parking spaces (select one option)	Installation of Level 2 EV or higher charging stations at a rate of 5-10% of required vehicle parking spaces.	10
	Installation of Level 2 EV or higher charging stations at a rate of 11-29% of required vehicle parking spaces.	20
	Installation of Level 2 EV or higher charging stations at a rate of 30% or more of required vehicle parking spaces.	30
	Total for measure	*30*

[3] A project shall be considered to be within one-half mile of a major transit stop or high-quality transit corridor if all parcels within the project have no more than 25 percent of their area farther than one-half mile from the stop or corridor and if not more than 10 percent of the residential units or 100 units, whichever is less, in the project are farther than one-half mile from the stop or corridor.

[4] Provision for annual transit passes to be incorporated into CC&R's/HOA bylaws, as appropriate.

[5] EV charging station levels are defined in the California Green Building Standards or CALGreen Code, accessed at https://www.dgs.ca.gov/BSC/CALGreen. Charging stations also refer to charging ports.

Description	Feature	Project Points
Reduction Measure 7: Active Transportation		
Installation or improvement of bicycle facilities (select all that apply)	Bicycle parking facilities with 1:1 ratio of bicycle parking to guest vehicle parking space.	3
	Construct or improve a single bicycle lane facility (only Class I, II, or IV) that 1) connects to a larger existing bikeway network or 2) closes an existing bikeway network gap that is at least 0.5 miles long.	6
Installation or improvement of pedestrian facilities (select one option)	Two or three pedestrian infrastructure improvements to street design on private streets, including, but not limited to curb extensions, raised crosswalks, speed humps/bumps, street tree plantings in parkways or street medians, and elevated pavement markings.	3
	Four or more pedestrian infrastructure improvements to street design, including, but not limited to curb extensions, raised crosswalks, speed humps/bumps, street tree plantings in parkways or street medians, and elevated pavement markings.	6
	Total for measure	*15*
Reduction Measure 8: Parking Policy		
Require that some or all of resident vehicle parking spaces be purchased at an additional cost. This does not include guest vehicle parking spaces (select one option) [6]	Unbundle, or separate, half (50%) of parking costs of a residential project from property costs, requiring those who wish to purchase an additional parking space to do so at an additional cost.	1
	Unbundle, or separate, 100% of residential project's parking costs from property costs, requiring those who wish to purchase parking spaces to do so at an additional cost.	2
	Total for measure	*2*
Reduction Measure 9: Electric construction equipment[7]		
Use zero emission or electric construction equipment (select one option)	One-third (33%) of construction equipment used for construction (during building phase, not including grading phase), measured by number of hours of operation, is zero emission equipment.	4

[6] Provision for unbundled parking to be incorporated into CC&R's bylaws or separate parking agreement, as appropriate.

[7] Electric construction equipment includes electric compact excavators, electric motors, electric generators, and mobile charging equipment.

Description	Feature	Project Points
	Half (50%) of construction equipment used for construction (during the building phase, not including the grading phase), measured by the number of hours of operation, is zero emission equipment.	8
	Two-thirds (66%) or more of construction equipment used for construction (during the building phase, not including the grading phase), measured by number of hours of operation, is zero emission equipment.	12
	Total for measure	*12*
Reduction Measure 10: Waste diversion		
Design and plan multi-family housing developments to include onsite areas for municipal compost/green waste and recycling bins/containers	Site design allocates sufficient space for storage and collection of green waste, organic waste, and recyclables.	33
	Total for measure	*33*
Reduction Measure 11: Water conservation		
Implement indoor water efficiency measures (select all that apply)	Implement water efficient showerheads and faucets.	1
	Install on-demand water circulators on all showers/baths[8].	2
Incorporate outdoor water efficiency measures	Design and plan outdoor landscapes planted with drought-tolerant, low maintenance plants with a 1) drip irrigation system or 2) sprinkler irrigation system with a weather-based irrigation controller.	4
	Total for measure	*7*
	Multi-family Total for all measures	***174***
	Multi-family Project Points Subtotal	77
Additional Recommended Measures		
AR-1: Meet CalGreen	CalGreen Tier 1 compliance.	5
	CalGreen Tier 2 compliance.	10

[8] According to CALGreen, a hot water recirculation system is one which includes "a thermostat that will automatically shut off the recirculation pump when the water temperature reaches a preset level at the point of use."

Description	Feature	Project Points
voluntary tiers (select one option)		
AR-2: Generate energy from on-site solar PV (4 stories and higher buildings only, select one option)	Solar PV that generates 30%-49% of residential energy needs on multifamily residential buildings that are 4 stories in height or taller.	5
	Solar PV that generates 50%-79% of residential energy needs on multifamily residential buildings that are 4 stories in height or taller.	10
	Solar PV that generates 80% or more of residential energy needs on multifamily residential buildings that are 4 stories in height or taller.	15
AR-3: Energy Storage	If the building is 3 stories in height or less, install battery energy storage systems that meet the same performance standards as an energy storage system that would be required by the building code in a comparable building 4 stories in height or taller.	5
AR-4: Recycled Water	Use recycled water for at least 80% of outdoor water needs.	2
AR-5: Reflective Paving	Use high-reflectivity pavement for all hardscaped areas, including parking areas, walking paths, and patios.	4
AR-6: Building Orientation	Orient the building along a north-south alignment.	3
AR-7: Building Shading	Shade at least 90% of south-facing glazing by vegetation or overhangs at noon on June 21.	2
AR-8: Building Daylight	Provide daylighting in all rooms.	1
	Total additional recommended measures	***44***
	Multi-family Project Points Subtotal	23
	Total Multi-family Points Possible	***218***
	MULTI-FAMILY PROJECT POINTS TOTAL	100

Appendix B
AERMOD Output

This page intentionally left blank.

```
** Lakes Environmental AERMOD MPI
**
**************************************
**
** AERMOD Input Produced by:
** AERMOD View Ver. 10.2.1
** Lakes Environmental Software Inc.
** Date: 10/5/2022
** File: C:\Lakes\Ontario_PUD-Legacy_Ops-HRA-TOG_20221005
\Ontario_PUD-Legacy_Ops-HRA-TOG_20221005.ADI
**
**************************************
**
**
**************************************
** AERMOD Control Pathway
**************************************
**
**
CO STARTING
   TITLEONE C:\Lakes\Ontario_PUD-Legacy_Ops-HRA_20221004
\Ontario_PUD-Legacy_Ops-
   MODELOPT CONC FLAT
   AVERTIME 1 PERIOD
   URBANOPT 2035210 San_Bernardio_County
   POLLUTID PM_2.5
   RUNORNOT RUN
   ERRORFIL Ontario_PUD-Legacy_Ops-HRA-TOG_20221005.err
CO FINISHED
**
**************************************
** AERMOD Source Pathway
**************************************
**
**
SO STARTING
** Source Location **
** Source ID - Type - X Coord. - Y Coord. **
** ---------------------------------------------------------------
-------
** Line Source Represented by Area Sources
** LINE AREA Source ID = ARLN01
** DESCRSRC SR 60 WB Freeway TOG Ex
** PREFIX
** Length of Side = 18.29
** Ratio = 10
** Vertical Dimension = 1.20
** Emission Rate = 0.0000307319
** Nodes = 5
** 440650.044, 3765727.326, 260.07, 1.30
** 440119.780, 3765731.800, 261.41, 1.30
** 439661.922, 3765732.944, 260.96, 1.30
```

```
** 439171.250, 3765734.039, 252.11, 1.30
** 438870.985, 3765732.123, 258.88, 1.30
** ----------------------------------------------------------
-------
   LOCATION A0000012     AREA     440650.121 3765736.471 0.0
   LOCATION A0000013     AREA     440473.366 3765737.962 0.0
   LOCATION A0000014     AREA     440296.612 3765739.454 0.0
   LOCATION A0000015     AREA     440119.803 3765740.945 0.0
   LOCATION A0000016     AREA     439967.184 3765741.327 0.0
   LOCATION A0000017     AREA     439814.564 3765741.708 0.0
   LOCATION A0000018     AREA     439661.942 3765742.089 0.0
   LOCATION A0000019     AREA     439498.385 3765742.454 0.0
   LOCATION A0000020     AREA     439334.828 3765742.819 0.0
   LOCATION A0000021     AREA     439171.191 3765743.184 0.0
   LOCATION A0000022     AREA     439021.059 3765742.226 0.0
** End of LINE AREA Source ID = ARLN01
** ----------------------------------------------------------
-------
** Line Source Represented by Area Sources
** LINE AREA Source ID = ARLN02
** DESCRSRC SR 60 EB Freeway TOG Ex
** PREFIX
** Length of Side = 18.29
** Ratio = 10
** Vertical Dimension = 1.20
** Emission Rate = 0.0000307481
** Nodes = 6
** 438872.217, 3765713.798, 258.90, 1.30
** 439571.019, 3765709.354, 260.53, 1.30
** 439744.944, 3765708.790, 261.20, 1.30
** 440090.503, 3765708.356, 261.51, 1.30
** 440405.345, 3765708.356, 260.60, 1.30
** 440650.831, 3765711.094, 260.06, 1.30
** ----------------------------------------------------------
-------
   LOCATION A0000001     AREA     438872.159 3765704.654 0.0
   LOCATION A0000002     AREA     439046.860 3765703.543 0.0
   LOCATION A0000003     AREA     439221.560 3765702.432 0.0
   LOCATION A0000004     AREA     439396.261 3765701.321 0.0
   LOCATION A0000005     AREA     439570.990 3765700.210 0.0
   LOCATION A0000006     AREA     439744.932 3765699.646 0.0
   LOCATION A0000007     AREA     439917.712 3765699.429 0.0
   LOCATION A0000008     AREA     440090.503 3765699.212 0.0
   LOCATION A0000009     AREA     440247.924 3765699.212 0.0
   LOCATION A0000010     AREA     440405.447 3765699.212 0.0
   LOCATION A0000011     AREA     440528.190 3765700.581 0.0
** End of LINE AREA Source ID = ARLN02
** ----------------------------------------------------------
-------
** Line Source Represented by Area Sources
** LINE AREA Source ID = ARLN03
** DESCRSRC SR 60 WB On-Ramp TOG Ex
```

```
** PREFIX
** Length of Side = 3.96
** Ratio = 10
** Vertical Dimension = 1.20
** Emission Rate = 0.0005311802
** Nodes = 6
** 439895.137, 3765792.036, 254.44, 1.30
** 439830.262, 3765782.314, 255.62, 1.30
** 439602.637, 3765750.155, 260.12, 1.30
** 439556.367, 3765746.633, 260.49, 1.30
** 439478.285, 3765744.597, 260.25, 1.30
** 439423.199, 3765742.703, 260.08, 1.30
** ----------------------------------------------------------------
-------
   LOCATION A0000023     AREA     439894.844 3765793.995 0.0
   LOCATION A0000024     AREA     439862.406 3765789.134 0.0
   LOCATION A0000025     AREA     439829.985 3765784.276 0.0
   LOCATION A0000026     AREA     439792.048 3765778.916 0.0
   LOCATION A0000027     AREA     439754.110 3765773.556 0.0
   LOCATION A0000028     AREA     439716.172 3765768.196 0.0
   LOCATION A0000029     AREA     439678.235 3765762.836 0.0
   LOCATION A0000030     AREA     439640.297 3765757.477 0.0
   LOCATION A0000031     AREA     439602.486 3765752.131 0.0
   LOCATION A0000032     AREA     439579.352 3765750.369 0.0
   LOCATION A0000033     AREA     439556.316 3765748.613 0.0
   LOCATION A0000034     AREA     439517.274 3765747.595 0.0
   LOCATION A0000035     AREA     439478.217 3765746.577 0.0
   LOCATION A0000036     AREA     439450.674 3765745.630 0.0
** End of LINE AREA Source ID = ARLN03
** ----------------------------------------------------------------
-------
** Line Source Represented by Area Sources
** LINE AREA Source ID = ARLN04
** DESCRSRC SR 60 EB Offramp TOG Ex
** PREFIX
** Length of Side = 7.62
** Ratio = 10
** Vertical Dimension = 1.20
** Emission Rate = 0.0003007914
** Nodes = 5
** 439895.389, 3765645.743, 252.80, 1.30
** 439818.641, 3765660.066, 254.56, 1.30
** 439755.474, 3765672.004, 257.06, 1.30
** 439662.806, 3765681.323, 259.67, 1.30
** 439463.024, 3765701.522, 260.17, 1.30
** ----------------------------------------------------------------
-------
   LOCATION A0000037     AREA     439896.088 3765649.489 0.0
   LOCATION A0000038     AREA     439857.714 3765656.650 0.0
   LOCATION A0000039     AREA     439819.349 3765663.810 0.0
   LOCATION A0000040     AREA     439755.856 3765675.795 0.0
   LOCATION A0000041     AREA     439709.522 3765680.454 0.0
```

```
   LOCATION A0000042     AREA     439663.190 3765685.113 0.0
   LOCATION A0000043     AREA     439596.595 3765691.846 0.0
   LOCATION A0000044     AREA     439530.001 3765698.580 0.0
** End of LINE AREA Source ID = ARLN04
** ----------------------------------------------------------------
-------
** Line Source Represented by Area Sources
** LINE AREA Source ID = ARLN05
** DESCRSRC SR 60 EB On-Ramp TOG Ex
** PREFIX
** Length of Side = 3.96
** Ratio = 10
** Vertical Dimension = 1.20
** Emission Rate = 0.000496591
** Nodes = 7
** 439941.297, 3765645.292, 253.26, 1.30
** 439993.010, 3765652.773, 253.93, 1.30
** 440155.834, 3765673.927, 258.66, 1.30
** 440268.609, 3765688.074, 259.90, 1.30
** 440322.372, 3765691.635, 260.22, 1.30
** 440354.630, 3765692.689, 260.13, 1.30
** 440446.541, 3765695.419, 259.97, 1.30
** ----------------------------------------------------------------
-------
   LOCATION A0000045     AREA     439941.581 3765643.331 0.0
   LOCATION A0000046     AREA     439967.437 3765647.072 0.0
   LOCATION A0000047     AREA     439993.265 3765650.809 0.0
   LOCATION A0000048     AREA     440025.830 3765655.039 0.0
   LOCATION A0000049     AREA     440058.395 3765659.270 0.0
   LOCATION A0000050     AREA     440090.960 3765663.501 0.0
   LOCATION A0000051     AREA     440123.524 3765667.732 0.0
   LOCATION A0000052     AREA     440156.081 3765671.961 0.0
   LOCATION A0000053     AREA     440193.672 3765676.677 0.0
   LOCATION A0000054     AREA     440231.264 3765681.392 0.0
   LOCATION A0000055     AREA     440268.740 3765686.097 0.0
   LOCATION A0000056     AREA     440295.621 3765687.877 0.0
   LOCATION A0000057     AREA     440322.437 3765689.655 0.0
   LOCATION A0000058     AREA     440354.688 3765690.708 0.0
   LOCATION A0000059     AREA     440385.325 3765691.619 0.0
   LOCATION A0000060     AREA     440415.962 3765692.529 0.0
** End of LINE AREA Source ID = ARLN05
** ----------------------------------------------------------------
-------
** Line Source Represented by Area Sources
** LINE AREA Source ID = ARLN06
** DESCRSRC SR 60 WB Off-ramp TOG Ex
** PREFIX
** Length of Side = 11.58
** Ratio = 10
** Vertical Dimension = 1.20
** Emission Rate = 0.0001897523
** Nodes = 6
```

```
** 440392.606, 3765738.840, 260.54, 1.30
** 440310.837, 3765747.261, 260.35, 1.30
** 440224.880, 3765756.031, 259.69, 1.30
** 440137.544, 3765763.271, 258.13, 1.30
** 440102.580, 3765767.415, 257.28, 1.30
** 439940.966, 3765792.538, 254.87, 1.30
** ----------------------------------------------------------------
-------
   LOCATION A0000061     AREA     440393.199 3765744.601 0.0
   LOCATION A0000062     AREA     440311.425 3765753.022 0.0
   LOCATION A0000063     AREA     440225.359 3765761.802 0.0
   LOCATION A0000064     AREA     440138.226 3765769.022 0.0
   LOCATION A0000065     AREA     440103.469 3765773.137 0.0
   LOCATION A0000066     AREA     440022.663 3765785.699 0.0
** End of LINE AREA Source ID = ARLN06
** ----------------------------------------------------------------
-------
** Line Source Represented by Area Sources
** LINE AREA Source ID = ARLN07
** DESCRSRC SR 60 WB Freeway TOG Evap
** PREFIX
** Length of Side = 18.29
** Ratio = 10
** Vertical Dimension = 1.20
** Emission Rate = 0.0000307319
** Nodes = 5
** 440650.040, 3765727.330, 260.07, 1.30
** 440119.780, 3765731.800, 261.41, 1.30
** 439661.920, 3765732.940, 260.96, 1.30
** 439171.250, 3765734.040, 252.11, 1.30
** 438870.980, 3765732.120, 258.88, 1.30
** ----------------------------------------------------------------
-------
   LOCATION A0000067     AREA     440650.117 3765736.475 0.0
   LOCATION A0000068     AREA     440473.364 3765737.965 0.0
   LOCATION A0000069     AREA     440296.610 3765739.455 0.0
   LOCATION A0000070     AREA     440119.803 3765740.945 0.0
   LOCATION A0000071     AREA     439967.183 3765741.325 0.0
   LOCATION A0000072     AREA     439814.563 3765741.705 0.0
   LOCATION A0000073     AREA     439661.941 3765742.085 0.0
   LOCATION A0000074     AREA     439498.384 3765742.452 0.0
   LOCATION A0000075     AREA     439334.827 3765742.818 0.0
   LOCATION A0000076     AREA     439171.192 3765743.185 0.0
   LOCATION A0000077     AREA     439021.057 3765742.225 0.0
** End of LINE AREA Source ID = ARLN07
** ----------------------------------------------------------------
-------
** Line Source Represented by Area Sources
** LINE AREA Source ID = ARLN08
** DESCRSRC SR EB Freeway TOG Evap
** PREFIX
** Length of Side = 18.29
```

```
** Ratio = 10
** Vertical Dimension = 1.20
** Emission Rate = 0.0000307396
** Nodes = 6
** 438872.220, 3765713.800, 258.90, 1.30
** 439571.020, 3765709.350, 260.53, 1.30
** 439744.940, 3765708.790, 261.20, 1.30
** 440090.500, 3765708.360, 261.51, 1.30
** 440405.350, 3765708.360, 260.60, 1.30
** 440650.830, 3765711.090, 260.06, 1.30
** ------------------------------------------------------------
-------
   LOCATION A0000078     AREA     438872.162 3765704.655 0.0
   LOCATION A0000079     AREA     439046.862 3765703.543 0.0
   LOCATION A0000080     AREA     439221.562 3765702.430 0.0
   LOCATION A0000081     AREA     439396.262 3765701.318 0.0
   LOCATION A0000082     AREA     439570.991 3765700.205 0.0
   LOCATION A0000083     AREA     439744.929 3765699.645 0.0
   LOCATION A0000084     AREA     439917.709 3765699.430 0.0
   LOCATION A0000085     AREA     440090.500 3765699.215 0.0
   LOCATION A0000086     AREA     440247.925 3765699.215 0.0
   LOCATION A0000087     AREA     440405.452 3765699.216 0.0
   LOCATION A0000088     AREA     440528.192 3765700.581 0.0
** End of LINE AREA Source ID = ARLN08
** ------------------------------------------------------------
-------
** Line Source Represented by Area Sources
** LINE AREA Source ID = ARLN09
** DESCRSRC SR 60 WB On-ramp TOG Evap
** PREFIX
** Length of Side = 3.96
** Ratio = 10
** Vertical Dimension = 1.20
** Emission Rate = 0.0005314996
** Nodes = 6
** 439895.140, 3765792.040, 254.44, 1.30
** 439830.260, 3765782.310, 255.62, 1.30
** 439602.640, 3765750.160, 260.12, 1.30
** 439556.370, 3765746.630, 260.49, 1.30
** 439478.280, 3765744.600, 260.25, 1.30
** 439423.200, 3765742.700, 260.08, 1.30
** ------------------------------------------------------------
-------
   LOCATION A0000089     AREA     439894.846 3765793.998 0.0
   LOCATION A0000090     AREA     439862.406 3765789.133 0.0
   LOCATION A0000091     AREA     439829.983 3765784.271 0.0
   LOCATION A0000092     AREA     439792.046 3765778.912 0.0
   LOCATION A0000093     AREA     439754.110 3765773.554 0.0
   LOCATION A0000094     AREA     439716.173 3765768.196 0.0
   LOCATION A0000095     AREA     439678.236 3765762.837 0.0
   LOCATION A0000096     AREA     439640.300 3765757.479 0.0
   LOCATION A0000097     AREA     439602.489 3765752.134 0.0
```

```
   LOCATION A0000098     AREA     439579.354 3765750.369 0.0
   LOCATION A0000099     AREA     439556.319 3765748.609 0.0
   LOCATION A0000100     AREA     439517.274 3765747.594 0.0
   LOCATION A0000101     AREA     439478.212 3765746.579 0.0
   LOCATION A0000102     AREA     439450.672 3765745.629 0.0
** End of LINE AREA Source ID = ARLN09
** ----------------------------------------------------------------
-------
** Line Source Represented by Area Sources
** LINE AREA Source ID = ARLN10
** DESCRSRC SR 60 EB Off-ramp TOG Evap
** PREFIX
** Length of Side = 7.62
** Ratio = 10
** Vertical Dimension = 1.20
** Emission Rate = 0.0003007882
** Nodes = 5
** 439895.390, 3765645.740, 252.80, 1.30
** 439818.640, 3765660.070, 254.55, 1.30
** 439755.470, 3765672.000, 257.06, 1.30
** 439662.810, 3765681.320, 259.67, 1.30
** 439463.020, 3765701.520, 260.17, 1.30
** ----------------------------------------------------------------
-------
   LOCATION A0000103     AREA     439896.089 3765649.485 0.0
   LOCATION A0000104     AREA     439857.714 3765656.650 0.0
   LOCATION A0000105     AREA     439819.347 3765663.814 0.0
   LOCATION A0000106     AREA     439755.851 3765675.791 0.0
   LOCATION A0000107     AREA     439709.521 3765680.451 0.0
   LOCATION A0000108     AREA     439663.193 3765685.111 0.0
   LOCATION A0000109     AREA     439596.597 3765691.844 0.0
   LOCATION A0000110     AREA     439530.000 3765698.577 0.0
** End of LINE AREA Source ID = ARLN10
** ----------------------------------------------------------------
-------
** Line Source Represented by Area Sources
** LINE AREA Source ID = ARLN11
** DESCRSRC SR 60 EB On-ramp TOG Evap
** PREFIX
** Length of Side = 3.96
** Ratio = 10
** Vertical Dimension = 1.20
** Emission Rate = 0.0004968954
** Nodes = 7
** 439941.300, 3765645.290, 253.26, 1.30
** 439993.010, 3765652.770, 253.93, 1.30
** 440155.830, 3765673.930, 258.66, 1.30
** 440268.610, 3765688.070, 259.90, 1.30
** 440322.370, 3765691.630, 260.22, 1.30
** 440354.630, 3765692.690, 260.13, 1.30
** 440446.540, 3765695.420, 259.97, 1.30
** ----------------------------------------------------------------
```

```
-------
   LOCATION A0000111     AREA     439941.583 3765643.330 0.0
   LOCATION A0000112     AREA     439967.438 3765647.070 0.0
   LOCATION A0000113     AREA     439993.265 3765650.807 0.0
   LOCATION A0000114     AREA     440025.829 3765655.039 0.0
   LOCATION A0000115     AREA     440058.393 3765659.271 0.0
   LOCATION A0000116     AREA     440090.957 3765663.503 0.0
   LOCATION A0000117     AREA     440123.521 3765667.735 0.0
   LOCATION A0000118     AREA     440156.076 3765671.965 0.0
   LOCATION A0000119     AREA     440193.670 3765676.679 0.0
   LOCATION A0000120     AREA     440231.263 3765681.392 0.0
   LOCATION A0000121     AREA     440268.741 3765686.094 0.0
   LOCATION A0000122     AREA     440295.621 3765687.874 0.0
   LOCATION A0000123     AREA     440322.435 3765689.651 0.0
   LOCATION A0000124     AREA     440354.689 3765690.711 0.0
   LOCATION A0000125     AREA     440385.325 3765691.621 0.0
   LOCATION A0000126     AREA     440415.962 3765692.531 0.0
** End of LINE AREA Source ID = ARLN11
** ------------------------------------------------------------
-------
** Line Source Represented by Area Sources
** LINE AREA Source ID = ARLN12
** DESCRSRC SR 60 WB Off-ramp TOG Evap
** PREFIX
** Length of Side = 11.58
** Ratio = 10
** Vertical Dimension = 1.20
** Emission Rate = 0.000189791
** Nodes = 6
** 440392.610, 3765738.840, 260.54, 1.30
** 440310.840, 3765747.260, 260.35, 1.30
** 440224.880, 3765756.030, 259.69, 1.30
** 440137.540, 3765763.270, 258.13, 1.30
** 440102.580, 3765767.410, 257.28, 1.30
** 439940.970, 3765792.540, 254.87, 1.30
** ------------------------------------------------------------
-------
   LOCATION A0000127     AREA     440393.203 3765744.600 0.0
   LOCATION A0000128     AREA     440311.428 3765753.020 0.0
   LOCATION A0000129     AREA     440225.358 3765761.800 0.0
   LOCATION A0000130     AREA     440138.221 3765769.020 0.0
   LOCATION A0000131     AREA     440103.470 3765773.131 0.0
   LOCATION A0000132     AREA     440022.665 3765785.696 0.0
** End of LINE AREA Source ID = ARLN12
** Source Parameters **
** LINE AREA Source ID = ARLN01
   SRCPARAM A0000012     0.0000307319     1.300   176.761
18.290  -179.517     1.200
   SRCPARAM A0000013     0.0000307319     1.300   176.761
18.290  -179.517     1.200
   SRCPARAM A0000014     0.0000307319     1.300   176.761
18.290  -179.517     1.200
```

```
   SRCPARAM A0000015     0.0000307319     1.300   152.620
18.290  -179.857     1.200
   SRCPARAM A0000016     0.0000307319     1.300   152.620
18.290  -179.857     1.200
   SRCPARAM A0000017     0.0000307319     1.300   152.620
18.290  -179.857     1.200
   SRCPARAM A0000018     0.0000307319     1.300   163.558
18.290  -179.872     1.200
   SRCPARAM A0000019     0.0000307319     1.300   163.558
18.290  -179.872     1.200
   SRCPARAM A0000020     0.0000307319     1.300   163.558
18.290  -179.872     1.200
   SRCPARAM A0000021     0.0000307319     1.300   150.135
18.290   179.634     1.200
   SRCPARAM A0000022     0.0000307319     1.300   150.135
18.290   179.634     1.200
** ------------------------------------------------------------
-------
** LINE AREA Source ID = ARLN02
   SRCPARAM A0000001     0.0000307481     1.300   174.704
18.288     0.364     1.200
   SRCPARAM A0000002     0.0000307481     1.300   174.704
18.288     0.364     1.200
   SRCPARAM A0000003     0.0000307481     1.300   174.704
18.288     0.364     1.200
   SRCPARAM A0000004     0.0000307481     1.300   174.704
18.288     0.364     1.200
   SRCPARAM A0000005     0.0000307481     1.300   173.925
18.288     0.186     1.200
   SRCPARAM A0000006     0.0000307481     1.300   172.780
18.288     0.072     1.200
   SRCPARAM A0000007     0.0000307481     1.300   172.780
18.288     0.072     1.200
   SRCPARAM A0000008     0.0000307481     1.300   157.421
18.288     0.000     1.200
   SRCPARAM A0000009     0.0000307481     1.300   157.421
18.288     0.000     1.200
   SRCPARAM A0000010     0.0000307481     1.300   122.750
18.288    -0.639     1.200
   SRCPARAM A0000011     0.0000307481     1.300   122.750
18.288    -0.639     1.200
** ------------------------------------------------------------
-------
** LINE AREA Source ID = ARLN03
   SRCPARAM A0000023     0.0005311802     1.300    32.800
3.962   171.477     1.200
   SRCPARAM A0000024     0.0005311802     1.300    32.800
3.962   171.477     1.200
   SRCPARAM A0000025     0.0005311802     1.300    38.314
3.962   171.958     1.200
   SRCPARAM A0000026     0.0005311802     1.300    38.314
3.962   171.958     1.200
```

```
   SRCPARAM A0000027     0.0005311802     1.300    38.314
3.962   171.958     1.200
   SRCPARAM A0000028     0.0005311802     1.300    38.314
3.962   171.958     1.200
   SRCPARAM A0000029     0.0005311802     1.300    38.314
3.962   171.958     1.200
   SRCPARAM A0000030     0.0005311802     1.300    38.314
3.962   171.958     1.200
   SRCPARAM A0000031     0.0005311802     1.300    23.202
3.962   175.647     1.200
   SRCPARAM A0000032     0.0005311802     1.300    23.202
3.962   175.647     1.200
   SRCPARAM A0000033     0.0005311802     1.300    39.055
3.962   178.506     1.200
   SRCPARAM A0000034     0.0005311802     1.300    39.055
3.962   178.506     1.200
   SRCPARAM A0000035     0.0005311802     1.300    27.559
3.962   178.031     1.200
   SRCPARAM A0000036     0.0005311802     1.300    27.559
3.962   178.031     1.200
** ------------------------------------------------------------
-------
** LINE AREA Source ID = ARLN04
   SRCPARAM A0000037     0.0003007914     1.300    39.036
7.620  -169.429     1.200
   SRCPARAM A0000038     0.0003007914     1.300    39.036
7.620  -169.429     1.200
   SRCPARAM A0000039     0.0003007914     1.300    64.285
7.620  -169.298     1.200
   SRCPARAM A0000040     0.0003007914     1.300    46.568
7.620  -174.258     1.200
   SRCPARAM A0000041     0.0003007914     1.300    46.568
7.620  -174.258     1.200
   SRCPARAM A0000042     0.0003007914     1.300    66.934
7.620  -174.227     1.200
   SRCPARAM A0000043     0.0003007914     1.300    66.934
7.620  -174.227     1.200
   SRCPARAM A0000044     0.0003007914     1.300    66.934
7.620  -174.227     1.200
** ------------------------------------------------------------
-------
** LINE AREA Source ID = ARLN05
   SRCPARAM A0000045     0.000496591     1.300    26.125
3.962    -8.232     1.200
   SRCPARAM A0000046     0.000496591     1.300    26.125
3.962    -8.232     1.200
   SRCPARAM A0000047     0.000496591     1.300    32.839
3.962    -7.402     1.200
   SRCPARAM A0000048     0.000496591     1.300    32.839
3.962    -7.402     1.200
   SRCPARAM A0000049     0.000496591     1.300    32.839
3.962    -7.402     1.200
```

```
   SRCPARAM A0000050     0.000496591     1.300    32.839
3.962    -7.402     1.200
   SRCPARAM A0000051     0.000496591     1.300    32.839
3.962    -7.402     1.200
   SRCPARAM A0000052     0.000496591     1.300    37.886
3.962    -7.150     1.200
   SRCPARAM A0000053     0.000496591     1.300    37.886
3.962    -7.150     1.200
   SRCPARAM A0000054     0.000496591     1.300    37.886
3.962    -7.150     1.200
   SRCPARAM A0000055     0.000496591     1.300    26.940
3.962    -3.790     1.200
   SRCPARAM A0000056     0.000496591     1.300    26.940
3.962    -3.790     1.200
   SRCPARAM A0000057     0.000496591     1.300    32.275
3.962    -1.871     1.200
   SRCPARAM A0000058     0.000496591     1.300    30.651
3.962    -1.702     1.200
   SRCPARAM A0000059     0.000496591     1.300    30.651
3.962    -1.702     1.200
   SRCPARAM A0000060     0.000496591     1.300    30.651
3.962    -1.702     1.200
** ------------------------------------------------------------
-------
** LINE AREA Source ID = ARLN06
   SRCPARAM A0000061     0.0001897523     1.300    82.201
11.582  -174.121     1.200
   SRCPARAM A0000062     0.0001897523     1.300    86.403
11.582  -174.174     1.200
   SRCPARAM A0000063     0.0001897523     1.300    87.635
11.582  -175.261     1.200
   SRCPARAM A0000064     0.0001897523     1.300    35.209
11.582  -173.241     1.200
   SRCPARAM A0000065     0.0001897523     1.300    81.777
11.582  -171.164     1.200
   SRCPARAM A0000066     0.0001897523     1.300    81.777
11.582  -171.164     1.200
** ------------------------------------------------------------
-------
** LINE AREA Source ID = ARLN07
   SRCPARAM A0000067     0.0000307319     1.300   176.760
18.290  -179.517     1.200
   SRCPARAM A0000068     0.0000307319     1.300   176.760
18.290  -179.517     1.200
   SRCPARAM A0000069     0.0000307319     1.300   176.760
18.290  -179.517     1.200
   SRCPARAM A0000070     0.0000307319     1.300   152.620
18.290  -179.857     1.200
   SRCPARAM A0000071     0.0000307319     1.300   152.620
18.290  -179.857     1.200
   SRCPARAM A0000072     0.0000307319     1.300   152.620
18.290  -179.857     1.200
```

```
   SRCPARAM A0000073     0.0000307319     1.300   163.557
18.290  -179.872     1.200
   SRCPARAM A0000074     0.0000307319     1.300   163.557
18.290  -179.872     1.200
   SRCPARAM A0000075     0.0000307319     1.300   163.557
18.290  -179.872     1.200
   SRCPARAM A0000076     0.0000307319     1.300   150.138
18.290   179.634     1.200
   SRCPARAM A0000077     0.0000307319     1.300   150.138
18.290   179.634     1.200
** ------------------------------------------------------------
-------
** LINE AREA Source ID = ARLN08
   SRCPARAM A0000078     0.0000307396     1.300   174.704
18.290     0.365     1.200
   SRCPARAM A0000079     0.0000307396     1.300   174.704
18.290     0.365     1.200
   SRCPARAM A0000080     0.0000307396     1.300   174.704
18.290     0.365     1.200
   SRCPARAM A0000081     0.0000307396     1.300   174.704
18.290     0.365     1.200
   SRCPARAM A0000082     0.0000307396     1.300   173.921
18.290     0.184     1.200
   SRCPARAM A0000083     0.0000307396     1.300   172.780
18.290     0.071     1.200
   SRCPARAM A0000084     0.0000307396     1.300   172.780
18.290     0.071     1.200
   SRCPARAM A0000085     0.0000307396     1.300   157.425
18.290     0.000     1.200
   SRCPARAM A0000086     0.0000307396     1.300   157.425
18.290     0.000     1.200
   SRCPARAM A0000087     0.0000307396     1.300   122.748
18.290    -0.637     1.200
   SRCPARAM A0000088     0.0000307396     1.300   122.748
18.290    -0.637     1.200
** ------------------------------------------------------------
-------
** LINE AREA Source ID = ARLN09
   SRCPARAM A0000089     0.0005314996     1.300    32.803
3.960   171.471     1.200
   SRCPARAM A0000090     0.0005314996     1.300    32.803
3.960   171.471     1.200
   SRCPARAM A0000091     0.0005314996     1.300    38.313
3.960   171.960     1.200
   SRCPARAM A0000092     0.0005314996     1.300    38.313
3.960   171.960     1.200
   SRCPARAM A0000093     0.0005314996     1.300    38.313
3.960   171.960     1.200
   SRCPARAM A0000094     0.0005314996     1.300    38.313
3.960   171.960     1.200
   SRCPARAM A0000095     0.0005314996     1.300    38.313
3.960   171.960     1.200
```

```
   SRCPARAM A0000096     0.0005314996     1.300    38.313
3.960   171.960     1.200
   SRCPARAM A0000097     0.0005314996     1.300    23.202
3.960   175.637     1.200
   SRCPARAM A0000098     0.0005314996     1.300    23.202
3.960   175.637     1.200
   SRCPARAM A0000099     0.0005314996     1.300    39.058
3.960   178.511     1.200
   SRCPARAM A0000100     0.0005314996     1.300    39.058
3.960   178.511     1.200
   SRCPARAM A0000101     0.0005314996     1.300    27.556
3.960   178.024     1.200
   SRCPARAM A0000102     0.0005314996     1.300    27.556
3.960   178.024     1.200
** ------------------------------------------------------------
-------
** LINE AREA Source ID = ARLN10
   SRCPARAM A0000103     0.0003007882     1.300    39.038
7.620  -169.424     1.200
   SRCPARAM A0000104     0.0003007882     1.300    39.038
7.620  -169.424     1.200
   SRCPARAM A0000105     0.0003007882     1.300    64.287
7.620  -169.305     1.200
   SRCPARAM A0000106     0.0003007882     1.300    46.564
7.620  -174.256     1.200
   SRCPARAM A0000107     0.0003007882     1.300    46.564
7.620  -174.256     1.200
   SRCPARAM A0000108     0.0003007882     1.300    66.936
7.620  -174.227     1.200
   SRCPARAM A0000109     0.0003007882     1.300    66.936
7.620  -174.227     1.200
   SRCPARAM A0000110     0.0003007882     1.300    66.936
7.620  -174.227     1.200
** ------------------------------------------------------------
-------
** LINE AREA Source ID = ARLN11
   SRCPARAM A0000111     0.0004968954     1.300    26.124
3.960    -8.231     1.200
   SRCPARAM A0000112     0.0004968954     1.300    26.124
3.960    -8.231     1.200
   SRCPARAM A0000113     0.0004968954     1.300    32.838
3.960    -7.405     1.200
   SRCPARAM A0000114     0.0004968954     1.300    32.838
3.960    -7.405     1.200
   SRCPARAM A0000115     0.0004968954     1.300    32.838
3.960    -7.405     1.200
   SRCPARAM A0000116     0.0004968954     1.300    32.838
3.960    -7.405     1.200
   SRCPARAM A0000117     0.0004968954     1.300    32.838
3.960    -7.405     1.200
   SRCPARAM A0000118     0.0004968954     1.300    37.888
3.960    -7.146     1.200
```

```
   SRCPARAM A0000119     0.0004968954     1.300    37.888
3.960    -7.146     1.200
   SRCPARAM A0000120     0.0004968954     1.300    37.888
3.960    -7.146     1.200
   SRCPARAM A0000121     0.0004968954     1.300    26.939
3.960    -3.789     1.200
   SRCPARAM A0000122     0.0004968954     1.300    26.939
3.960    -3.789     1.200
   SRCPARAM A0000123     0.0004968954     1.300    32.277
3.960    -1.882     1.200
   SRCPARAM A0000124     0.0004968954     1.300    30.650
3.960    -1.701     1.200
   SRCPARAM A0000125     0.0004968954     1.300    30.650
3.960    -1.701     1.200
   SRCPARAM A0000126     0.0004968954     1.300    30.650
3.960    -1.701     1.200
** ------------------------------------------------------------
-------
** LINE AREA Source ID = ARLN12
   SRCPARAM A0000127     0.000189791     1.300    82.202
11.580  -174.121     1.200
   SRCPARAM A0000128     0.000189791     1.300    86.406
11.580  -174.175     1.200
   SRCPARAM A0000129     0.000189791     1.300    87.640
11.580  -175.261     1.200
   SRCPARAM A0000130     0.000189791     1.300    35.204
11.580  -173.246     1.200
   SRCPARAM A0000131     0.000189791     1.300    81.776
11.580  -171.161     1.200
   SRCPARAM A0000132     0.000189791     1.300    81.776
11.580  -171.161     1.200
** ------------------------------------------------------------
-------
   URBANSRC ALL

** Variable Emissions Type: "By Hour-of-Day (HROFDY)"
** Variable Emission Scenario: "ARLN01"
   EMISFACT A0000012     HROFDY 0.0144 0.0199 0.0203 0.0312
0.0647 0.0749
   EMISFACT A0000012     HROFDY 0.0843 0.0915 0.0901 0.0889 0.09
0.0923
   EMISFACT A0000012     HROFDY 0.0943 0.0964 0.0998 0.102 0.103
0.1
   EMISFACT A0000012     HROFDY 0.0886 0.0729 0.0626 0.0593
0.0491 0.0361
   EMISFACT A0000013     HROFDY 0.0144 0.0199 0.0203 0.0312
0.0647 0.0749
   EMISFACT A0000013     HROFDY 0.0843 0.0915 0.0901 0.0889 0.09
0.0923
   EMISFACT A0000013     HROFDY 0.0943 0.0964 0.0998 0.102 0.103
0.1
   EMISFACT A0000013     HROFDY 0.0886 0.0729 0.0626 0.0593
```

```
0.0491 0.0361
   EMISFACT A0000014     HROFDY 0.0144 0.0199 0.0203 0.0312
0.0647 0.0749
   EMISFACT A0000014     HROFDY 0.0843 0.0915 0.0901 0.0889 0.09
0.0923
   EMISFACT A0000014     HROFDY 0.0943 0.0964 0.0998 0.102 0.103
0.1
   EMISFACT A0000014     HROFDY 0.0886 0.0729 0.0626 0.0593
0.0491 0.0361
   EMISFACT A0000015     HROFDY 0.0144 0.0199 0.0203 0.0312
0.0647 0.0749
   EMISFACT A0000015     HROFDY 0.0843 0.0915 0.0901 0.0889 0.09
0.0923
   EMISFACT A0000015     HROFDY 0.0943 0.0964 0.0998 0.102 0.103
0.1
   EMISFACT A0000015     HROFDY 0.0886 0.0729 0.0626 0.0593
0.0491 0.0361
   EMISFACT A0000016     HROFDY 0.0144 0.0199 0.0203 0.0312
0.0647 0.0749
   EMISFACT A0000016     HROFDY 0.0843 0.0915 0.0901 0.0889 0.09
0.0923
   EMISFACT A0000016     HROFDY 0.0943 0.0964 0.0998 0.102 0.103
0.1
   EMISFACT A0000016     HROFDY 0.0886 0.0729 0.0626 0.0593
0.0491 0.0361
   EMISFACT A0000017     HROFDY 0.0144 0.0199 0.0203 0.0312
0.0647 0.0749
   EMISFACT A0000017     HROFDY 0.0843 0.0915 0.0901 0.0889 0.09
0.0923
   EMISFACT A0000017     HROFDY 0.0943 0.0964 0.0998 0.102 0.103
0.1
   EMISFACT A0000017     HROFDY 0.0886 0.0729 0.0626 0.0593
0.0491 0.0361
   EMISFACT A0000018     HROFDY 0.0144 0.0199 0.0203 0.0312
0.0647 0.0749
   EMISFACT A0000018     HROFDY 0.0843 0.0915 0.0901 0.0889 0.09
0.0923
   EMISFACT A0000018     HROFDY 0.0943 0.0964 0.0998 0.102 0.103
0.1
   EMISFACT A0000018     HROFDY 0.0886 0.0729 0.0626 0.0593
0.0491 0.0361
   EMISFACT A0000019     HROFDY 0.0144 0.0199 0.0203 0.0312
0.0647 0.0749
   EMISFACT A0000019     HROFDY 0.0843 0.0915 0.0901 0.0889 0.09
0.0923
   EMISFACT A0000019     HROFDY 0.0943 0.0964 0.0998 0.102 0.103
0.1
   EMISFACT A0000019     HROFDY 0.0886 0.0729 0.0626 0.0593
0.0491 0.0361
   EMISFACT A0000020     HROFDY 0.0144 0.0199 0.0203 0.0312
0.0647 0.0749
   EMISFACT A0000020     HROFDY 0.0843 0.0915 0.0901 0.0889 0.09
```

```
0.0923
   EMISFACT A0000020     HROFDY 0.0943 0.0964 0.0998 0.102 0.103
0.1
   EMISFACT A0000020     HROFDY 0.0886 0.0729 0.0626 0.0593
0.0491 0.0361
   EMISFACT A0000021     HROFDY 0.0144 0.0199 0.0203 0.0312
0.0647 0.0749
   EMISFACT A0000021     HROFDY 0.0843 0.0915 0.0901 0.0889 0.09
0.0923
   EMISFACT A0000021     HROFDY 0.0943 0.0964 0.0998 0.102 0.103
0.1
   EMISFACT A0000021     HROFDY 0.0886 0.0729 0.0626 0.0593
0.0491 0.0361
   EMISFACT A0000022     HROFDY 0.0144 0.0199 0.0203 0.0312
0.0647 0.0749
   EMISFACT A0000022     HROFDY 0.0843 0.0915 0.0901 0.0889 0.09
0.0923
   EMISFACT A0000022     HROFDY 0.0943 0.0964 0.0998 0.102 0.103
0.1
   EMISFACT A0000022     HROFDY 0.0886 0.0729 0.0626 0.0593
0.0491 0.0361

** Variable Emissions Type: "By Hour-of-Day (HROFDY)"
** Variable Emission Scenario: "ARLN02"
   EMISFACT A0000001     HROFDY 0.0172 0.0124 0.0108 0.0126
0.0203 0.034
   EMISFACT A0000001     HROFDY 0.0431 0.0457 0.0439 0.0414 0.042
0.0439
   EMISFACT A0000001     HROFDY 0.0463 0.0483 0.0501 0.0491
0.0508 0.0506
   EMISFACT A0000001     HROFDY 0.0472 0.0459 0.0417 0.0408
0.0334 0.0248
   EMISFACT A0000002     HROFDY 0.0172 0.0124 0.0108 0.0126
0.0203 0.034
   EMISFACT A0000002     HROFDY 0.0431 0.0457 0.0439 0.0414 0.042
0.0439
   EMISFACT A0000002     HROFDY 0.0463 0.0483 0.0501 0.0491
0.0508 0.0506
   EMISFACT A0000002     HROFDY 0.0472 0.0459 0.0417 0.0408
0.0334 0.0248
   EMISFACT A0000003     HROFDY 0.0172 0.0124 0.0108 0.0126
0.0203 0.034
   EMISFACT A0000003     HROFDY 0.0431 0.0457 0.0439 0.0414 0.042
0.0439
   EMISFACT A0000003     HROFDY 0.0463 0.0483 0.0501 0.0491
0.0508 0.0506
   EMISFACT A0000003     HROFDY 0.0472 0.0459 0.0417 0.0408
0.0334 0.0248
   EMISFACT A0000004     HROFDY 0.0172 0.0124 0.0108 0.0126
0.0203 0.034
   EMISFACT A0000004     HROFDY 0.0431 0.0457 0.0439 0.0414 0.042
0.0439
```

```
   EMISFACT A0000004     HROFDY 0.0463 0.0483 0.0501 0.0491
0.0508 0.0506
   EMISFACT A0000004     HROFDY 0.0472 0.0459 0.0417 0.0408
0.0334 0.0248
   EMISFACT A0000005     HROFDY 0.0172 0.0124 0.0108 0.0126
0.0203 0.034
   EMISFACT A0000005     HROFDY 0.0431 0.0457 0.0439 0.0414 0.042
0.0439
   EMISFACT A0000005     HROFDY 0.0463 0.0483 0.0501 0.0491
0.0508 0.0506
   EMISFACT A0000005     HROFDY 0.0472 0.0459 0.0417 0.0408
0.0334 0.0248
   EMISFACT A0000006     HROFDY 0.0172 0.0124 0.0108 0.0126
0.0203 0.034
   EMISFACT A0000006     HROFDY 0.0431 0.0457 0.0439 0.0414 0.042
0.0439
   EMISFACT A0000006     HROFDY 0.0463 0.0483 0.0501 0.0491
0.0508 0.0506
   EMISFACT A0000006     HROFDY 0.0472 0.0459 0.0417 0.0408
0.0334 0.0248
   EMISFACT A0000007     HROFDY 0.0172 0.0124 0.0108 0.0126
0.0203 0.034
   EMISFACT A0000007     HROFDY 0.0431 0.0457 0.0439 0.0414 0.042
0.0439
   EMISFACT A0000007     HROFDY 0.0463 0.0483 0.0501 0.0491
0.0508 0.0506
   EMISFACT A0000007     HROFDY 0.0472 0.0459 0.0417 0.0408
0.0334 0.0248
   EMISFACT A0000008     HROFDY 0.0172 0.0124 0.0108 0.0126
0.0203 0.034
   EMISFACT A0000008     HROFDY 0.0431 0.0457 0.0439 0.0414 0.042
0.0439
   EMISFACT A0000008     HROFDY 0.0463 0.0483 0.0501 0.0491
0.0508 0.0506
   EMISFACT A0000008     HROFDY 0.0472 0.0459 0.0417 0.0408
0.0334 0.0248
   EMISFACT A0000009     HROFDY 0.0172 0.0124 0.0108 0.0126
0.0203 0.034
   EMISFACT A0000009     HROFDY 0.0431 0.0457 0.0439 0.0414 0.042
0.0439
   EMISFACT A0000009     HROFDY 0.0463 0.0483 0.0501 0.0491
0.0508 0.0506
   EMISFACT A0000009     HROFDY 0.0472 0.0459 0.0417 0.0408
0.0334 0.0248
   EMISFACT A0000010     HROFDY 0.0172 0.0124 0.0108 0.0126
0.0203 0.034
   EMISFACT A0000010     HROFDY 0.0431 0.0457 0.0439 0.0414 0.042
0.0439
   EMISFACT A0000010     HROFDY 0.0463 0.0483 0.0501 0.0491
0.0508 0.0506
   EMISFACT A0000010     HROFDY 0.0472 0.0459 0.0417 0.0408
0.0334 0.0248
```

```
   EMISFACT A0000011     HROFDY 0.0172 0.0124 0.0108 0.0126
0.0203 0.034
   EMISFACT A0000011     HROFDY 0.0431 0.0457 0.0439 0.0414 0.042
0.0439
   EMISFACT A0000011     HROFDY 0.0463 0.0483 0.0501 0.0491
0.0508 0.0506
   EMISFACT A0000011     HROFDY 0.0472 0.0459 0.0417 0.0408
0.0334 0.0248

** Variable Emissions Type: "By Hour-of-Day (HROFDY)"
** Variable Emission Scenario: "ARLN03"
   EMISFACT A0000023     HROFDY 0.00251 0.00197 0.00201 0.00309
0.00642 0.00758
   EMISFACT A0000023     HROFDY 0.00854 0.00911 0.00896 0.00884
0.00896 0.00918
   EMISFACT A0000023     HROFDY 0.00938 0.00959 0.00993 0.0101
0.0102 0.0101
   EMISFACT A0000023     HROFDY 0.00897 0.00724 0.00634 0.00589
0.00487 0.00358
   EMISFACT A0000024     HROFDY 0.00251 0.00197 0.00201 0.00309
0.00642 0.00758
   EMISFACT A0000024     HROFDY 0.00854 0.00911 0.00896 0.00884
0.00896 0.00918
   EMISFACT A0000024     HROFDY 0.00938 0.00959 0.00993 0.0101
0.0102 0.0101
   EMISFACT A0000024     HROFDY 0.00897 0.00724 0.00634 0.00589
0.00487 0.00358
   EMISFACT A0000025     HROFDY 0.00251 0.00197 0.00201 0.00309
0.00642 0.00758
   EMISFACT A0000025     HROFDY 0.00854 0.00911 0.00896 0.00884
0.00896 0.00918
   EMISFACT A0000025     HROFDY 0.00938 0.00959 0.00993 0.0101
0.0102 0.0101
   EMISFACT A0000025     HROFDY 0.00897 0.00724 0.00634 0.00589
0.00487 0.00358
   EMISFACT A0000026     HROFDY 0.00251 0.00197 0.00201 0.00309
0.00642 0.00758
   EMISFACT A0000026     HROFDY 0.00854 0.00911 0.00896 0.00884
0.00896 0.00918
   EMISFACT A0000026     HROFDY 0.00938 0.00959 0.00993 0.0101
0.0102 0.0101
   EMISFACT A0000026     HROFDY 0.00897 0.00724 0.00634 0.00589
0.00487 0.00358
   EMISFACT A0000027     HROFDY 0.00251 0.00197 0.00201 0.00309
0.00642 0.00758
   EMISFACT A0000027     HROFDY 0.00854 0.00911 0.00896 0.00884
0.00896 0.00918
   EMISFACT A0000027     HROFDY 0.00938 0.00959 0.00993 0.0101
0.0102 0.0101
   EMISFACT A0000027     HROFDY 0.00897 0.00724 0.00634 0.00589
0.00487 0.00358
   EMISFACT A0000028     HROFDY 0.00251 0.00197 0.00201 0.00309
```

```
0.00642 0.00758
   EMISFACT A0000028     HROFDY 0.00854 0.00911 0.00896 0.00884
0.00896 0.00918
   EMISFACT A0000028     HROFDY 0.00938 0.00959 0.00993 0.0101
0.0102 0.0101
   EMISFACT A0000028     HROFDY 0.00897 0.00724 0.00634 0.00589
0.00487 0.00358
   EMISFACT A0000029     HROFDY 0.00251 0.00197 0.00201 0.00309
0.00642 0.00758
   EMISFACT A0000029     HROFDY 0.00854 0.00911 0.00896 0.00884
0.00896 0.00918
   EMISFACT A0000029     HROFDY 0.00938 0.00959 0.00993 0.0101
0.0102 0.0101
   EMISFACT A0000029     HROFDY 0.00897 0.00724 0.00634 0.00589
0.00487 0.00358
   EMISFACT A0000030     HROFDY 0.00251 0.00197 0.00201 0.00309
0.00642 0.00758
   EMISFACT A0000030     HROFDY 0.00854 0.00911 0.00896 0.00884
0.00896 0.00918
   EMISFACT A0000030     HROFDY 0.00938 0.00959 0.00993 0.0101
0.0102 0.0101
   EMISFACT A0000030     HROFDY 0.00897 0.00724 0.00634 0.00589
0.00487 0.00358
   EMISFACT A0000031     HROFDY 0.00251 0.00197 0.00201 0.00309
0.00642 0.00758
   EMISFACT A0000031     HROFDY 0.00854 0.00911 0.00896 0.00884
0.00896 0.00918
   EMISFACT A0000031     HROFDY 0.00938 0.00959 0.00993 0.0101
0.0102 0.0101
   EMISFACT A0000031     HROFDY 0.00897 0.00724 0.00634 0.00589
0.00487 0.00358
   EMISFACT A0000032     HROFDY 0.00251 0.00197 0.00201 0.00309
0.00642 0.00758
   EMISFACT A0000032     HROFDY 0.00854 0.00911 0.00896 0.00884
0.00896 0.00918
   EMISFACT A0000032     HROFDY 0.00938 0.00959 0.00993 0.0101
0.0102 0.0101
   EMISFACT A0000032     HROFDY 0.00897 0.00724 0.00634 0.00589
0.00487 0.00358
   EMISFACT A0000033     HROFDY 0.00251 0.00197 0.00201 0.00309
0.00642 0.00758
   EMISFACT A0000033     HROFDY 0.00854 0.00911 0.00896 0.00884
0.00896 0.00918
   EMISFACT A0000033     HROFDY 0.00938 0.00959 0.00993 0.0101
0.0102 0.0101
   EMISFACT A0000033     HROFDY 0.00897 0.00724 0.00634 0.00589
0.00487 0.00358
   EMISFACT A0000034     HROFDY 0.00251 0.00197 0.00201 0.00309
0.00642 0.00758
   EMISFACT A0000034     HROFDY 0.00854 0.00911 0.00896 0.00884
0.00896 0.00918
   EMISFACT A0000034     HROFDY 0.00938 0.00959 0.00993 0.0101
```

```
0.0102 0.0101
   EMISFACT A0000034     HROFDY 0.00897 0.00724 0.00634 0.00589
0.00487 0.00358
   EMISFACT A0000035     HROFDY 0.00251 0.00197 0.00201 0.00309
0.00642 0.00758
   EMISFACT A0000035     HROFDY 0.00854 0.00911 0.00896 0.00884
0.00896 0.00918
   EMISFACT A0000035     HROFDY 0.00938 0.00959 0.00993 0.0101
0.0102 0.0101
   EMISFACT A0000035     HROFDY 0.00897 0.00724 0.00634 0.00589
0.00487 0.00358
   EMISFACT A0000036     HROFDY 0.00251 0.00197 0.00201 0.00309
0.00642 0.00758
   EMISFACT A0000036     HROFDY 0.00854 0.00911 0.00896 0.00884
0.00896 0.00918
   EMISFACT A0000036     HROFDY 0.00938 0.00959 0.00993 0.0101
0.0102 0.0101
   EMISFACT A0000036     HROFDY 0.00897 0.00724 0.00634 0.00589
0.00487 0.00358

** Variable Emissions Type: "By Hour-of-Day (HROFDY)"
** Variable Emission Scenario: "ARLN04"
   EMISFACT A0000037     HROFDY 0.00261 0.00188 0.00165 0.00192
0.00309 0.00518
   EMISFACT A0000037     HROFDY 0.00727 0.00811 0.0078 0.00734
0.00745 0.00779
   EMISFACT A0000037     HROFDY 0.00822 0.00857 0.00885 0.00868
0.00852 0.00849
   EMISFACT A0000037     HROFDY 0.00837 0.00775 0.00703 0.00621
0.00508 0.00378
   EMISFACT A0000038     HROFDY 0.00261 0.00188 0.00165 0.00192
0.00309 0.00518
   EMISFACT A0000038     HROFDY 0.00727 0.00811 0.0078 0.00734
0.00745 0.00779
   EMISFACT A0000038     HROFDY 0.00822 0.00857 0.00885 0.00868
0.00852 0.00849
   EMISFACT A0000038     HROFDY 0.00837 0.00775 0.00703 0.00621
0.00508 0.00378
   EMISFACT A0000039     HROFDY 0.00261 0.00188 0.00165 0.00192
0.00309 0.00518
   EMISFACT A0000039     HROFDY 0.00727 0.00811 0.0078 0.00734
0.00745 0.00779
   EMISFACT A0000039     HROFDY 0.00822 0.00857 0.00885 0.00868
0.00852 0.00849
   EMISFACT A0000039     HROFDY 0.00837 0.00775 0.00703 0.00621
0.00508 0.00378
   EMISFACT A0000040     HROFDY 0.00261 0.00188 0.00165 0.00192
0.00309 0.00518
   EMISFACT A0000040     HROFDY 0.00727 0.00811 0.0078 0.00734
0.00745 0.00779
   EMISFACT A0000040     HROFDY 0.00822 0.00857 0.00885 0.00868
0.00852 0.00849
```

```
   EMISFACT A0000040     HROFDY 0.00837 0.00775 0.00703 0.00621
0.00508 0.00378
   EMISFACT A0000041     HROFDY 0.00261 0.00188 0.00165 0.00192
0.00309 0.00518
   EMISFACT A0000041     HROFDY 0.00727 0.00811 0.0078 0.00734
0.00745 0.00779
   EMISFACT A0000041     HROFDY 0.00822 0.00857 0.00885 0.00868
0.00852 0.00849
   EMISFACT A0000041     HROFDY 0.00837 0.00775 0.00703 0.00621
0.00508 0.00378
   EMISFACT A0000042     HROFDY 0.00261 0.00188 0.00165 0.00192
0.00309 0.00518
   EMISFACT A0000042     HROFDY 0.00727 0.00811 0.0078 0.00734
0.00745 0.00779
   EMISFACT A0000042     HROFDY 0.00822 0.00857 0.00885 0.00868
0.00852 0.00849
   EMISFACT A0000042     HROFDY 0.00837 0.00775 0.00703 0.00621
0.00508 0.00378
   EMISFACT A0000043     HROFDY 0.00261 0.00188 0.00165 0.00192
0.00309 0.00518
   EMISFACT A0000043     HROFDY 0.00727 0.00811 0.0078 0.00734
0.00745 0.00779
   EMISFACT A0000043     HROFDY 0.00822 0.00857 0.00885 0.00868
0.00852 0.00849
   EMISFACT A0000043     HROFDY 0.00837 0.00775 0.00703 0.00621
0.00508 0.00378
   EMISFACT A0000044     HROFDY 0.00261 0.00188 0.00165 0.00192
0.00309 0.00518
   EMISFACT A0000044     HROFDY 0.00727 0.00811 0.0078 0.00734
0.00745 0.00779
   EMISFACT A0000044     HROFDY 0.00822 0.00857 0.00885 0.00868
0.00852 0.00849
   EMISFACT A0000044     HROFDY 0.00837 0.00775 0.00703 0.00621
0.00508 0.00378

** Variable Emissions Type: "By Hour-of-Day (HROFDY)"
** Variable Emission Scenario: "ARLN05"
   EMISFACT A0000045     HROFDY 0.00401 0.00288 0.00253 0.00294
0.00474 0.00794
   EMISFACT A0000045     HROFDY 0.0111 0.0124 0.012 0.0113 0.0114
0.0119
   EMISFACT A0000045     HROFDY 0.0126 0.0131 0.0136 0.0133
0.0131 0.013
   EMISFACT A0000045     HROFDY 0.0128 0.0119 0.0108 0.00951
0.00779 0.0058
   EMISFACT A0000046     HROFDY 0.00401 0.00288 0.00253 0.00294
0.00474 0.00794
   EMISFACT A0000046     HROFDY 0.0111 0.0124 0.012 0.0113 0.0114
0.0119
   EMISFACT A0000046     HROFDY 0.0126 0.0131 0.0136 0.0133
0.0131 0.013
   EMISFACT A0000046     HROFDY 0.0128 0.0119 0.0108 0.00951
```

```
0.00779 0.0058
   EMISFACT A0000047     HROFDY 0.00401 0.00288 0.00253 0.00294
0.00474 0.00794
   EMISFACT A0000047     HROFDY 0.0111 0.0124 0.012 0.0113 0.0114
0.0119
   EMISFACT A0000047     HROFDY 0.0126 0.0131 0.0136 0.0133
0.0131 0.013
   EMISFACT A0000047     HROFDY 0.0128 0.0119 0.0108 0.00951
0.00779 0.0058
   EMISFACT A0000048     HROFDY 0.00401 0.00288 0.00253 0.00294
0.00474 0.00794
   EMISFACT A0000048     HROFDY 0.0111 0.0124 0.012 0.0113 0.0114
0.0119
   EMISFACT A0000048     HROFDY 0.0126 0.0131 0.0136 0.0133
0.0131 0.013
   EMISFACT A0000048     HROFDY 0.0128 0.0119 0.0108 0.00951
0.00779 0.0058
   EMISFACT A0000049     HROFDY 0.00401 0.00288 0.00253 0.00294
0.00474 0.00794
   EMISFACT A0000049     HROFDY 0.0111 0.0124 0.012 0.0113 0.0114
0.0119
   EMISFACT A0000049     HROFDY 0.0126 0.0131 0.0136 0.0133
0.0131 0.013
   EMISFACT A0000049     HROFDY 0.0128 0.0119 0.0108 0.00951
0.00779 0.0058
   EMISFACT A0000050     HROFDY 0.00401 0.00288 0.00253 0.00294
0.00474 0.00794
   EMISFACT A0000050     HROFDY 0.0111 0.0124 0.012 0.0113 0.0114
0.0119
   EMISFACT A0000050     HROFDY 0.0126 0.0131 0.0136 0.0133
0.0131 0.013
   EMISFACT A0000050     HROFDY 0.0128 0.0119 0.0108 0.00951
0.00779 0.0058
   EMISFACT A0000051     HROFDY 0.00401 0.00288 0.00253 0.00294
0.00474 0.00794
   EMISFACT A0000051     HROFDY 0.0111 0.0124 0.012 0.0113 0.0114
0.0119
   EMISFACT A0000051     HROFDY 0.0126 0.0131 0.0136 0.0133
0.0131 0.013
   EMISFACT A0000051     HROFDY 0.0128 0.0119 0.0108 0.00951
0.00779 0.0058
   EMISFACT A0000052     HROFDY 0.00401 0.00288 0.00253 0.00294
0.00474 0.00794
   EMISFACT A0000052     HROFDY 0.0111 0.0124 0.012 0.0113 0.0114
0.0119
   EMISFACT A0000052     HROFDY 0.0126 0.0131 0.0136 0.0133
0.0131 0.013
   EMISFACT A0000052     HROFDY 0.0128 0.0119 0.0108 0.00951
0.00779 0.0058
   EMISFACT A0000053     HROFDY 0.00401 0.00288 0.00253 0.00294
0.00474 0.00794
   EMISFACT A0000053     HROFDY 0.0111 0.0124 0.012 0.0113 0.0114
```

```
0.0119
   EMISFACT A0000053     HROFDY 0.0126 0.0131 0.0136 0.0133
0.0131 0.013
   EMISFACT A0000053     HROFDY 0.0128 0.0119 0.0108 0.00951
0.00779 0.0058
   EMISFACT A0000054     HROFDY 0.00401 0.00288 0.00253 0.00294
0.00474 0.00794
   EMISFACT A0000054     HROFDY 0.0111 0.0124 0.012 0.0113 0.0114
0.0119
   EMISFACT A0000054     HROFDY 0.0126 0.0131 0.0136 0.0133
0.0131 0.013
   EMISFACT A0000054     HROFDY 0.0128 0.0119 0.0108 0.00951
0.00779 0.0058
   EMISFACT A0000055     HROFDY 0.00401 0.00288 0.00253 0.00294
0.00474 0.00794
   EMISFACT A0000055     HROFDY 0.0111 0.0124 0.012 0.0113 0.0114
0.0119
   EMISFACT A0000055     HROFDY 0.0126 0.0131 0.0136 0.0133
0.0131 0.013
   EMISFACT A0000055     HROFDY 0.0128 0.0119 0.0108 0.00951
0.00779 0.0058
   EMISFACT A0000056     HROFDY 0.00401 0.00288 0.00253 0.00294
0.00474 0.00794
   EMISFACT A0000056     HROFDY 0.0111 0.0124 0.012 0.0113 0.0114
0.0119
   EMISFACT A0000056     HROFDY 0.0126 0.0131 0.0136 0.0133
0.0131 0.013
   EMISFACT A0000056     HROFDY 0.0128 0.0119 0.0108 0.00951
0.00779 0.0058
   EMISFACT A0000057     HROFDY 0.00401 0.00288 0.00253 0.00294
0.00474 0.00794
   EMISFACT A0000057     HROFDY 0.0111 0.0124 0.012 0.0113 0.0114
0.0119
   EMISFACT A0000057     HROFDY 0.0126 0.0131 0.0136 0.0133
0.0131 0.013
   EMISFACT A0000057     HROFDY 0.0128 0.0119 0.0108 0.00951
0.00779 0.0058
   EMISFACT A0000058     HROFDY 0.00401 0.00288 0.00253 0.00294
0.00474 0.00794
   EMISFACT A0000058     HROFDY 0.0111 0.0124 0.012 0.0113 0.0114
0.0119
   EMISFACT A0000058     HROFDY 0.0126 0.0131 0.0136 0.0133
0.0131 0.013
   EMISFACT A0000058     HROFDY 0.0128 0.0119 0.0108 0.00951
0.00779 0.0058
   EMISFACT A0000059     HROFDY 0.00401 0.00288 0.00253 0.00294
0.00474 0.00794
   EMISFACT A0000059     HROFDY 0.0111 0.0124 0.012 0.0113 0.0114
0.0119
   EMISFACT A0000059     HROFDY 0.0126 0.0131 0.0136 0.0133
0.0131 0.013
   EMISFACT A0000059     HROFDY 0.0128 0.0119 0.0108 0.00951
```

```
0.00779 0.0058
   EMISFACT A0000060     HROFDY 0.00401 0.00288 0.00253 0.00294
0.00474 0.00794
   EMISFACT A0000060     HROFDY 0.0111 0.0124 0.012 0.0113 0.0114
0.0119
   EMISFACT A0000060     HROFDY 0.0126 0.0131 0.0136 0.0133
0.0131 0.013
   EMISFACT A0000060     HROFDY 0.0128 0.0119 0.0108 0.00951
0.00779 0.0058

** Variable Emissions Type: "By Hour-of-Day (HROFDY)"
** Variable Emission Scenario: "ARLN06"
   EMISFACT A0000061     HROFDY 0.000402 0.000316 0.000322
0.000495 0.00103 0.00121
   EMISFACT A0000061     HROFDY 0.00137 0.00146 0.00144 0.00142
0.00143 0.00147
   EMISFACT A0000061     HROFDY 0.0015 0.00154 0.00159 0.00162
0.00164 0.00162
   EMISFACT A0000061     HROFDY 0.00144 0.00116 0.00102 0.000942
0.000781 0.000574
   EMISFACT A0000062     HROFDY 0.000402 0.000316 0.000322
0.000495 0.00103 0.00121
   EMISFACT A0000062     HROFDY 0.00137 0.00146 0.00144 0.00142
0.00143 0.00147
   EMISFACT A0000062     HROFDY 0.0015 0.00154 0.00159 0.00162
0.00164 0.00162
   EMISFACT A0000062     HROFDY 0.00144 0.00116 0.00102 0.000942
0.000781 0.000574
   EMISFACT A0000063     HROFDY 0.000402 0.000316 0.000322
0.000495 0.00103 0.00121
   EMISFACT A0000063     HROFDY 0.00137 0.00146 0.00144 0.00142
0.00143 0.00147
   EMISFACT A0000063     HROFDY 0.0015 0.00154 0.00159 0.00162
0.00164 0.00162
   EMISFACT A0000063     HROFDY 0.00144 0.00116 0.00102 0.000942
0.000781 0.000574
   EMISFACT A0000064     HROFDY 0.000402 0.000316 0.000322
0.000495 0.00103 0.00121
   EMISFACT A0000064     HROFDY 0.00137 0.00146 0.00144 0.00142
0.00143 0.00147
   EMISFACT A0000064     HROFDY 0.0015 0.00154 0.00159 0.00162
0.00164 0.00162
   EMISFACT A0000064     HROFDY 0.00144 0.00116 0.00102 0.000942
0.000781 0.000574
   EMISFACT A0000065     HROFDY 0.000402 0.000316 0.000322
0.000495 0.00103 0.00121
   EMISFACT A0000065     HROFDY 0.00137 0.00146 0.00144 0.00142
0.00143 0.00147
   EMISFACT A0000065     HROFDY 0.0015 0.00154 0.00159 0.00162
0.00164 0.00162
   EMISFACT A0000065     HROFDY 0.00144 0.00116 0.00102 0.000942
0.000781 0.000574
```

```
   EMISFACT A0000066     HROFDY 0.000402 0.000316 0.000322
0.000495 0.00103 0.00121
   EMISFACT A0000066     HROFDY 0.00137 0.00146 0.00144 0.00142
0.00143 0.00147
   EMISFACT A0000066     HROFDY 0.0015 0.00154 0.00159 0.00162
0.00164 0.00162
   EMISFACT A0000066     HROFDY 0.00144 0.00116 0.00102 0.000942
0.000781 0.000574

** Variable Emissions Type: "By Hour-of-Day (HROFDY)"
** Variable Emission Scenario: "ARLN07"
   EMISFACT A0000067     HROFDY 0.0109 0.00855 0.00871 0.0134
0.0278 0.0356
   EMISFACT A0000067     HROFDY 0.0401 0.0467 0.0459 0.0453
0.0459 0.047
   EMISFACT A0000067     HROFDY 0.0481 0.0491 0.0509 0.0519
0.0524 0.0476
   EMISFACT A0000067     HROFDY 0.0421 0.0314 0.0298 0.0255
0.0211 0.0155
   EMISFACT A0000068     HROFDY 0.0109 0.00855 0.00871 0.0134
0.0278 0.0356
   EMISFACT A0000068     HROFDY 0.0401 0.0467 0.0459 0.0453
0.0459 0.047
   EMISFACT A0000068     HROFDY 0.0481 0.0491 0.0509 0.0519
0.0524 0.0476
   EMISFACT A0000068     HROFDY 0.0421 0.0314 0.0298 0.0255
0.0211 0.0155
   EMISFACT A0000069     HROFDY 0.0109 0.00855 0.00871 0.0134
0.0278 0.0356
   EMISFACT A0000069     HROFDY 0.0401 0.0467 0.0459 0.0453
0.0459 0.047
   EMISFACT A0000069     HROFDY 0.0481 0.0491 0.0509 0.0519
0.0524 0.0476
   EMISFACT A0000069     HROFDY 0.0421 0.0314 0.0298 0.0255
0.0211 0.0155
   EMISFACT A0000070     HROFDY 0.0109 0.00855 0.00871 0.0134
0.0278 0.0356
   EMISFACT A0000070     HROFDY 0.0401 0.0467 0.0459 0.0453
0.0459 0.047
   EMISFACT A0000070     HROFDY 0.0481 0.0491 0.0509 0.0519
0.0524 0.0476
   EMISFACT A0000070     HROFDY 0.0421 0.0314 0.0298 0.0255
0.0211 0.0155
   EMISFACT A0000071     HROFDY 0.0109 0.00855 0.00871 0.0134
0.0278 0.0356
   EMISFACT A0000071     HROFDY 0.0401 0.0467 0.0459 0.0453
0.0459 0.047
   EMISFACT A0000071     HROFDY 0.0481 0.0491 0.0509 0.0519
0.0524 0.0476
   EMISFACT A0000071     HROFDY 0.0421 0.0314 0.0298 0.0255
0.0211 0.0155
   EMISFACT A0000072     HROFDY 0.0109 0.00855 0.00871 0.0134
```

```
0.0278 0.0356
   EMISFACT A0000072     HROFDY 0.0401 0.0467 0.0459 0.0453
0.0459 0.047
   EMISFACT A0000072     HROFDY 0.0481 0.0491 0.0509 0.0519
0.0524 0.0476
   EMISFACT A0000072     HROFDY 0.0421 0.0314 0.0298 0.0255
0.0211 0.0155
   EMISFACT A0000073     HROFDY 0.0109 0.00855 0.00871 0.0134
0.0278 0.0356
   EMISFACT A0000073     HROFDY 0.0401 0.0467 0.0459 0.0453
0.0459 0.047
   EMISFACT A0000073     HROFDY 0.0481 0.0491 0.0509 0.0519
0.0524 0.0476
   EMISFACT A0000073     HROFDY 0.0421 0.0314 0.0298 0.0255
0.0211 0.0155
   EMISFACT A0000074     HROFDY 0.0109 0.00855 0.00871 0.0134
0.0278 0.0356
   EMISFACT A0000074     HROFDY 0.0401 0.0467 0.0459 0.0453
0.0459 0.047
   EMISFACT A0000074     HROFDY 0.0481 0.0491 0.0509 0.0519
0.0524 0.0476
   EMISFACT A0000074     HROFDY 0.0421 0.0314 0.0298 0.0255
0.0211 0.0155
   EMISFACT A0000075     HROFDY 0.0109 0.00855 0.00871 0.0134
0.0278 0.0356
   EMISFACT A0000075     HROFDY 0.0401 0.0467 0.0459 0.0453
0.0459 0.047
   EMISFACT A0000075     HROFDY 0.0481 0.0491 0.0509 0.0519
0.0524 0.0476
   EMISFACT A0000075     HROFDY 0.0421 0.0314 0.0298 0.0255
0.0211 0.0155
   EMISFACT A0000076     HROFDY 0.0109 0.00855 0.00871 0.0134
0.0278 0.0356
   EMISFACT A0000076     HROFDY 0.0401 0.0467 0.0459 0.0453
0.0459 0.047
   EMISFACT A0000076     HROFDY 0.0481 0.0491 0.0509 0.0519
0.0524 0.0476
   EMISFACT A0000076     HROFDY 0.0421 0.0314 0.0298 0.0255
0.0211 0.0155
   EMISFACT A0000077     HROFDY 0.0109 0.00855 0.00871 0.0134
0.0278 0.0356
   EMISFACT A0000077     HROFDY 0.0401 0.0467 0.0459 0.0453
0.0459 0.047
   EMISFACT A0000077     HROFDY 0.0481 0.0491 0.0509 0.0519
0.0524 0.0476
   EMISFACT A0000077     HROFDY 0.0421 0.0314 0.0298 0.0255
0.0211 0.0155

** Variable Emissions Type: "By Hour-of-Day (HROFDY)"
** Variable Emission Scenario: "ARLN08"
   EMISFACT A0000078     HROFDY 0.013 0.00932 0.00817 0.00951
0.0153 0.0257
```

```
   EMISFACT A0000078     HROFDY 0.039 0.0475 0.0456 0.043 0.0436
0.0456
   EMISFACT A0000078     HROFDY 0.0481 0.0502 0.057 0.0559 0.061
0.0608
   EMISFACT A0000078     HROFDY 0.049 0.0416 0.0377 0.0307 0.0252
0.0187
   EMISFACT A0000079     HROFDY 0.013 0.00932 0.00817 0.00951
0.0153 0.0257
   EMISFACT A0000079     HROFDY 0.039 0.0475 0.0456 0.043 0.0436
0.0456
   EMISFACT A0000079     HROFDY 0.0481 0.0502 0.057 0.0559 0.061
0.0608
   EMISFACT A0000079     HROFDY 0.049 0.0416 0.0377 0.0307 0.0252
0.0187
   EMISFACT A0000080     HROFDY 0.013 0.00932 0.00817 0.00951
0.0153 0.0257
   EMISFACT A0000080     HROFDY 0.039 0.0475 0.0456 0.043 0.0436
0.0456
   EMISFACT A0000080     HROFDY 0.0481 0.0502 0.057 0.0559 0.061
0.0608
   EMISFACT A0000080     HROFDY 0.049 0.0416 0.0377 0.0307 0.0252
0.0187
   EMISFACT A0000081     HROFDY 0.013 0.00932 0.00817 0.00951
0.0153 0.0257
   EMISFACT A0000081     HROFDY 0.039 0.0475 0.0456 0.043 0.0436
0.0456
   EMISFACT A0000081     HROFDY 0.0481 0.0502 0.057 0.0559 0.061
0.0608
   EMISFACT A0000081     HROFDY 0.049 0.0416 0.0377 0.0307 0.0252
0.0187
   EMISFACT A0000082     HROFDY 0.013 0.00932 0.00817 0.00951
0.0153 0.0257
   EMISFACT A0000082     HROFDY 0.039 0.0475 0.0456 0.043 0.0436
0.0456
   EMISFACT A0000082     HROFDY 0.0481 0.0502 0.057 0.0559 0.061
0.0608
   EMISFACT A0000082     HROFDY 0.049 0.0416 0.0377 0.0307 0.0252
0.0187
   EMISFACT A0000083     HROFDY 0.013 0.00932 0.00817 0.00951
0.0153 0.0257
   EMISFACT A0000083     HROFDY 0.039 0.0475 0.0456 0.043 0.0436
0.0456
   EMISFACT A0000083     HROFDY 0.0481 0.0502 0.057 0.0559 0.061
0.0608
   EMISFACT A0000083     HROFDY 0.049 0.0416 0.0377 0.0307 0.0252
0.0187
   EMISFACT A0000084     HROFDY 0.013 0.00932 0.00817 0.00951
0.0153 0.0257
   EMISFACT A0000084     HROFDY 0.039 0.0475 0.0456 0.043 0.0436
0.0456
   EMISFACT A0000084     HROFDY 0.0481 0.0502 0.057 0.0559 0.061
0.0608
```

```
   EMISFACT A0000084     HROFDY 0.049 0.0416 0.0377 0.0307 0.0252
0.0187
   EMISFACT A0000085     HROFDY 0.013 0.00932 0.00817 0.00951
0.0153 0.0257
   EMISFACT A0000085     HROFDY 0.039 0.0475 0.0456 0.043 0.0436
0.0456
   EMISFACT A0000085     HROFDY 0.0481 0.0502 0.057 0.0559 0.061
0.0608
   EMISFACT A0000085     HROFDY 0.049 0.0416 0.0377 0.0307 0.0252
0.0187
   EMISFACT A0000086     HROFDY 0.013 0.00932 0.00817 0.00951
0.0153 0.0257
   EMISFACT A0000086     HROFDY 0.039 0.0475 0.0456 0.043 0.0436
0.0456
   EMISFACT A0000086     HROFDY 0.0481 0.0502 0.057 0.0559 0.061
0.0608
   EMISFACT A0000086     HROFDY 0.049 0.0416 0.0377 0.0307 0.0252
0.0187
   EMISFACT A0000087     HROFDY 0.013 0.00932 0.00817 0.00951
0.0153 0.0257
   EMISFACT A0000087     HROFDY 0.039 0.0475 0.0456 0.043 0.0436
0.0456
   EMISFACT A0000087     HROFDY 0.0481 0.0502 0.057 0.0559 0.061
0.0608
   EMISFACT A0000087     HROFDY 0.049 0.0416 0.0377 0.0307 0.0252
0.0187
   EMISFACT A0000088     HROFDY 0.013 0.00932 0.00817 0.00951
0.0153 0.0257
   EMISFACT A0000088     HROFDY 0.039 0.0475 0.0456 0.043 0.0436
0.0456
   EMISFACT A0000088     HROFDY 0.0481 0.0502 0.057 0.0559 0.061
0.0608
   EMISFACT A0000088     HROFDY 0.049 0.0416 0.0377 0.0307 0.0252
0.0187

** Variable Emissions Type: "By Hour-of-Day (HROFDY)"
** Variable Emission Scenario: "ARLN09"
   EMISFACT A0000089     HROFDY 0.00341 0.00268 0.00273 0.0042
0.00872 0.00114
   EMISFACT A0000089     HROFDY 0.0116 0.0124 0.0122 0.012 0.0122
0.0125
   EMISFACT A0000089     HROFDY 0.0127 0.013 0.0135 0.0138 0.0139
0.0138
   EMISFACT A0000089     HROFDY 0.0122 0.00983 0.00861 0.008
0.00662 0.00487
   EMISFACT A0000090     HROFDY 0.00341 0.00268 0.00273 0.0042
0.00872 0.00114
   EMISFACT A0000090     HROFDY 0.0116 0.0124 0.0122 0.012 0.0122
0.0125
   EMISFACT A0000090     HROFDY 0.0127 0.013 0.0135 0.0138 0.0139
0.0138
   EMISFACT A0000090     HROFDY 0.0122 0.00983 0.00861 0.008
```

```
0.00662 0.00487
   EMISFACT A0000091     HROFDY 0.00341 0.00268 0.00273 0.0042
0.00872 0.00114
   EMISFACT A0000091     HROFDY 0.0116 0.0124 0.0122 0.012 0.0122
0.0125
   EMISFACT A0000091     HROFDY 0.0127 0.013 0.0135 0.0138 0.0139
0.0138
   EMISFACT A0000091     HROFDY 0.0122 0.00983 0.00861 0.008
0.00662 0.00487
   EMISFACT A0000092     HROFDY 0.00341 0.00268 0.00273 0.0042
0.00872 0.00114
   EMISFACT A0000092     HROFDY 0.0116 0.0124 0.0122 0.012 0.0122
0.0125
   EMISFACT A0000092     HROFDY 0.0127 0.013 0.0135 0.0138 0.0139
0.0138
   EMISFACT A0000092     HROFDY 0.0122 0.00983 0.00861 0.008
0.00662 0.00487
   EMISFACT A0000093     HROFDY 0.00341 0.00268 0.00273 0.0042
0.00872 0.00114
   EMISFACT A0000093     HROFDY 0.0116 0.0124 0.0122 0.012 0.0122
0.0125
   EMISFACT A0000093     HROFDY 0.0127 0.013 0.0135 0.0138 0.0139
0.0138
   EMISFACT A0000093     HROFDY 0.0122 0.00983 0.00861 0.008
0.00662 0.00487
   EMISFACT A0000094     HROFDY 0.00341 0.00268 0.00273 0.0042
0.00872 0.00114
   EMISFACT A0000094     HROFDY 0.0116 0.0124 0.0122 0.012 0.0122
0.0125
   EMISFACT A0000094     HROFDY 0.0127 0.013 0.0135 0.0138 0.0139
0.0138
   EMISFACT A0000094     HROFDY 0.0122 0.00983 0.00861 0.008
0.00662 0.00487
   EMISFACT A0000095     HROFDY 0.00341 0.00268 0.00273 0.0042
0.00872 0.00114
   EMISFACT A0000095     HROFDY 0.0116 0.0124 0.0122 0.012 0.0122
0.0125
   EMISFACT A0000095     HROFDY 0.0127 0.013 0.0135 0.0138 0.0139
0.0138
   EMISFACT A0000095     HROFDY 0.0122 0.00983 0.00861 0.008
0.00662 0.00487
   EMISFACT A0000096     HROFDY 0.00341 0.00268 0.00273 0.0042
0.00872 0.00114
   EMISFACT A0000096     HROFDY 0.0116 0.0124 0.0122 0.012 0.0122
0.0125
   EMISFACT A0000096     HROFDY 0.0127 0.013 0.0135 0.0138 0.0139
0.0138
   EMISFACT A0000096     HROFDY 0.0122 0.00983 0.00861 0.008
0.00662 0.00487
   EMISFACT A0000097     HROFDY 0.00341 0.00268 0.00273 0.0042
0.00872 0.00114
   EMISFACT A0000097     HROFDY 0.0116 0.0124 0.0122 0.012 0.0122
```

```
0.0125
   EMISFACT A0000097     HROFDY 0.0127 0.013 0.0135 0.0138 0.0139
0.0138
   EMISFACT A0000097     HROFDY 0.0122 0.00983 0.00861 0.008
0.00662 0.00487
   EMISFACT A0000098     HROFDY 0.00341 0.00268 0.00273 0.0042
0.00872 0.00114
   EMISFACT A0000098     HROFDY 0.0116 0.0124 0.0122 0.012 0.0122
0.0125
   EMISFACT A0000098     HROFDY 0.0127 0.013 0.0135 0.0138 0.0139
0.0138
   EMISFACT A0000098     HROFDY 0.0122 0.00983 0.00861 0.008
0.00662 0.00487
   EMISFACT A0000099     HROFDY 0.00341 0.00268 0.00273 0.0042
0.00872 0.00114
   EMISFACT A0000099     HROFDY 0.0116 0.0124 0.0122 0.012 0.0122
0.0125
   EMISFACT A0000099     HROFDY 0.0127 0.013 0.0135 0.0138 0.0139
0.0138
   EMISFACT A0000099     HROFDY 0.0122 0.00983 0.00861 0.008
0.00662 0.00487
   EMISFACT A0000100     HROFDY 0.00341 0.00268 0.00273 0.0042
0.00872 0.00114
   EMISFACT A0000100     HROFDY 0.0116 0.0124 0.0122 0.012 0.0122
0.0125
   EMISFACT A0000100     HROFDY 0.0127 0.013 0.0135 0.0138 0.0139
0.0138
   EMISFACT A0000100     HROFDY 0.0122 0.00983 0.00861 0.008
0.00662 0.00487
   EMISFACT A0000101     HROFDY 0.00341 0.00268 0.00273 0.0042
0.00872 0.00114
   EMISFACT A0000101     HROFDY 0.0116 0.0124 0.0122 0.012 0.0122
0.0125
   EMISFACT A0000101     HROFDY 0.0127 0.013 0.0135 0.0138 0.0139
0.0138
   EMISFACT A0000101     HROFDY 0.0122 0.00983 0.00861 0.008
0.00662 0.00487
   EMISFACT A0000102     HROFDY 0.00341 0.00268 0.00273 0.0042
0.00872 0.00114
   EMISFACT A0000102     HROFDY 0.0116 0.0124 0.0122 0.012 0.0122
0.0125
   EMISFACT A0000102     HROFDY 0.0127 0.013 0.0135 0.0138 0.0139
0.0138
   EMISFACT A0000102     HROFDY 0.0122 0.00983 0.00861 0.008
0.00662 0.00487

** Variable Emissions Type: "By Hour-of-Day (HROFDY)"
** Variable Emission Scenario: "ARLN10"
   EMISFACT A0000103     HROFDY 0.000395 0.000284 0.000249
0.00029 0.000466 0.000782
   EMISFACT A0000103     HROFDY 0.0011 0.00122 0.00118 0.00111
0.00112 0.00118
```

```
   EMISFACT A0000103     HROFDY 0.00124 0.00129 0.00134 0.00131
0.00129 0.00128
   EMISFACT A0000103     HROFDY 0.00126 0.00117 0.00106 0.000937
0.000767 0.000571
   EMISFACT A0000104     HROFDY 0.000395 0.000284 0.000249
0.00029 0.000466 0.000782
   EMISFACT A0000104     HROFDY 0.0011 0.00122 0.00118 0.00111
0.00112 0.00118
   EMISFACT A0000104     HROFDY 0.00124 0.00129 0.00134 0.00131
0.00129 0.00128
   EMISFACT A0000104     HROFDY 0.00126 0.00117 0.00106 0.000937
0.000767 0.000571
   EMISFACT A0000105     HROFDY 0.000395 0.000284 0.000249
0.00029 0.000466 0.000782
   EMISFACT A0000105     HROFDY 0.0011 0.00122 0.00118 0.00111
0.00112 0.00118
   EMISFACT A0000105     HROFDY 0.00124 0.00129 0.00134 0.00131
0.00129 0.00128
   EMISFACT A0000105     HROFDY 0.00126 0.00117 0.00106 0.000937
0.000767 0.000571
   EMISFACT A0000106     HROFDY 0.000395 0.000284 0.000249
0.00029 0.000466 0.000782
   EMISFACT A0000106     HROFDY 0.0011 0.00122 0.00118 0.00111
0.00112 0.00118
   EMISFACT A0000106     HROFDY 0.00124 0.00129 0.00134 0.00131
0.00129 0.00128
   EMISFACT A0000106     HROFDY 0.00126 0.00117 0.00106 0.000937
0.000767 0.000571
   EMISFACT A0000107     HROFDY 0.000395 0.000284 0.000249
0.00029 0.000466 0.000782
   EMISFACT A0000107     HROFDY 0.0011 0.00122 0.00118 0.00111
0.00112 0.00118
   EMISFACT A0000107     HROFDY 0.00124 0.00129 0.00134 0.00131
0.00129 0.00128
   EMISFACT A0000107     HROFDY 0.00126 0.00117 0.00106 0.000937
0.000767 0.000571
   EMISFACT A0000108     HROFDY 0.000395 0.000284 0.000249
0.00029 0.000466 0.000782
   EMISFACT A0000108     HROFDY 0.0011 0.00122 0.00118 0.00111
0.00112 0.00118
   EMISFACT A0000108     HROFDY 0.00124 0.00129 0.00134 0.00131
0.00129 0.00128
   EMISFACT A0000108     HROFDY 0.00126 0.00117 0.00106 0.000937
0.000767 0.000571
   EMISFACT A0000109     HROFDY 0.000395 0.000284 0.000249
0.00029 0.000466 0.000782
   EMISFACT A0000109     HROFDY 0.0011 0.00122 0.00118 0.00111
0.00112 0.00118
   EMISFACT A0000109     HROFDY 0.00124 0.00129 0.00134 0.00131
0.00129 0.00128
   EMISFACT A0000109     HROFDY 0.00126 0.00117 0.00106 0.000937
0.000767 0.000571
```

```
   EMISFACT A0000110     HROFDY 0.000395 0.000284 0.000249
0.00029 0.000466 0.000782
   EMISFACT A0000110     HROFDY 0.0011 0.00122 0.00118 0.00111
0.00112 0.00118
   EMISFACT A0000110     HROFDY 0.00124 0.00129 0.00134 0.00131
0.00129 0.00128
   EMISFACT A0000110     HROFDY 0.00126 0.00117 0.00106 0.000937
0.000767 0.000571

** Variable Emissions Type: "By Hour-of-Day (HROFDY)"
** Variable Emission Scenario: "ARLN11"
   EMISFACT A0000111     HROFDY 0.00545 0.00392 0.00343 0.004
0.00644 0.0012
   EMISFACT A0000111     HROFDY 0.0151 0.0169 0.0162 0.0153
0.0155 0.0162
   EMISFACT A0000111     HROFDY 0.0171 0.0178 0.0184 0.0181
0.0177 0.0177
   EMISFACT A0000111     HROFDY 0.0174 0.0161 0.0146 0.0129
0.0106 0.00788
   EMISFACT A0000112     HROFDY 0.00545 0.00392 0.00343 0.004
0.00644 0.0012
   EMISFACT A0000112     HROFDY 0.0151 0.0169 0.0162 0.0153
0.0155 0.0162
   EMISFACT A0000112     HROFDY 0.0171 0.0178 0.0184 0.0181
0.0177 0.0177
   EMISFACT A0000112     HROFDY 0.0174 0.0161 0.0146 0.0129
0.0106 0.00788
   EMISFACT A0000113     HROFDY 0.00545 0.00392 0.00343 0.004
0.00644 0.0012
   EMISFACT A0000113     HROFDY 0.0151 0.0169 0.0162 0.0153
0.0155 0.0162
   EMISFACT A0000113     HROFDY 0.0171 0.0178 0.0184 0.0181
0.0177 0.0177
   EMISFACT A0000113     HROFDY 0.0174 0.0161 0.0146 0.0129
0.0106 0.00788
   EMISFACT A0000114     HROFDY 0.00545 0.00392 0.00343 0.004
0.00644 0.0012
   EMISFACT A0000114     HROFDY 0.0151 0.0169 0.0162 0.0153
0.0155 0.0162
   EMISFACT A0000114     HROFDY 0.0171 0.0178 0.0184 0.0181
0.0177 0.0177
   EMISFACT A0000114     HROFDY 0.0174 0.0161 0.0146 0.0129
0.0106 0.00788
   EMISFACT A0000115     HROFDY 0.00545 0.00392 0.00343 0.004
0.00644 0.0012
   EMISFACT A0000115     HROFDY 0.0151 0.0169 0.0162 0.0153
0.0155 0.0162
   EMISFACT A0000115     HROFDY 0.0171 0.0178 0.0184 0.0181
0.0177 0.0177
   EMISFACT A0000115     HROFDY 0.0174 0.0161 0.0146 0.0129
0.0106 0.00788
   EMISFACT A0000116     HROFDY 0.00545 0.00392 0.00343 0.004
```

```
0.00644 0.0012
   EMISFACT A0000116     HROFDY 0.0151 0.0169 0.0162 0.0153
0.0155 0.0162
   EMISFACT A0000116     HROFDY 0.0171 0.0178 0.0184 0.0181
0.0177 0.0177
   EMISFACT A0000116     HROFDY 0.0174 0.0161 0.0146 0.0129
0.0106 0.00788
   EMISFACT A0000117     HROFDY 0.00545 0.00392 0.00343 0.004
0.00644 0.0012
   EMISFACT A0000117     HROFDY 0.0151 0.0169 0.0162 0.0153
0.0155 0.0162
   EMISFACT A0000117     HROFDY 0.0171 0.0178 0.0184 0.0181
0.0177 0.0177
   EMISFACT A0000117     HROFDY 0.0174 0.0161 0.0146 0.0129
0.0106 0.00788
   EMISFACT A0000118     HROFDY 0.00545 0.00392 0.00343 0.004
0.00644 0.0012
   EMISFACT A0000118     HROFDY 0.0151 0.0169 0.0162 0.0153
0.0155 0.0162
   EMISFACT A0000118     HROFDY 0.0171 0.0178 0.0184 0.0181
0.0177 0.0177
   EMISFACT A0000118     HROFDY 0.0174 0.0161 0.0146 0.0129
0.0106 0.00788
   EMISFACT A0000119     HROFDY 0.00545 0.00392 0.00343 0.004
0.00644 0.0012
   EMISFACT A0000119     HROFDY 0.0151 0.0169 0.0162 0.0153
0.0155 0.0162
   EMISFACT A0000119     HROFDY 0.0171 0.0178 0.0184 0.0181
0.0177 0.0177
   EMISFACT A0000119     HROFDY 0.0174 0.0161 0.0146 0.0129
0.0106 0.00788
   EMISFACT A0000120     HROFDY 0.00545 0.00392 0.00343 0.004
0.00644 0.0012
   EMISFACT A0000120     HROFDY 0.0151 0.0169 0.0162 0.0153
0.0155 0.0162
   EMISFACT A0000120     HROFDY 0.0171 0.0178 0.0184 0.0181
0.0177 0.0177
   EMISFACT A0000120     HROFDY 0.0174 0.0161 0.0146 0.0129
0.0106 0.00788
   EMISFACT A0000121     HROFDY 0.00545 0.00392 0.00343 0.004
0.00644 0.0012
   EMISFACT A0000121     HROFDY 0.0151 0.0169 0.0162 0.0153
0.0155 0.0162
   EMISFACT A0000121     HROFDY 0.0171 0.0178 0.0184 0.0181
0.0177 0.0177
   EMISFACT A0000121     HROFDY 0.0174 0.0161 0.0146 0.0129
0.0106 0.00788
   EMISFACT A0000122     HROFDY 0.00545 0.00392 0.00343 0.004
0.00644 0.0012
   EMISFACT A0000122     HROFDY 0.0151 0.0169 0.0162 0.0153
0.0155 0.0162
   EMISFACT A0000122     HROFDY 0.0171 0.0178 0.0184 0.0181
```

```
0.0177 0.0177
   EMISFACT A0000122     HROFDY 0.0174 0.0161 0.0146 0.0129
0.0106 0.00788
   EMISFACT A0000123     HROFDY 0.00545 0.00392 0.00343 0.004
0.00644 0.0012
   EMISFACT A0000123     HROFDY 0.0151 0.0169 0.0162 0.0153
0.0155 0.0162
   EMISFACT A0000123     HROFDY 0.0171 0.0178 0.0184 0.0181
0.0177 0.0177
   EMISFACT A0000123     HROFDY 0.0174 0.0161 0.0146 0.0129
0.0106 0.00788
   EMISFACT A0000124     HROFDY 0.00545 0.00392 0.00343 0.004
0.00644 0.0012
   EMISFACT A0000124     HROFDY 0.0151 0.0169 0.0162 0.0153
0.0155 0.0162
   EMISFACT A0000124     HROFDY 0.0171 0.0178 0.0184 0.0181
0.0177 0.0177
   EMISFACT A0000124     HROFDY 0.0174 0.0161 0.0146 0.0129
0.0106 0.00788
   EMISFACT A0000125     HROFDY 0.00545 0.00392 0.00343 0.004
0.00644 0.0012
   EMISFACT A0000125     HROFDY 0.0151 0.0169 0.0162 0.0153
0.0155 0.0162
   EMISFACT A0000125     HROFDY 0.0171 0.0178 0.0184 0.0181
0.0177 0.0177
   EMISFACT A0000125     HROFDY 0.0174 0.0161 0.0146 0.0129
0.0106 0.00788
   EMISFACT A0000126     HROFDY 0.00545 0.00392 0.00343 0.004
0.00644 0.0012
   EMISFACT A0000126     HROFDY 0.0151 0.0169 0.0162 0.0153
0.0155 0.0162
   EMISFACT A0000126     HROFDY 0.0171 0.0178 0.0184 0.0181
0.0177 0.0177
   EMISFACT A0000126     HROFDY 0.0174 0.0161 0.0146 0.0129
0.0106 0.00788

** Variable Emissions Type: "By Hour-of-Day (HROFDY)"
** Variable Emission Scenario: "ARLN12"
   EMISFACT A0000127     HROFDY 0.000482 0.000379 0.000386
0.000594 0.00123 0.00146
   EMISFACT A0000127     HROFDY 0.00164 0.00175 0.00172 0.0017
0.00172 0.00176
   EMISFACT A0000127     HROFDY 0.0018 0.00184 0.00191 0.00194
0.00196 0.00195
   EMISFACT A0000127     HROFDY 0.00172 0.00139 0.00122 0.00113
0.000937 0.000689
   EMISFACT A0000128     HROFDY 0.000482 0.000379 0.000386
0.000594 0.00123 0.00146
   EMISFACT A0000128     HROFDY 0.00164 0.00175 0.00172 0.0017
0.00172 0.00176
   EMISFACT A0000128     HROFDY 0.0018 0.00184 0.00191 0.00194
0.00196 0.00195
```

```
   EMISFACT A0000128     HROFDY 0.00172 0.00139 0.00122 0.00113
0.000937 0.000689
   EMISFACT A0000129     HROFDY 0.000482 0.000379 0.000386
0.000594 0.00123 0.00146
   EMISFACT A0000129     HROFDY 0.00164 0.00175 0.00172 0.0017
0.00172 0.00176
   EMISFACT A0000129     HROFDY 0.0018 0.00184 0.00191 0.00194
0.00196 0.00195
   EMISFACT A0000129     HROFDY 0.00172 0.00139 0.00122 0.00113
0.000937 0.000689
   EMISFACT A0000130     HROFDY 0.000482 0.000379 0.000386
0.000594 0.00123 0.00146
   EMISFACT A0000130     HROFDY 0.00164 0.00175 0.00172 0.0017
0.00172 0.00176
   EMISFACT A0000130     HROFDY 0.0018 0.00184 0.00191 0.00194
0.00196 0.00195
   EMISFACT A0000130     HROFDY 0.00172 0.00139 0.00122 0.00113
0.000937 0.000689
   EMISFACT A0000131     HROFDY 0.000482 0.000379 0.000386
0.000594 0.00123 0.00146
   EMISFACT A0000131     HROFDY 0.00164 0.00175 0.00172 0.0017
0.00172 0.00176
   EMISFACT A0000131     HROFDY 0.0018 0.00184 0.00191 0.00194
0.00196 0.00195
   EMISFACT A0000131     HROFDY 0.00172 0.00139 0.00122 0.00113
0.000937 0.000689
   EMISFACT A0000132     HROFDY 0.000482 0.000379 0.000386
0.000594 0.00123 0.00146
   EMISFACT A0000132     HROFDY 0.00164 0.00175 0.00172 0.0017
0.00172 0.00176
   EMISFACT A0000132     HROFDY 0.0018 0.00184 0.00191 0.00194
0.00196 0.00195
   EMISFACT A0000132     HROFDY 0.00172 0.00139 0.00122 0.00113
0.000937 0.000689
   SRCGROUP Exh      A0000012 A0000013 A0000014 A0000015 A0000016
A0000017
   SRCGROUP Exh      A0000018 A0000019 A0000020 A0000021 A0000022
A0000001
   SRCGROUP Exh      A0000002 A0000003 A0000004 A0000005 A0000006
A0000007
   SRCGROUP Exh      A0000008 A0000009 A0000010 A0000011 A0000023
A0000024
   SRCGROUP Exh      A0000025 A0000026 A0000027 A0000028 A0000029
A0000030
   SRCGROUP Exh      A0000031 A0000032 A0000033 A0000034 A0000035
A0000036
   SRCGROUP Exh      A0000037 A0000038 A0000039 A0000040 A0000041
A0000042
   SRCGROUP Exh      A0000043 A0000044 A0000045 A0000046 A0000047
A0000048
   SRCGROUP Exh      A0000049 A0000050 A0000051 A0000052 A0000053
A0000054
```

```
   SRCGROUP Exh      A0000055 A0000056 A0000057 A0000058 A0000059
A0000060
   SRCGROUP Exh      A0000061 A0000062 A0000063 A0000064 A0000065
A0000066
   SRCGROUP Evap     A0000067 A0000068 A0000069 A0000070 A0000071
A0000072
   SRCGROUP Evap     A0000073 A0000074 A0000075 A0000076 A0000077
A0000078
   SRCGROUP Evap     A0000079 A0000080 A0000081 A0000082 A0000083
A0000084
   SRCGROUP Evap     A0000085 A0000086 A0000087 A0000088 A0000089
A0000090
   SRCGROUP Evap     A0000091 A0000092 A0000093 A0000094 A0000095
A0000096
   SRCGROUP Evap     A0000097 A0000098 A0000099 A0000100 A0000101
A0000102
   SRCGROUP Evap     A0000103 A0000104 A0000105 A0000106 A0000107
A0000108
   SRCGROUP Evap     A0000109 A0000110 A0000111 A0000112 A0000113
A0000114
   SRCGROUP Evap     A0000115 A0000116 A0000117 A0000118 A0000119
A0000120
   SRCGROUP Evap     A0000121 A0000122 A0000123 A0000124 A0000125
A0000126
   SRCGROUP Evap     A0000127 A0000128 A0000129 A0000130 A0000131
A0000132
   SRCGROUP FreeExh  A0000012 A0000013 A0000014 A0000015 A0000016
A0000017
   SRCGROUP FreeExh  A0000018 A0000019 A0000020 A0000021 A0000022
A0000001
   SRCGROUP FreeExh  A0000002 A0000003 A0000004 A0000005 A0000006
A0000007
   SRCGROUP FreeExh  A0000008 A0000009 A0000010 A0000011
   SRCGROUP OnOffExh A0000023 A0000024 A0000025 A0000026 A0000027
A0000028
   SRCGROUP OnOffExh A0000029 A0000030 A0000031 A0000032 A0000033
A0000034
   SRCGROUP OnOffExh A0000035 A0000036 A0000037 A0000038 A0000039
A0000040
   SRCGROUP OnOffExh A0000041 A0000042 A0000043 A0000044 A0000045
A0000046
   SRCGROUP OnOffExh A0000047 A0000048 A0000049 A0000050 A0000051
A0000052
   SRCGROUP OnOffExh A0000053 A0000054 A0000055 A0000056 A0000057
A0000058
   SRCGROUP OnOffExh A0000059 A0000060 A0000061 A0000062 A0000063
A0000064
   SRCGROUP OnOffExh A0000065 A0000066
   SRCGROUP FreeEvap A0000067 A0000068 A0000069 A0000070 A0000071
A0000072
   SRCGROUP FreeEvap A0000073 A0000074 A0000075 A0000076 A0000077
A0000078
```

```
   SRCGROUP FreeEvap A0000079 A0000080 A0000081 A0000082 A0000083
A0000084
   SRCGROUP FreeEvap A0000085 A0000086 A0000087 A0000088
   SRCGROUP OnOffEva A0000089 A0000090 A0000091 A0000092 A0000093
A0000094
   SRCGROUP OnOffEva A0000095 A0000096 A0000097 A0000098 A0000099
A0000100
   SRCGROUP OnOffEva A0000101 A0000102 A0000103 A0000104 A0000105
A0000106
   SRCGROUP OnOffEva A0000107 A0000108 A0000109 A0000110 A0000111
A0000112
   SRCGROUP OnOffEva A0000113 A0000114 A0000115 A0000116 A0000117
A0000118
   SRCGROUP OnOffEva A0000119 A0000120 A0000121 A0000122 A0000123
A0000124
   SRCGROUP OnOffEva A0000125 A0000126 A0000127 A0000128 A0000129
A0000130
   SRCGROUP OnOffEva A0000131 A0000132
   SRCGROUP ALL
SO FINISHED
**
**********************************
** AERMOD Receptor Pathway
**********************************
**
**
RE STARTING
** DESCRREC "UCART01" "Receptors generated from Uniform Cartesian
Grid"
   DISCCART    439674.00   3765310.00
   DISCCART    439679.00   3765310.00
   DISCCART    439684.00   3765310.00
   DISCCART    439689.00   3765310.00
   DISCCART    439694.00   3765310.00
   DISCCART    439699.00   3765310.00
   DISCCART    439704.00   3765310.00
   DISCCART    439709.00   3765310.00
   DISCCART    439714.00   3765310.00
   DISCCART    439719.00   3765310.00
   DISCCART    439729.00   3765310.00
   DISCCART    439734.00   3765310.00
   DISCCART    439739.00   3765310.00
   DISCCART    439744.00   3765310.00
   DISCCART    439749.00   3765310.00
   DISCCART    439764.00   3765310.00
   DISCCART    439769.00   3765310.00
   DISCCART    439774.00   3765310.00
   DISCCART    439779.00   3765310.00
   DISCCART    439784.00   3765310.00
   DISCCART    439789.00   3765310.00
   DISCCART    439794.00   3765310.00
   DISCCART    439799.00   3765310.00
```

DISCCART	439804.00	3765310.00
DISCCART	439809.00	3765310.00
DISCCART	439814.00	3765310.00
DISCCART	439819.00	3765310.00
DISCCART	439824.00	3765310.00
DISCCART	439829.00	3765310.00
DISCCART	439839.00	3765310.00
DISCCART	439844.00	3765310.00
DISCCART	439849.00	3765310.00
DISCCART	439854.00	3765310.00
DISCCART	439859.00	3765310.00
DISCCART	439864.00	3765310.00
DISCCART	439869.00	3765310.00
DISCCART	439874.00	3765310.00
DISCCART	439879.00	3765310.00
DISCCART	439884.00	3765310.00
DISCCART	439674.00	3765315.00
DISCCART	439679.00	3765315.00
DISCCART	439684.00	3765315.00
DISCCART	439689.00	3765315.00
DISCCART	439694.00	3765315.00
DISCCART	439699.00	3765315.00
DISCCART	439704.00	3765315.00
DISCCART	439709.00	3765315.00
DISCCART	439714.00	3765315.00
DISCCART	439719.00	3765315.00
DISCCART	439729.00	3765315.00
DISCCART	439734.00	3765315.00
DISCCART	439739.00	3765315.00
DISCCART	439744.00	3765315.00
DISCCART	439749.00	3765315.00
DISCCART	439764.00	3765315.00
DISCCART	439769.00	3765315.00
DISCCART	439774.00	3765315.00
DISCCART	439779.00	3765315.00
DISCCART	439784.00	3765315.00
DISCCART	439789.00	3765315.00
DISCCART	439794.00	3765315.00
DISCCART	439799.00	3765315.00
DISCCART	439804.00	3765315.00
DISCCART	439809.00	3765315.00
DISCCART	439814.00	3765315.00
DISCCART	439819.00	3765315.00
DISCCART	439824.00	3765315.00
DISCCART	439829.00	3765315.00
DISCCART	439839.00	3765315.00
DISCCART	439844.00	3765315.00
DISCCART	439849.00	3765315.00
DISCCART	439854.00	3765315.00
DISCCART	439859.00	3765315.00
DISCCART	439864.00	3765315.00
DISCCART	439869.00	3765315.00

DISCCART 439874.00 3765315.00
DISCCART 439879.00 3765315.00
DISCCART 439884.00 3765315.00
DISCCART 439674.00 3765320.00
DISCCART 439679.00 3765320.00
DISCCART 439684.00 3765320.00
DISCCART 439689.00 3765320.00
DISCCART 439694.00 3765320.00
DISCCART 439699.00 3765320.00
DISCCART 439704.00 3765320.00
DISCCART 439709.00 3765320.00
DISCCART 439714.00 3765320.00
DISCCART 439719.00 3765320.00
DISCCART 439729.00 3765320.00
DISCCART 439734.00 3765320.00
DISCCART 439739.00 3765320.00
DISCCART 439744.00 3765320.00
DISCCART 439749.00 3765320.00
DISCCART 439764.00 3765320.00
DISCCART 439769.00 3765320.00
DISCCART 439774.00 3765320.00
DISCCART 439779.00 3765320.00
DISCCART 439784.00 3765320.00
DISCCART 439789.00 3765320.00
DISCCART 439794.00 3765320.00
DISCCART 439799.00 3765320.00
DISCCART 439804.00 3765320.00
DISCCART 439809.00 3765320.00
DISCCART 439814.00 3765320.00
DISCCART 439819.00 3765320.00
DISCCART 439824.00 3765320.00
DISCCART 439829.00 3765320.00
DISCCART 439839.00 3765320.00
DISCCART 439844.00 3765320.00
DISCCART 439849.00 3765320.00
DISCCART 439854.00 3765320.00
DISCCART 439859.00 3765320.00
DISCCART 439864.00 3765320.00
DISCCART 439869.00 3765320.00
DISCCART 439874.00 3765320.00
DISCCART 439879.00 3765320.00
DISCCART 439884.00 3765320.00
DISCCART 439674.00 3765325.00
DISCCART 439679.00 3765325.00
DISCCART 439684.00 3765325.00
DISCCART 439689.00 3765325.00
DISCCART 439694.00 3765325.00
DISCCART 439699.00 3765325.00
DISCCART 439704.00 3765325.00
DISCCART 439709.00 3765325.00
DISCCART 439714.00 3765325.00
DISCCART 439719.00 3765325.00

DISCCART	439729.00	3765325.00
DISCCART	439734.00	3765325.00
DISCCART	439739.00	3765325.00
DISCCART	439744.00	3765325.00
DISCCART	439749.00	3765325.00
DISCCART	439754.00	3765325.00
DISCCART	439769.00	3765325.00
DISCCART	439774.00	3765325.00
DISCCART	439779.00	3765325.00
DISCCART	439784.00	3765325.00
DISCCART	439789.00	3765325.00
DISCCART	439794.00	3765325.00
DISCCART	439799.00	3765325.00
DISCCART	439804.00	3765325.00
DISCCART	439809.00	3765325.00
DISCCART	439814.00	3765325.00
DISCCART	439819.00	3765325.00
DISCCART	439824.00	3765325.00
DISCCART	439829.00	3765325.00
DISCCART	439839.00	3765325.00
DISCCART	439844.00	3765325.00
DISCCART	439849.00	3765325.00
DISCCART	439854.00	3765325.00
DISCCART	439859.00	3765325.00
DISCCART	439864.00	3765325.00
DISCCART	439869.00	3765325.00
DISCCART	439874.00	3765325.00
DISCCART	439879.00	3765325.00
DISCCART	439884.00	3765325.00
DISCCART	439674.00	3765330.00
DISCCART	439679.00	3765330.00
DISCCART	439684.00	3765330.00
DISCCART	439689.00	3765330.00
DISCCART	439694.00	3765330.00
DISCCART	439699.00	3765330.00
DISCCART	439704.00	3765330.00
DISCCART	439709.00	3765330.00
DISCCART	439714.00	3765330.00
DISCCART	439719.00	3765330.00
DISCCART	439729.00	3765330.00
DISCCART	439734.00	3765330.00
DISCCART	439739.00	3765330.00
DISCCART	439744.00	3765330.00
DISCCART	439749.00	3765330.00
DISCCART	439754.00	3765330.00
DISCCART	439774.00	3765330.00
DISCCART	439779.00	3765330.00
DISCCART	439784.00	3765330.00
DISCCART	439789.00	3765330.00
DISCCART	439794.00	3765330.00
DISCCART	439799.00	3765330.00
DISCCART	439804.00	3765330.00

DISCCART	439809.00	3765330.00
DISCCART	439814.00	3765330.00
DISCCART	439819.00	3765330.00
DISCCART	439824.00	3765330.00
DISCCART	439829.00	3765330.00
DISCCART	439839.00	3765330.00
DISCCART	439844.00	3765330.00
DISCCART	439849.00	3765330.00
DISCCART	439854.00	3765330.00
DISCCART	439859.00	3765330.00
DISCCART	439864.00	3765330.00
DISCCART	439869.00	3765330.00
DISCCART	439874.00	3765330.00
DISCCART	439879.00	3765330.00
DISCCART	439884.00	3765330.00
DISCCART	439674.00	3765335.00
DISCCART	439679.00	3765335.00
DISCCART	439684.00	3765335.00
DISCCART	439689.00	3765335.00
DISCCART	439694.00	3765335.00
DISCCART	439699.00	3765335.00
DISCCART	439704.00	3765335.00
DISCCART	439709.00	3765335.00
DISCCART	439714.00	3765335.00
DISCCART	439719.00	3765335.00
DISCCART	439729.00	3765335.00
DISCCART	439734.00	3765335.00
DISCCART	439739.00	3765335.00
DISCCART	439744.00	3765335.00
DISCCART	439749.00	3765335.00
DISCCART	439774.00	3765335.00
DISCCART	439779.00	3765335.00
DISCCART	439784.00	3765335.00
DISCCART	439789.00	3765335.00
DISCCART	439794.00	3765335.00
DISCCART	439839.00	3765335.00
DISCCART	439844.00	3765335.00
DISCCART	439849.00	3765335.00
DISCCART	439854.00	3765335.00
DISCCART	439859.00	3765335.00
DISCCART	439864.00	3765335.00
DISCCART	439869.00	3765335.00
DISCCART	439874.00	3765335.00
DISCCART	439879.00	3765335.00
DISCCART	439884.00	3765335.00
DISCCART	439674.00	3765340.00
DISCCART	439679.00	3765340.00
DISCCART	439684.00	3765340.00
DISCCART	439689.00	3765340.00
DISCCART	439694.00	3765340.00
DISCCART	439699.00	3765340.00
DISCCART	439704.00	3765340.00

DISCCART	439709.00	3765340.00
DISCCART	439714.00	3765340.00
DISCCART	439719.00	3765340.00
DISCCART	439729.00	3765340.00
DISCCART	439734.00	3765340.00
DISCCART	439739.00	3765340.00
DISCCART	439744.00	3765340.00
DISCCART	439749.00	3765340.00
DISCCART	439774.00	3765340.00
DISCCART	439779.00	3765340.00
DISCCART	439784.00	3765340.00
DISCCART	439789.00	3765340.00
DISCCART	439794.00	3765340.00
DISCCART	439839.00	3765340.00
DISCCART	439844.00	3765340.00
DISCCART	439849.00	3765340.00
DISCCART	439854.00	3765340.00
DISCCART	439859.00	3765340.00
DISCCART	439864.00	3765340.00
DISCCART	439869.00	3765340.00
DISCCART	439874.00	3765340.00
DISCCART	439879.00	3765340.00
DISCCART	439884.00	3765340.00
DISCCART	439674.00	3765345.00
DISCCART	439679.00	3765345.00
DISCCART	439684.00	3765345.00
DISCCART	439689.00	3765345.00
DISCCART	439694.00	3765345.00
DISCCART	439699.00	3765345.00
DISCCART	439704.00	3765345.00
DISCCART	439709.00	3765345.00
DISCCART	439714.00	3765345.00
DISCCART	439719.00	3765345.00
DISCCART	439729.00	3765345.00
DISCCART	439734.00	3765345.00
DISCCART	439739.00	3765345.00
DISCCART	439744.00	3765345.00
DISCCART	439749.00	3765345.00
DISCCART	439774.00	3765345.00
DISCCART	439779.00	3765345.00
DISCCART	439784.00	3765345.00
DISCCART	439789.00	3765345.00
DISCCART	439794.00	3765345.00
DISCCART	439839.00	3765345.00
DISCCART	439844.00	3765345.00
DISCCART	439849.00	3765345.00
DISCCART	439854.00	3765345.00
DISCCART	439859.00	3765345.00
DISCCART	439864.00	3765345.00
DISCCART	439869.00	3765345.00
DISCCART	439874.00	3765345.00
DISCCART	439879.00	3765345.00

```
DISCCART    439884.00   3765345.00
DISCCART    439674.00   3765350.00
DISCCART    439679.00   3765350.00
DISCCART    439684.00   3765350.00
DISCCART    439689.00   3765350.00
DISCCART    439694.00   3765350.00
DISCCART    439699.00   3765350.00
DISCCART    439704.00   3765350.00
DISCCART    439709.00   3765350.00
DISCCART    439714.00   3765350.00
DISCCART    439719.00   3765350.00
DISCCART    439729.00   3765350.00
DISCCART    439734.00   3765350.00
DISCCART    439739.00   3765350.00
DISCCART    439744.00   3765350.00
DISCCART    439749.00   3765350.00
DISCCART    439774.00   3765350.00
DISCCART    439779.00   3765350.00
DISCCART    439784.00   3765350.00
DISCCART    439789.00   3765350.00
DISCCART    439794.00   3765350.00
DISCCART    439839.00   3765350.00
DISCCART    439844.00   3765350.00
DISCCART    439849.00   3765350.00
DISCCART    439854.00   3765350.00
DISCCART    439859.00   3765350.00
DISCCART    439864.00   3765350.00
DISCCART    439869.00   3765350.00
DISCCART    439874.00   3765350.00
DISCCART    439879.00   3765350.00
DISCCART    439884.00   3765350.00
DISCCART    439674.00   3765355.00
DISCCART    439679.00   3765355.00
DISCCART    439684.00   3765355.00
DISCCART    439689.00   3765355.00
DISCCART    439694.00   3765355.00
DISCCART    439699.00   3765355.00
DISCCART    439704.00   3765355.00
DISCCART    439709.00   3765355.00
DISCCART    439714.00   3765355.00
DISCCART    439719.00   3765355.00
DISCCART    439729.00   3765355.00
DISCCART    439734.00   3765355.00
DISCCART    439739.00   3765355.00
DISCCART    439744.00   3765355.00
DISCCART    439749.00   3765355.00
DISCCART    439774.00   3765355.00
DISCCART    439779.00   3765355.00
DISCCART    439784.00   3765355.00
DISCCART    439789.00   3765355.00
DISCCART    439794.00   3765355.00
DISCCART    439839.00   3765355.00
```

```
DISCCART    439844.00   3765355.00
DISCCART    439849.00   3765355.00
DISCCART    439854.00   3765355.00
DISCCART    439859.00   3765355.00
DISCCART    439864.00   3765355.00
DISCCART    439869.00   3765355.00
DISCCART    439874.00   3765355.00
DISCCART    439879.00   3765355.00
DISCCART    439884.00   3765355.00
DISCCART    439674.00   3765360.00
DISCCART    439679.00   3765360.00
DISCCART    439684.00   3765360.00
DISCCART    439689.00   3765360.00
DISCCART    439694.00   3765360.00
DISCCART    439699.00   3765360.00
DISCCART    439704.00   3765360.00
DISCCART    439709.00   3765360.00
DISCCART    439714.00   3765360.00
DISCCART    439719.00   3765360.00
DISCCART    439729.00   3765360.00
DISCCART    439734.00   3765360.00
DISCCART    439739.00   3765360.00
DISCCART    439744.00   3765360.00
DISCCART    439749.00   3765360.00
DISCCART    439774.00   3765360.00
DISCCART    439779.00   3765360.00
DISCCART    439784.00   3765360.00
DISCCART    439789.00   3765360.00
DISCCART    439794.00   3765360.00
DISCCART    439799.00   3765360.00
DISCCART    439804.00   3765360.00
DISCCART    439809.00   3765360.00
DISCCART    439814.00   3765360.00
DISCCART    439839.00   3765360.00
DISCCART    439844.00   3765360.00
DISCCART    439849.00   3765360.00
DISCCART    439854.00   3765360.00
DISCCART    439859.00   3765360.00
DISCCART    439864.00   3765360.00
DISCCART    439869.00   3765360.00
DISCCART    439874.00   3765360.00
DISCCART    439879.00   3765360.00
DISCCART    439884.00   3765360.00
DISCCART    439674.00   3765365.00
DISCCART    439679.00   3765365.00
DISCCART    439684.00   3765365.00
DISCCART    439689.00   3765365.00
DISCCART    439694.00   3765365.00
DISCCART    439699.00   3765365.00
DISCCART    439704.00   3765365.00
DISCCART    439709.00   3765365.00
DISCCART    439714.00   3765365.00
```

DISCCART	439719.00	3765365.00
DISCCART	439729.00	3765365.00
DISCCART	439734.00	3765365.00
DISCCART	439739.00	3765365.00
DISCCART	439744.00	3765365.00
DISCCART	439749.00	3765365.00
DISCCART	439774.00	3765365.00
DISCCART	439779.00	3765365.00
DISCCART	439784.00	3765365.00
DISCCART	439789.00	3765365.00
DISCCART	439794.00	3765365.00
DISCCART	439799.00	3765365.00
DISCCART	439804.00	3765365.00
DISCCART	439809.00	3765365.00
DISCCART	439814.00	3765365.00
DISCCART	439839.00	3765365.00
DISCCART	439844.00	3765365.00
DISCCART	439849.00	3765365.00
DISCCART	439854.00	3765365.00
DISCCART	439859.00	3765365.00
DISCCART	439864.00	3765365.00
DISCCART	439869.00	3765365.00
DISCCART	439874.00	3765365.00
DISCCART	439879.00	3765365.00
DISCCART	439884.00	3765365.00
DISCCART	439674.00	3765370.00
DISCCART	439679.00	3765370.00
DISCCART	439684.00	3765370.00
DISCCART	439689.00	3765370.00
DISCCART	439694.00	3765370.00
DISCCART	439699.00	3765370.00
DISCCART	439704.00	3765370.00
DISCCART	439709.00	3765370.00
DISCCART	439714.00	3765370.00
DISCCART	439719.00	3765370.00
DISCCART	439729.00	3765370.00
DISCCART	439734.00	3765370.00
DISCCART	439739.00	3765370.00
DISCCART	439744.00	3765370.00
DISCCART	439749.00	3765370.00
DISCCART	439774.00	3765370.00
DISCCART	439779.00	3765370.00
DISCCART	439784.00	3765370.00
DISCCART	439789.00	3765370.00
DISCCART	439794.00	3765370.00
DISCCART	439799.00	3765370.00
DISCCART	439804.00	3765370.00
DISCCART	439809.00	3765370.00
DISCCART	439814.00	3765370.00
DISCCART	439839.00	3765370.00
DISCCART	439844.00	3765370.00
DISCCART	439849.00	3765370.00

DISCCART	439854.00	3765370.00
DISCCART	439859.00	3765370.00
DISCCART	439864.00	3765370.00
DISCCART	439869.00	3765370.00
DISCCART	439874.00	3765370.00
DISCCART	439879.00	3765370.00
DISCCART	439884.00	3765370.00
DISCCART	439674.00	3765375.00
DISCCART	439679.00	3765375.00
DISCCART	439684.00	3765375.00
DISCCART	439689.00	3765375.00
DISCCART	439694.00	3765375.00
DISCCART	439699.00	3765375.00
DISCCART	439704.00	3765375.00
DISCCART	439709.00	3765375.00
DISCCART	439714.00	3765375.00
DISCCART	439719.00	3765375.00
DISCCART	439729.00	3765375.00
DISCCART	439734.00	3765375.00
DISCCART	439739.00	3765375.00
DISCCART	439744.00	3765375.00
DISCCART	439749.00	3765375.00
DISCCART	439754.00	3765375.00
DISCCART	439774.00	3765375.00
DISCCART	439779.00	3765375.00
DISCCART	439784.00	3765375.00
DISCCART	439789.00	3765375.00
DISCCART	439794.00	3765375.00
DISCCART	439799.00	3765375.00
DISCCART	439804.00	3765375.00
DISCCART	439809.00	3765375.00
DISCCART	439814.00	3765375.00
DISCCART	439839.00	3765375.00
DISCCART	439844.00	3765375.00
DISCCART	439849.00	3765375.00
DISCCART	439854.00	3765375.00
DISCCART	439859.00	3765375.00
DISCCART	439864.00	3765375.00
DISCCART	439869.00	3765375.00
DISCCART	439874.00	3765375.00
DISCCART	439879.00	3765375.00
DISCCART	439884.00	3765375.00
DISCCART	439774.00	3765380.00
DISCCART	439779.00	3765380.00
DISCCART	439784.00	3765380.00
DISCCART	439789.00	3765380.00
DISCCART	439794.00	3765380.00
DISCCART	439799.00	3765380.00
DISCCART	439804.00	3765380.00
DISCCART	439809.00	3765380.00
DISCCART	439814.00	3765380.00
DISCCART	439769.00	3765385.00

DISCCART	439819.00	3765385.00
DISCCART	439769.00	3765400.00
DISCCART	439844.00	3765400.00
DISCCART	439849.00	3765400.00
DISCCART	439674.00	3765405.00
DISCCART	439714.00	3765405.00
DISCCART	439719.00	3765405.00
DISCCART	439734.00	3765405.00
DISCCART	439749.00	3765405.00
DISCCART	439754.00	3765405.00
DISCCART	439774.00	3765405.00
DISCCART	439779.00	3765405.00
DISCCART	439784.00	3765405.00
DISCCART	439789.00	3765405.00
DISCCART	439794.00	3765405.00
DISCCART	439799.00	3765405.00
DISCCART	439804.00	3765405.00
DISCCART	439809.00	3765405.00
DISCCART	439814.00	3765405.00
DISCCART	439819.00	3765405.00
DISCCART	439824.00	3765405.00
DISCCART	439829.00	3765405.00
DISCCART	439834.00	3765405.00
DISCCART	439839.00	3765405.00
DISCCART	439844.00	3765405.00
DISCCART	439849.00	3765405.00
DISCCART	439854.00	3765405.00
DISCCART	439859.00	3765405.00
DISCCART	439674.00	3765410.00
DISCCART	439679.00	3765410.00
DISCCART	439684.00	3765410.00
DISCCART	439689.00	3765410.00
DISCCART	439694.00	3765410.00
DISCCART	439699.00	3765410.00
DISCCART	439704.00	3765410.00
DISCCART	439709.00	3765410.00
DISCCART	439714.00	3765410.00
DISCCART	439719.00	3765410.00
DISCCART	439729.00	3765410.00
DISCCART	439734.00	3765410.00
DISCCART	439739.00	3765410.00
DISCCART	439744.00	3765410.00
DISCCART	439749.00	3765410.00
DISCCART	439774.00	3765410.00
DISCCART	439779.00	3765410.00
DISCCART	439784.00	3765410.00
DISCCART	439789.00	3765410.00
DISCCART	439794.00	3765410.00
DISCCART	439799.00	3765410.00
DISCCART	439804.00	3765410.00
DISCCART	439809.00	3765410.00
DISCCART	439814.00	3765410.00

DISCCART	439819.00	3765410.00
DISCCART	439824.00	3765410.00
DISCCART	439829.00	3765410.00
DISCCART	439834.00	3765410.00
DISCCART	439839.00	3765410.00
DISCCART	439844.00	3765410.00
DISCCART	439849.00	3765410.00
DISCCART	439854.00	3765410.00
DISCCART	439859.00	3765410.00
DISCCART	439674.00	3765415.00
DISCCART	439679.00	3765415.00
DISCCART	439684.00	3765415.00
DISCCART	439689.00	3765415.00
DISCCART	439694.00	3765415.00
DISCCART	439699.00	3765415.00
DISCCART	439704.00	3765415.00
DISCCART	439709.00	3765415.00
DISCCART	439714.00	3765415.00
DISCCART	439719.00	3765415.00
DISCCART	439729.00	3765415.00
DISCCART	439734.00	3765415.00
DISCCART	439739.00	3765415.00
DISCCART	439744.00	3765415.00
DISCCART	439749.00	3765415.00
DISCCART	439774.00	3765415.00
DISCCART	439779.00	3765415.00
DISCCART	439784.00	3765415.00
DISCCART	439789.00	3765415.00
DISCCART	439794.00	3765415.00
DISCCART	439799.00	3765415.00
DISCCART	439804.00	3765415.00
DISCCART	439809.00	3765415.00
DISCCART	439814.00	3765415.00
DISCCART	439819.00	3765415.00
DISCCART	439824.00	3765415.00
DISCCART	439829.00	3765415.00
DISCCART	439834.00	3765415.00
DISCCART	439839.00	3765415.00
DISCCART	439844.00	3765415.00
DISCCART	439849.00	3765415.00
DISCCART	439854.00	3765415.00
DISCCART	439859.00	3765415.00
DISCCART	439674.00	3765420.00
DISCCART	439679.00	3765420.00
DISCCART	439684.00	3765420.00
DISCCART	439689.00	3765420.00
DISCCART	439694.00	3765420.00
DISCCART	439699.00	3765420.00
DISCCART	439704.00	3765420.00
DISCCART	439709.00	3765420.00
DISCCART	439714.00	3765420.00
DISCCART	439719.00	3765420.00

DISCCART	439729.00	3765420.00
DISCCART	439734.00	3765420.00
DISCCART	439739.00	3765420.00
DISCCART	439744.00	3765420.00
DISCCART	439749.00	3765420.00
DISCCART	439774.00	3765420.00
DISCCART	439779.00	3765420.00
DISCCART	439784.00	3765420.00
DISCCART	439789.00	3765420.00
DISCCART	439794.00	3765420.00
DISCCART	439799.00	3765420.00
DISCCART	439804.00	3765420.00
DISCCART	439809.00	3765420.00
DISCCART	439814.00	3765420.00
DISCCART	439819.00	3765420.00
DISCCART	439824.00	3765420.00
DISCCART	439829.00	3765420.00
DISCCART	439834.00	3765420.00
DISCCART	439839.00	3765420.00
DISCCART	439844.00	3765420.00
DISCCART	439849.00	3765420.00
DISCCART	439854.00	3765420.00
DISCCART	439859.00	3765420.00
DISCCART	439674.00	3765425.00
DISCCART	439679.00	3765425.00
DISCCART	439684.00	3765425.00
DISCCART	439689.00	3765425.00
DISCCART	439694.00	3765425.00
DISCCART	439699.00	3765425.00
DISCCART	439704.00	3765425.00
DISCCART	439709.00	3765425.00
DISCCART	439714.00	3765425.00
DISCCART	439719.00	3765425.00
DISCCART	439729.00	3765425.00
DISCCART	439734.00	3765425.00
DISCCART	439739.00	3765425.00
DISCCART	439744.00	3765425.00
DISCCART	439749.00	3765425.00
DISCCART	439774.00	3765425.00
DISCCART	439779.00	3765425.00
DISCCART	439784.00	3765425.00
DISCCART	439789.00	3765425.00
DISCCART	439794.00	3765425.00
DISCCART	439799.00	3765425.00
DISCCART	439804.00	3765425.00
DISCCART	439809.00	3765425.00
DISCCART	439814.00	3765425.00
DISCCART	439819.00	3765425.00
DISCCART	439824.00	3765425.00
DISCCART	439829.00	3765425.00
DISCCART	439834.00	3765425.00
DISCCART	439839.00	3765425.00

DISCCART	439844.00	3765425.00
DISCCART	439849.00	3765425.00
DISCCART	439854.00	3765425.00
DISCCART	439859.00	3765425.00
DISCCART	439674.00	3765430.00
DISCCART	439679.00	3765430.00
DISCCART	439684.00	3765430.00
DISCCART	439689.00	3765430.00
DISCCART	439694.00	3765430.00
DISCCART	439699.00	3765430.00
DISCCART	439704.00	3765430.00
DISCCART	439709.00	3765430.00
DISCCART	439714.00	3765430.00
DISCCART	439719.00	3765430.00
DISCCART	439729.00	3765430.00
DISCCART	439734.00	3765430.00
DISCCART	439739.00	3765430.00
DISCCART	439744.00	3765430.00
DISCCART	439749.00	3765430.00
DISCCART	439774.00	3765430.00
DISCCART	439779.00	3765430.00
DISCCART	439784.00	3765430.00
DISCCART	439789.00	3765430.00
DISCCART	439794.00	3765430.00
DISCCART	439799.00	3765430.00
DISCCART	439804.00	3765430.00
DISCCART	439809.00	3765430.00
DISCCART	439814.00	3765430.00
DISCCART	439819.00	3765430.00
DISCCART	439824.00	3765430.00
DISCCART	439829.00	3765430.00
DISCCART	439834.00	3765430.00
DISCCART	439839.00	3765430.00
DISCCART	439844.00	3765430.00
DISCCART	439849.00	3765430.00
DISCCART	439854.00	3765430.00
DISCCART	439859.00	3765430.00
DISCCART	439674.00	3765435.00
DISCCART	439679.00	3765435.00
DISCCART	439684.00	3765435.00
DISCCART	439689.00	3765435.00
DISCCART	439694.00	3765435.00
DISCCART	439699.00	3765435.00
DISCCART	439704.00	3765435.00
DISCCART	439709.00	3765435.00
DISCCART	439714.00	3765435.00
DISCCART	439719.00	3765435.00
DISCCART	439729.00	3765435.00
DISCCART	439734.00	3765435.00
DISCCART	439739.00	3765435.00
DISCCART	439744.00	3765435.00
DISCCART	439749.00	3765435.00

DISCCART	439774.00	3765435.00
DISCCART	439779.00	3765435.00
DISCCART	439784.00	3765435.00
DISCCART	439789.00	3765435.00
DISCCART	439794.00	3765435.00
DISCCART	439799.00	3765435.00
DISCCART	439804.00	3765435.00
DISCCART	439809.00	3765435.00
DISCCART	439814.00	3765435.00
DISCCART	439819.00	3765435.00
DISCCART	439824.00	3765435.00
DISCCART	439829.00	3765435.00
DISCCART	439834.00	3765435.00
DISCCART	439839.00	3765435.00
DISCCART	439844.00	3765435.00
DISCCART	439849.00	3765435.00
DISCCART	439854.00	3765435.00
DISCCART	439859.00	3765435.00
DISCCART	439674.00	3765440.00
DISCCART	439679.00	3765440.00
DISCCART	439684.00	3765440.00
DISCCART	439689.00	3765440.00
DISCCART	439694.00	3765440.00
DISCCART	439699.00	3765440.00
DISCCART	439704.00	3765440.00
DISCCART	439709.00	3765440.00
DISCCART	439714.00	3765440.00
DISCCART	439719.00	3765440.00
DISCCART	439729.00	3765440.00
DISCCART	439734.00	3765440.00
DISCCART	439739.00	3765440.00
DISCCART	439744.00	3765440.00
DISCCART	439749.00	3765440.00
DISCCART	439774.00	3765440.00
DISCCART	439779.00	3765440.00
DISCCART	439784.00	3765440.00
DISCCART	439789.00	3765440.00
DISCCART	439794.00	3765440.00
DISCCART	439799.00	3765440.00
DISCCART	439804.00	3765440.00
DISCCART	439809.00	3765440.00
DISCCART	439814.00	3765440.00
DISCCART	439819.00	3765440.00
DISCCART	439824.00	3765440.00
DISCCART	439829.00	3765440.00
DISCCART	439834.00	3765440.00
DISCCART	439839.00	3765440.00
DISCCART	439844.00	3765440.00
DISCCART	439849.00	3765440.00
DISCCART	439854.00	3765440.00
DISCCART	439859.00	3765440.00
DISCCART	439674.00	3765445.00

```
DISCCART    439679.00   3765445.00
DISCCART    439684.00   3765445.00
DISCCART    439689.00   3765445.00
DISCCART    439694.00   3765445.00
DISCCART    439699.00   3765445.00
DISCCART    439704.00   3765445.00
DISCCART    439709.00   3765445.00
DISCCART    439714.00   3765445.00
DISCCART    439719.00   3765445.00
DISCCART    439729.00   3765445.00
DISCCART    439734.00   3765445.00
DISCCART    439739.00   3765445.00
DISCCART    439744.00   3765445.00
DISCCART    439749.00   3765445.00
DISCCART    439774.00   3765445.00
DISCCART    439779.00   3765445.00
DISCCART    439784.00   3765445.00
DISCCART    439789.00   3765445.00
DISCCART    439794.00   3765445.00
DISCCART    439799.00   3765445.00
DISCCART    439804.00   3765445.00
DISCCART    439809.00   3765445.00
DISCCART    439814.00   3765445.00
DISCCART    439819.00   3765445.00
DISCCART    439824.00   3765445.00
DISCCART    439829.00   3765445.00
DISCCART    439834.00   3765445.00
DISCCART    439839.00   3765445.00
DISCCART    439844.00   3765445.00
DISCCART    439849.00   3765445.00
DISCCART    439854.00   3765445.00
DISCCART    439859.00   3765445.00
DISCCART    439674.00   3765450.00
DISCCART    439679.00   3765450.00
DISCCART    439684.00   3765450.00
DISCCART    439689.00   3765450.00
DISCCART    439694.00   3765450.00
DISCCART    439699.00   3765450.00
DISCCART    439704.00   3765450.00
DISCCART    439709.00   3765450.00
DISCCART    439714.00   3765450.00
DISCCART    439719.00   3765450.00
DISCCART    439729.00   3765450.00
DISCCART    439734.00   3765450.00
DISCCART    439739.00   3765450.00
DISCCART    439744.00   3765450.00
DISCCART    439749.00   3765450.00
DISCCART    439774.00   3765450.00
DISCCART    439844.00   3765450.00
DISCCART    439849.00   3765450.00
DISCCART    439854.00   3765450.00
DISCCART    439859.00   3765450.00
```

DISCCART	439674.00	3765455.00
DISCCART	439679.00	3765455.00
DISCCART	439684.00	3765455.00
DISCCART	439689.00	3765455.00
DISCCART	439694.00	3765455.00
DISCCART	439699.00	3765455.00
DISCCART	439704.00	3765455.00
DISCCART	439709.00	3765455.00
DISCCART	439714.00	3765455.00
DISCCART	439719.00	3765455.00
DISCCART	439729.00	3765455.00
DISCCART	439734.00	3765455.00
DISCCART	439739.00	3765455.00
DISCCART	439744.00	3765455.00
DISCCART	439749.00	3765455.00
DISCCART	439844.00	3765455.00
DISCCART	439849.00	3765455.00
DISCCART	439854.00	3765455.00
DISCCART	439859.00	3765455.00
DISCCART	439674.00	3765460.00
DISCCART	439679.00	3765460.00
DISCCART	439684.00	3765460.00
DISCCART	439689.00	3765460.00
DISCCART	439694.00	3765460.00
DISCCART	439699.00	3765460.00
DISCCART	439704.00	3765460.00
DISCCART	439709.00	3765460.00
DISCCART	439714.00	3765460.00
DISCCART	439719.00	3765460.00
DISCCART	439729.00	3765460.00
DISCCART	439734.00	3765460.00
DISCCART	439739.00	3765460.00
DISCCART	439744.00	3765460.00
DISCCART	439749.00	3765460.00
DISCCART	439789.00	3765460.00
DISCCART	439794.00	3765460.00
DISCCART	439799.00	3765460.00
DISCCART	439804.00	3765460.00
DISCCART	439809.00	3765460.00
DISCCART	439814.00	3765460.00
DISCCART	439819.00	3765460.00
DISCCART	439824.00	3765460.00
DISCCART	439829.00	3765460.00
DISCCART	439844.00	3765460.00
DISCCART	439849.00	3765460.00
DISCCART	439854.00	3765460.00
DISCCART	439859.00	3765460.00
DISCCART	439674.00	3765465.00
DISCCART	439679.00	3765465.00
DISCCART	439684.00	3765465.00
DISCCART	439689.00	3765465.00
DISCCART	439694.00	3765465.00

```
DISCCART    439699.00   3765465.00
DISCCART    439704.00   3765465.00
DISCCART    439709.00   3765465.00
DISCCART    439714.00   3765465.00
DISCCART    439719.00   3765465.00
DISCCART    439729.00   3765465.00
DISCCART    439734.00   3765465.00
DISCCART    439739.00   3765465.00
DISCCART    439744.00   3765465.00
DISCCART    439749.00   3765465.00
DISCCART    439789.00   3765465.00
DISCCART    439794.00   3765465.00
DISCCART    439799.00   3765465.00
DISCCART    439804.00   3765465.00
DISCCART    439809.00   3765465.00
DISCCART    439814.00   3765465.00
DISCCART    439819.00   3765465.00
DISCCART    439824.00   3765465.00
DISCCART    439829.00   3765465.00
DISCCART    439844.00   3765465.00
DISCCART    439849.00   3765465.00
DISCCART    439854.00   3765465.00
DISCCART    439859.00   3765465.00
DISCCART    439674.00   3765470.00
DISCCART    439679.00   3765470.00
DISCCART    439684.00   3765470.00
DISCCART    439689.00   3765470.00
DISCCART    439694.00   3765470.00
DISCCART    439699.00   3765470.00
DISCCART    439704.00   3765470.00
DISCCART    439709.00   3765470.00
DISCCART    439714.00   3765470.00
DISCCART    439719.00   3765470.00
DISCCART    439729.00   3765470.00
DISCCART    439734.00   3765470.00
DISCCART    439739.00   3765470.00
DISCCART    439744.00   3765470.00
DISCCART    439749.00   3765470.00
DISCCART    439789.00   3765470.00
DISCCART    439794.00   3765470.00
DISCCART    439799.00   3765470.00
DISCCART    439804.00   3765470.00
DISCCART    439809.00   3765470.00
DISCCART    439814.00   3765470.00
DISCCART    439819.00   3765470.00
DISCCART    439824.00   3765470.00
DISCCART    439829.00   3765470.00
DISCCART    439844.00   3765470.00
DISCCART    439849.00   3765470.00
DISCCART    439854.00   3765470.00
DISCCART    439859.00   3765470.00
DISCCART    439674.00   3765475.00
```

```
   DISCCART    439679.00   3765475.00
   DISCCART    439684.00   3765475.00
   DISCCART    439689.00   3765475.00
   DISCCART    439694.00   3765475.00
   DISCCART    439699.00   3765475.00
   DISCCART    439704.00   3765475.00
   DISCCART    439709.00   3765475.00
   DISCCART    439714.00   3765475.00
   DISCCART    439719.00   3765475.00
   DISCCART    439729.00   3765475.00
   DISCCART    439734.00   3765475.00
   DISCCART    439739.00   3765475.00
   DISCCART    439744.00   3765475.00
   DISCCART    439749.00   3765475.00
   DISCCART    439754.00   3765475.00
   DISCCART    439789.00   3765475.00
   DISCCART    439794.00   3765475.00
   DISCCART    439799.00   3765475.00
   DISCCART    439804.00   3765475.00
   DISCCART    439809.00   3765475.00
   DISCCART    439814.00   3765475.00
   DISCCART    439819.00   3765475.00
   DISCCART    439824.00   3765475.00
   DISCCART    439829.00   3765475.00
** DESCRREC "UCART03" "Receptors generated from Uniform Cartesian
Grid"
   DISCCART    439269.00   3764900.00
   DISCCART    439369.00   3764900.00
   DISCCART    439469.00   3764900.00
   DISCCART    439569.00   3764900.00
   DISCCART    439669.00   3764900.00
   DISCCART    439769.00   3764900.00
   DISCCART    439869.00   3764900.00
   DISCCART    439969.00   3764900.00
   DISCCART    440069.00   3764900.00
   DISCCART    440169.00   3764900.00
   DISCCART    440269.00   3764900.00
   DISCCART    439269.00   3765000.00
   DISCCART    439369.00   3765000.00
   DISCCART    439469.00   3765000.00
   DISCCART    439569.00   3765000.00
   DISCCART    439669.00   3765000.00
   DISCCART    439769.00   3765000.00
   DISCCART    439869.00   3765000.00
   DISCCART    439969.00   3765000.00
   DISCCART    440069.00   3765000.00
   DISCCART    440169.00   3765000.00
   DISCCART    440269.00   3765000.00
   DISCCART    439269.00   3765100.00
   DISCCART    439369.00   3765100.00
   DISCCART    439469.00   3765100.00
   DISCCART    439569.00   3765100.00
```

DISCCART	439669.00	3765100.00
DISCCART	439769.00	3765100.00
DISCCART	439869.00	3765100.00
DISCCART	439969.00	3765100.00
DISCCART	440069.00	3765100.00
DISCCART	440169.00	3765100.00
DISCCART	440269.00	3765100.00
DISCCART	439269.00	3765200.00
DISCCART	439369.00	3765200.00
DISCCART	439469.00	3765200.00
DISCCART	439569.00	3765200.00
DISCCART	439669.00	3765200.00
DISCCART	439769.00	3765200.00
DISCCART	439869.00	3765200.00
DISCCART	439969.00	3765200.00
DISCCART	440069.00	3765200.00
DISCCART	440169.00	3765200.00
DISCCART	440269.00	3765200.00
DISCCART	439269.00	3765300.00
DISCCART	439369.00	3765300.00
DISCCART	439469.00	3765300.00
DISCCART	439569.00	3765300.00
DISCCART	439669.00	3765300.00
DISCCART	439769.00	3765300.00
DISCCART	439869.00	3765300.00
DISCCART	439969.00	3765300.00
DISCCART	440069.00	3765300.00
DISCCART	440169.00	3765300.00
DISCCART	440269.00	3765300.00
DISCCART	439269.00	3765400.00
DISCCART	439369.00	3765400.00
DISCCART	439469.00	3765400.00
DISCCART	439569.00	3765400.00
DISCCART	439669.00	3765400.00
DISCCART	439769.00	3765400.00
DISCCART	439869.00	3765400.00
DISCCART	439969.00	3765400.00
DISCCART	440069.00	3765400.00
DISCCART	440169.00	3765400.00
DISCCART	440269.00	3765400.00
DISCCART	439269.00	3765500.00
DISCCART	439369.00	3765500.00
DISCCART	439469.00	3765500.00
DISCCART	439569.00	3765500.00
DISCCART	439669.00	3765500.00
DISCCART	439769.00	3765500.00
DISCCART	439869.00	3765500.00
DISCCART	439969.00	3765500.00
DISCCART	440069.00	3765500.00
DISCCART	440169.00	3765500.00
DISCCART	440269.00	3765500.00
DISCCART	439269.00	3765600.00

```
   DISCCART    439369.00   3765600.00
   DISCCART    439469.00   3765600.00
   DISCCART    439569.00   3765600.00
   DISCCART    439669.00   3765600.00
   DISCCART    439769.00   3765600.00
   DISCCART    439869.00   3765600.00
   DISCCART    439969.00   3765600.00
   DISCCART    440069.00   3765600.00
   DISCCART    440169.00   3765600.00
   DISCCART    440269.00   3765600.00
   DISCCART    439269.00   3765700.00
   DISCCART    439369.00   3765700.00
   DISCCART    439469.00   3765700.00
   DISCCART    439569.00   3765700.00
   DISCCART    439669.00   3765700.00
   DISCCART    439769.00   3765700.00
   DISCCART    439869.00   3765700.00
   DISCCART    439969.00   3765700.00
   DISCCART    440069.00   3765700.00
   DISCCART    440169.00   3765700.00
   DISCCART    440269.00   3765700.00
   DISCCART    439269.00   3765800.00
   DISCCART    439369.00   3765800.00
   DISCCART    439469.00   3765800.00
   DISCCART    439569.00   3765800.00
   DISCCART    439669.00   3765800.00
   DISCCART    439769.00   3765800.00
   DISCCART    439869.00   3765800.00
   DISCCART    439969.00   3765800.00
   DISCCART    440069.00   3765800.00
   DISCCART    440169.00   3765800.00
   DISCCART    440269.00   3765800.00
   DISCCART    439269.00   3765900.00
   DISCCART    439369.00   3765900.00
   DISCCART    439469.00   3765900.00
   DISCCART    439569.00   3765900.00
   DISCCART    439669.00   3765900.00
   DISCCART    439769.00   3765900.00
   DISCCART    439869.00   3765900.00
   DISCCART    439969.00   3765900.00
   DISCCART    440069.00   3765900.00
   DISCCART    440169.00   3765900.00
   DISCCART    440269.00   3765900.00
** DESCRREC "UCART02" "Receptors generated from Uniform Cartesian
Grid"
   DISCCART    439649.00   3765310.00
   DISCCART    439679.00   3765310.00
   DISCCART    439709.00   3765310.00
   DISCCART    439739.00   3765310.00
   DISCCART    439769.00   3765310.00
   DISCCART    439799.00   3765310.00
   DISCCART    439829.00   3765310.00
```

DISCCART	439859.00	3765310.00
DISCCART	439889.00	3765310.00
DISCCART	439649.00	3765340.00
DISCCART	439679.00	3765340.00
DISCCART	439709.00	3765340.00
DISCCART	439739.00	3765340.00
DISCCART	439769.00	3765340.00
DISCCART	439799.00	3765340.00
DISCCART	439829.00	3765340.00
DISCCART	439859.00	3765340.00
DISCCART	439889.00	3765340.00
DISCCART	439649.00	3765370.00
DISCCART	439679.00	3765370.00
DISCCART	439709.00	3765370.00
DISCCART	439739.00	3765370.00
DISCCART	439769.00	3765370.00
DISCCART	439799.00	3765370.00
DISCCART	439829.00	3765370.00
DISCCART	439859.00	3765370.00
DISCCART	439889.00	3765370.00
DISCCART	439649.00	3765400.00
DISCCART	439679.00	3765400.00
DISCCART	439709.00	3765400.00
DISCCART	439739.00	3765400.00
DISCCART	439769.00	3765400.00
DISCCART	439799.00	3765400.00
DISCCART	439829.00	3765400.00
DISCCART	439859.00	3765400.00
DISCCART	439889.00	3765400.00
DISCCART	439649.00	3765430.00
DISCCART	439679.00	3765430.00
DISCCART	439709.00	3765430.00
DISCCART	439739.00	3765430.00
DISCCART	439769.00	3765430.00
DISCCART	439799.00	3765430.00
DISCCART	439829.00	3765430.00
DISCCART	439859.00	3765430.00
DISCCART	439889.00	3765430.00
DISCCART	439649.00	3765460.00
DISCCART	439679.00	3765460.00
DISCCART	439709.00	3765460.00
DISCCART	439739.00	3765460.00
DISCCART	439769.00	3765460.00
DISCCART	439799.00	3765460.00
DISCCART	439829.00	3765460.00
DISCCART	439859.00	3765460.00
DISCCART	439889.00	3765460.00
DISCCART	439649.00	3765490.00
DISCCART	439679.00	3765490.00
DISCCART	439709.00	3765490.00
DISCCART	439739.00	3765490.00
DISCCART	439769.00	3765490.00

```
   DISCCART    439799.00   3765490.00
   DISCCART    439829.00   3765490.00
   DISCCART    439859.00   3765490.00
   DISCCART    439889.00   3765490.00
RE FINISHED
**
****************************************
** AERMOD Meteorology Pathway
****************************************
**
**
ME STARTING
   SURFFILE "C:\Users\sjremote\Desktop\Ontario_PUD-Legacy
\OntarioIntlAirportADJU (1)\KONT_V9_ADJU\KONT_v9.SFC"
   PROFFILE "C:\Users\sjremote\Desktop\Ontario_PUD-Legacy
\OntarioIntlAirportADJU (1)\KONT_V9_ADJU\KONT_v9.PFL"
   SURFDATA 3102 2012 Ontario_Apt
   UAIRDATA 3190 2012
   PROFBASE 289.0 METERS
ME FINISHED
**
****************************************
** AERMOD Output Pathway
****************************************
**
**
OU STARTING
   RECTABLE ALLAVE 1ST
   RECTABLE 1 1ST
** Auto-Generated Plotfiles
   PLOTFILE 1 ALL 1ST ONTARIO_PUD-LEGACY_OPS-HRA-TOG_20221005.AD
\01H1GALL.PLT 31
   PLOTFILE 1 Exh 1ST ONTARIO_PUD-LEGACY_OPS-HRA-TOG_20221005.AD
\01H1G001.PLT 32
   PLOTFILE 1 Evap 1ST ONTARIO_PUD-LEGACY_OPS-HRA-TOG_20221005.AD
\01H1G002.PLT 33
   PLOTFILE 1 FreeExh 1ST ONTARIO_PUD-LEGACY_OPS-HRA-TOG_
20221005.AD\01H1G003.PLT 34
   PLOTFILE 1 OnOffExh 1ST ONTARIO_PUD-LEGACY_OPS-HRA-TOG_
20221005.AD\01H1G004.PLT 35
   PLOTFILE 1 FreeEvap 1ST ONTARIO_PUD-LEGACY_OPS-HRA-TOG_
20221005.AD\01H1G005.PLT 36
   PLOTFILE 1 OnOffEva 1ST ONTARIO_PUD-LEGACY_OPS-HRA-TOG_
20221005.AD\01H1G006.PLT 37
   PLOTFILE PERIOD ALL ONTARIO_PUD-LEGACY_OPS-HRA-TOG_20221005.AD
\PE00GALL.PLT 38
   PLOTFILE PERIOD Exh ONTARIO_PUD-LEGACY_OPS-HRA-TOG_20221005.AD
\PE00G001.PLT 39
   PLOTFILE PERIOD Evap ONTARIO_PUD-LEGACY_OPS-HRA-TOG_
20221005.AD\PE00G002.PLT 40
   PLOTFILE PERIOD FreeExh ONTARIO_PUD-LEGACY_OPS-HRA-TOG_
20221005.AD\PE00G003.PLT 41
```

```
   PLOTFILE PERIOD OnOffExh ONTARIO_PUD-LEGACY_OPS-HRA-TOG_
20221005.AD\PE00G004.PLT 42
   PLOTFILE PERIOD FreeEvap ONTARIO_PUD-LEGACY_OPS-HRA-TOG_
20221005.AD\PE00G005.PLT 43
   PLOTFILE PERIOD OnOffEva ONTARIO_PUD-LEGACY_OPS-HRA-TOG_
20221005.AD\PE00G006.PLT 44
   SUMMFILE Ontario_PUD-Legacy_Ops-HRA-TOG_20221005.sum
OU FINISHED


  *** Message Summary For AERMOD Model Setup ***

  --------- Summary of Total Messages --------

 A Total of            0 Fatal Error Message(s)
 A Total of            2 Warning Message(s)
 A Total of            0 Informational Message(s)


    ******** FATAL ERROR MESSAGES ********
               ***  NONE  ***


    ********   WARNING MESSAGES   ********
 ME W186    2290       MEOPEN: THRESH_1MIN 1-min ASOS wind speed
threshold used           0.50
 ME W187    2290       MEOPEN: ADJ_U* Option for Stable Low Winds
used in AERMET

 ***********************************
 *** SETUP Finishes Successfully ***
 ***********************************
```

```
 *** AERMOD - VERSION 21112  ***   *** C:\Lakes\Ontario_PUD-
Legacy_Ops-HRA_20221004\Ontario_PUD-Legacy_Ops- ***
10/05/22
 *** AERMET - VERSION  16216 ***   ***
***        08:30:01

PAGE   1
 *** MODELOPTs:    NonDFAULT  CONC  FLAT  URBAN  ADJ_U*

                                              ***     MODEL SETUP
OPTIONS SUMMARY       ***
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

 **Model Is Setup For Calculation of Average CONCentration
Values.

   --  DEPOSITION LOGIC  --
 **NO GAS DEPOSITION Data Provided.
 **NO PARTICLE DEPOSITION Data Provided.
 **Model Uses NO DRY DEPLETION.  DRYDPLT  =  F
 **Model Uses NO WET DEPLETION.  WETDPLT  =  F

 **Model Uses URBAN Dispersion Algorithm for the SBL for   132
Source(s),
   for Total of    1 Urban Area(s):
   Urban Population =   2035210.0 ;  Urban Roughness Length =
1.000 m

 **Model Allows User-Specified Options:
         1. Stack-tip Downwash.
         2. Model Assumes Receptors on FLAT Terrain.
         3. Use Calms Processing Routine.
         4. Use Missing Data Processing Routine.
         5. No Exponential Decay.
         6. Urban Roughness Length of 1.0 Meter Used.

 **Other Options Specified:
         ADJ_U*   - Use ADJ_U* option for SBL in AERMET
         CCVR_Sub - Meteorological data includes CCVR
substitutions
         TEMP_Sub - Meteorological data includes TEMP
substitutions

 **Model Assumes No FLAGPOLE Receptor Heights.

 **The User Specified a Pollutant Type of:  PM_2.5

 **Model Calculates  1 Short Term Average(s) of:   1-HR
     and Calculates PERIOD Averages

 **This Run Includes:    132 Source(s);       7 Source Group(s);
```

```
and    1115 Receptor(s)

                with:      0 POINT(s), including
                           0 POINTCAP(s) and      0 POINTHOR(s)
                 and:      0 VOLUME source(s)
                 and:    132 AREA type source(s)
                 and:      0 LINE source(s)
                 and:      0 RLINE/RLINEXT source(s)
                 and:      0 OPENPIT source(s)
                 and:      0 BUOYANT LINE source(s) with a total
of     0 line(s)


 **Model Set To Continue RUNning After the Setup Testing.

 **The AERMET Input Meteorological Data Version Date:  16216

 **Output Options Selected:
          Model Outputs Tables of PERIOD Averages by Receptor
          Model Outputs Tables of Highest Short Term Values by
Receptor (RECTABLE Keyword)
          Model Outputs External File(s) of High Values for
Plotting (PLOTFILE Keyword)
          Model Outputs Separate Summary File of High Ranked
Values (SUMMFILE Keyword)

 **NOTE:  The Following Flags May Appear Following CONC Values:
c for Calm Hours

m for Missing Hours

b for Both Calm and Missing Hours

 **Misc. Inputs:  Base Elev. for Pot. Temp. Profile (m MSL) =
289.00 ;  Decay Coef. =    0.000     ;  Rot. Angle =     0.0
                  Emission Units =
GRAMS/SEC                                  ;  Emission Rate Unit
Factor =   0.10000E+07
                  Output Units   = MICROGRAMS/M**3

 **Approximate Storage Requirements of Model =      4.0 MB of
RAM.

 **Input Runstream File:          aermod.inp
 **Output Print File:             aermod.out

 **Detailed Error/Message File:   Ontario_PUD-Legacy_Ops-HRA-TOG_
20221005.err
 **File for Summary of Results:   Ontario_PUD-Legacy_Ops-HRA-TOG_
20221005.sum
```

*** AREA SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC /METER**2)	COORD (SW CORNER) X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	X-DIM OF AREA (METERS)	Y-DIM OF AREA (METERS)	ORIENT. OF AREA (DEG.)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
A0000012	0	0.30732E-04	440650.1	3765736.5	289.0	1.30	176.76	18.29	-179.52	1.20	YES	HROFDY
A0000013	0	0.30732E-04	440473.4	3765738.0	289.0	1.30	176.76	18.29	-179.52	1.20	YES	HROFDY
A0000014	0	0.30732E-04	440296.6	3765739.5	289.0	1.30	176.76	18.29	-179.52	1.20	YES	HROFDY
A0000015	0	0.30732E-04	440119.8	3765740.9	289.0	1.30	152.62	18.29	-179.86	1.20	YES	HROFDY
A0000016	0	0.30732E-04	439967.2	3765741.3	289.0	1.30	152.62	18.29	-179.86	1.20	YES	HROFDY
A0000017	0	0.30732E-04	439814.6	3765741.7	289.0	1.30	152.62	18.29	-179.86	1.20	YES	HROFDY
A0000018	0	0.30732E-04	439661.9	3765742.1	289.0	1.30	163.56	18.29	-179.87	1.20	YES	HROFDY
A0000019	0	0.30732E-04	439498.4	3765742.5	289.0	1.30	163.56	18.29	-179.87	1.20	YES	HROFDY
A0000020	0	0.30732E-04	439334.8	3765742.8	289.0	1.30	163.56	18.29	-179.87	1.20	YES	HROFDY
A0000021	0	0.30732E-04	439171.2	3765743.2	289.0	1.30	150.13	18.29	179.63	1.20	YES	HROFDY
A0000022	0	0.30732E-04	439021.1	3765742.2	289.0	1.30	150.13	18.29	179.63	1.20	YES	HROFDY
A0000001	0	0.30748E-04	438872.2	3765704.7	289.0	1.30	174.70	18.29	0.36	1.20	YES	HROFDY
A0000002	0	0.30748E-04	439046.9	3765703.5	289.0	1.30	174.70	18.29	0.36	1.20	YES	HROFDY
A0000003	0	0.30748E-04	439221.6	3765702.4	289.0							

```
1.30    174.70     18.29      0.36     1.20     YES   HROFDY
 A0000004         0   0.30748E-04  439396.3 3765701.3   289.0
1.30    174.70     18.29      0.36     1.20     YES   HROFDY
 A0000005         0   0.30748E-04  439571.0 3765700.2   289.0
1.30    173.93     18.29      0.19     1.20     YES   HROFDY
 A0000006         0   0.30748E-04  439744.9 3765699.6   289.0
1.30    172.78     18.29      0.07     1.20     YES   HROFDY
 A0000007         0   0.30748E-04  439917.7 3765699.4   289.0
1.30    172.78     18.29      0.07     1.20     YES   HROFDY
 A0000008         0   0.30748E-04  440090.5 3765699.2   289.0
1.30    157.42     18.29      0.00     1.20     YES   HROFDY
 A0000009         0   0.30748E-04  440247.9 3765699.2   289.0
1.30    157.42     18.29      0.00     1.20     YES   HROFDY
 A0000010         0   0.30748E-04  440405.4 3765699.2   289.0
1.30    122.75     18.29     -0.64     1.20     YES   HROFDY
 A0000011         0   0.30748E-04  440528.2 3765700.6   289.0
1.30    122.75     18.29     -0.64     1.20     YES   HROFDY
 A0000023         0   0.53118E-03  439894.8 3765794.0   289.0
1.30     32.80      3.96    171.48     1.20     YES   HROFDY
 A0000024         0   0.53118E-03  439862.4 3765789.1   289.0
1.30     32.80      3.96    171.48     1.20     YES   HROFDY
 A0000025         0   0.53118E-03  439830.0 3765784.3   289.0
1.30     38.31      3.96    171.96     1.20     YES   HROFDY
 A0000026         0   0.53118E-03  439792.0 3765778.9   289.0
1.30     38.31      3.96    171.96     1.20     YES   HROFDY
 A0000027         0   0.53118E-03  439754.1 3765773.6   289.0
1.30     38.31      3.96    171.96     1.20     YES   HROFDY
 A0000028         0   0.53118E-03  439716.2 3765768.2   289.0
1.30     38.31      3.96    171.96     1.20     YES   HROFDY
 A0000029         0   0.53118E-03  439678.2 3765762.8   289.0
1.30     38.31      3.96    171.96     1.20     YES   HROFDY
 A0000030         0   0.53118E-03  439640.3 3765757.5   289.0
1.30     38.31      3.96    171.96     1.20     YES   HROFDY
 A0000031         0   0.53118E-03  439602.5 3765752.1   289.0
1.30     23.20      3.96    175.65     1.20     YES   HROFDY
 A0000032         0   0.53118E-03  439579.4 3765750.4   289.0
1.30     23.20      3.96    175.65     1.20     YES   HROFDY
 A0000033         0   0.53118E-03  439556.3 3765748.6   289.0
1.30     39.05      3.96    178.51     1.20     YES   HROFDY
 A0000034         0   0.53118E-03  439517.3 3765747.6   289.0
1.30     39.05      3.96    178.51     1.20     YES   HROFDY
 A0000035         0   0.53118E-03  439478.2 3765746.6   289.0
1.30     27.56      3.96    178.03     1.20     YES   HROFDY
 A0000036         0   0.53118E-03  439450.7 3765745.6   289.0
1.30     27.56      3.96    178.03     1.20     YES   HROFDY
 A0000037         0   0.30079E-03  439896.1 3765649.5   289.0
1.30     39.04      7.62   -169.43     1.20     YES   HROFDY
 A0000038         0   0.30079E-03  439857.7 3765656.6   289.0
1.30     39.04      7.62   -169.43     1.20     YES   HROFDY
 A0000039         0   0.30079E-03  439819.3 3765663.8   289.0
1.30     64.28      7.62   -169.30     1.20     YES   HROFDY
 A0000040         0   0.30079E-03  439755.9 3765675.8   289.0
```

1.30	46.57	7.62	-174.26	1.20	YES	HROFDY

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** AREA SOURCE DATA ***

RELEASE	X-DIM	Y-DIM	ORIENT.	INIT.	URBAN	EMISSION RATE
SOURCE ID	PART. CATS.	(GRAMS/SEC /METER**2)	X (METERS)	Y (METERS)	ELEV. (METERS)	
HEIGHT (METERS)	OF AREA (METERS)	OF AREA (METERS)	OF AREA (DEG.)	SZ (METERS)	SOURCE	SCALAR BY
A0000041	0	0.30079E-03	439709.5	3765680.5	289.0	
1.30	46.57	7.62	-174.26	1.20	YES	HROFDY
A0000042	0	0.30079E-03	439663.2	3765685.1	289.0	
1.30	66.93	7.62	-174.23	1.20	YES	HROFDY
A0000043	0	0.30079E-03	439596.6	3765691.8	289.0	
1.30	66.93	7.62	-174.23	1.20	YES	HROFDY
A0000044	0	0.30079E-03	439530.0	3765698.6	289.0	
1.30	66.93	7.62	-174.23	1.20	YES	HROFDY
A0000045	0	0.49659E-03	439941.6	3765643.3	289.0	
1.30	26.12	3.96	-8.23	1.20	YES	HROFDY
A0000046	0	0.49659E-03	439967.4	3765647.1	289.0	
1.30	26.12	3.96	-8.23	1.20	YES	HROFDY
A0000047	0	0.49659E-03	439993.3	3765650.8	289.0	
1.30	32.84	3.96	-7.40	1.20	YES	HROFDY
A0000048	0	0.49659E-03	440025.8	3765655.0	289.0	
1.30	32.84	3.96	-7.40	1.20	YES	HROFDY
A0000049	0	0.49659E-03	440058.4	3765659.3	289.0	
1.30	32.84	3.96	-7.40	1.20	YES	HROFDY
A0000050	0	0.49659E-03	440091.0	3765663.5	289.0	
1.30	32.84	3.96	-7.40	1.20	YES	HROFDY
A0000051	0	0.49659E-03	440123.5	3765667.7	289.0	
1.30	32.84	3.96	-7.40	1.20	YES	HROFDY
A0000052	0	0.49659E-03	440156.1	3765672.0	289.0	
1.30	37.89	3.96	-7.15	1.20	YES	HROFDY
A0000053	0	0.49659E-03	440193.7	3765676.7	289.0	
1.30	37.89	3.96	-7.15	1.20	YES	HROFDY
A0000054	0	0.49659E-03	440231.3	3765681.4	289.0	

```
1.30     37.89      3.96     -7.15     1.20     YES   HROFDY
 A0000055         0   0.49659E-03  440268.7 3765686.1   289.0
1.30     26.94      3.96     -3.79     1.20     YES   HROFDY
 A0000056         0   0.49659E-03  440295.6 3765687.9   289.0
1.30     26.94      3.96     -3.79     1.20     YES   HROFDY
 A0000057         0   0.49659E-03  440322.4 3765689.7   289.0
1.30     32.28      3.96     -1.87     1.20     YES   HROFDY
 A0000058         0   0.49659E-03  440354.7 3765690.7   289.0
1.30     30.65      3.96     -1.70     1.20     YES   HROFDY
 A0000059         0   0.49659E-03  440385.3 3765691.6   289.0
1.30     30.65      3.96     -1.70     1.20     YES   HROFDY
 A0000060         0   0.49659E-03  440416.0 3765692.5   289.0
1.30     30.65      3.96     -1.70     1.20     YES   HROFDY
 A0000061         0   0.18975E-03  440393.2 3765744.6   289.0
1.30     82.20     11.58   -174.12     1.20     YES   HROFDY
 A0000062         0   0.18975E-03  440311.4 3765753.0   289.0
1.30     86.40     11.58   -174.17     1.20     YES   HROFDY
 A0000063         0   0.18975E-03  440225.4 3765761.8   289.0
1.30     87.63     11.58   -175.26     1.20     YES   HROFDY
 A0000064         0   0.18975E-03  440138.2 3765769.0   289.0
1.30     35.21     11.58   -173.24     1.20     YES   HROFDY
 A0000065         0   0.18975E-03  440103.5 3765773.1   289.0
1.30     81.78     11.58   -171.16     1.20     YES   HROFDY
 A0000066         0   0.18975E-03  440022.7 3765785.7   289.0
1.30     81.78     11.58   -171.16     1.20     YES   HROFDY
 A0000067         0   0.30732E-04  440650.1 3765736.5   289.0
1.30    176.76     18.29   -179.52     1.20     YES   HROFDY
 A0000068         0   0.30732E-04  440473.4 3765738.0   289.0
1.30    176.76     18.29   -179.52     1.20     YES   HROFDY
 A0000069         0   0.30732E-04  440296.6 3765739.5   289.0
1.30    176.76     18.29   -179.52     1.20     YES   HROFDY
 A0000070         0   0.30732E-04  440119.8 3765740.9   289.0
1.30    152.62     18.29   -179.86     1.20     YES   HROFDY
 A0000071         0   0.30732E-04  439967.2 3765741.3   289.0
1.30    152.62     18.29   -179.86     1.20     YES   HROFDY
 A0000072         0   0.30732E-04  439814.6 3765741.7   289.0
1.30    152.62     18.29   -179.86     1.20     YES   HROFDY
 A0000073         0   0.30732E-04  439661.9 3765742.1   289.0
1.30    163.56     18.29   -179.87     1.20     YES   HROFDY
 A0000074         0   0.30732E-04  439498.4 3765742.5   289.0
1.30    163.56     18.29   -179.87     1.20     YES   HROFDY
 A0000075         0   0.30732E-04  439334.8 3765742.8   289.0
1.30    163.56     18.29   -179.87     1.20     YES   HROFDY
 A0000076         0   0.30732E-04  439171.2 3765743.2   289.0
1.30    150.14     18.29    179.63     1.20     YES   HROFDY
 A0000077         0   0.30732E-04  439021.1 3765742.2   289.0
1.30    150.14     18.29    179.63     1.20     YES   HROFDY
 A0000078         0   0.30740E-04  438872.2 3765704.7   289.0
1.30    174.70     18.29      0.37     1.20     YES   HROFDY
 A0000079         0   0.30740E-04  439046.9 3765703.5   289.0
1.30    174.70     18.29      0.37     1.20     YES   HROFDY
 A0000080         0   0.30740E-04  439221.6 3765702.4   289.0
```

1.30	174.70	18.29	0.37	1.20	YES	HROFDY

*** AREA SOURCE DATA ***

RELEASE	X-DIM	Y-DIM	ORIENT.	INIT.	URBAN	EMISSION RATE
SOURCE ID	PART. CATS.	(GRAMS/SEC /METER**2)	X (METERS)	Y (METERS)	SOURCE (METERS)	SCALAR BY
	NUMBER	EMISSION RATE	COORD (SW CORNER)			
	HEIGHT	OF AREA (METERS)	OF AREA (METERS)	OF AREA (DEG.)	SZ (METERS)	VARY
A0000081	0	0.30740E-04	439396.3	3765701.3	289.0	
1.30	174.70	18.29	0.37	1.20	YES	HROFDY
A0000082	0	0.30740E-04	439571.0	3765700.2	289.0	
1.30	173.92	18.29	0.18	1.20	YES	HROFDY
A0000083	0	0.30740E-04	439744.9	3765699.6	289.0	
1.30	172.78	18.29	0.07	1.20	YES	HROFDY
A0000084	0	0.30740E-04	439917.7	3765699.4	289.0	
1.30	172.78	18.29	0.07	1.20	YES	HROFDY
A0000085	0	0.30740E-04	440090.5	3765699.2	289.0	
1.30	157.43	18.29	0.00	1.20	YES	HROFDY
A0000086	0	0.30740E-04	440247.9	3765699.2	289.0	
1.30	157.43	18.29	0.00	1.20	YES	HROFDY
A0000087	0	0.30740E-04	440405.5	3765699.2	289.0	
1.30	122.75	18.29	-0.64	1.20	YES	HROFDY
A0000088	0	0.30740E-04	440528.2	3765700.6	289.0	
1.30	122.75	18.29	-0.64	1.20	YES	HROFDY
A0000089	0	0.53150E-03	439894.8	3765794.0	289.0	
1.30	32.80	3.96	171.47	1.20	YES	HROFDY
A0000090	0	0.53150E-03	439862.4	3765789.1	289.0	
1.30	32.80	3.96	171.47	1.20	YES	HROFDY
A0000091	0	0.53150E-03	439830.0	3765784.3	289.0	
1.30	38.31	3.96	171.96	1.20	YES	HROFDY
A0000092	0	0.53150E-03	439792.0	3765778.9	289.0	
1.30	38.31	3.96	171.96	1.20	YES	HROFDY
A0000093	0	0.53150E-03	439754.1	3765773.6	289.0	
1.30	38.31	3.96	171.96	1.20	YES	HROFDY
A0000094	0	0.53150E-03	439716.2	3765768.2	289.0	

```
1.30     38.31      3.96    171.96     1.20     YES   HROFDY
 A0000095         0   0.53150E-03  439678.2 3765762.8   289.0
1.30     38.31      3.96    171.96     1.20     YES   HROFDY
 A0000096         0   0.53150E-03  439640.3 3765757.5   289.0
1.30     38.31      3.96    171.96     1.20     YES   HROFDY
 A0000097         0   0.53150E-03  439602.5 3765752.1   289.0
1.30     23.20      3.96    175.64     1.20     YES   HROFDY
 A0000098         0   0.53150E-03  439579.4 3765750.4   289.0
1.30     23.20      3.96    175.64     1.20     YES   HROFDY
 A0000099         0   0.53150E-03  439556.3 3765748.6   289.0
1.30     39.06      3.96    178.51     1.20     YES   HROFDY
 A0000100         0   0.53150E-03  439517.3 3765747.6   289.0
1.30     39.06      3.96    178.51     1.20     YES   HROFDY
 A0000101         0   0.53150E-03  439478.2 3765746.6   289.0
1.30     27.56      3.96    178.02     1.20     YES   HROFDY
 A0000102         0   0.53150E-03  439450.7 3765745.6   289.0
1.30     27.56      3.96    178.02     1.20     YES   HROFDY
 A0000103         0   0.30079E-03  439896.1 3765649.5   289.0
1.30     39.04      7.62   -169.42     1.20     YES   HROFDY
 A0000104         0   0.30079E-03  439857.7 3765656.6   289.0
1.30     39.04      7.62   -169.42     1.20     YES   HROFDY
 A0000105         0   0.30079E-03  439819.3 3765663.8   289.0
1.30     64.29      7.62   -169.31     1.20     YES   HROFDY
 A0000106         0   0.30079E-03  439755.9 3765675.8   289.0
1.30     46.56      7.62   -174.26     1.20     YES   HROFDY
 A0000107         0   0.30079E-03  439709.5 3765680.5   289.0
1.30     46.56      7.62   -174.26     1.20     YES   HROFDY
 A0000108         0   0.30079E-03  439663.2 3765685.1   289.0
1.30     66.94      7.62   -174.23     1.20     YES   HROFDY
 A0000109         0   0.30079E-03  439596.6 3765691.8   289.0
1.30     66.94      7.62   -174.23     1.20     YES   HROFDY
 A0000110         0   0.30079E-03  439530.0 3765698.6   289.0
1.30     66.94      7.62   -174.23     1.20     YES   HROFDY
 A0000111         0   0.49690E-03  439941.6 3765643.3   289.0
1.30     26.12      3.96     -8.23     1.20     YES   HROFDY
 A0000112         0   0.49690E-03  439967.4 3765647.1   289.0
1.30     26.12      3.96     -8.23     1.20     YES   HROFDY
 A0000113         0   0.49690E-03  439993.3 3765650.8   289.0
1.30     32.84      3.96     -7.41     1.20     YES   HROFDY
 A0000114         0   0.49690E-03  440025.8 3765655.0   289.0
1.30     32.84      3.96     -7.41     1.20     YES   HROFDY
 A0000115         0   0.49690E-03  440058.4 3765659.3   289.0
1.30     32.84      3.96     -7.41     1.20     YES   HROFDY
 A0000116         0   0.49690E-03  440091.0 3765663.5   289.0
1.30     32.84      3.96     -7.41     1.20     YES   HROFDY
 A0000117         0   0.49690E-03  440123.5 3765667.7   289.0
1.30     32.84      3.96     -7.41     1.20     YES   HROFDY
 A0000118         0   0.49690E-03  440156.1 3765672.0   289.0
1.30     37.89      3.96     -7.15     1.20     YES   HROFDY
 A0000119         0   0.49690E-03  440193.7 3765676.7   289.0
1.30     37.89      3.96     -7.15     1.20     YES   HROFDY
 A0000120         0   0.49690E-03  440231.3 3765681.4   289.0
```

1.30	37.89	3.96	-7.15	1.20	YES	HROFDY

*** AREA SOURCE DATA ***

RELEASE	X-DIM	Y-DIM	ORIENT.	INIT.	URBAN	EMISSION RATE
SOURCE ID	PART. CATS.	(GRAMS/SEC /METER**2)	X (METERS)	Y (METERS)	SZ (METERS)	SOURCE (METERS)	SCALAR (DEG.)	VARY (METERS)	BY
A0000121	0	0.49690E-03	440268.7	3765686.1	289.0	1.30	26.94	3.96	-3.79	1.20	YES	HROFDY
A0000122	0	0.49690E-03	440295.6	3765687.9	289.0	1.30	26.94	3.96	-3.79	1.20	YES	HROFDY
A0000123	0	0.49690E-03	440322.4	3765689.7	289.0	1.30	32.28	3.96	-1.88	1.20	YES	HROFDY
A0000124	0	0.49690E-03	440354.7	3765690.7	289.0	1.30	30.65	3.96	-1.70	1.20	YES	HROFDY
A0000125	0	0.49690E-03	440385.3	3765691.6	289.0	1.30	30.65	3.96	-1.70	1.20	YES	HROFDY
A0000126	0	0.49690E-03	440416.0	3765692.5	289.0	1.30	30.65	3.96	-1.70	1.20	YES	HROFDY
A0000127	0	0.18979E-03	440393.2	3765744.6	289.0	1.30	82.20	11.58	-174.12	1.20	YES	HROFDY
A0000128	0	0.18979E-03	440311.4	3765753.0	289.0	1.30	86.41	11.58	-174.17	1.20	YES	HROFDY
A0000129	0	0.18979E-03	440225.4	3765761.8	289.0	1.30	87.64	11.58	-175.26	1.20	YES	HROFDY
A0000130	0	0.18979E-03	440138.2	3765769.0	289.0	1.30	35.20	11.58	-173.25	1.20	YES	HROFDY
A0000131	0	0.18979E-03	440103.5	3765773.1	289.0	1.30	81.78	11.58	-171.16	1.20	YES	HROFDY
A0000132	0	0.18979E-03	440022.7	3765785.7	289.0	1.30	81.78	11.58	-171.16	1.20	YES	HROFDY

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** SOURCE IDs DEFINING SOURCE GROUPS ***

SRCGROUP ID	SOURCE IDs
EXH	A0000012 , A0000013 , A0000014 , A0000015 , A0000016 , A0000017 , A0000018 , A0000019 ,
	A0000020 , A0000021 , A0000022 , A0000001 , A0000002 , A0000003 , A0000004 , A0000005 ,
	A0000006 , A0000007 , A0000008 , A0000009 , A0000010 , A0000011 , A0000023 , A0000024 ,
	A0000025 , A0000026 , A0000027 , A0000028 , A0000029 , A0000030 , A0000031 , A0000032 ,
	A0000033 , A0000034 , A0000035 , A0000036 , A0000037 , A0000038 , A0000039 , A0000040 ,
	A0000041 , A0000042 , A0000043 , A0000044 , A0000045 , A0000046 , A0000047 , A0000048 ,
	A0000049 , A0000050 , A0000051 , A0000052 , A0000053 , A0000054 , A0000055 , A0000056 ,
	A0000057 , A0000058 , A0000059 , A0000060 , A0000061 , A0000062 , A0000063 , A0000064 ,
	A0000065 , A0000066 ,

```
  EVAP       A0000067    , A0000068    , A0000069    ,
A0000070    , A0000071    , A0000072    , A0000073    ,
A0000074    ,

             A0000075    , A0000076    , A0000077    ,
A0000078    , A0000079    , A0000080    , A0000081    ,
A0000082    ,

             A0000083    , A0000084    , A0000085    ,
A0000086    , A0000087    , A0000088    , A0000089    ,
A0000090    ,

             A0000091    , A0000092    , A0000093    ,
A0000094    , A0000095    , A0000096    , A0000097    ,
A0000098    ,

             A0000099    , A0000100    , A0000101    ,
A0000102    , A0000103    , A0000104    , A0000105    ,
A0000106    ,

             A0000107    , A0000108    , A0000109    ,
A0000110    , A0000111    , A0000112    , A0000113    ,
A0000114    ,

             A0000115    , A0000116    , A0000117    ,
A0000118    , A0000119    , A0000120    , A0000121    ,
A0000122    ,

             A0000123    , A0000124    , A0000125    ,
A0000126    , A0000127    , A0000128    , A0000129    ,
A0000130    ,

             A0000131    , A0000132    ,

  FREEEXH    A0000012    , A0000013    , A0000014    ,
A0000015    , A0000016    , A0000017    , A0000018    ,
A0000019    ,

             A0000020    , A0000021    , A0000022    ,
A0000001    , A0000002    , A0000003    , A0000004    ,
A0000005    ,
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** SOURCE IDs DEFINING SOURCE GROUPS ***

SRCGROUP ID	SOURCE IDs
	A0000006 , A0000007 , A0000008 , A0000009 , A0000010 , A0000011 ,
ONOFFEXH	A0000023 , A0000024 , A0000025 , A0000026 , A0000027 , A0000028 , A0000029 , A0000030 ,
	A0000031 , A0000032 , A0000033 , A0000034 , A0000035 , A0000036 , A0000037 , A0000038 ,
	A0000039 , A0000040 , A0000041 , A0000042 , A0000043 , A0000044 , A0000045 , A0000046 ,
	A0000047 , A0000048 , A0000049 , A0000050 , A0000051 , A0000052 , A0000053 , A0000054 ,
	A0000055 , A0000056 , A0000057 , A0000058 , A0000059 , A0000060 , A0000061 , A0000062 ,
	A0000063 , A0000064 , A0000065 , A0000066 ,
FREEEVAP	A0000067 , A0000068 , A0000069 , A0000070 , A0000071 , A0000072 , A0000073 , A0000074 ,
	A0000075 , A0000076 , A0000077 , A0000078 , A0000079 , A0000080 , A0000081 , A0000082 ,

```
             A0000083    , A0000084    , A0000085    ,
A0000086    , A0000087    , A0000088    ,

  ONOFFEVA   A0000089    , A0000090    , A0000091    ,
A0000092    , A0000093    , A0000094    , A0000095    ,
A0000096    ,

             A0000097    , A0000098    , A0000099    ,
A0000100    , A0000101    , A0000102    , A0000103    ,
A0000104    ,

             A0000105    , A0000106    , A0000107    ,
A0000108    , A0000109    , A0000110    , A0000111    ,
A0000112    ,

             A0000113    , A0000114    , A0000115    ,
A0000116    , A0000117    , A0000118    , A0000119    ,
A0000120    ,

             A0000121    , A0000122    , A0000123    ,
A0000124    , A0000125    , A0000126    , A0000127    ,
A0000128    ,

             A0000129    , A0000130    , A0000131    ,
A0000132    ,

  ALL        A0000012    , A0000013    , A0000014    ,
A0000015    , A0000016    , A0000017    , A0000018    ,
A0000019    ,

             A0000020    , A0000021    , A0000022    ,
A0000001    , A0000002    , A0000003    , A0000004    ,
A0000005    ,

             A0000006    , A0000007    , A0000008    ,
A0000009    , A0000010    , A0000011    , A0000023    ,
A0000024    ,

             A0000025    , A0000026    , A0000027    ,
A0000028    , A0000029    , A0000030    , A0000031    ,
A0000032    ,
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** SOURCE IDs DEFINING SOURCE GROUPS ***

SRCGROUP ID	SOURCE IDs
A0000033 , A0000034 , A0000035 , A0000036 , A0000037 , A0000038 , A0000039 , A0000040 ,	
A0000041 , A0000042 , A0000043 , A0000044 , A0000045 , A0000046 , A0000047 , A0000048 ,	
A0000049 , A0000050 , A0000051 , A0000052 , A0000053 , A0000054 , A0000055 , A0000056 ,	
A0000057 , A0000058 , A0000059 , A0000060 , A0000061 , A0000062 , A0000063 , A0000064 ,	
A0000065 , A0000066 , A0000067 , A0000068 , A0000069 , A0000070 , A0000071 , A0000072 ,	
A0000073 , A0000074 , A0000075 , A0000076 , A0000077 , A0000078 , A0000079 , A0000080 ,	
A0000081 , A0000082 , A0000083 , A0000084 , A0000085 , A0000086 , A0000087 , A0000088 ,	
A0000089 , A0000090 , A0000091 , A0000092 , A0000093 , A0000094 , A0000095 , A0000096 ,	
A0000097 , A0000098 , A0000099 ,	

```
A0000100    , A0000101    , A0000102    , A0000103    ,
A0000104    ,

             A0000105    , A0000106    , A0000107    ,
A0000108    , A0000109    , A0000110    , A0000111    ,
A0000112    ,

             A0000113    , A0000114    , A0000115    ,
A0000116    , A0000117    , A0000118    , A0000119    ,
A0000120    ,

             A0000121    , A0000122    , A0000123    ,
A0000124    , A0000125    , A0000126    , A0000127    ,
A0000128    ,

             A0000129    , A0000130    , A0000131    ,
A0000132    ,
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** SOURCE IDs DEFINED AS URBAN SOURCES ***

URBAN ID	URBAN POP	SOURCE IDs
	2035210.	A0000012 , A0000013 , A0000014 , A0000015 , A0000016 , A0000017 , A0000018 , A0000019 ,
		A0000020 , A0000021 , A0000022 , A0000001 , A0000002 , A0000003 , A0000004 , A0000005 ,
		A0000006 , A0000007 , A0000008 , A0000009 , A0000010 , A0000011 , A0000023 , A0000024 ,
		A0000025 , A0000026 , A0000027 , A0000028 , A0000029 , A0000030 , A0000031 , A0000032 ,
		A0000033 , A0000034 , A0000035 , A0000036 , A0000037 , A0000038 , A0000039 , A0000040 ,
		A0000041 , A0000042 , A0000043 , A0000044 , A0000045 , A0000046 , A0000047 , A0000048 ,
		A0000049 , A0000050 , A0000051 , A0000052 , A0000053 , A0000054 , A0000055 , A0000056 ,
		A0000057 , A0000058 , A0000059 , A0000060 , A0000061 , A0000062 , A0000063 , A0000064 ,

```
             A0000065    , A0000066    , A0000067    ,
A0000068    , A0000069    , A0000070    , A0000071    ,
A0000072    ,

             A0000073    , A0000074    , A0000075    ,
A0000076    , A0000077    , A0000078    , A0000079    ,
A0000080    ,

             A0000081    , A0000082    , A0000083    ,
A0000084    , A0000085    , A0000086    , A0000087    ,
A0000088    ,

             A0000089    , A0000090    , A0000091    ,
A0000092    , A0000093    , A0000094    , A0000095    ,
A0000096    ,

             A0000097    , A0000098    , A0000099    ,
A0000100    , A0000101    , A0000102    , A0000103    ,
A0000104    ,

             A0000105    , A0000106    , A0000107    ,
A0000108    , A0000109    , A0000110    , A0000111    ,
A0000112    ,

             A0000113    , A0000114    , A0000115    ,
A0000116    , A0000117    , A0000118    , A0000119    ,
A0000120    ,

             A0000121    , A0000122    , A0000123    ,
A0000124    , A0000125    , A0000126    , A0000127    ,
A0000128    ,

             A0000129    , A0000130    , A0000131    ,
A0000132    ,
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.14400E-01	2	.19900E-01	3	.20300E-01
4	.31200E-01	5	.64700E-01	6	.74900E-01
7	.84300E-01	8	.91500E-01	9	.90100E-01
10	.88900E-01	11	.90000E-01	12	.92300E-01
13	.94300E-01	14	.96400E-01	15	.99800E-01
16	.10200E+00	17	.10300E+00	18	.10000E+00
19	.88600E-01	20	.72900E-01	21	.62600E-01
22	.59300E-01	23	.49100E-01	24	.36100E-01

SOURCE ID = A0000012 ; SOURCE TYPE = AREA :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.14400E-01	2	.19900E-01	3	.20300E-01
4	.31200E-01	5	.64700E-01	6	.74900E-01
7	.84300E-01	8	.91500E-01	9	.90100E-01
10	.88900E-01	11	.90000E-01	12	.92300E-01
13	.94300E-01	14	.96400E-01	15	.99800E-01
16	.10200E+00	17	.10300E+00	18	.10000E+00
19	.88600E-01	20	.72900E-01	21	.62600E-01
22	.59300E-01	23	.49100E-01	24	.36100E-01

SOURCE ID = A0000013 ; SOURCE TYPE = AREA :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.14400E-01	2	.19900E-01	3	.20300E-01
4	.31200E-01	5	.64700E-01	6	.74900E-01
7	.84300E-01	8	.91500E-01	9	.90100E-01
10	.88900E-01	11	.90000E-01	12	.92300E-01
13	.94300E-01	14	.96400E-01	15	.99800E-01
16	.10200E+00	17	.10300E+00	18	.10000E+00
19	.88600E-01	20	.72900E-01	21	.62600E-01
22	.59300E-01	23	.49100E-01	24	.36100E-01

SOURCE ID = A0000014 ; SOURCE TYPE = AREA :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.14400E-01	2	.19900E-01	3	.20300E-01
4	.31200E-01	5	.64700E-01	6	.74900E-01
7	.84300E-01	8	.91500E-01	9	.90100E-01
10	.88900E-01	11	.90000E-01	12	.92300E-01
13	.94300E-01	14	.96400E-01	15	.99800E-01
16	.10200E+00	17	.10300E+00	18	.10000E+00
19	.88600E-01	20	.72900E-01	21	.62600E-01
22	.59300E-01	23	.49100E-01	24	.36100E-01

SOURCE ID = A0000015 ; SOURCE TYPE = AREA :

```
       1   .14400E-01      2   .19900E-01      3   .20300E-01
4   .31200E-01      5   .64700E-01      6   .74900E-01
       7   .84300E-01      8   .91500E-01      9   .90100E-01
10   .88900E-01     11   .90000E-01     12   .92300E-01
      13   .94300E-01     14   .96400E-01     15   .99800E-01
16   .10200E+00     17   .10300E+00     18   .10000E+00
      19   .88600E-01     20   .72900E-01     21   .62600E-01
22   .59300E-01     23   .49100E-01     24   .36100E-01


 SOURCE ID = A0000016     ; SOURCE TYPE = AREA     :
       1   .14400E-01      2   .19900E-01      3   .20300E-01
4   .31200E-01      5   .64700E-01      6   .74900E-01
       7   .84300E-01      8   .91500E-01      9   .90100E-01
10   .88900E-01     11   .90000E-01     12   .92300E-01
      13   .94300E-01     14   .96400E-01     15   .99800E-01
16   .10200E+00     17   .10300E+00     18   .10000E+00
      19   .88600E-01     20   .72900E-01     21   .62600E-01
22   .59300E-01     23   .49100E-01     24   .36100E-01
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.14400E-01	2	.19900E-01	3	.20300E-01
4	.31200E-01	5	.64700E-01	6	.74900E-01
7	.84300E-01	8	.91500E-01	9	.90100E-01
10	.88900E-01	11	.90000E-01	12	.92300E-01
13	.94300E-01	14	.96400E-01	15	.99800E-01
16	.10200E+00	17	.10300E+00	18	.10000E+00
19	.88600E-01	20	.72900E-01	21	.62600E-01
22	.59300E-01	23	.49100E-01	24	.36100E-01

SOURCE ID = A0000017 ; SOURCE TYPE = AREA :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.14400E-01	2	.19900E-01	3	.20300E-01
4	.31200E-01	5	.64700E-01	6	.74900E-01
7	.84300E-01	8	.91500E-01	9	.90100E-01
10	.88900E-01	11	.90000E-01	12	.92300E-01
13	.94300E-01	14	.96400E-01	15	.99800E-01
16	.10200E+00	17	.10300E+00	18	.10000E+00
19	.88600E-01	20	.72900E-01	21	.62600E-01
22	.59300E-01	23	.49100E-01	24	.36100E-01

SOURCE ID = A0000018 ; SOURCE TYPE = AREA :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.14400E-01	2	.19900E-01	3	.20300E-01
4	.31200E-01	5	.64700E-01	6	.74900E-01
7	.84300E-01	8	.91500E-01	9	.90100E-01
10	.88900E-01	11	.90000E-01	12	.92300E-01
13	.94300E-01	14	.96400E-01	15	.99800E-01
16	.10200E+00	17	.10300E+00	18	.10000E+00
19	.88600E-01	20	.72900E-01	21	.62600E-01
22	.59300E-01	23	.49100E-01	24	.36100E-01

SOURCE ID = A0000019 ; SOURCE TYPE = AREA :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.14400E-01	2	.19900E-01	3	.20300E-01
4	.31200E-01	5	.64700E-01	6	.74900E-01
7	.84300E-01	8	.91500E-01	9	.90100E-01
10	.88900E-01	11	.90000E-01	12	.92300E-01
13	.94300E-01	14	.96400E-01	15	.99800E-01
16	.10200E+00	17	.10300E+00	18	.10000E+00
19	.88600E-01	20	.72900E-01	21	.62600E-01
22	.59300E-01	23	.49100E-01	24	.36100E-01

SOURCE ID = A0000020 ; SOURCE TYPE = AREA :

```
       1   .14400E-01      2   .19900E-01      3   .20300E-01
4   .31200E-01      5   .64700E-01      6   .74900E-01
       7   .84300E-01      8   .91500E-01      9   .90100E-01
10   .88900E-01     11   .90000E-01     12   .92300E-01
      13   .94300E-01     14   .96400E-01     15   .99800E-01
16   .10200E+00     17   .10300E+00     18   .10000E+00
      19   .88600E-01     20   .72900E-01     21   .62600E-01
22   .59300E-01     23   .49100E-01     24   .36100E-01


 SOURCE ID = A0000021     ; SOURCE TYPE = AREA     :
       1   .14400E-01      2   .19900E-01      3   .20300E-01
4   .31200E-01      5   .64700E-01      6   .74900E-01
       7   .84300E-01      8   .91500E-01      9   .90100E-01
10   .88900E-01     11   .90000E-01     12   .92300E-01
      13   .94300E-01     14   .96400E-01     15   .99800E-01
16   .10200E+00     17   .10300E+00     18   .10000E+00
      19   .88600E-01     20   .72900E-01     21   .62600E-01
22   .59300E-01     23   .49100E-01     24   .36100E-01
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.14400E-01	2	.19900E-01	3	.20300E-01	4	.31200E-01	5	.64700E-01	6	.74900E-01
7	.84300E-01	8	.91500E-01	9	.90100E-01	10	.88900E-01	11	.90000E-01	12	.92300E-01
13	.94300E-01	14	.96400E-01	15	.99800E-01	16	.10200E+00	17	.10300E+00	18	.10000E+00
19	.88600E-01	20	.72900E-01	21	.62600E-01	22	.59300E-01	23	.49100E-01	24	.36100E-01

SOURCE ID = A0000022 ; SOURCE TYPE = AREA :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.14400E-01	2	.19900E-01	3	.20300E-01	4	.31200E-01	5	.64700E-01	6	.74900E-01
7	.84300E-01	8	.91500E-01	9	.90100E-01	10	.88900E-01	11	.90000E-01	12	.92300E-01
13	.94300E-01	14	.96400E-01	15	.99800E-01	16	.10200E+00	17	.10300E+00	18	.10000E+00
19	.88600E-01	20	.72900E-01	21	.62600E-01	22	.59300E-01	23	.49100E-01	24	.36100E-01

SOURCE ID = A0000001 ; SOURCE TYPE = AREA :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.17200E-01	2	.12400E-01	3	.10800E-01	4	.12600E-01	5	.20300E-01	6	.34000E-01
7	.43100E-01	8	.45700E-01	9	.43900E-01	10	.41400E-01	11	.42000E-01	12	.43900E-01
13	.46300E-01	14	.48300E-01	15	.50100E-01	16	.49100E-01	17	.50800E-01	18	.50600E-01
19	.47200E-01	20	.45900E-01	21	.41700E-01	22	.40800E-01	23	.33400E-01	24	.24800E-01

SOURCE ID = A0000002 ; SOURCE TYPE = AREA :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.17200E-01	2	.12400E-01	3	.10800E-01	4	.12600E-01	5	.20300E-01	6	.34000E-01
7	.43100E-01	8	.45700E-01	9	.43900E-01	10	.41400E-01	11	.42000E-01	12	.43900E-01
13	.46300E-01	14	.48300E-01	15	.50100E-01	16	.49100E-01	17	.50800E-01	18	.50600E-01
19	.47200E-01	20	.45900E-01	21	.41700E-01	22	.40800E-01	23	.33400E-01	24	.24800E-01

SOURCE ID = A0000003 ; SOURCE TYPE = AREA :

```
       1   .17200E-01      2   .12400E-01      3   .10800E-01
4   .12600E-01      5   .20300E-01      6   .34000E-01
       7   .43100E-01      8   .45700E-01      9   .43900E-01
10   .41400E-01     11   .42000E-01     12   .43900E-01
      13   .46300E-01     14   .48300E-01     15   .50100E-01
16   .49100E-01     17   .50800E-01     18   .50600E-01
      19   .47200E-01     20   .45900E-01     21   .41700E-01
22   .40800E-01     23   .33400E-01     24   .24800E-01


 SOURCE ID = A0000004     ; SOURCE TYPE = AREA     :
       1   .17200E-01      2   .12400E-01      3   .10800E-01
4   .12600E-01      5   .20300E-01      6   .34000E-01
       7   .43100E-01      8   .45700E-01      9   .43900E-01
10   .41400E-01     11   .42000E-01     12   .43900E-01
      13   .46300E-01     14   .48300E-01     15   .50100E-01
16   .49100E-01     17   .50800E-01     18   .50600E-01
      19   .47200E-01     20   .45900E-01     21   .41700E-01
22   .40800E-01     23   .33400E-01     24   .24800E-01
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.17200E-01	2	.12400E-01	3	.10800E-01
4	.12600E-01	5	.20300E-01	6	.34000E-01
7	.43100E-01	8	.45700E-01	9	.43900E-01
10	.41400E-01	11	.42000E-01	12	.43900E-01
13	.46300E-01	14	.48300E-01	15	.50100E-01
16	.49100E-01	17	.50800E-01	18	.50600E-01
19	.47200E-01	20	.45900E-01	21	.41700E-01
22	.40800E-01	23	.33400E-01	24	.24800E-01

SOURCE ID = A0000005 ; SOURCE TYPE = AREA :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.17200E-01	2	.12400E-01	3	.10800E-01
4	.12600E-01	5	.20300E-01	6	.34000E-01
7	.43100E-01	8	.45700E-01	9	.43900E-01
10	.41400E-01	11	.42000E-01	12	.43900E-01
13	.46300E-01	14	.48300E-01	15	.50100E-01
16	.49100E-01	17	.50800E-01	18	.50600E-01
19	.47200E-01	20	.45900E-01	21	.41700E-01
22	.40800E-01	23	.33400E-01	24	.24800E-01

SOURCE ID = A0000006 ; SOURCE TYPE = AREA :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.17200E-01	2	.12400E-01	3	.10800E-01
4	.12600E-01	5	.20300E-01	6	.34000E-01
7	.43100E-01	8	.45700E-01	9	.43900E-01
10	.41400E-01	11	.42000E-01	12	.43900E-01
13	.46300E-01	14	.48300E-01	15	.50100E-01
16	.49100E-01	17	.50800E-01	18	.50600E-01
19	.47200E-01	20	.45900E-01	21	.41700E-01
22	.40800E-01	23	.33400E-01	24	.24800E-01

SOURCE ID = A0000007 ; SOURCE TYPE = AREA :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.17200E-01	2	.12400E-01	3	.10800E-01
4	.12600E-01	5	.20300E-01	6	.34000E-01
7	.43100E-01	8	.45700E-01	9	.43900E-01
10	.41400E-01	11	.42000E-01	12	.43900E-01
13	.46300E-01	14	.48300E-01	15	.50100E-01
16	.49100E-01	17	.50800E-01	18	.50600E-01
19	.47200E-01	20	.45900E-01	21	.41700E-01
22	.40800E-01	23	.33400E-01	24	.24800E-01

SOURCE ID = A0000008 ; SOURCE TYPE = AREA :

```
       1   .17200E-01      2   .12400E-01      3   .10800E-01
4   .12600E-01      5   .20300E-01      6   .34000E-01
       7   .43100E-01      8   .45700E-01      9   .43900E-01
10   .41400E-01     11   .42000E-01     12   .43900E-01
      13   .46300E-01     14   .48300E-01     15   .50100E-01
16   .49100E-01     17   .50800E-01     18   .50600E-01
      19   .47200E-01     20   .45900E-01     21   .41700E-01
22   .40800E-01     23   .33400E-01     24   .24800E-01


 SOURCE ID = A0000009     ; SOURCE TYPE = AREA     :
       1   .17200E-01      2   .12400E-01      3   .10800E-01
4   .12600E-01      5   .20300E-01      6   .34000E-01
       7   .43100E-01      8   .45700E-01      9   .43900E-01
10   .41400E-01     11   .42000E-01     12   .43900E-01
      13   .46300E-01     14   .48300E-01     15   .50100E-01
16   .49100E-01     17   .50800E-01     18   .50600E-01
      19   .47200E-01     20   .45900E-01     21   .41700E-01
22   .40800E-01     23   .33400E-01     24   .24800E-01
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

SOURCE ID = A0000010 ; SOURCE TYPE = AREA :

1	.17200E-01	2	.12400E-01	3	.10800E-01
4	.12600E-01	5	.20300E-01	6	.34000E-01
7	.43100E-01	8	.45700E-01	9	.43900E-01
10	.41400E-01	11	.42000E-01	12	.43900E-01
13	.46300E-01	14	.48300E-01	15	.50100E-01
16	.49100E-01	17	.50800E-01	18	.50600E-01
19	.47200E-01	20	.45900E-01	21	.41700E-01
22	.40800E-01	23	.33400E-01	24	.24800E-01

SOURCE ID = A0000011 ; SOURCE TYPE = AREA :

1	.17200E-01	2	.12400E-01	3	.10800E-01
4	.12600E-01	5	.20300E-01	6	.34000E-01
7	.43100E-01	8	.45700E-01	9	.43900E-01
10	.41400E-01	11	.42000E-01	12	.43900E-01
13	.46300E-01	14	.48300E-01	15	.50100E-01
16	.49100E-01	17	.50800E-01	18	.50600E-01
19	.47200E-01	20	.45900E-01	21	.41700E-01
22	.40800E-01	23	.33400E-01	24	.24800E-01

SOURCE ID = A0000023 ; SOURCE TYPE = AREA :

1	.25100E-02	2	.19700E-02	3	.20100E-02
4	.30900E-02	5	.64200E-02	6	.75800E-02
7	.85400E-02	8	.91100E-02	9	.89600E-02
10	.88400E-02	11	.89600E-02	12	.91800E-02
13	.93800E-02	14	.95900E-02	15	.99300E-02
16	.10100E-01	17	.10200E-01	18	.10100E-01
19	.89700E-02	20	.72400E-02	21	.63400E-02
22	.58900E-02	23	.48700E-02	24	.35800E-02

SOURCE ID = A0000024 ; SOURCE TYPE = AREA :

```
       1   .25100E-02      2   .19700E-02      3   .20100E-02
4   .30900E-02      5   .64200E-02      6   .75800E-02
       7   .85400E-02      8   .91100E-02      9   .89600E-02
10   .88400E-02     11   .89600E-02     12   .91800E-02
      13   .93800E-02     14   .95900E-02     15   .99300E-02
16   .10100E-01     17   .10200E-01     18   .10100E-01
      19   .89700E-02     20   .72400E-02     21   .63400E-02
22   .58900E-02     23   .48700E-02     24   .35800E-02


 SOURCE ID = A0000025     ; SOURCE TYPE = AREA     :
       1   .25100E-02      2   .19700E-02      3   .20100E-02
4   .30900E-02      5   .64200E-02      6   .75800E-02
       7   .85400E-02      8   .91100E-02      9   .89600E-02
10   .88400E-02     11   .89600E-02     12   .91800E-02
      13   .93800E-02     14   .95900E-02     15   .99300E-02
16   .10100E-01     17   .10200E-01     18   .10100E-01
      19   .89700E-02     20   .72400E-02     21   .63400E-02
22   .58900E-02     23   .48700E-02     24   .35800E-02
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

SOURCE ID = A0000026 ; SOURCE TYPE = AREA :

1	.25100E-02	2	.19700E-02	3	.20100E-02
4	.30900E-02	5	.64200E-02	6	.75800E-02
7	.85400E-02	8	.91100E-02	9	.89600E-02
10	.88400E-02	11	.89600E-02	12	.91800E-02
13	.93800E-02	14	.95900E-02	15	.99300E-02
16	.10100E-01	17	.10200E-01	18	.10100E-01
19	.89700E-02	20	.72400E-02	21	.63400E-02
22	.58900E-02	23	.48700E-02	24	.35800E-02

SOURCE ID = A0000027 ; SOURCE TYPE = AREA :

1	.25100E-02	2	.19700E-02	3	.20100E-02
4	.30900E-02	5	.64200E-02	6	.75800E-02
7	.85400E-02	8	.91100E-02	9	.89600E-02
10	.88400E-02	11	.89600E-02	12	.91800E-02
13	.93800E-02	14	.95900E-02	15	.99300E-02
16	.10100E-01	17	.10200E-01	18	.10100E-01
19	.89700E-02	20	.72400E-02	21	.63400E-02
22	.58900E-02	23	.48700E-02	24	.35800E-02

SOURCE ID = A0000028 ; SOURCE TYPE = AREA :

1	.25100E-02	2	.19700E-02	3	.20100E-02
4	.30900E-02	5	.64200E-02	6	.75800E-02
7	.85400E-02	8	.91100E-02	9	.89600E-02
10	.88400E-02	11	.89600E-02	12	.91800E-02
13	.93800E-02	14	.95900E-02	15	.99300E-02
16	.10100E-01	17	.10200E-01	18	.10100E-01
19	.89700E-02	20	.72400E-02	21	.63400E-02
22	.58900E-02	23	.48700E-02	24	.35800E-02

SOURCE ID = A0000029 ; SOURCE TYPE = AREA :

```
       1   .25100E-02      2   .19700E-02      3   .20100E-02
4   .30900E-02      5   .64200E-02      6   .75800E-02
       7   .85400E-02      8   .91100E-02      9   .89600E-02
10   .88400E-02     11   .89600E-02     12   .91800E-02
      13   .93800E-02     14   .95900E-02     15   .99300E-02
16   .10100E-01     17   .10200E-01     18   .10100E-01
      19   .89700E-02     20   .72400E-02     21   .63400E-02
22   .58900E-02     23   .48700E-02     24   .35800E-02


 SOURCE ID = A0000030     ; SOURCE TYPE = AREA     :
       1   .25100E-02      2   .19700E-02      3   .20100E-02
4   .30900E-02      5   .64200E-02      6   .75800E-02
       7   .85400E-02      8   .91100E-02      9   .89600E-02
10   .88400E-02     11   .89600E-02     12   .91800E-02
      13   .93800E-02     14   .95900E-02     15   .99300E-02
16   .10100E-01     17   .10200E-01     18   .10100E-01
      19   .89700E-02     20   .72400E-02     21   .63400E-02
22   .58900E-02     23   .48700E-02     24   .35800E-02
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.25100E-02	2	.19700E-02	3	.20100E-02
4	.30900E-02	5	.64200E-02	6	.75800E-02
7	.85400E-02	8	.91100E-02	9	.89600E-02
10	.88400E-02	11	.89600E-02	12	.91800E-02
13	.93800E-02	14	.95900E-02	15	.99300E-02
16	.10100E-01	17	.10200E-01	18	.10100E-01
19	.89700E-02	20	.72400E-02	21	.63400E-02
22	.58900E-02	23	.48700E-02	24	.35800E-02

SOURCE ID = A0000031 ; SOURCE TYPE = AREA :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.25100E-02	2	.19700E-02	3	.20100E-02
4	.30900E-02	5	.64200E-02	6	.75800E-02
7	.85400E-02	8	.91100E-02	9	.89600E-02
10	.88400E-02	11	.89600E-02	12	.91800E-02
13	.93800E-02	14	.95900E-02	15	.99300E-02
16	.10100E-01	17	.10200E-01	18	.10100E-01
19	.89700E-02	20	.72400E-02	21	.63400E-02
22	.58900E-02	23	.48700E-02	24	.35800E-02

SOURCE ID = A0000032 ; SOURCE TYPE = AREA :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.25100E-02	2	.19700E-02	3	.20100E-02
4	.30900E-02	5	.64200E-02	6	.75800E-02
7	.85400E-02	8	.91100E-02	9	.89600E-02
10	.88400E-02	11	.89600E-02	12	.91800E-02
13	.93800E-02	14	.95900E-02	15	.99300E-02
16	.10100E-01	17	.10200E-01	18	.10100E-01
19	.89700E-02	20	.72400E-02	21	.63400E-02
22	.58900E-02	23	.48700E-02	24	.35800E-02

SOURCE ID = A0000033 ; SOURCE TYPE = AREA :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.25100E-02	2	.19700E-02	3	.20100E-02
4	.30900E-02	5	.64200E-02	6	.75800E-02
7	.85400E-02	8	.91100E-02	9	.89600E-02
10	.88400E-02	11	.89600E-02	12	.91800E-02
13	.93800E-02	14	.95900E-02	15	.99300E-02
16	.10100E-01	17	.10200E-01	18	.10100E-01
19	.89700E-02	20	.72400E-02	21	.63400E-02
22	.58900E-02	23	.48700E-02	24	.35800E-02

SOURCE ID = A0000034 ; SOURCE TYPE = AREA :

```
       1   .25100E-02      2   .19700E-02      3   .20100E-02
4   .30900E-02      5   .64200E-02      6   .75800E-02
       7   .85400E-02      8   .91100E-02      9   .89600E-02
10   .88400E-02     11   .89600E-02     12   .91800E-02
      13   .93800E-02     14   .95900E-02     15   .99300E-02
16   .10100E-01     17   .10200E-01     18   .10100E-01
      19   .89700E-02     20   .72400E-02     21   .63400E-02
22   .58900E-02     23   .48700E-02     24   .35800E-02


 SOURCE ID = A0000035     ; SOURCE TYPE = AREA     :
       1   .25100E-02      2   .19700E-02      3   .20100E-02
4   .30900E-02      5   .64200E-02      6   .75800E-02
       7   .85400E-02      8   .91100E-02      9   .89600E-02
10   .88400E-02     11   .89600E-02     12   .91800E-02
      13   .93800E-02     14   .95900E-02     15   .99300E-02
16   .10100E-01     17   .10200E-01     18   .10100E-01
      19   .89700E-02     20   .72400E-02     21   .63400E-02
22   .58900E-02     23   .48700E-02     24   .35800E-02
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.25100E-02	2	.19700E-02	3	.20100E-02
4	.30900E-02	5	.64200E-02	6	.75800E-02
7	.85400E-02	8	.91100E-02	9	.89600E-02
10	.88400E-02	11	.89600E-02	12	.91800E-02
13	.93800E-02	14	.95900E-02	15	.99300E-02
16	.10100E-01	17	.10200E-01	18	.10100E-01
19	.89700E-02	20	.72400E-02	21	.63400E-02
22	.58900E-02	23	.48700E-02	24	.35800E-02

SOURCE ID = A0000036 ; SOURCE TYPE = AREA :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.26100E-02	2	.18800E-02	3	.16500E-02
4	.19200E-02	5	.30900E-02	6	.51800E-02
7	.72700E-02	8	.81100E-02	9	.78000E-02
10	.73400E-02	11	.74500E-02	12	.77900E-02
13	.82200E-02	14	.85700E-02	15	.88500E-02
16	.86800E-02	17	.85200E-02	18	.84900E-02
19	.83700E-02	20	.77500E-02	21	.70300E-02
22	.62100E-02	23	.50800E-02	24	.37800E-02

SOURCE ID = A0000037 ; SOURCE TYPE = AREA :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.26100E-02	2	.18800E-02	3	.16500E-02
4	.19200E-02	5	.30900E-02	6	.51800E-02
7	.72700E-02	8	.81100E-02	9	.78000E-02
10	.73400E-02	11	.74500E-02	12	.77900E-02
13	.82200E-02	14	.85700E-02	15	.88500E-02
16	.86800E-02	17	.85200E-02	18	.84900E-02
19	.83700E-02	20	.77500E-02	21	.70300E-02
22	.62100E-02	23	.50800E-02	24	.37800E-02

SOURCE ID = A0000038 ; SOURCE TYPE = AREA :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.26100E-02	2	.18800E-02	3	.16500E-02
4	.19200E-02	5	.30900E-02	6	.51800E-02
7	.72700E-02	8	.81100E-02	9	.78000E-02
10	.73400E-02	11	.74500E-02	12	.77900E-02
13	.82200E-02	14	.85700E-02	15	.88500E-02
16	.86800E-02	17	.85200E-02	18	.84900E-02
19	.83700E-02	20	.77500E-02	21	.70300E-02
22	.62100E-02	23	.50800E-02	24	.37800E-02

SOURCE ID = A0000039 ; SOURCE TYPE = AREA :

```
       1   .26100E-02      2   .18800E-02      3   .16500E-02
4   .19200E-02      5   .30900E-02      6   .51800E-02
       7   .72700E-02      8   .81100E-02      9   .78000E-02
10   .73400E-02     11   .74500E-02     12   .77900E-02
      13   .82200E-02     14   .85700E-02     15   .88500E-02
16   .86800E-02     17   .85200E-02     18   .84900E-02
      19   .83700E-02     20   .77500E-02     21   .70300E-02
22   .62100E-02     23   .50800E-02     24   .37800E-02


 SOURCE ID = A0000040     ; SOURCE TYPE = AREA     :
       1   .26100E-02      2   .18800E-02      3   .16500E-02
4   .19200E-02      5   .30900E-02      6   .51800E-02
       7   .72700E-02      8   .81100E-02      9   .78000E-02
10   .73400E-02     11   .74500E-02     12   .77900E-02
      13   .82200E-02     14   .85700E-02     15   .88500E-02
16   .86800E-02     17   .85200E-02     18   .84900E-02
      19   .83700E-02     20   .77500E-02     21   .70300E-02
22   .62100E-02     23   .50800E-02     24   .37800E-02
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

SOURCE ID = A0000041 ; SOURCE TYPE = AREA :

1	.26100E-02	2	.18800E-02	3	.16500E-02
4	.19200E-02	5	.30900E-02	6	.51800E-02
7	.72700E-02	8	.81100E-02	9	.78000E-02
10	.73400E-02	11	.74500E-02	12	.77900E-02
13	.82200E-02	14	.85700E-02	15	.88500E-02
16	.86800E-02	17	.85200E-02	18	.84900E-02
19	.83700E-02	20	.77500E-02	21	.70300E-02
22	.62100E-02	23	.50800E-02	24	.37800E-02

SOURCE ID = A0000042 ; SOURCE TYPE = AREA :

1	.26100E-02	2	.18800E-02	3	.16500E-02
4	.19200E-02	5	.30900E-02	6	.51800E-02
7	.72700E-02	8	.81100E-02	9	.78000E-02
10	.73400E-02	11	.74500E-02	12	.77900E-02
13	.82200E-02	14	.85700E-02	15	.88500E-02
16	.86800E-02	17	.85200E-02	18	.84900E-02
19	.83700E-02	20	.77500E-02	21	.70300E-02
22	.62100E-02	23	.50800E-02	24	.37800E-02

SOURCE ID = A0000043 ; SOURCE TYPE = AREA :

1	.26100E-02	2	.18800E-02	3	.16500E-02
4	.19200E-02	5	.30900E-02	6	.51800E-02
7	.72700E-02	8	.81100E-02	9	.78000E-02
10	.73400E-02	11	.74500E-02	12	.77900E-02
13	.82200E-02	14	.85700E-02	15	.88500E-02
16	.86800E-02	17	.85200E-02	18	.84900E-02
19	.83700E-02	20	.77500E-02	21	.70300E-02
22	.62100E-02	23	.50800E-02	24	.37800E-02

SOURCE ID = A0000044 ; SOURCE TYPE = AREA :

```
       1   .26100E-02      2   .18800E-02      3   .16500E-02
4   .19200E-02      5   .30900E-02      6   .51800E-02
       7   .72700E-02      8   .81100E-02      9   .78000E-02
10   .73400E-02     11   .74500E-02     12   .77900E-02
      13   .82200E-02     14   .85700E-02     15   .88500E-02
16   .86800E-02     17   .85200E-02     18   .84900E-02
      19   .83700E-02     20   .77500E-02     21   .70300E-02
22   .62100E-02     23   .50800E-02     24   .37800E-02


 SOURCE ID = A0000045     ; SOURCE TYPE = AREA     :
       1   .40100E-02      2   .28800E-02      3   .25300E-02
4   .29400E-02      5   .47400E-02      6   .79400E-02
       7   .11100E-01      8   .12400E-01      9   .12000E-01
10   .11300E-01     11   .11400E-01     12   .11900E-01
      13   .12600E-01     14   .13100E-01     15   .13600E-01
16   .13300E-01     17   .13100E-01     18   .13000E-01
      19   .12800E-01     20   .11900E-01     21   .10800E-01
22   .95100E-02     23   .77900E-02     24   .58000E-02
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.40100E-02	2	.28800E-02	3	.25300E-02
4	.29400E-02	5	.47400E-02	6	.79400E-02
7	.11100E-01	8	.12400E-01	9	.12000E-01
10	.11300E-01	11	.11400E-01	12	.11900E-01
13	.12600E-01	14	.13100E-01	15	.13600E-01
16	.13300E-01	17	.13100E-01	18	.13000E-01
19	.12800E-01	20	.11900E-01	21	.10800E-01
22	.95100E-02	23	.77900E-02	24	.58000E-02

SOURCE ID = A0000046 ; SOURCE TYPE = AREA :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.40100E-02	2	.28800E-02	3	.25300E-02
4	.29400E-02	5	.47400E-02	6	.79400E-02
7	.11100E-01	8	.12400E-01	9	.12000E-01
10	.11300E-01	11	.11400E-01	12	.11900E-01
13	.12600E-01	14	.13100E-01	15	.13600E-01
16	.13300E-01	17	.13100E-01	18	.13000E-01
19	.12800E-01	20	.11900E-01	21	.10800E-01
22	.95100E-02	23	.77900E-02	24	.58000E-02

SOURCE ID = A0000047 ; SOURCE TYPE = AREA :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.40100E-02	2	.28800E-02	3	.25300E-02
4	.29400E-02	5	.47400E-02	6	.79400E-02
7	.11100E-01	8	.12400E-01	9	.12000E-01
10	.11300E-01	11	.11400E-01	12	.11900E-01
13	.12600E-01	14	.13100E-01	15	.13600E-01
16	.13300E-01	17	.13100E-01	18	.13000E-01
19	.12800E-01	20	.11900E-01	21	.10800E-01
22	.95100E-02	23	.77900E-02	24	.58000E-02

SOURCE ID = A0000048 ; SOURCE TYPE = AREA :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.40100E-02	2	.28800E-02	3	.25300E-02
4	.29400E-02	5	.47400E-02	6	.79400E-02
7	.11100E-01	8	.12400E-01	9	.12000E-01
10	.11300E-01	11	.11400E-01	12	.11900E-01
13	.12600E-01	14	.13100E-01	15	.13600E-01
16	.13300E-01	17	.13100E-01	18	.13000E-01
19	.12800E-01	20	.11900E-01	21	.10800E-01
22	.95100E-02	23	.77900E-02	24	.58000E-02

SOURCE ID = A0000049 ; SOURCE TYPE = AREA :

```
       1   .40100E-02      2   .28800E-02      3   .25300E-02
4   .29400E-02      5   .47400E-02      6   .79400E-02
       7   .11100E-01      8   .12400E-01      9   .12000E-01
10   .11300E-01     11   .11400E-01     12   .11900E-01
      13   .12600E-01     14   .13100E-01     15   .13600E-01
16   .13300E-01     17   .13100E-01     18   .13000E-01
      19   .12800E-01     20   .11900E-01     21   .10800E-01
22   .95100E-02     23   .77900E-02     24   .58000E-02


 SOURCE ID = A0000050     ; SOURCE TYPE = AREA     :
       1   .40100E-02      2   .28800E-02      3   .25300E-02
4   .29400E-02      5   .47400E-02      6   .79400E-02
       7   .11100E-01      8   .12400E-01      9   .12000E-01
10   .11300E-01     11   .11400E-01     12   .11900E-01
      13   .12600E-01     14   .13100E-01     15   .13600E-01
16   .13300E-01     17   .13100E-01     18   .13000E-01
      19   .12800E-01     20   .11900E-01     21   .10800E-01
22   .95100E-02     23   .77900E-02     24   .58000E-02
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

SOURCE ID = A0000051 ; SOURCE TYPE = AREA :

1	.40100E-02	2	.28800E-02	3	.25300E-02
4	.29400E-02	5	.47400E-02	6	.79400E-02
7	.11100E-01	8	.12400E-01	9	.12000E-01
10	.11300E-01	11	.11400E-01	12	.11900E-01
13	.12600E-01	14	.13100E-01	15	.13600E-01
16	.13300E-01	17	.13100E-01	18	.13000E-01
19	.12800E-01	20	.11900E-01	21	.10800E-01
22	.95100E-02	23	.77900E-02	24	.58000E-02

SOURCE ID = A0000052 ; SOURCE TYPE = AREA :

1	.40100E-02	2	.28800E-02	3	.25300E-02
4	.29400E-02	5	.47400E-02	6	.79400E-02
7	.11100E-01	8	.12400E-01	9	.12000E-01
10	.11300E-01	11	.11400E-01	12	.11900E-01
13	.12600E-01	14	.13100E-01	15	.13600E-01
16	.13300E-01	17	.13100E-01	18	.13000E-01
19	.12800E-01	20	.11900E-01	21	.10800E-01
22	.95100E-02	23	.77900E-02	24	.58000E-02

SOURCE ID = A0000053 ; SOURCE TYPE = AREA :

1	.40100E-02	2	.28800E-02	3	.25300E-02
4	.29400E-02	5	.47400E-02	6	.79400E-02
7	.11100E-01	8	.12400E-01	9	.12000E-01
10	.11300E-01	11	.11400E-01	12	.11900E-01
13	.12600E-01	14	.13100E-01	15	.13600E-01
16	.13300E-01	17	.13100E-01	18	.13000E-01
19	.12800E-01	20	.11900E-01	21	.10800E-01
22	.95100E-02	23	.77900E-02	24	.58000E-02

SOURCE ID = A0000054 ; SOURCE TYPE = AREA :

```
       1   .40100E-02      2   .28800E-02      3   .25300E-02
4   .29400E-02      5   .47400E-02      6   .79400E-02
       7   .11100E-01      8   .12400E-01      9   .12000E-01
10   .11300E-01     11   .11400E-01     12   .11900E-01
      13   .12600E-01     14   .13100E-01     15   .13600E-01
16   .13300E-01     17   .13100E-01     18   .13000E-01
      19   .12800E-01     20   .11900E-01     21   .10800E-01
22   .95100E-02     23   .77900E-02     24   .58000E-02


 SOURCE ID = A0000055     ; SOURCE TYPE = AREA     :
       1   .40100E-02      2   .28800E-02      3   .25300E-02
4   .29400E-02      5   .47400E-02      6   .79400E-02
       7   .11100E-01      8   .12400E-01      9   .12000E-01
10   .11300E-01     11   .11400E-01     12   .11900E-01
      13   .12600E-01     14   .13100E-01     15   .13600E-01
16   .13300E-01     17   .13100E-01     18   .13000E-01
      19   .12800E-01     20   .11900E-01     21   .10800E-01
22   .95100E-02     23   .77900E-02     24   .58000E-02
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

SOURCE ID = A0000056 ; SOURCE TYPE = AREA :

1	.40100E-02	2	.28800E-02	3	.25300E-02
4	.29400E-02	5	.47400E-02	6	.79400E-02
7	.11100E-01	8	.12400E-01	9	.12000E-01
10	.11300E-01	11	.11400E-01	12	.11900E-01
13	.12600E-01	14	.13100E-01	15	.13600E-01
16	.13300E-01	17	.13100E-01	18	.13000E-01
19	.12800E-01	20	.11900E-01	21	.10800E-01
22	.95100E-02	23	.77900E-02	24	.58000E-02

SOURCE ID = A0000057 ; SOURCE TYPE = AREA :

1	.40100E-02	2	.28800E-02	3	.25300E-02
4	.29400E-02	5	.47400E-02	6	.79400E-02
7	.11100E-01	8	.12400E-01	9	.12000E-01
10	.11300E-01	11	.11400E-01	12	.11900E-01
13	.12600E-01	14	.13100E-01	15	.13600E-01
16	.13300E-01	17	.13100E-01	18	.13000E-01
19	.12800E-01	20	.11900E-01	21	.10800E-01
22	.95100E-02	23	.77900E-02	24	.58000E-02

SOURCE ID = A0000058 ; SOURCE TYPE = AREA :

1	.40100E-02	2	.28800E-02	3	.25300E-02
4	.29400E-02	5	.47400E-02	6	.79400E-02
7	.11100E-01	8	.12400E-01	9	.12000E-01
10	.11300E-01	11	.11400E-01	12	.11900E-01
13	.12600E-01	14	.13100E-01	15	.13600E-01
16	.13300E-01	17	.13100E-01	18	.13000E-01
19	.12800E-01	20	.11900E-01	21	.10800E-01
22	.95100E-02	23	.77900E-02	24	.58000E-02

SOURCE ID = A0000059 ; SOURCE TYPE = AREA :

```
       1   .40100E-02      2   .28800E-02      3   .25300E-02
4   .29400E-02      5   .47400E-02      6   .79400E-02
       7   .11100E-01      8   .12400E-01      9   .12000E-01
10   .11300E-01     11   .11400E-01     12   .11900E-01
      13   .12600E-01     14   .13100E-01     15   .13600E-01
16   .13300E-01     17   .13100E-01     18   .13000E-01
      19   .12800E-01     20   .11900E-01     21   .10800E-01
22   .95100E-02     23   .77900E-02     24   .58000E-02


 SOURCE ID = A0000060     ; SOURCE TYPE = AREA     :
       1   .40100E-02      2   .28800E-02      3   .25300E-02
4   .29400E-02      5   .47400E-02      6   .79400E-02
       7   .11100E-01      8   .12400E-01      9   .12000E-01
10   .11300E-01     11   .11400E-01     12   .11900E-01
      13   .12600E-01     14   .13100E-01     15   .13600E-01
16   .13300E-01     17   .13100E-01     18   .13000E-01
      19   .12800E-01     20   .11900E-01     21   .10800E-01
22   .95100E-02     23   .77900E-02     24   .58000E-02
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

SOURCE ID = A0000061 ; SOURCE TYPE = AREA :

1	.40200E-03	2	.31600E-03	3	.32200E-03
4	.49500E-03	5	.10300E-02	6	.12100E-02
7	.13700E-02	8	.14600E-02	9	.14400E-02
10	.14200E-02	11	.14300E-02	12	.14700E-02
13	.15000E-02	14	.15400E-02	15	.15900E-02
16	.16200E-02	17	.16400E-02	18	.16200E-02
19	.14400E-02	20	.11600E-02	21	.10200E-02
22	.94200E-03	23	.78100E-03	24	.57400E-03

SOURCE ID = A0000062 ; SOURCE TYPE = AREA :

1	.40200E-03	2	.31600E-03	3	.32200E-03
4	.49500E-03	5	.10300E-02	6	.12100E-02
7	.13700E-02	8	.14600E-02	9	.14400E-02
10	.14200E-02	11	.14300E-02	12	.14700E-02
13	.15000E-02	14	.15400E-02	15	.15900E-02
16	.16200E-02	17	.16400E-02	18	.16200E-02
19	.14400E-02	20	.11600E-02	21	.10200E-02
22	.94200E-03	23	.78100E-03	24	.57400E-03

SOURCE ID = A0000063 ; SOURCE TYPE = AREA :

1	.40200E-03	2	.31600E-03	3	.32200E-03
4	.49500E-03	5	.10300E-02	6	.12100E-02
7	.13700E-02	8	.14600E-02	9	.14400E-02
10	.14200E-02	11	.14300E-02	12	.14700E-02
13	.15000E-02	14	.15400E-02	15	.15900E-02
16	.16200E-02	17	.16400E-02	18	.16200E-02
19	.14400E-02	20	.11600E-02	21	.10200E-02
22	.94200E-03	23	.78100E-03	24	.57400E-03

SOURCE ID = A0000064 ; SOURCE TYPE = AREA :

```
       1   .40200E-03      2   .31600E-03      3   .32200E-03
4   .49500E-03      5   .10300E-02      6   .12100E-02
       7   .13700E-02      8   .14600E-02      9   .14400E-02
10   .14200E-02     11   .14300E-02     12   .14700E-02
      13   .15000E-02     14   .15400E-02     15   .15900E-02
16   .16200E-02     17   .16400E-02     18   .16200E-02
      19   .14400E-02     20   .11600E-02     21   .10200E-02
22   .94200E-03     23   .78100E-03     24   .57400E-03


 SOURCE ID = A0000065     ; SOURCE TYPE = AREA     :
       1   .40200E-03      2   .31600E-03      3   .32200E-03
4   .49500E-03      5   .10300E-02      6   .12100E-02
       7   .13700E-02      8   .14600E-02      9   .14400E-02
10   .14200E-02     11   .14300E-02     12   .14700E-02
      13   .15000E-02     14   .15400E-02     15   .15900E-02
16   .16200E-02     17   .16400E-02     18   .16200E-02
      19   .14400E-02     20   .11600E-02     21   .10200E-02
22   .94200E-03     23   .78100E-03     24   .57400E-03
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.40200E-03	2	.31600E-03	3	.32200E-03
4	.49500E-03	5	.10300E-02	6	.12100E-02
7	.13700E-02	8	.14600E-02	9	.14400E-02
10	.14200E-02	11	.14300E-02	12	.14700E-02
13	.15000E-02	14	.15400E-02	15	.15900E-02
16	.16200E-02	17	.16400E-02	18	.16200E-02
19	.14400E-02	20	.11600E-02	21	.10200E-02
22	.94200E-03	23	.78100E-03	24	.57400E-03

SOURCE ID = A0000066 ; SOURCE TYPE = AREA :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.10900E-01	2	.85500E-02	3	.87100E-02
4	.13400E-01	5	.27800E-01	6	.35600E-01
7	.40100E-01	8	.46700E-01	9	.45900E-01
10	.45300E-01	11	.45900E-01	12	.47000E-01
13	.48100E-01	14	.49100E-01	15	.50900E-01
16	.51900E-01	17	.52400E-01	18	.47600E-01
19	.42100E-01	20	.31400E-01	21	.29800E-01
22	.25500E-01	23	.21100E-01	24	.15500E-01

SOURCE ID = A0000067 ; SOURCE TYPE = AREA :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.10900E-01	2	.85500E-02	3	.87100E-02
4	.13400E-01	5	.27800E-01	6	.35600E-01
7	.40100E-01	8	.46700E-01	9	.45900E-01
10	.45300E-01	11	.45900E-01	12	.47000E-01
13	.48100E-01	14	.49100E-01	15	.50900E-01
16	.51900E-01	17	.52400E-01	18	.47600E-01
19	.42100E-01	20	.31400E-01	21	.29800E-01
22	.25500E-01	23	.21100E-01	24	.15500E-01

SOURCE ID = A0000068 ; SOURCE TYPE = AREA :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.10900E-01	2	.85500E-02	3	.87100E-02
4	.13400E-01	5	.27800E-01	6	.35600E-01
7	.40100E-01	8	.46700E-01	9	.45900E-01
10	.45300E-01	11	.45900E-01	12	.47000E-01
13	.48100E-01	14	.49100E-01	15	.50900E-01
16	.51900E-01	17	.52400E-01	18	.47600E-01
19	.42100E-01	20	.31400E-01	21	.29800E-01
22	.25500E-01	23	.21100E-01	24	.15500E-01

SOURCE ID = A0000069 ; SOURCE TYPE = AREA :

```
       1   .10900E-01      2   .85500E-02      3   .87100E-02
4   .13400E-01      5   .27800E-01      6   .35600E-01
       7   .40100E-01      8   .46700E-01      9   .45900E-01
10   .45300E-01     11   .45900E-01     12   .47000E-01
      13   .48100E-01     14   .49100E-01     15   .50900E-01
16   .51900E-01     17   .52400E-01     18   .47600E-01
      19   .42100E-01     20   .31400E-01     21   .29800E-01
22   .25500E-01     23   .21100E-01     24   .15500E-01


 SOURCE ID = A0000070     ; SOURCE TYPE = AREA     :
       1   .10900E-01      2   .85500E-02      3   .87100E-02
4   .13400E-01      5   .27800E-01      6   .35600E-01
       7   .40100E-01      8   .46700E-01      9   .45900E-01
10   .45300E-01     11   .45900E-01     12   .47000E-01
      13   .48100E-01     14   .49100E-01     15   .50900E-01
16   .51900E-01     17   .52400E-01     18   .47600E-01
      19   .42100E-01     20   .31400E-01     21   .29800E-01
22   .25500E-01     23   .21100E-01     24   .15500E-01
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.10900E-01	2	.85500E-02	3	.87100E-02
4	.13400E-01	5	.27800E-01	6	.35600E-01
7	.40100E-01	8	.46700E-01	9	.45900E-01
10	.45300E-01	11	.45900E-01	12	.47000E-01
13	.48100E-01	14	.49100E-01	15	.50900E-01
16	.51900E-01	17	.52400E-01	18	.47600E-01
19	.42100E-01	20	.31400E-01	21	.29800E-01
22	.25500E-01	23	.21100E-01	24	.15500E-01

SOURCE ID = A0000071 ; SOURCE TYPE = AREA :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.10900E-01	2	.85500E-02	3	.87100E-02
4	.13400E-01	5	.27800E-01	6	.35600E-01
7	.40100E-01	8	.46700E-01	9	.45900E-01
10	.45300E-01	11	.45900E-01	12	.47000E-01
13	.48100E-01	14	.49100E-01	15	.50900E-01
16	.51900E-01	17	.52400E-01	18	.47600E-01
19	.42100E-01	20	.31400E-01	21	.29800E-01
22	.25500E-01	23	.21100E-01	24	.15500E-01

SOURCE ID = A0000072 ; SOURCE TYPE = AREA :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.10900E-01	2	.85500E-02	3	.87100E-02
4	.13400E-01	5	.27800E-01	6	.35600E-01
7	.40100E-01	8	.46700E-01	9	.45900E-01
10	.45300E-01	11	.45900E-01	12	.47000E-01
13	.48100E-01	14	.49100E-01	15	.50900E-01
16	.51900E-01	17	.52400E-01	18	.47600E-01
19	.42100E-01	20	.31400E-01	21	.29800E-01
22	.25500E-01	23	.21100E-01	24	.15500E-01

SOURCE ID = A0000073 ; SOURCE TYPE = AREA :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.10900E-01	2	.85500E-02	3	.87100E-02
4	.13400E-01	5	.27800E-01	6	.35600E-01
7	.40100E-01	8	.46700E-01	9	.45900E-01
10	.45300E-01	11	.45900E-01	12	.47000E-01
13	.48100E-01	14	.49100E-01	15	.50900E-01
16	.51900E-01	17	.52400E-01	18	.47600E-01
19	.42100E-01	20	.31400E-01	21	.29800E-01
22	.25500E-01	23	.21100E-01	24	.15500E-01

SOURCE ID = A0000074 ; SOURCE TYPE = AREA :

```
       1   .10900E-01      2   .85500E-02      3   .87100E-02
4   .13400E-01      5   .27800E-01      6   .35600E-01
       7   .40100E-01      8   .46700E-01      9   .45900E-01
10   .45300E-01     11   .45900E-01     12   .47000E-01
      13   .48100E-01     14   .49100E-01     15   .50900E-01
16   .51900E-01     17   .52400E-01     18   .47600E-01
      19   .42100E-01     20   .31400E-01     21   .29800E-01
22   .25500E-01     23   .21100E-01     24   .15500E-01


 SOURCE ID = A0000075     ; SOURCE TYPE = AREA     :
       1   .10900E-01      2   .85500E-02      3   .87100E-02
4   .13400E-01      5   .27800E-01      6   .35600E-01
       7   .40100E-01      8   .46700E-01      9   .45900E-01
10   .45300E-01     11   .45900E-01     12   .47000E-01
      13   .48100E-01     14   .49100E-01     15   .50900E-01
16   .51900E-01     17   .52400E-01     18   .47600E-01
      19   .42100E-01     20   .31400E-01     21   .29800E-01
22   .25500E-01     23   .21100E-01     24   .15500E-01
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

SOURCE ID = A0000076 ; SOURCE TYPE = AREA :

1	.10900E-01	2	.85500E-02	3	.87100E-02
4	.13400E-01	5	.27800E-01	6	.35600E-01
7	.40100E-01	8	.46700E-01	9	.45900E-01
10	.45300E-01	11	.45900E-01	12	.47000E-01
13	.48100E-01	14	.49100E-01	15	.50900E-01
16	.51900E-01	17	.52400E-01	18	.47600E-01
19	.42100E-01	20	.31400E-01	21	.29800E-01
22	.25500E-01	23	.21100E-01	24	.15500E-01

SOURCE ID = A0000077 ; SOURCE TYPE = AREA :

1	.10900E-01	2	.85500E-02	3	.87100E-02
4	.13400E-01	5	.27800E-01	6	.35600E-01
7	.40100E-01	8	.46700E-01	9	.45900E-01
10	.45300E-01	11	.45900E-01	12	.47000E-01
13	.48100E-01	14	.49100E-01	15	.50900E-01
16	.51900E-01	17	.52400E-01	18	.47600E-01
19	.42100E-01	20	.31400E-01	21	.29800E-01
22	.25500E-01	23	.21100E-01	24	.15500E-01

SOURCE ID = A0000078 ; SOURCE TYPE = AREA :

1	.13000E-01	2	.93200E-02	3	.81700E-02
4	.95100E-02	5	.15300E-01	6	.25700E-01
7	.39000E-01	8	.47500E-01	9	.45600E-01
10	.43000E-01	11	.43600E-01	12	.45600E-01
13	.48100E-01	14	.50200E-01	15	.57000E-01
16	.55900E-01	17	.61000E-01	18	.60800E-01
19	.49000E-01	20	.41600E-01	21	.37700E-01
22	.30700E-01	23	.25200E-01	24	.18700E-01

SOURCE ID = A0000079 ; SOURCE TYPE = AREA :

```
       1   .13000E-01      2   .93200E-02      3   .81700E-02
4   .95100E-02      5   .15300E-01      6   .25700E-01
       7   .39000E-01      8   .47500E-01      9   .45600E-01
10   .43000E-01     11   .43600E-01     12   .45600E-01
      13   .48100E-01     14   .50200E-01     15   .57000E-01
16   .55900E-01     17   .61000E-01     18   .60800E-01
      19   .49000E-01     20   .41600E-01     21   .37700E-01
22   .30700E-01     23   .25200E-01     24   .18700E-01


 SOURCE ID = A0000080     ; SOURCE TYPE = AREA     :
       1   .13000E-01      2   .93200E-02      3   .81700E-02
4   .95100E-02      5   .15300E-01      6   .25700E-01
       7   .39000E-01      8   .47500E-01      9   .45600E-01
10   .43000E-01     11   .43600E-01     12   .45600E-01
      13   .48100E-01     14   .50200E-01     15   .57000E-01
16   .55900E-01     17   .61000E-01     18   .60800E-01
      19   .49000E-01     20   .41600E-01     21   .37700E-01
22   .30700E-01     23   .25200E-01     24   .18700E-01
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

SOURCE ID = A0000081 ; SOURCE TYPE = AREA :

1	.13000E-01	2	.93200E-02	3	.81700E-02
4	.95100E-02	5	.15300E-01	6	.25700E-01
7	.39000E-01	8	.47500E-01	9	.45600E-01
10	.43000E-01	11	.43600E-01	12	.45600E-01
13	.48100E-01	14	.50200E-01	15	.57000E-01
16	.55900E-01	17	.61000E-01	18	.60800E-01
19	.49000E-01	20	.41600E-01	21	.37700E-01
22	.30700E-01	23	.25200E-01	24	.18700E-01

SOURCE ID = A0000082 ; SOURCE TYPE = AREA :

1	.13000E-01	2	.93200E-02	3	.81700E-02
4	.95100E-02	5	.15300E-01	6	.25700E-01
7	.39000E-01	8	.47500E-01	9	.45600E-01
10	.43000E-01	11	.43600E-01	12	.45600E-01
13	.48100E-01	14	.50200E-01	15	.57000E-01
16	.55900E-01	17	.61000E-01	18	.60800E-01
19	.49000E-01	20	.41600E-01	21	.37700E-01
22	.30700E-01	23	.25200E-01	24	.18700E-01

SOURCE ID = A0000083 ; SOURCE TYPE = AREA :

1	.13000E-01	2	.93200E-02	3	.81700E-02
4	.95100E-02	5	.15300E-01	6	.25700E-01
7	.39000E-01	8	.47500E-01	9	.45600E-01
10	.43000E-01	11	.43600E-01	12	.45600E-01
13	.48100E-01	14	.50200E-01	15	.57000E-01
16	.55900E-01	17	.61000E-01	18	.60800E-01
19	.49000E-01	20	.41600E-01	21	.37700E-01
22	.30700E-01	23	.25200E-01	24	.18700E-01

SOURCE ID = A0000084 ; SOURCE TYPE = AREA :

```
       1   .13000E-01      2   .93200E-02      3   .81700E-02
4   .95100E-02      5   .15300E-01      6   .25700E-01
       7   .39000E-01      8   .47500E-01      9   .45600E-01
10   .43000E-01     11   .43600E-01     12   .45600E-01
      13   .48100E-01     14   .50200E-01     15   .57000E-01
16   .55900E-01     17   .61000E-01     18   .60800E-01
      19   .49000E-01     20   .41600E-01     21   .37700E-01
22   .30700E-01     23   .25200E-01     24   .18700E-01


 SOURCE ID = A0000085     ; SOURCE TYPE = AREA     :
       1   .13000E-01      2   .93200E-02      3   .81700E-02
4   .95100E-02      5   .15300E-01      6   .25700E-01
       7   .39000E-01      8   .47500E-01      9   .45600E-01
10   .43000E-01     11   .43600E-01     12   .45600E-01
      13   .48100E-01     14   .50200E-01     15   .57000E-01
16   .55900E-01     17   .61000E-01     18   .60800E-01
      19   .49000E-01     20   .41600E-01     21   .37700E-01
22   .30700E-01     23   .25200E-01     24   .18700E-01
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.13000E-01	2	.93200E-02	3	.81700E-02
4	.95100E-02	5	.15300E-01	6	.25700E-01
7	.39000E-01	8	.47500E-01	9	.45600E-01
10	.43000E-01	11	.43600E-01	12	.45600E-01
13	.48100E-01	14	.50200E-01	15	.57000E-01
16	.55900E-01	17	.61000E-01	18	.60800E-01
19	.49000E-01	20	.41600E-01	21	.37700E-01
22	.30700E-01	23	.25200E-01	24	.18700E-01

SOURCE ID = A0000086 ; SOURCE TYPE = AREA :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.13000E-01	2	.93200E-02	3	.81700E-02
4	.95100E-02	5	.15300E-01	6	.25700E-01
7	.39000E-01	8	.47500E-01	9	.45600E-01
10	.43000E-01	11	.43600E-01	12	.45600E-01
13	.48100E-01	14	.50200E-01	15	.57000E-01
16	.55900E-01	17	.61000E-01	18	.60800E-01
19	.49000E-01	20	.41600E-01	21	.37700E-01
22	.30700E-01	23	.25200E-01	24	.18700E-01

SOURCE ID = A0000087 ; SOURCE TYPE = AREA :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.13000E-01	2	.93200E-02	3	.81700E-02
4	.95100E-02	5	.15300E-01	6	.25700E-01
7	.39000E-01	8	.47500E-01	9	.45600E-01
10	.43000E-01	11	.43600E-01	12	.45600E-01
13	.48100E-01	14	.50200E-01	15	.57000E-01
16	.55900E-01	17	.61000E-01	18	.60800E-01
19	.49000E-01	20	.41600E-01	21	.37700E-01
22	.30700E-01	23	.25200E-01	24	.18700E-01

SOURCE ID = A0000088 ; SOURCE TYPE = AREA :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.13000E-01	2	.93200E-02	3	.81700E-02
4	.95100E-02	5	.15300E-01	6	.25700E-01
7	.39000E-01	8	.47500E-01	9	.45600E-01
10	.43000E-01	11	.43600E-01	12	.45600E-01
13	.48100E-01	14	.50200E-01	15	.57000E-01
16	.55900E-01	17	.61000E-01	18	.60800E-01
19	.49000E-01	20	.41600E-01	21	.37700E-01
22	.30700E-01	23	.25200E-01	24	.18700E-01

SOURCE ID = A0000089 ; SOURCE TYPE = AREA :

```
       1   .34100E-02      2   .26800E-02      3   .27300E-02
4   .42000E-02      5   .87200E-02      6   .11400E-02
       7   .11600E-01      8   .12400E-01      9   .12200E-01
10   .12000E-01     11   .12200E-01     12   .12500E-01
      13   .12700E-01     14   .13000E-01     15   .13500E-01
16   .13800E-01     17   .13900E-01     18   .13800E-01
      19   .12200E-01     20   .98300E-02     21   .86100E-02
22   .80000E-02     23   .66200E-02     24   .48700E-02


 SOURCE ID = A0000090     ; SOURCE TYPE = AREA     :
       1   .34100E-02      2   .26800E-02      3   .27300E-02
4   .42000E-02      5   .87200E-02      6   .11400E-02
       7   .11600E-01      8   .12400E-01      9   .12200E-01
10   .12000E-01     11   .12200E-01     12   .12500E-01
      13   .12700E-01     14   .13000E-01     15   .13500E-01
16   .13800E-01     17   .13900E-01     18   .13800E-01
      19   .12200E-01     20   .98300E-02     21   .86100E-02
22   .80000E-02     23   .66200E-02     24   .48700E-02
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

SOURCE ID = A0000091 ; SOURCE TYPE = AREA :

1	.34100E-02	2	.26800E-02	3	.27300E-02
4	.42000E-02	5	.87200E-02	6	.11400E-02
7	.11600E-01	8	.12400E-01	9	.12200E-01
10	.12000E-01	11	.12200E-01	12	.12500E-01
13	.12700E-01	14	.13000E-01	15	.13500E-01
16	.13800E-01	17	.13900E-01	18	.13800E-01
19	.12200E-01	20	.98300E-02	21	.86100E-02
22	.80000E-02	23	.66200E-02	24	.48700E-02

SOURCE ID = A0000092 ; SOURCE TYPE = AREA :

1	.34100E-02	2	.26800E-02	3	.27300E-02
4	.42000E-02	5	.87200E-02	6	.11400E-02
7	.11600E-01	8	.12400E-01	9	.12200E-01
10	.12000E-01	11	.12200E-01	12	.12500E-01
13	.12700E-01	14	.13000E-01	15	.13500E-01
16	.13800E-01	17	.13900E-01	18	.13800E-01
19	.12200E-01	20	.98300E-02	21	.86100E-02
22	.80000E-02	23	.66200E-02	24	.48700E-02

SOURCE ID = A0000093 ; SOURCE TYPE = AREA :

1	.34100E-02	2	.26800E-02	3	.27300E-02
4	.42000E-02	5	.87200E-02	6	.11400E-02
7	.11600E-01	8	.12400E-01	9	.12200E-01
10	.12000E-01	11	.12200E-01	12	.12500E-01
13	.12700E-01	14	.13000E-01	15	.13500E-01
16	.13800E-01	17	.13900E-01	18	.13800E-01
19	.12200E-01	20	.98300E-02	21	.86100E-02
22	.80000E-02	23	.66200E-02	24	.48700E-02

SOURCE ID = A0000094 ; SOURCE TYPE = AREA :

```
       1   .34100E-02      2   .26800E-02      3   .27300E-02
4   .42000E-02      5   .87200E-02      6   .11400E-02
       7   .11600E-01      8   .12400E-01      9   .12200E-01
10   .12000E-01     11   .12200E-01     12   .12500E-01
      13   .12700E-01     14   .13000E-01     15   .13500E-01
16   .13800E-01     17   .13900E-01     18   .13800E-01
      19   .12200E-01     20   .98300E-02     21   .86100E-02
22   .80000E-02     23   .66200E-02     24   .48700E-02


 SOURCE ID = A0000095     ; SOURCE TYPE = AREA     :
       1   .34100E-02      2   .26800E-02      3   .27300E-02
4   .42000E-02      5   .87200E-02      6   .11400E-02
       7   .11600E-01      8   .12400E-01      9   .12200E-01
10   .12000E-01     11   .12200E-01     12   .12500E-01
      13   .12700E-01     14   .13000E-01     15   .13500E-01
16   .13800E-01     17   .13900E-01     18   .13800E-01
      19   .12200E-01     20   .98300E-02     21   .86100E-02
22   .80000E-02     23   .66200E-02     24   .48700E-02
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

SOURCE ID = A0000096 ; SOURCE TYPE = AREA :

1	.34100E-02	2	.26800E-02	3	.27300E-02
4	.42000E-02	5	.87200E-02	6	.11400E-02
7	.11600E-01	8	.12400E-01	9	.12200E-01
10	.12000E-01	11	.12200E-01	12	.12500E-01
13	.12700E-01	14	.13000E-01	15	.13500E-01
16	.13800E-01	17	.13900E-01	18	.13800E-01
19	.12200E-01	20	.98300E-02	21	.86100E-02
22	.80000E-02	23	.66200E-02	24	.48700E-02

SOURCE ID = A0000097 ; SOURCE TYPE = AREA :

1	.34100E-02	2	.26800E-02	3	.27300E-02
4	.42000E-02	5	.87200E-02	6	.11400E-02
7	.11600E-01	8	.12400E-01	9	.12200E-01
10	.12000E-01	11	.12200E-01	12	.12500E-01
13	.12700E-01	14	.13000E-01	15	.13500E-01
16	.13800E-01	17	.13900E-01	18	.13800E-01
19	.12200E-01	20	.98300E-02	21	.86100E-02
22	.80000E-02	23	.66200E-02	24	.48700E-02

SOURCE ID = A0000098 ; SOURCE TYPE = AREA :

1	.34100E-02	2	.26800E-02	3	.27300E-02
4	.42000E-02	5	.87200E-02	6	.11400E-02
7	.11600E-01	8	.12400E-01	9	.12200E-01
10	.12000E-01	11	.12200E-01	12	.12500E-01
13	.12700E-01	14	.13000E-01	15	.13500E-01
16	.13800E-01	17	.13900E-01	18	.13800E-01
19	.12200E-01	20	.98300E-02	21	.86100E-02
22	.80000E-02	23	.66200E-02	24	.48700E-02

SOURCE ID = A0000099 ; SOURCE TYPE = AREA :

```
       1   .34100E-02      2   .26800E-02      3   .27300E-02
4   .42000E-02      5   .87200E-02      6   .11400E-02
       7   .11600E-01      8   .12400E-01      9   .12200E-01
10   .12000E-01     11   .12200E-01     12   .12500E-01
      13   .12700E-01     14   .13000E-01     15   .13500E-01
16   .13800E-01     17   .13900E-01     18   .13800E-01
      19   .12200E-01     20   .98300E-02     21   .86100E-02
22   .80000E-02     23   .66200E-02     24   .48700E-02


 SOURCE ID = A0000100     ; SOURCE TYPE = AREA     :
       1   .34100E-02      2   .26800E-02      3   .27300E-02
4   .42000E-02      5   .87200E-02      6   .11400E-02
       7   .11600E-01      8   .12400E-01      9   .12200E-01
10   .12000E-01     11   .12200E-01     12   .12500E-01
      13   .12700E-01     14   .13000E-01     15   .13500E-01
16   .13800E-01     17   .13900E-01     18   .13800E-01
      19   .12200E-01     20   .98300E-02     21   .86100E-02
22   .80000E-02     23   .66200E-02     24   .48700E-02
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

SOURCE ID = A0000101 ; SOURCE TYPE = AREA :

1	.34100E-02	2	.26800E-02	3	.27300E-02
4	.42000E-02	5	.87200E-02	6	.11400E-02
7	.11600E-01	8	.12400E-01	9	.12200E-01
10	.12000E-01	11	.12200E-01	12	.12500E-01
13	.12700E-01	14	.13000E-01	15	.13500E-01
16	.13800E-01	17	.13900E-01	18	.13800E-01
19	.12200E-01	20	.98300E-02	21	.86100E-02
22	.80000E-02	23	.66200E-02	24	.48700E-02

SOURCE ID = A0000102 ; SOURCE TYPE = AREA :

1	.34100E-02	2	.26800E-02	3	.27300E-02
4	.42000E-02	5	.87200E-02	6	.11400E-02
7	.11600E-01	8	.12400E-01	9	.12200E-01
10	.12000E-01	11	.12200E-01	12	.12500E-01
13	.12700E-01	14	.13000E-01	15	.13500E-01
16	.13800E-01	17	.13900E-01	18	.13800E-01
19	.12200E-01	20	.98300E-02	21	.86100E-02
22	.80000E-02	23	.66200E-02	24	.48700E-02

SOURCE ID = A0000103 ; SOURCE TYPE = AREA :

1	.39500E-03	2	.28400E-03	3	.24900E-03
4	.29000E-03	5	.46600E-03	6	.78200E-03
7	.11000E-02	8	.12200E-02	9	.11800E-02
10	.11100E-02	11	.11200E-02	12	.11800E-02
13	.12400E-02	14	.12900E-02	15	.13400E-02
16	.13100E-02	17	.12900E-02	18	.12800E-02
19	.12600E-02	20	.11700E-02	21	.10600E-02
22	.93700E-03	23	.76700E-03	24	.57100E-03

SOURCE ID = A0000104 ; SOURCE TYPE = AREA :

```
       1   .39500E-03      2   .28400E-03      3   .24900E-03
4   .29000E-03      5   .46600E-03      6   .78200E-03
       7   .11000E-02      8   .12200E-02      9   .11800E-02
10   .11100E-02     11   .11200E-02     12   .11800E-02
      13   .12400E-02     14   .12900E-02     15   .13400E-02
16   .13100E-02     17   .12900E-02     18   .12800E-02
      19   .12600E-02     20   .11700E-02     21   .10600E-02
22   .93700E-03     23   .76700E-03     24   .57100E-03


 SOURCE ID = A0000105     ; SOURCE TYPE = AREA     :
       1   .39500E-03      2   .28400E-03      3   .24900E-03
4   .29000E-03      5   .46600E-03      6   .78200E-03
       7   .11000E-02      8   .12200E-02      9   .11800E-02
10   .11100E-02     11   .11200E-02     12   .11800E-02
      13   .12400E-02     14   .12900E-02     15   .13400E-02
16   .13100E-02     17   .12900E-02     18   .12800E-02
      19   .12600E-02     20   .11700E-02     21   .10600E-02
22   .93700E-03     23   .76700E-03     24   .57100E-03
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

SOURCE ID = A0000106 ; SOURCE TYPE = AREA :

1	.39500E-03	2	.28400E-03	3	.24900E-03
4	.29000E-03	5	.46600E-03	6	.78200E-03
7	.11000E-02	8	.12200E-02	9	.11800E-02
10	.11100E-02	11	.11200E-02	12	.11800E-02
13	.12400E-02	14	.12900E-02	15	.13400E-02
16	.13100E-02	17	.12900E-02	18	.12800E-02
19	.12600E-02	20	.11700E-02	21	.10600E-02
22	.93700E-03	23	.76700E-03	24	.57100E-03

SOURCE ID = A0000107 ; SOURCE TYPE = AREA :

1	.39500E-03	2	.28400E-03	3	.24900E-03
4	.29000E-03	5	.46600E-03	6	.78200E-03
7	.11000E-02	8	.12200E-02	9	.11800E-02
10	.11100E-02	11	.11200E-02	12	.11800E-02
13	.12400E-02	14	.12900E-02	15	.13400E-02
16	.13100E-02	17	.12900E-02	18	.12800E-02
19	.12600E-02	20	.11700E-02	21	.10600E-02
22	.93700E-03	23	.76700E-03	24	.57100E-03

SOURCE ID = A0000108 ; SOURCE TYPE = AREA :

1	.39500E-03	2	.28400E-03	3	.24900E-03
4	.29000E-03	5	.46600E-03	6	.78200E-03
7	.11000E-02	8	.12200E-02	9	.11800E-02
10	.11100E-02	11	.11200E-02	12	.11800E-02
13	.12400E-02	14	.12900E-02	15	.13400E-02
16	.13100E-02	17	.12900E-02	18	.12800E-02
19	.12600E-02	20	.11700E-02	21	.10600E-02
22	.93700E-03	23	.76700E-03	24	.57100E-03

SOURCE ID = A0000109 ; SOURCE TYPE = AREA :

```
       1   .39500E-03      2   .28400E-03      3   .24900E-03
4   .29000E-03      5   .46600E-03      6   .78200E-03
       7   .11000E-02      8   .12200E-02      9   .11800E-02
10   .11100E-02     11   .11200E-02     12   .11800E-02
      13   .12400E-02     14   .12900E-02     15   .13400E-02
16   .13100E-02     17   .12900E-02     18   .12800E-02
      19   .12600E-02     20   .11700E-02     21   .10600E-02
22   .93700E-03     23   .76700E-03     24   .57100E-03


 SOURCE ID = A0000110     ; SOURCE TYPE = AREA     :
       1   .39500E-03      2   .28400E-03      3   .24900E-03
4   .29000E-03      5   .46600E-03      6   .78200E-03
       7   .11000E-02      8   .12200E-02      9   .11800E-02
10   .11100E-02     11   .11200E-02     12   .11800E-02
      13   .12400E-02     14   .12900E-02     15   .13400E-02
16   .13100E-02     17   .12900E-02     18   .12800E-02
      19   .12600E-02     20   .11700E-02     21   .10600E-02
22   .93700E-03     23   .76700E-03     24   .57100E-03
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.54500E-02	2	.39200E-02	3	.34300E-02
4	.40000E-02	5	.64400E-02	6	.12000E-02
7	.15100E-01	8	.16900E-01	9	.16200E-01
10	.15300E-01	11	.15500E-01	12	.16200E-01
13	.17100E-01	14	.17800E-01	15	.18400E-01
16	.18100E-01	17	.17700E-01	18	.17700E-01
19	.17400E-01	20	.16100E-01	21	.14600E-01
22	.12900E-01	23	.10600E-01	24	.78800E-02

SOURCE ID = A0000111 ; SOURCE TYPE = AREA :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.54500E-02	2	.39200E-02	3	.34300E-02
4	.40000E-02	5	.64400E-02	6	.12000E-02
7	.15100E-01	8	.16900E-01	9	.16200E-01
10	.15300E-01	11	.15500E-01	12	.16200E-01
13	.17100E-01	14	.17800E-01	15	.18400E-01
16	.18100E-01	17	.17700E-01	18	.17700E-01
19	.17400E-01	20	.16100E-01	21	.14600E-01
22	.12900E-01	23	.10600E-01	24	.78800E-02

SOURCE ID = A0000112 ; SOURCE TYPE = AREA :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.54500E-02	2	.39200E-02	3	.34300E-02
4	.40000E-02	5	.64400E-02	6	.12000E-02
7	.15100E-01	8	.16900E-01	9	.16200E-01
10	.15300E-01	11	.15500E-01	12	.16200E-01
13	.17100E-01	14	.17800E-01	15	.18400E-01
16	.18100E-01	17	.17700E-01	18	.17700E-01
19	.17400E-01	20	.16100E-01	21	.14600E-01
22	.12900E-01	23	.10600E-01	24	.78800E-02

SOURCE ID = A0000113 ; SOURCE TYPE = AREA :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.54500E-02	2	.39200E-02	3	.34300E-02
4	.40000E-02	5	.64400E-02	6	.12000E-02
7	.15100E-01	8	.16900E-01	9	.16200E-01
10	.15300E-01	11	.15500E-01	12	.16200E-01
13	.17100E-01	14	.17800E-01	15	.18400E-01
16	.18100E-01	17	.17700E-01	18	.17700E-01
19	.17400E-01	20	.16100E-01	21	.14600E-01
22	.12900E-01	23	.10600E-01	24	.78800E-02

SOURCE ID = A0000114 ; SOURCE TYPE = AREA :

```
       1   .54500E-02      2   .39200E-02      3   .34300E-02
4   .40000E-02      5   .64400E-02      6   .12000E-02
       7   .15100E-01      8   .16900E-01      9   .16200E-01
10   .15300E-01     11   .15500E-01     12   .16200E-01
      13   .17100E-01     14   .17800E-01     15   .18400E-01
16   .18100E-01     17   .17700E-01     18   .17700E-01
      19   .17400E-01     20   .16100E-01     21   .14600E-01
22   .12900E-01     23   .10600E-01     24   .78800E-02


 SOURCE ID = A0000115     ; SOURCE TYPE = AREA     :
       1   .54500E-02      2   .39200E-02      3   .34300E-02
4   .40000E-02      5   .64400E-02      6   .12000E-02
       7   .15100E-01      8   .16900E-01      9   .16200E-01
10   .15300E-01     11   .15500E-01     12   .16200E-01
      13   .17100E-01     14   .17800E-01     15   .18400E-01
16   .18100E-01     17   .17700E-01     18   .17700E-01
      19   .17400E-01     20   .16100E-01     21   .14600E-01
22   .12900E-01     23   .10600E-01     24   .78800E-02
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.54500E-02	2	.39200E-02	3	.34300E-02
4	.40000E-02	5	.64400E-02	6	.12000E-02
7	.15100E-01	8	.16900E-01	9	.16200E-01
10	.15300E-01	11	.15500E-01	12	.16200E-01
13	.17100E-01	14	.17800E-01	15	.18400E-01
16	.18100E-01	17	.17700E-01	18	.17700E-01
19	.17400E-01	20	.16100E-01	21	.14600E-01
22	.12900E-01	23	.10600E-01	24	.78800E-02

SOURCE ID = A0000116 ; SOURCE TYPE = AREA :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.54500E-02	2	.39200E-02	3	.34300E-02
4	.40000E-02	5	.64400E-02	6	.12000E-02
7	.15100E-01	8	.16900E-01	9	.16200E-01
10	.15300E-01	11	.15500E-01	12	.16200E-01
13	.17100E-01	14	.17800E-01	15	.18400E-01
16	.18100E-01	17	.17700E-01	18	.17700E-01
19	.17400E-01	20	.16100E-01	21	.14600E-01
22	.12900E-01	23	.10600E-01	24	.78800E-02

SOURCE ID = A0000117 ; SOURCE TYPE = AREA :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.54500E-02	2	.39200E-02	3	.34300E-02
4	.40000E-02	5	.64400E-02	6	.12000E-02
7	.15100E-01	8	.16900E-01	9	.16200E-01
10	.15300E-01	11	.15500E-01	12	.16200E-01
13	.17100E-01	14	.17800E-01	15	.18400E-01
16	.18100E-01	17	.17700E-01	18	.17700E-01
19	.17400E-01	20	.16100E-01	21	.14600E-01
22	.12900E-01	23	.10600E-01	24	.78800E-02

SOURCE ID = A0000118 ; SOURCE TYPE = AREA :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.54500E-02	2	.39200E-02	3	.34300E-02
4	.40000E-02	5	.64400E-02	6	.12000E-02
7	.15100E-01	8	.16900E-01	9	.16200E-01
10	.15300E-01	11	.15500E-01	12	.16200E-01
13	.17100E-01	14	.17800E-01	15	.18400E-01
16	.18100E-01	17	.17700E-01	18	.17700E-01
19	.17400E-01	20	.16100E-01	21	.14600E-01
22	.12900E-01	23	.10600E-01	24	.78800E-02

SOURCE ID = A0000119 ; SOURCE TYPE = AREA :

```
       1   .54500E-02      2   .39200E-02      3   .34300E-02
4   .40000E-02      5   .64400E-02      6   .12000E-02
       7   .15100E-01      8   .16900E-01      9   .16200E-01
10   .15300E-01     11   .15500E-01     12   .16200E-01
      13   .17100E-01     14   .17800E-01     15   .18400E-01
16   .18100E-01     17   .17700E-01     18   .17700E-01
      19   .17400E-01     20   .16100E-01     21   .14600E-01
22   .12900E-01     23   .10600E-01     24   .78800E-02


 SOURCE ID = A0000120     ; SOURCE TYPE = AREA     :
       1   .54500E-02      2   .39200E-02      3   .34300E-02
4   .40000E-02      5   .64400E-02      6   .12000E-02
       7   .15100E-01      8   .16900E-01      9   .16200E-01
10   .15300E-01     11   .15500E-01     12   .16200E-01
      13   .17100E-01     14   .17800E-01     15   .18400E-01
16   .18100E-01     17   .17700E-01     18   .17700E-01
      19   .17400E-01     20   .16100E-01     21   .14600E-01
22   .12900E-01     23   .10600E-01     24   .78800E-02
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.54500E-02	2	.39200E-02	3	.34300E-02
4	.40000E-02	5	.64400E-02	6	.12000E-02
7	.15100E-01	8	.16900E-01	9	.16200E-01
10	.15300E-01	11	.15500E-01	12	.16200E-01
13	.17100E-01	14	.17800E-01	15	.18400E-01
16	.18100E-01	17	.17700E-01	18	.17700E-01
19	.17400E-01	20	.16100E-01	21	.14600E-01
22	.12900E-01	23	.10600E-01	24	.78800E-02

SOURCE ID = A0000121 ; SOURCE TYPE = AREA :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.54500E-02	2	.39200E-02	3	.34300E-02
4	.40000E-02	5	.64400E-02	6	.12000E-02
7	.15100E-01	8	.16900E-01	9	.16200E-01
10	.15300E-01	11	.15500E-01	12	.16200E-01
13	.17100E-01	14	.17800E-01	15	.18400E-01
16	.18100E-01	17	.17700E-01	18	.17700E-01
19	.17400E-01	20	.16100E-01	21	.14600E-01
22	.12900E-01	23	.10600E-01	24	.78800E-02

SOURCE ID = A0000122 ; SOURCE TYPE = AREA :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.54500E-02	2	.39200E-02	3	.34300E-02
4	.40000E-02	5	.64400E-02	6	.12000E-02
7	.15100E-01	8	.16900E-01	9	.16200E-01
10	.15300E-01	11	.15500E-01	12	.16200E-01
13	.17100E-01	14	.17800E-01	15	.18400E-01
16	.18100E-01	17	.17700E-01	18	.17700E-01
19	.17400E-01	20	.16100E-01	21	.14600E-01
22	.12900E-01	23	.10600E-01	24	.78800E-02

SOURCE ID = A0000123 ; SOURCE TYPE = AREA :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.54500E-02	2	.39200E-02	3	.34300E-02
4	.40000E-02	5	.64400E-02	6	.12000E-02
7	.15100E-01	8	.16900E-01	9	.16200E-01
10	.15300E-01	11	.15500E-01	12	.16200E-01
13	.17100E-01	14	.17800E-01	15	.18400E-01
16	.18100E-01	17	.17700E-01	18	.17700E-01
19	.17400E-01	20	.16100E-01	21	.14600E-01
22	.12900E-01	23	.10600E-01	24	.78800E-02

SOURCE ID = A0000124 ; SOURCE TYPE = AREA :

```
       1   .54500E-02      2   .39200E-02      3   .34300E-02
4   .40000E-02      5   .64400E-02      6   .12000E-02
       7   .15100E-01      8   .16900E-01      9   .16200E-01
10   .15300E-01     11   .15500E-01     12   .16200E-01
      13   .17100E-01     14   .17800E-01     15   .18400E-01
16   .18100E-01     17   .17700E-01     18   .17700E-01
      19   .17400E-01     20   .16100E-01     21   .14600E-01
22   .12900E-01     23   .10600E-01     24   .78800E-02


 SOURCE ID = A0000125     ; SOURCE TYPE = AREA     :
       1   .54500E-02      2   .39200E-02      3   .34300E-02
4   .40000E-02      5   .64400E-02      6   .12000E-02
       7   .15100E-01      8   .16900E-01      9   .16200E-01
10   .15300E-01     11   .15500E-01     12   .16200E-01
      13   .17100E-01     14   .17800E-01     15   .18400E-01
16   .18100E-01     17   .17700E-01     18   .17700E-01
      19   .17400E-01     20   .16100E-01     21   .14600E-01
22   .12900E-01     23   .10600E-01     24   .78800E-02
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.54500E-02	2	.39200E-02	3	.34300E-02
4	.40000E-02	5	.64400E-02	6	.12000E-02
7	.15100E-01	8	.16900E-01	9	.16200E-01
10	.15300E-01	11	.15500E-01	12	.16200E-01
13	.17100E-01	14	.17800E-01	15	.18400E-01
16	.18100E-01	17	.17700E-01	18	.17700E-01
19	.17400E-01	20	.16100E-01	21	.14600E-01
22	.12900E-01	23	.10600E-01	24	.78800E-02

SOURCE ID = A0000126 ; SOURCE TYPE = AREA :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.54500E-02	2	.39200E-02	3	.34300E-02
4	.40000E-02	5	.64400E-02	6	.12000E-02
7	.15100E-01	8	.16900E-01	9	.16200E-01
10	.15300E-01	11	.15500E-01	12	.16200E-01
13	.17100E-01	14	.17800E-01	15	.18400E-01
16	.18100E-01	17	.17700E-01	18	.17700E-01
19	.17400E-01	20	.16100E-01	21	.14600E-01
22	.12900E-01	23	.10600E-01	24	.78800E-02

SOURCE ID = A0000127 ; SOURCE TYPE = AREA :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.48200E-03	2	.37900E-03	3	.38600E-03
4	.59400E-03	5	.12300E-02	6	.14600E-02
7	.16400E-02	8	.17500E-02	9	.17200E-02
10	.17000E-02	11	.17200E-02	12	.17600E-02
13	.18000E-02	14	.18400E-02	15	.19100E-02
16	.19400E-02	17	.19600E-02	18	.19500E-02
19	.17200E-02	20	.13900E-02	21	.12200E-02
22	.11300E-02	23	.93700E-03	24	.68900E-03

SOURCE ID = A0000128 ; SOURCE TYPE = AREA :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.48200E-03	2	.37900E-03	3	.38600E-03
4	.59400E-03	5	.12300E-02	6	.14600E-02
7	.16400E-02	8	.17500E-02	9	.17200E-02
10	.17000E-02	11	.17200E-02	12	.17600E-02
13	.18000E-02	14	.18400E-02	15	.19100E-02
16	.19400E-02	17	.19600E-02	18	.19500E-02
19	.17200E-02	20	.13900E-02	21	.12200E-02
22	.11300E-02	23	.93700E-03	24	.68900E-03

SOURCE ID = A0000129 ; SOURCE TYPE = AREA :

```
       1   .48200E-03      2   .37900E-03      3   .38600E-03
4   .59400E-03      5   .12300E-02      6   .14600E-02
       7   .16400E-02      8   .17500E-02      9   .17200E-02
10   .17000E-02     11   .17200E-02     12   .17600E-02
      13   .18000E-02     14   .18400E-02     15   .19100E-02
16   .19400E-02     17   .19600E-02     18   .19500E-02
      19   .17200E-02     20   .13900E-02     21   .12200E-02
22   .11300E-02     23   .93700E-03     24   .68900E-03


 SOURCE ID = A0000130     ; SOURCE TYPE = AREA     :
       1   .48200E-03      2   .37900E-03      3   .38600E-03
4   .59400E-03      5   .12300E-02      6   .14600E-02
       7   .16400E-02      8   .17500E-02      9   .17200E-02
10   .17000E-02     11   .17200E-02     12   .17600E-02
      13   .18000E-02     14   .18400E-02     15   .19100E-02
16   .19400E-02     17   .19600E-02     18   .19500E-02
      19   .17200E-02     20   .13900E-02     21   .12200E-02
22   .11300E-02     23   .93700E-03     24   .68900E-03
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.48200E-03	2	.37900E-03	3	.38600E-03
4	.59400E-03	5	.12300E-02	6	.14600E-02
7	.16400E-02	8	.17500E-02	9	.17200E-02
10	.17000E-02	11	.17200E-02	12	.17600E-02
13	.18000E-02	14	.18400E-02	15	.19100E-02
16	.19400E-02	17	.19600E-02	18	.19500E-02
19	.17200E-02	20	.13900E-02	21	.12200E-02
22	.11300E-02	23	.93700E-03	24	.68900E-03

SOURCE ID = A0000131 ; SOURCE TYPE = AREA :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.48200E-03	2	.37900E-03	3	.38600E-03
4	.59400E-03	5	.12300E-02	6	.14600E-02
7	.16400E-02	8	.17500E-02	9	.17200E-02
10	.17000E-02	11	.17200E-02	12	.17600E-02
13	.18000E-02	14	.18400E-02	15	.19100E-02
16	.19400E-02	17	.19600E-02	18	.19500E-02
19	.17200E-02	20	.13900E-02	21	.12200E-02
22	.11300E-02	23	.93700E-03	24	.68900E-03

SOURCE ID = A0000132 ; SOURCE TYPE = AREA :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.48200E-03	2	.37900E-03	3	.38600E-03
4	.59400E-03	5	.12300E-02	6	.14600E-02
7	.16400E-02	8	.17500E-02	9	.17200E-02
10	.17000E-02	11	.17200E-02	12	.17600E-02
13	.18000E-02	14	.18400E-02	15	.19100E-02
16	.19400E-02	17	.19600E-02	18	.19500E-02
19	.17200E-02	20	.13900E-02	21	.12200E-02
22	.11300E-02	23	.93700E-03	24	.68900E-03

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)

(METERS)

(439674.0, 3765310.0, 289.0, 289.0, 0.0);
(439679.0, 3765310.0, 289.0, 289.0, 0.0);
(439684.0, 3765310.0, 289.0, 289.0, 0.0);
(439689.0, 3765310.0, 289.0, 289.0, 0.0);
(439694.0, 3765310.0, 289.0, 289.0, 0.0);
(439699.0, 3765310.0, 289.0, 289.0, 0.0);
(439704.0, 3765310.0, 289.0, 289.0, 0.0);
(439709.0, 3765310.0, 289.0, 289.0, 0.0);
(439714.0, 3765310.0, 289.0, 289.0, 0.0);
(439719.0, 3765310.0, 289.0, 289.0, 0.0);
(439729.0, 3765310.0, 289.0, 289.0, 0.0);
(439734.0, 3765310.0, 289.0, 289.0, 0.0);
(439739.0, 3765310.0, 289.0, 289.0, 0.0);
(439744.0, 3765310.0, 289.0, 289.0, 0.0);
(439749.0, 3765310.0, 289.0, 289.0, 0.0);
(439764.0, 3765310.0, 289.0, 289.0, 0.0);
(439769.0, 3765310.0, 289.0, 289.0, 0.0);
(439774.0, 3765310.0, 289.0, 289.0, 0.0);
(439779.0, 3765310.0, 289.0, 289.0, 0.0);
(439784.0, 3765310.0, 289.0, 289.0, 0.0);
(439789.0, 3765310.0, 289.0, 289.0, 0.0);
(439794.0, 3765310.0, 289.0, 289.0, 0.0);
(439799.0, 3765310.0, 289.0, 289.0, 0.0);
(439804.0, 3765310.0, 289.0, 289.0, 0.0);
(439809.0, 3765310.0, 289.0, 289.0, 0.0);
(439814.0, 3765310.0, 289.0, 289.0, 0.0);
(439819.0, 3765310.0, 289.0, 289.0, 0.0);
(439824.0, 3765310.0, 289.0, 289.0, 0.0);
(439829.0, 3765310.0, 289.0, 289.0, 0.0);
(439839.0, 3765310.0, 289.0, 289.0, 0.0);
(439844.0, 3765310.0, 289.0, 289.0, 0.0);
(439849.0, 3765310.0, 289.0, 289.0, 0.0);
(439854.0, 3765310.0, 289.0, 289.0, 0.0);
(439859.0, 3765310.0, 289.0, 289.0, 0.0);
(439864.0, 3765310.0, 289.0, 289.0, 0.0);
(439869.0, 3765310.0, 289.0, 289.0, 0.0);

```
     ( 439874.0, 3765310.0,     289.0,     289.0,       0.0);
( 439879.0, 3765310.0,     289.0,     289.0,       0.0);
     ( 439884.0, 3765310.0,     289.0,     289.0,       0.0);
( 439674.0, 3765315.0,     289.0,     289.0,       0.0);
     ( 439679.0, 3765315.0,     289.0,     289.0,       0.0);
( 439684.0, 3765315.0,     289.0,     289.0,       0.0);
     ( 439689.0, 3765315.0,     289.0,     289.0,       0.0);
( 439694.0, 3765315.0,     289.0,     289.0,       0.0);
     ( 439699.0, 3765315.0,     289.0,     289.0,       0.0);
( 439704.0, 3765315.0,     289.0,     289.0,       0.0);
     ( 439709.0, 3765315.0,     289.0,     289.0,       0.0);
( 439714.0, 3765315.0,     289.0,     289.0,       0.0);
     ( 439719.0, 3765315.0,     289.0,     289.0,       0.0);
( 439729.0, 3765315.0,     289.0,     289.0,       0.0);
     ( 439734.0, 3765315.0,     289.0,     289.0,       0.0);
( 439739.0, 3765315.0,     289.0,     289.0,       0.0);
     ( 439744.0, 3765315.0,     289.0,     289.0,       0.0);
( 439749.0, 3765315.0,     289.0,     289.0,       0.0);
     ( 439764.0, 3765315.0,     289.0,     289.0,       0.0);
( 439769.0, 3765315.0,     289.0,     289.0,       0.0);
     ( 439774.0, 3765315.0,     289.0,     289.0,       0.0);
( 439779.0, 3765315.0,     289.0,     289.0,       0.0);
     ( 439784.0, 3765315.0,     289.0,     289.0,       0.0);
( 439789.0, 3765315.0,     289.0,     289.0,       0.0);
     ( 439794.0, 3765315.0,     289.0,     289.0,       0.0);
( 439799.0, 3765315.0,     289.0,     289.0,       0.0);
     ( 439804.0, 3765315.0,     289.0,     289.0,       0.0);
( 439809.0, 3765315.0,     289.0,     289.0,       0.0);
     ( 439814.0, 3765315.0,     289.0,     289.0,       0.0);
( 439819.0, 3765315.0,     289.0,     289.0,       0.0);
     ( 439824.0, 3765315.0,     289.0,     289.0,       0.0);
( 439829.0, 3765315.0,     289.0,     289.0,       0.0);
     ( 439839.0, 3765315.0,     289.0,     289.0,       0.0);
( 439844.0, 3765315.0,     289.0,     289.0,       0.0);
     ( 439849.0, 3765315.0,     289.0,     289.0,       0.0);
( 439854.0, 3765315.0,     289.0,     289.0,       0.0);
     ( 439859.0, 3765315.0,     289.0,     289.0,       0.0);
( 439864.0, 3765315.0,     289.0,     289.0,       0.0);
     ( 439869.0, 3765315.0,     289.0,     289.0,       0.0);
( 439874.0, 3765315.0,     289.0,     289.0,       0.0);
     ( 439879.0, 3765315.0,     289.0,     289.0,       0.0);
( 439884.0, 3765315.0,     289.0,     289.0,       0.0);
     ( 439674.0, 3765320.0,     289.0,     289.0,       0.0);
( 439679.0, 3765320.0,     289.0,     289.0,       0.0);
     ( 439684.0, 3765320.0,     289.0,     289.0,       0.0);
( 439689.0, 3765320.0,     289.0,     289.0,       0.0);
     ( 439694.0, 3765320.0,     289.0,     289.0,       0.0);
( 439699.0, 3765320.0,     289.0,     289.0,       0.0);
     ( 439704.0, 3765320.0,     289.0,     289.0,       0.0);
( 439709.0, 3765320.0,     289.0,     289.0,       0.0);
     ( 439714.0, 3765320.0,     289.0,     289.0,       0.0);
( 439719.0, 3765320.0,     289.0,     289.0,       0.0);
```

```
     ( 439729.0, 3765320.0,     289.0,     289.0,       0.0);
( 439734.0, 3765320.0,     289.0,     289.0,       0.0);
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)

(METERS)

(439739.0, 3765320.0, 289.0, 289.0, 0.0);
(439744.0, 3765320.0, 289.0, 289.0, 0.0);
(439749.0, 3765320.0, 289.0, 289.0, 0.0);
(439764.0, 3765320.0, 289.0, 289.0, 0.0);
(439769.0, 3765320.0, 289.0, 289.0, 0.0);
(439774.0, 3765320.0, 289.0, 289.0, 0.0);
(439779.0, 3765320.0, 289.0, 289.0, 0.0);
(439784.0, 3765320.0, 289.0, 289.0, 0.0);
(439789.0, 3765320.0, 289.0, 289.0, 0.0);
(439794.0, 3765320.0, 289.0, 289.0, 0.0);
(439799.0, 3765320.0, 289.0, 289.0, 0.0);
(439804.0, 3765320.0, 289.0, 289.0, 0.0);
(439809.0, 3765320.0, 289.0, 289.0, 0.0);
(439814.0, 3765320.0, 289.0, 289.0, 0.0);
(439819.0, 3765320.0, 289.0, 289.0, 0.0);
(439824.0, 3765320.0, 289.0, 289.0, 0.0);
(439829.0, 3765320.0, 289.0, 289.0, 0.0);
(439839.0, 3765320.0, 289.0, 289.0, 0.0);
(439844.0, 3765320.0, 289.0, 289.0, 0.0);
(439849.0, 3765320.0, 289.0, 289.0, 0.0);
(439854.0, 3765320.0, 289.0, 289.0, 0.0);
(439859.0, 3765320.0, 289.0, 289.0, 0.0);
(439864.0, 3765320.0, 289.0, 289.0, 0.0);
(439869.0, 3765320.0, 289.0, 289.0, 0.0);
(439874.0, 3765320.0, 289.0, 289.0, 0.0);
(439879.0, 3765320.0, 289.0, 289.0, 0.0);
(439884.0, 3765320.0, 289.0, 289.0, 0.0);
(439674.0, 3765325.0, 289.0, 289.0, 0.0);
(439679.0, 3765325.0, 289.0, 289.0, 0.0);
(439684.0, 3765325.0, 289.0, 289.0, 0.0);
(439689.0, 3765325.0, 289.0, 289.0, 0.0);
(439694.0, 3765325.0, 289.0, 289.0, 0.0);
(439699.0, 3765325.0, 289.0, 289.0, 0.0);
(439704.0, 3765325.0, 289.0, 289.0, 0.0);
(439709.0, 3765325.0, 289.0, 289.0, 0.0);
(439714.0, 3765325.0, 289.0, 289.0, 0.0);

```
     ( 439719.0, 3765325.0,     289.0,     289.0,       0.0);
( 439729.0, 3765325.0,     289.0,     289.0,       0.0);
     ( 439734.0, 3765325.0,     289.0,     289.0,       0.0);
( 439739.0, 3765325.0,     289.0,     289.0,       0.0);
     ( 439744.0, 3765325.0,     289.0,     289.0,       0.0);
( 439749.0, 3765325.0,     289.0,     289.0,       0.0);
     ( 439754.0, 3765325.0,     289.0,     289.0,       0.0);
( 439769.0, 3765325.0,     289.0,     289.0,       0.0);
     ( 439774.0, 3765325.0,     289.0,     289.0,       0.0);
( 439779.0, 3765325.0,     289.0,     289.0,       0.0);
     ( 439784.0, 3765325.0,     289.0,     289.0,       0.0);
( 439789.0, 3765325.0,     289.0,     289.0,       0.0);
     ( 439794.0, 3765325.0,     289.0,     289.0,       0.0);
( 439799.0, 3765325.0,     289.0,     289.0,       0.0);
     ( 439804.0, 3765325.0,     289.0,     289.0,       0.0);
( 439809.0, 3765325.0,     289.0,     289.0,       0.0);
     ( 439814.0, 3765325.0,     289.0,     289.0,       0.0);
( 439819.0, 3765325.0,     289.0,     289.0,       0.0);
     ( 439824.0, 3765325.0,     289.0,     289.0,       0.0);
( 439829.0, 3765325.0,     289.0,     289.0,       0.0);
     ( 439839.0, 3765325.0,     289.0,     289.0,       0.0);
( 439844.0, 3765325.0,     289.0,     289.0,       0.0);
     ( 439849.0, 3765325.0,     289.0,     289.0,       0.0);
( 439854.0, 3765325.0,     289.0,     289.0,       0.0);
     ( 439859.0, 3765325.0,     289.0,     289.0,       0.0);
( 439864.0, 3765325.0,     289.0,     289.0,       0.0);
     ( 439869.0, 3765325.0,     289.0,     289.0,       0.0);
( 439874.0, 3765325.0,     289.0,     289.0,       0.0);
     ( 439879.0, 3765325.0,     289.0,     289.0,       0.0);
( 439884.0, 3765325.0,     289.0,     289.0,       0.0);
     ( 439674.0, 3765330.0,     289.0,     289.0,       0.0);
( 439679.0, 3765330.0,     289.0,     289.0,       0.0);
     ( 439684.0, 3765330.0,     289.0,     289.0,       0.0);
( 439689.0, 3765330.0,     289.0,     289.0,       0.0);
     ( 439694.0, 3765330.0,     289.0,     289.0,       0.0);
( 439699.0, 3765330.0,     289.0,     289.0,       0.0);
     ( 439704.0, 3765330.0,     289.0,     289.0,       0.0);
( 439709.0, 3765330.0,     289.0,     289.0,       0.0);
     ( 439714.0, 3765330.0,     289.0,     289.0,       0.0);
( 439719.0, 3765330.0,     289.0,     289.0,       0.0);
     ( 439729.0, 3765330.0,     289.0,     289.0,       0.0);
( 439734.0, 3765330.0,     289.0,     289.0,       0.0);
     ( 439739.0, 3765330.0,     289.0,     289.0,       0.0);
( 439744.0, 3765330.0,     289.0,     289.0,       0.0);
     ( 439749.0, 3765330.0,     289.0,     289.0,       0.0);
( 439754.0, 3765330.0,     289.0,     289.0,       0.0);
     ( 439774.0, 3765330.0,     289.0,     289.0,       0.0);
( 439779.0, 3765330.0,     289.0,     289.0,       0.0);
     ( 439784.0, 3765330.0,     289.0,     289.0,       0.0);
( 439789.0, 3765330.0,     289.0,     289.0,       0.0);
     ( 439794.0, 3765330.0,     289.0,     289.0,       0.0);
( 439799.0, 3765330.0,     289.0,     289.0,       0.0);
```

```
     ( 439804.0, 3765330.0,     289.0,     289.0,       0.0);
( 439809.0, 3765330.0,     289.0,     289.0,       0.0);
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)

(METERS)

(439814.0, 3765330.0, 289.0, 289.0, 0.0);
(439819.0, 3765330.0, 289.0, 289.0, 0.0);
(439824.0, 3765330.0, 289.0, 289.0, 0.0);
(439829.0, 3765330.0, 289.0, 289.0, 0.0);
(439839.0, 3765330.0, 289.0, 289.0, 0.0);
(439844.0, 3765330.0, 289.0, 289.0, 0.0);
(439849.0, 3765330.0, 289.0, 289.0, 0.0);
(439854.0, 3765330.0, 289.0, 289.0, 0.0);
(439859.0, 3765330.0, 289.0, 289.0, 0.0);
(439864.0, 3765330.0, 289.0, 289.0, 0.0);
(439869.0, 3765330.0, 289.0, 289.0, 0.0);
(439874.0, 3765330.0, 289.0, 289.0, 0.0);
(439879.0, 3765330.0, 289.0, 289.0, 0.0);
(439884.0, 3765330.0, 289.0, 289.0, 0.0);
(439674.0, 3765335.0, 289.0, 289.0, 0.0);
(439679.0, 3765335.0, 289.0, 289.0, 0.0);
(439684.0, 3765335.0, 289.0, 289.0, 0.0);
(439689.0, 3765335.0, 289.0, 289.0, 0.0);
(439694.0, 3765335.0, 289.0, 289.0, 0.0);
(439699.0, 3765335.0, 289.0, 289.0, 0.0);
(439704.0, 3765335.0, 289.0, 289.0, 0.0);
(439709.0, 3765335.0, 289.0, 289.0, 0.0);
(439714.0, 3765335.0, 289.0, 289.0, 0.0);
(439719.0, 3765335.0, 289.0, 289.0, 0.0);
(439729.0, 3765335.0, 289.0, 289.0, 0.0);
(439734.0, 3765335.0, 289.0, 289.0, 0.0);
(439739.0, 3765335.0, 289.0, 289.0, 0.0);
(439744.0, 3765335.0, 289.0, 289.0, 0.0);
(439749.0, 3765335.0, 289.0, 289.0, 0.0);
(439774.0, 3765335.0, 289.0, 289.0, 0.0);
(439779.0, 3765335.0, 289.0, 289.0, 0.0);
(439784.0, 3765335.0, 289.0, 289.0, 0.0);
(439789.0, 3765335.0, 289.0, 289.0, 0.0);
(439794.0, 3765335.0, 289.0, 289.0, 0.0);
(439839.0, 3765335.0, 289.0, 289.0, 0.0);
(439844.0, 3765335.0, 289.0, 289.0, 0.0);

```
     ( 439849.0, 3765335.0,     289.0,     289.0,       0.0);
( 439854.0, 3765335.0,     289.0,     289.0,       0.0);
     ( 439859.0, 3765335.0,     289.0,     289.0,       0.0);
( 439864.0, 3765335.0,     289.0,     289.0,       0.0);
     ( 439869.0, 3765335.0,     289.0,     289.0,       0.0);
( 439874.0, 3765335.0,     289.0,     289.0,       0.0);
     ( 439879.0, 3765335.0,     289.0,     289.0,       0.0);
( 439884.0, 3765335.0,     289.0,     289.0,       0.0);
     ( 439674.0, 3765340.0,     289.0,     289.0,       0.0);
( 439679.0, 3765340.0,     289.0,     289.0,       0.0);
     ( 439684.0, 3765340.0,     289.0,     289.0,       0.0);
( 439689.0, 3765340.0,     289.0,     289.0,       0.0);
     ( 439694.0, 3765340.0,     289.0,     289.0,       0.0);
( 439699.0, 3765340.0,     289.0,     289.0,       0.0);
     ( 439704.0, 3765340.0,     289.0,     289.0,       0.0);
( 439709.0, 3765340.0,     289.0,     289.0,       0.0);
     ( 439714.0, 3765340.0,     289.0,     289.0,       0.0);
( 439719.0, 3765340.0,     289.0,     289.0,       0.0);
     ( 439729.0, 3765340.0,     289.0,     289.0,       0.0);
( 439734.0, 3765340.0,     289.0,     289.0,       0.0);
     ( 439739.0, 3765340.0,     289.0,     289.0,       0.0);
( 439744.0, 3765340.0,     289.0,     289.0,       0.0);
     ( 439749.0, 3765340.0,     289.0,     289.0,       0.0);
( 439774.0, 3765340.0,     289.0,     289.0,       0.0);
     ( 439779.0, 3765340.0,     289.0,     289.0,       0.0);
( 439784.0, 3765340.0,     289.0,     289.0,       0.0);
     ( 439789.0, 3765340.0,     289.0,     289.0,       0.0);
( 439794.0, 3765340.0,     289.0,     289.0,       0.0);
     ( 439839.0, 3765340.0,     289.0,     289.0,       0.0);
( 439844.0, 3765340.0,     289.0,     289.0,       0.0);
     ( 439849.0, 3765340.0,     289.0,     289.0,       0.0);
( 439854.0, 3765340.0,     289.0,     289.0,       0.0);
     ( 439859.0, 3765340.0,     289.0,     289.0,       0.0);
( 439864.0, 3765340.0,     289.0,     289.0,       0.0);
     ( 439869.0, 3765340.0,     289.0,     289.0,       0.0);
( 439874.0, 3765340.0,     289.0,     289.0,       0.0);
     ( 439879.0, 3765340.0,     289.0,     289.0,       0.0);
( 439884.0, 3765340.0,     289.0,     289.0,       0.0);
     ( 439674.0, 3765345.0,     289.0,     289.0,       0.0);
( 439679.0, 3765345.0,     289.0,     289.0,       0.0);
     ( 439684.0, 3765345.0,     289.0,     289.0,       0.0);
( 439689.0, 3765345.0,     289.0,     289.0,       0.0);
     ( 439694.0, 3765345.0,     289.0,     289.0,       0.0);
( 439699.0, 3765345.0,     289.0,     289.0,       0.0);
     ( 439704.0, 3765345.0,     289.0,     289.0,       0.0);
( 439709.0, 3765345.0,     289.0,     289.0,       0.0);
     ( 439714.0, 3765345.0,     289.0,     289.0,       0.0);
( 439719.0, 3765345.0,     289.0,     289.0,       0.0);
     ( 439729.0, 3765345.0,     289.0,     289.0,       0.0);
( 439734.0, 3765345.0,     289.0,     289.0,       0.0);
     ( 439739.0, 3765345.0,     289.0,     289.0,       0.0);
( 439744.0, 3765345.0,     289.0,     289.0,       0.0);
```

```
     ( 439749.0, 3765345.0,     289.0,     289.0,       0.0);
( 439774.0, 3765345.0,     289.0,     289.0,       0.0);
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)

(METERS)

(439779.0, 3765345.0, 289.0, 289.0, 0.0);
(439784.0, 3765345.0, 289.0, 289.0, 0.0);
(439789.0, 3765345.0, 289.0, 289.0, 0.0);
(439794.0, 3765345.0, 289.0, 289.0, 0.0);
(439839.0, 3765345.0, 289.0, 289.0, 0.0);
(439844.0, 3765345.0, 289.0, 289.0, 0.0);
(439849.0, 3765345.0, 289.0, 289.0, 0.0);
(439854.0, 3765345.0, 289.0, 289.0, 0.0);
(439859.0, 3765345.0, 289.0, 289.0, 0.0);
(439864.0, 3765345.0, 289.0, 289.0, 0.0);
(439869.0, 3765345.0, 289.0, 289.0, 0.0);
(439874.0, 3765345.0, 289.0, 289.0, 0.0);
(439879.0, 3765345.0, 289.0, 289.0, 0.0);
(439884.0, 3765345.0, 289.0, 289.0, 0.0);
(439674.0, 3765350.0, 289.0, 289.0, 0.0);
(439679.0, 3765350.0, 289.0, 289.0, 0.0);
(439684.0, 3765350.0, 289.0, 289.0, 0.0);
(439689.0, 3765350.0, 289.0, 289.0, 0.0);
(439694.0, 3765350.0, 289.0, 289.0, 0.0);
(439699.0, 3765350.0, 289.0, 289.0, 0.0);
(439704.0, 3765350.0, 289.0, 289.0, 0.0);
(439709.0, 3765350.0, 289.0, 289.0, 0.0);
(439714.0, 3765350.0, 289.0, 289.0, 0.0);
(439719.0, 3765350.0, 289.0, 289.0, 0.0);
(439729.0, 3765350.0, 289.0, 289.0, 0.0);
(439734.0, 3765350.0, 289.0, 289.0, 0.0);
(439739.0, 3765350.0, 289.0, 289.0, 0.0);
(439744.0, 3765350.0, 289.0, 289.0, 0.0);
(439749.0, 3765350.0, 289.0, 289.0, 0.0);
(439774.0, 3765350.0, 289.0, 289.0, 0.0);
(439779.0, 3765350.0, 289.0, 289.0, 0.0);
(439784.0, 3765350.0, 289.0, 289.0, 0.0);
(439789.0, 3765350.0, 289.0, 289.0, 0.0);
(439794.0, 3765350.0, 289.0, 289.0, 0.0);
(439839.0, 3765350.0, 289.0, 289.0, 0.0);
(439844.0, 3765350.0, 289.0, 289.0, 0.0);

```
     ( 439849.0, 3765350.0,     289.0,     289.0,       0.0);
( 439854.0, 3765350.0,     289.0,     289.0,       0.0);
     ( 439859.0, 3765350.0,     289.0,     289.0,       0.0);
( 439864.0, 3765350.0,     289.0,     289.0,       0.0);
     ( 439869.0, 3765350.0,     289.0,     289.0,       0.0);
( 439874.0, 3765350.0,     289.0,     289.0,       0.0);
     ( 439879.0, 3765350.0,     289.0,     289.0,       0.0);
( 439884.0, 3765350.0,     289.0,     289.0,       0.0);
     ( 439674.0, 3765355.0,     289.0,     289.0,       0.0);
( 439679.0, 3765355.0,     289.0,     289.0,       0.0);
     ( 439684.0, 3765355.0,     289.0,     289.0,       0.0);
( 439689.0, 3765355.0,     289.0,     289.0,       0.0);
     ( 439694.0, 3765355.0,     289.0,     289.0,       0.0);
( 439699.0, 3765355.0,     289.0,     289.0,       0.0);
     ( 439704.0, 3765355.0,     289.0,     289.0,       0.0);
( 439709.0, 3765355.0,     289.0,     289.0,       0.0);
     ( 439714.0, 3765355.0,     289.0,     289.0,       0.0);
( 439719.0, 3765355.0,     289.0,     289.0,       0.0);
     ( 439729.0, 3765355.0,     289.0,     289.0,       0.0);
( 439734.0, 3765355.0,     289.0,     289.0,       0.0);
     ( 439739.0, 3765355.0,     289.0,     289.0,       0.0);
( 439744.0, 3765355.0,     289.0,     289.0,       0.0);
     ( 439749.0, 3765355.0,     289.0,     289.0,       0.0);
( 439774.0, 3765355.0,     289.0,     289.0,       0.0);
     ( 439779.0, 3765355.0,     289.0,     289.0,       0.0);
( 439784.0, 3765355.0,     289.0,     289.0,       0.0);
     ( 439789.0, 3765355.0,     289.0,     289.0,       0.0);
( 439794.0, 3765355.0,     289.0,     289.0,       0.0);
     ( 439839.0, 3765355.0,     289.0,     289.0,       0.0);
( 439844.0, 3765355.0,     289.0,     289.0,       0.0);
     ( 439849.0, 3765355.0,     289.0,     289.0,       0.0);
( 439854.0, 3765355.0,     289.0,     289.0,       0.0);
     ( 439859.0, 3765355.0,     289.0,     289.0,       0.0);
( 439864.0, 3765355.0,     289.0,     289.0,       0.0);
     ( 439869.0, 3765355.0,     289.0,     289.0,       0.0);
( 439874.0, 3765355.0,     289.0,     289.0,       0.0);
     ( 439879.0, 3765355.0,     289.0,     289.0,       0.0);
( 439884.0, 3765355.0,     289.0,     289.0,       0.0);
     ( 439674.0, 3765360.0,     289.0,     289.0,       0.0);
( 439679.0, 3765360.0,     289.0,     289.0,       0.0);
     ( 439684.0, 3765360.0,     289.0,     289.0,       0.0);
( 439689.0, 3765360.0,     289.0,     289.0,       0.0);
     ( 439694.0, 3765360.0,     289.0,     289.0,       0.0);
( 439699.0, 3765360.0,     289.0,     289.0,       0.0);
     ( 439704.0, 3765360.0,     289.0,     289.0,       0.0);
( 439709.0, 3765360.0,     289.0,     289.0,       0.0);
     ( 439714.0, 3765360.0,     289.0,     289.0,       0.0);
( 439719.0, 3765360.0,     289.0,     289.0,       0.0);
     ( 439729.0, 3765360.0,     289.0,     289.0,       0.0);
( 439734.0, 3765360.0,     289.0,     289.0,       0.0);
     ( 439739.0, 3765360.0,     289.0,     289.0,       0.0);
( 439744.0, 3765360.0,     289.0,     289.0,       0.0);
```

```
     ( 439749.0, 3765360.0,     289.0,     289.0,       0.0);
( 439774.0, 3765360.0,     289.0,     289.0,       0.0);
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)

(METERS)

(439779.0, 3765360.0, 289.0, 289.0, 0.0);
(439784.0, 3765360.0, 289.0, 289.0, 0.0);
(439789.0, 3765360.0, 289.0, 289.0, 0.0);
(439794.0, 3765360.0, 289.0, 289.0, 0.0);
(439799.0, 3765360.0, 289.0, 289.0, 0.0);
(439804.0, 3765360.0, 289.0, 289.0, 0.0);
(439809.0, 3765360.0, 289.0, 289.0, 0.0);
(439814.0, 3765360.0, 289.0, 289.0, 0.0);
(439839.0, 3765360.0, 289.0, 289.0, 0.0);
(439844.0, 3765360.0, 289.0, 289.0, 0.0);
(439849.0, 3765360.0, 289.0, 289.0, 0.0);
(439854.0, 3765360.0, 289.0, 289.0, 0.0);
(439859.0, 3765360.0, 289.0, 289.0, 0.0);
(439864.0, 3765360.0, 289.0, 289.0, 0.0);
(439869.0, 3765360.0, 289.0, 289.0, 0.0);
(439874.0, 3765360.0, 289.0, 289.0, 0.0);
(439879.0, 3765360.0, 289.0, 289.0, 0.0);
(439884.0, 3765360.0, 289.0, 289.0, 0.0);
(439674.0, 3765365.0, 289.0, 289.0, 0.0);
(439679.0, 3765365.0, 289.0, 289.0, 0.0);
(439684.0, 3765365.0, 289.0, 289.0, 0.0);
(439689.0, 3765365.0, 289.0, 289.0, 0.0);
(439694.0, 3765365.0, 289.0, 289.0, 0.0);
(439699.0, 3765365.0, 289.0, 289.0, 0.0);
(439704.0, 3765365.0, 289.0, 289.0, 0.0);
(439709.0, 3765365.0, 289.0, 289.0, 0.0);
(439714.0, 3765365.0, 289.0, 289.0, 0.0);
(439719.0, 3765365.0, 289.0, 289.0, 0.0);
(439729.0, 3765365.0, 289.0, 289.0, 0.0);
(439734.0, 3765365.0, 289.0, 289.0, 0.0);
(439739.0, 3765365.0, 289.0, 289.0, 0.0);
(439744.0, 3765365.0, 289.0, 289.0, 0.0);
(439749.0, 3765365.0, 289.0, 289.0, 0.0);
(439774.0, 3765365.0, 289.0, 289.0, 0.0);
(439779.0, 3765365.0, 289.0, 289.0, 0.0);
(439784.0, 3765365.0, 289.0, 289.0, 0.0);

```
     ( 439789.0, 3765365.0,     289.0,     289.0,       0.0);
( 439794.0, 3765365.0,     289.0,     289.0,       0.0);
     ( 439799.0, 3765365.0,     289.0,     289.0,       0.0);
( 439804.0, 3765365.0,     289.0,     289.0,       0.0);
     ( 439809.0, 3765365.0,     289.0,     289.0,       0.0);
( 439814.0, 3765365.0,     289.0,     289.0,       0.0);
     ( 439839.0, 3765365.0,     289.0,     289.0,       0.0);
( 439844.0, 3765365.0,     289.0,     289.0,       0.0);
     ( 439849.0, 3765365.0,     289.0,     289.0,       0.0);
( 439854.0, 3765365.0,     289.0,     289.0,       0.0);
     ( 439859.0, 3765365.0,     289.0,     289.0,       0.0);
( 439864.0, 3765365.0,     289.0,     289.0,       0.0);
     ( 439869.0, 3765365.0,     289.0,     289.0,       0.0);
( 439874.0, 3765365.0,     289.0,     289.0,       0.0);
     ( 439879.0, 3765365.0,     289.0,     289.0,       0.0);
( 439884.0, 3765365.0,     289.0,     289.0,       0.0);
     ( 439674.0, 3765370.0,     289.0,     289.0,       0.0);
( 439679.0, 3765370.0,     289.0,     289.0,       0.0);
     ( 439684.0, 3765370.0,     289.0,     289.0,       0.0);
( 439689.0, 3765370.0,     289.0,     289.0,       0.0);
     ( 439694.0, 3765370.0,     289.0,     289.0,       0.0);
( 439699.0, 3765370.0,     289.0,     289.0,       0.0);
     ( 439704.0, 3765370.0,     289.0,     289.0,       0.0);
( 439709.0, 3765370.0,     289.0,     289.0,       0.0);
     ( 439714.0, 3765370.0,     289.0,     289.0,       0.0);
( 439719.0, 3765370.0,     289.0,     289.0,       0.0);
     ( 439729.0, 3765370.0,     289.0,     289.0,       0.0);
( 439734.0, 3765370.0,     289.0,     289.0,       0.0);
     ( 439739.0, 3765370.0,     289.0,     289.0,       0.0);
( 439744.0, 3765370.0,     289.0,     289.0,       0.0);
     ( 439749.0, 3765370.0,     289.0,     289.0,       0.0);
( 439774.0, 3765370.0,     289.0,     289.0,       0.0);
     ( 439779.0, 3765370.0,     289.0,     289.0,       0.0);
( 439784.0, 3765370.0,     289.0,     289.0,       0.0);
     ( 439789.0, 3765370.0,     289.0,     289.0,       0.0);
( 439794.0, 3765370.0,     289.0,     289.0,       0.0);
     ( 439799.0, 3765370.0,     289.0,     289.0,       0.0);
( 439804.0, 3765370.0,     289.0,     289.0,       0.0);
     ( 439809.0, 3765370.0,     289.0,     289.0,       0.0);
( 439814.0, 3765370.0,     289.0,     289.0,       0.0);
     ( 439839.0, 3765370.0,     289.0,     289.0,       0.0);
( 439844.0, 3765370.0,     289.0,     289.0,       0.0);
     ( 439849.0, 3765370.0,     289.0,     289.0,       0.0);
( 439854.0, 3765370.0,     289.0,     289.0,       0.0);
     ( 439859.0, 3765370.0,     289.0,     289.0,       0.0);
( 439864.0, 3765370.0,     289.0,     289.0,       0.0);
     ( 439869.0, 3765370.0,     289.0,     289.0,       0.0);
( 439874.0, 3765370.0,     289.0,     289.0,       0.0);
     ( 439879.0, 3765370.0,     289.0,     289.0,       0.0);
( 439884.0, 3765370.0,     289.0,     289.0,       0.0);
     ( 439674.0, 3765375.0,     289.0,     289.0,       0.0);
( 439679.0, 3765375.0,     289.0,     289.0,       0.0);
```

```
     ( 439684.0, 3765375.0,     289.0,     289.0,       0.0);
( 439689.0, 3765375.0,     289.0,     289.0,       0.0);
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)

(METERS)

(439694.0, 3765375.0, 289.0, 289.0, 0.0);
(439699.0, 3765375.0, 289.0, 289.0, 0.0);
(439704.0, 3765375.0, 289.0, 289.0, 0.0);
(439709.0, 3765375.0, 289.0, 289.0, 0.0);
(439714.0, 3765375.0, 289.0, 289.0, 0.0);
(439719.0, 3765375.0, 289.0, 289.0, 0.0);
(439729.0, 3765375.0, 289.0, 289.0, 0.0);
(439734.0, 3765375.0, 289.0, 289.0, 0.0);
(439739.0, 3765375.0, 289.0, 289.0, 0.0);
(439744.0, 3765375.0, 289.0, 289.0, 0.0);
(439749.0, 3765375.0, 289.0, 289.0, 0.0);
(439754.0, 3765375.0, 289.0, 289.0, 0.0);
(439774.0, 3765375.0, 289.0, 289.0, 0.0);
(439779.0, 3765375.0, 289.0, 289.0, 0.0);
(439784.0, 3765375.0, 289.0, 289.0, 0.0);
(439789.0, 3765375.0, 289.0, 289.0, 0.0);
(439794.0, 3765375.0, 289.0, 289.0, 0.0);
(439799.0, 3765375.0, 289.0, 289.0, 0.0);
(439804.0, 3765375.0, 289.0, 289.0, 0.0);
(439809.0, 3765375.0, 289.0, 289.0, 0.0);
(439814.0, 3765375.0, 289.0, 289.0, 0.0);
(439839.0, 3765375.0, 289.0, 289.0, 0.0);
(439844.0, 3765375.0, 289.0, 289.0, 0.0);
(439849.0, 3765375.0, 289.0, 289.0, 0.0);
(439854.0, 3765375.0, 289.0, 289.0, 0.0);
(439859.0, 3765375.0, 289.0, 289.0, 0.0);
(439864.0, 3765375.0, 289.0, 289.0, 0.0);
(439869.0, 3765375.0, 289.0, 289.0, 0.0);
(439874.0, 3765375.0, 289.0, 289.0, 0.0);
(439879.0, 3765375.0, 289.0, 289.0, 0.0);
(439884.0, 3765375.0, 289.0, 289.0, 0.0);
(439774.0, 3765380.0, 289.0, 289.0, 0.0);
(439779.0, 3765380.0, 289.0, 289.0, 0.0);
(439784.0, 3765380.0, 289.0, 289.0, 0.0);
(439789.0, 3765380.0, 289.0, 289.0, 0.0);
(439794.0, 3765380.0, 289.0, 289.0, 0.0);

```
     ( 439799.0, 3765380.0,     289.0,     289.0,       0.0);
( 439804.0, 3765380.0,     289.0,     289.0,       0.0);
     ( 439809.0, 3765380.0,     289.0,     289.0,       0.0);
( 439814.0, 3765380.0,     289.0,     289.0,       0.0);
     ( 439769.0, 3765385.0,     289.0,     289.0,       0.0);
( 439819.0, 3765385.0,     289.0,     289.0,       0.0);
     ( 439769.0, 3765400.0,     289.0,     289.0,       0.0);
( 439844.0, 3765400.0,     289.0,     289.0,       0.0);
     ( 439849.0, 3765400.0,     289.0,     289.0,       0.0);
( 439674.0, 3765405.0,     289.0,     289.0,       0.0);
     ( 439714.0, 3765405.0,     289.0,     289.0,       0.0);
( 439719.0, 3765405.0,     289.0,     289.0,       0.0);
     ( 439734.0, 3765405.0,     289.0,     289.0,       0.0);
( 439749.0, 3765405.0,     289.0,     289.0,       0.0);
     ( 439754.0, 3765405.0,     289.0,     289.0,       0.0);
( 439774.0, 3765405.0,     289.0,     289.0,       0.0);
     ( 439779.0, 3765405.0,     289.0,     289.0,       0.0);
( 439784.0, 3765405.0,     289.0,     289.0,       0.0);
     ( 439789.0, 3765405.0,     289.0,     289.0,       0.0);
( 439794.0, 3765405.0,     289.0,     289.0,       0.0);
     ( 439799.0, 3765405.0,     289.0,     289.0,       0.0);
( 439804.0, 3765405.0,     289.0,     289.0,       0.0);
     ( 439809.0, 3765405.0,     289.0,     289.0,       0.0);
( 439814.0, 3765405.0,     289.0,     289.0,       0.0);
     ( 439819.0, 3765405.0,     289.0,     289.0,       0.0);
( 439824.0, 3765405.0,     289.0,     289.0,       0.0);
     ( 439829.0, 3765405.0,     289.0,     289.0,       0.0);
( 439834.0, 3765405.0,     289.0,     289.0,       0.0);
     ( 439839.0, 3765405.0,     289.0,     289.0,       0.0);
( 439844.0, 3765405.0,     289.0,     289.0,       0.0);
     ( 439849.0, 3765405.0,     289.0,     289.0,       0.0);
( 439854.0, 3765405.0,     289.0,     289.0,       0.0);
     ( 439859.0, 3765405.0,     289.0,     289.0,       0.0);
( 439674.0, 3765410.0,     289.0,     289.0,       0.0);
     ( 439679.0, 3765410.0,     289.0,     289.0,       0.0);
( 439684.0, 3765410.0,     289.0,     289.0,       0.0);
     ( 439689.0, 3765410.0,     289.0,     289.0,       0.0);
( 439694.0, 3765410.0,     289.0,     289.0,       0.0);
     ( 439699.0, 3765410.0,     289.0,     289.0,       0.0);
( 439704.0, 3765410.0,     289.0,     289.0,       0.0);
     ( 439709.0, 3765410.0,     289.0,     289.0,       0.0);
( 439714.0, 3765410.0,     289.0,     289.0,       0.0);
     ( 439719.0, 3765410.0,     289.0,     289.0,       0.0);
( 439729.0, 3765410.0,     289.0,     289.0,       0.0);
     ( 439734.0, 3765410.0,     289.0,     289.0,       0.0);
( 439739.0, 3765410.0,     289.0,     289.0,       0.0);
     ( 439744.0, 3765410.0,     289.0,     289.0,       0.0);
( 439749.0, 3765410.0,     289.0,     289.0,       0.0);
     ( 439774.0, 3765410.0,     289.0,     289.0,       0.0);
( 439779.0, 3765410.0,     289.0,     289.0,       0.0);
     ( 439784.0, 3765410.0,     289.0,     289.0,       0.0);
( 439789.0, 3765410.0,     289.0,     289.0,       0.0);
```

```
     ( 439794.0, 3765410.0,     289.0,     289.0,       0.0);
( 439799.0, 3765410.0,     289.0,     289.0,       0.0);
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)

(METERS)

(439804.0, 3765410.0, 289.0, 289.0, 0.0);
(439809.0, 3765410.0, 289.0, 289.0, 0.0);
(439814.0, 3765410.0, 289.0, 289.0, 0.0);
(439819.0, 3765410.0, 289.0, 289.0, 0.0);
(439824.0, 3765410.0, 289.0, 289.0, 0.0);
(439829.0, 3765410.0, 289.0, 289.0, 0.0);
(439834.0, 3765410.0, 289.0, 289.0, 0.0);
(439839.0, 3765410.0, 289.0, 289.0, 0.0);
(439844.0, 3765410.0, 289.0, 289.0, 0.0);
(439849.0, 3765410.0, 289.0, 289.0, 0.0);
(439854.0, 3765410.0, 289.0, 289.0, 0.0);
(439859.0, 3765410.0, 289.0, 289.0, 0.0);
(439674.0, 3765415.0, 289.0, 289.0, 0.0);
(439679.0, 3765415.0, 289.0, 289.0, 0.0);
(439684.0, 3765415.0, 289.0, 289.0, 0.0);
(439689.0, 3765415.0, 289.0, 289.0, 0.0);
(439694.0, 3765415.0, 289.0, 289.0, 0.0);
(439699.0, 3765415.0, 289.0, 289.0, 0.0);
(439704.0, 3765415.0, 289.0, 289.0, 0.0);
(439709.0, 3765415.0, 289.0, 289.0, 0.0);
(439714.0, 3765415.0, 289.0, 289.0, 0.0);
(439719.0, 3765415.0, 289.0, 289.0, 0.0);
(439729.0, 3765415.0, 289.0, 289.0, 0.0);
(439734.0, 3765415.0, 289.0, 289.0, 0.0);
(439739.0, 3765415.0, 289.0, 289.0, 0.0);
(439744.0, 3765415.0, 289.0, 289.0, 0.0);
(439749.0, 3765415.0, 289.0, 289.0, 0.0);
(439774.0, 3765415.0, 289.0, 289.0, 0.0);
(439779.0, 3765415.0, 289.0, 289.0, 0.0);
(439784.0, 3765415.0, 289.0, 289.0, 0.0);
(439789.0, 3765415.0, 289.0, 289.0, 0.0);
(439794.0, 3765415.0, 289.0, 289.0, 0.0);
(439799.0, 3765415.0, 289.0, 289.0, 0.0);
(439804.0, 3765415.0, 289.0, 289.0, 0.0);
(439809.0, 3765415.0, 289.0, 289.0, 0.0);
(439814.0, 3765415.0, 289.0, 289.0, 0.0);

```
     ( 439819.0, 3765415.0,     289.0,     289.0,       0.0);
( 439824.0, 3765415.0,     289.0,     289.0,       0.0);
     ( 439829.0, 3765415.0,     289.0,     289.0,       0.0);
( 439834.0, 3765415.0,     289.0,     289.0,       0.0);
     ( 439839.0, 3765415.0,     289.0,     289.0,       0.0);
( 439844.0, 3765415.0,     289.0,     289.0,       0.0);
     ( 439849.0, 3765415.0,     289.0,     289.0,       0.0);
( 439854.0, 3765415.0,     289.0,     289.0,       0.0);
     ( 439859.0, 3765415.0,     289.0,     289.0,       0.0);
( 439674.0, 3765420.0,     289.0,     289.0,       0.0);
     ( 439679.0, 3765420.0,     289.0,     289.0,       0.0);
( 439684.0, 3765420.0,     289.0,     289.0,       0.0);
     ( 439689.0, 3765420.0,     289.0,     289.0,       0.0);
( 439694.0, 3765420.0,     289.0,     289.0,       0.0);
     ( 439699.0, 3765420.0,     289.0,     289.0,       0.0);
( 439704.0, 3765420.0,     289.0,     289.0,       0.0);
     ( 439709.0, 3765420.0,     289.0,     289.0,       0.0);
( 439714.0, 3765420.0,     289.0,     289.0,       0.0);
     ( 439719.0, 3765420.0,     289.0,     289.0,       0.0);
( 439729.0, 3765420.0,     289.0,     289.0,       0.0);
     ( 439734.0, 3765420.0,     289.0,     289.0,       0.0);
( 439739.0, 3765420.0,     289.0,     289.0,       0.0);
     ( 439744.0, 3765420.0,     289.0,     289.0,       0.0);
( 439749.0, 3765420.0,     289.0,     289.0,       0.0);
     ( 439774.0, 3765420.0,     289.0,     289.0,       0.0);
( 439779.0, 3765420.0,     289.0,     289.0,       0.0);
     ( 439784.0, 3765420.0,     289.0,     289.0,       0.0);
( 439789.0, 3765420.0,     289.0,     289.0,       0.0);
     ( 439794.0, 3765420.0,     289.0,     289.0,       0.0);
( 439799.0, 3765420.0,     289.0,     289.0,       0.0);
     ( 439804.0, 3765420.0,     289.0,     289.0,       0.0);
( 439809.0, 3765420.0,     289.0,     289.0,       0.0);
     ( 439814.0, 3765420.0,     289.0,     289.0,       0.0);
( 439819.0, 3765420.0,     289.0,     289.0,       0.0);
     ( 439824.0, 3765420.0,     289.0,     289.0,       0.0);
( 439829.0, 3765420.0,     289.0,     289.0,       0.0);
     ( 439834.0, 3765420.0,     289.0,     289.0,       0.0);
( 439839.0, 3765420.0,     289.0,     289.0,       0.0);
     ( 439844.0, 3765420.0,     289.0,     289.0,       0.0);
( 439849.0, 3765420.0,     289.0,     289.0,       0.0);
     ( 439854.0, 3765420.0,     289.0,     289.0,       0.0);
( 439859.0, 3765420.0,     289.0,     289.0,       0.0);
     ( 439674.0, 3765425.0,     289.0,     289.0,       0.0);
( 439679.0, 3765425.0,     289.0,     289.0,       0.0);
     ( 439684.0, 3765425.0,     289.0,     289.0,       0.0);
( 439689.0, 3765425.0,     289.0,     289.0,       0.0);
     ( 439694.0, 3765425.0,     289.0,     289.0,       0.0);
( 439699.0, 3765425.0,     289.0,     289.0,       0.0);
     ( 439704.0, 3765425.0,     289.0,     289.0,       0.0);
( 439709.0, 3765425.0,     289.0,     289.0,       0.0);
     ( 439714.0, 3765425.0,     289.0,     289.0,       0.0);
( 439719.0, 3765425.0,     289.0,     289.0,       0.0);
```

```
     ( 439729.0, 3765425.0,     289.0,     289.0,       0.0);
( 439734.0, 3765425.0,     289.0,     289.0,       0.0);
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)

(METERS)

(439739.0, 3765425.0, 289.0, 289.0, 0.0);
(439744.0, 3765425.0, 289.0, 289.0, 0.0);
(439749.0, 3765425.0, 289.0, 289.0, 0.0);
(439774.0, 3765425.0, 289.0, 289.0, 0.0);
(439779.0, 3765425.0, 289.0, 289.0, 0.0);
(439784.0, 3765425.0, 289.0, 289.0, 0.0);
(439789.0, 3765425.0, 289.0, 289.0, 0.0);
(439794.0, 3765425.0, 289.0, 289.0, 0.0);
(439799.0, 3765425.0, 289.0, 289.0, 0.0);
(439804.0, 3765425.0, 289.0, 289.0, 0.0);
(439809.0, 3765425.0, 289.0, 289.0, 0.0);
(439814.0, 3765425.0, 289.0, 289.0, 0.0);
(439819.0, 3765425.0, 289.0, 289.0, 0.0);
(439824.0, 3765425.0, 289.0, 289.0, 0.0);
(439829.0, 3765425.0, 289.0, 289.0, 0.0);
(439834.0, 3765425.0, 289.0, 289.0, 0.0);
(439839.0, 3765425.0, 289.0, 289.0, 0.0);
(439844.0, 3765425.0, 289.0, 289.0, 0.0);
(439849.0, 3765425.0, 289.0, 289.0, 0.0);
(439854.0, 3765425.0, 289.0, 289.0, 0.0);
(439859.0, 3765425.0, 289.0, 289.0, 0.0);
(439674.0, 3765430.0, 289.0, 289.0, 0.0);
(439679.0, 3765430.0, 289.0, 289.0, 0.0);
(439684.0, 3765430.0, 289.0, 289.0, 0.0);
(439689.0, 3765430.0, 289.0, 289.0, 0.0);
(439694.0, 3765430.0, 289.0, 289.0, 0.0);
(439699.0, 3765430.0, 289.0, 289.0, 0.0);
(439704.0, 3765430.0, 289.0, 289.0, 0.0);
(439709.0, 3765430.0, 289.0, 289.0, 0.0);
(439714.0, 3765430.0, 289.0, 289.0, 0.0);
(439719.0, 3765430.0, 289.0, 289.0, 0.0);
(439729.0, 3765430.0, 289.0, 289.0, 0.0);
(439734.0, 3765430.0, 289.0, 289.0, 0.0);
(439739.0, 3765430.0, 289.0, 289.0, 0.0);
(439744.0, 3765430.0, 289.0, 289.0, 0.0);
(439749.0, 3765430.0, 289.0, 289.0, 0.0);

```
     ( 439774.0, 3765430.0,     289.0,     289.0,       0.0);
( 439779.0, 3765430.0,     289.0,     289.0,       0.0);
     ( 439784.0, 3765430.0,     289.0,     289.0,       0.0);
( 439789.0, 3765430.0,     289.0,     289.0,       0.0);
     ( 439794.0, 3765430.0,     289.0,     289.0,       0.0);
( 439799.0, 3765430.0,     289.0,     289.0,       0.0);
     ( 439804.0, 3765430.0,     289.0,     289.0,       0.0);
( 439809.0, 3765430.0,     289.0,     289.0,       0.0);
     ( 439814.0, 3765430.0,     289.0,     289.0,       0.0);
( 439819.0, 3765430.0,     289.0,     289.0,       0.0);
     ( 439824.0, 3765430.0,     289.0,     289.0,       0.0);
( 439829.0, 3765430.0,     289.0,     289.0,       0.0);
     ( 439834.0, 3765430.0,     289.0,     289.0,       0.0);
( 439839.0, 3765430.0,     289.0,     289.0,       0.0);
     ( 439844.0, 3765430.0,     289.0,     289.0,       0.0);
( 439849.0, 3765430.0,     289.0,     289.0,       0.0);
     ( 439854.0, 3765430.0,     289.0,     289.0,       0.0);
( 439859.0, 3765430.0,     289.0,     289.0,       0.0);
     ( 439674.0, 3765435.0,     289.0,     289.0,       0.0);
( 439679.0, 3765435.0,     289.0,     289.0,       0.0);
     ( 439684.0, 3765435.0,     289.0,     289.0,       0.0);
( 439689.0, 3765435.0,     289.0,     289.0,       0.0);
     ( 439694.0, 3765435.0,     289.0,     289.0,       0.0);
( 439699.0, 3765435.0,     289.0,     289.0,       0.0);
     ( 439704.0, 3765435.0,     289.0,     289.0,       0.0);
( 439709.0, 3765435.0,     289.0,     289.0,       0.0);
     ( 439714.0, 3765435.0,     289.0,     289.0,       0.0);
( 439719.0, 3765435.0,     289.0,     289.0,       0.0);
     ( 439729.0, 3765435.0,     289.0,     289.0,       0.0);
( 439734.0, 3765435.0,     289.0,     289.0,       0.0);
     ( 439739.0, 3765435.0,     289.0,     289.0,       0.0);
( 439744.0, 3765435.0,     289.0,     289.0,       0.0);
     ( 439749.0, 3765435.0,     289.0,     289.0,       0.0);
( 439774.0, 3765435.0,     289.0,     289.0,       0.0);
     ( 439779.0, 3765435.0,     289.0,     289.0,       0.0);
( 439784.0, 3765435.0,     289.0,     289.0,       0.0);
     ( 439789.0, 3765435.0,     289.0,     289.0,       0.0);
( 439794.0, 3765435.0,     289.0,     289.0,       0.0);
     ( 439799.0, 3765435.0,     289.0,     289.0,       0.0);
( 439804.0, 3765435.0,     289.0,     289.0,       0.0);
     ( 439809.0, 3765435.0,     289.0,     289.0,       0.0);
( 439814.0, 3765435.0,     289.0,     289.0,       0.0);
     ( 439819.0, 3765435.0,     289.0,     289.0,       0.0);
( 439824.0, 3765435.0,     289.0,     289.0,       0.0);
     ( 439829.0, 3765435.0,     289.0,     289.0,       0.0);
( 439834.0, 3765435.0,     289.0,     289.0,       0.0);
     ( 439839.0, 3765435.0,     289.0,     289.0,       0.0);
( 439844.0, 3765435.0,     289.0,     289.0,       0.0);
     ( 439849.0, 3765435.0,     289.0,     289.0,       0.0);
( 439854.0, 3765435.0,     289.0,     289.0,       0.0);
     ( 439859.0, 3765435.0,     289.0,     289.0,       0.0);
( 439674.0, 3765440.0,     289.0,     289.0,       0.0);
```

```
     ( 439679.0, 3765440.0,     289.0,     289.0,       0.0);
( 439684.0, 3765440.0,     289.0,     289.0,       0.0);
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)

(METERS)

(439689.0, 3765440.0, 289.0, 289.0, 0.0);
(439694.0, 3765440.0, 289.0, 289.0, 0.0);
(439699.0, 3765440.0, 289.0, 289.0, 0.0);
(439704.0, 3765440.0, 289.0, 289.0, 0.0);
(439709.0, 3765440.0, 289.0, 289.0, 0.0);
(439714.0, 3765440.0, 289.0, 289.0, 0.0);
(439719.0, 3765440.0, 289.0, 289.0, 0.0);
(439729.0, 3765440.0, 289.0, 289.0, 0.0);
(439734.0, 3765440.0, 289.0, 289.0, 0.0);
(439739.0, 3765440.0, 289.0, 289.0, 0.0);
(439744.0, 3765440.0, 289.0, 289.0, 0.0);
(439749.0, 3765440.0, 289.0, 289.0, 0.0);
(439774.0, 3765440.0, 289.0, 289.0, 0.0);
(439779.0, 3765440.0, 289.0, 289.0, 0.0);
(439784.0, 3765440.0, 289.0, 289.0, 0.0);
(439789.0, 3765440.0, 289.0, 289.0, 0.0);
(439794.0, 3765440.0, 289.0, 289.0, 0.0);
(439799.0, 3765440.0, 289.0, 289.0, 0.0);
(439804.0, 3765440.0, 289.0, 289.0, 0.0);
(439809.0, 3765440.0, 289.0, 289.0, 0.0);
(439814.0, 3765440.0, 289.0, 289.0, 0.0);
(439819.0, 3765440.0, 289.0, 289.0, 0.0);
(439824.0, 3765440.0, 289.0, 289.0, 0.0);
(439829.0, 3765440.0, 289.0, 289.0, 0.0);
(439834.0, 3765440.0, 289.0, 289.0, 0.0);
(439839.0, 3765440.0, 289.0, 289.0, 0.0);
(439844.0, 3765440.0, 289.0, 289.0, 0.0);
(439849.0, 3765440.0, 289.0, 289.0, 0.0);
(439854.0, 3765440.0, 289.0, 289.0, 0.0);
(439859.0, 3765440.0, 289.0, 289.0, 0.0);
(439674.0, 3765445.0, 289.0, 289.0, 0.0);
(439679.0, 3765445.0, 289.0, 289.0, 0.0);
(439684.0, 3765445.0, 289.0, 289.0, 0.0);
(439689.0, 3765445.0, 289.0, 289.0, 0.0);
(439694.0, 3765445.0, 289.0, 289.0, 0.0);
(439699.0, 3765445.0, 289.0, 289.0, 0.0);

```
     ( 439704.0, 3765445.0,     289.0,     289.0,       0.0);
( 439709.0, 3765445.0,     289.0,     289.0,       0.0);
     ( 439714.0, 3765445.0,     289.0,     289.0,       0.0);
( 439719.0, 3765445.0,     289.0,     289.0,       0.0);
     ( 439729.0, 3765445.0,     289.0,     289.0,       0.0);
( 439734.0, 3765445.0,     289.0,     289.0,       0.0);
     ( 439739.0, 3765445.0,     289.0,     289.0,       0.0);
( 439744.0, 3765445.0,     289.0,     289.0,       0.0);
     ( 439749.0, 3765445.0,     289.0,     289.0,       0.0);
( 439774.0, 3765445.0,     289.0,     289.0,       0.0);
     ( 439779.0, 3765445.0,     289.0,     289.0,       0.0);
( 439784.0, 3765445.0,     289.0,     289.0,       0.0);
     ( 439789.0, 3765445.0,     289.0,     289.0,       0.0);
( 439794.0, 3765445.0,     289.0,     289.0,       0.0);
     ( 439799.0, 3765445.0,     289.0,     289.0,       0.0);
( 439804.0, 3765445.0,     289.0,     289.0,       0.0);
     ( 439809.0, 3765445.0,     289.0,     289.0,       0.0);
( 439814.0, 3765445.0,     289.0,     289.0,       0.0);
     ( 439819.0, 3765445.0,     289.0,     289.0,       0.0);
( 439824.0, 3765445.0,     289.0,     289.0,       0.0);
     ( 439829.0, 3765445.0,     289.0,     289.0,       0.0);
( 439834.0, 3765445.0,     289.0,     289.0,       0.0);
     ( 439839.0, 3765445.0,     289.0,     289.0,       0.0);
( 439844.0, 3765445.0,     289.0,     289.0,       0.0);
     ( 439849.0, 3765445.0,     289.0,     289.0,       0.0);
( 439854.0, 3765445.0,     289.0,     289.0,       0.0);
     ( 439859.0, 3765445.0,     289.0,     289.0,       0.0);
( 439674.0, 3765450.0,     289.0,     289.0,       0.0);
     ( 439679.0, 3765450.0,     289.0,     289.0,       0.0);
( 439684.0, 3765450.0,     289.0,     289.0,       0.0);
     ( 439689.0, 3765450.0,     289.0,     289.0,       0.0);
( 439694.0, 3765450.0,     289.0,     289.0,       0.0);
     ( 439699.0, 3765450.0,     289.0,     289.0,       0.0);
( 439704.0, 3765450.0,     289.0,     289.0,       0.0);
     ( 439709.0, 3765450.0,     289.0,     289.0,       0.0);
( 439714.0, 3765450.0,     289.0,     289.0,       0.0);
     ( 439719.0, 3765450.0,     289.0,     289.0,       0.0);
( 439729.0, 3765450.0,     289.0,     289.0,       0.0);
     ( 439734.0, 3765450.0,     289.0,     289.0,       0.0);
( 439739.0, 3765450.0,     289.0,     289.0,       0.0);
     ( 439744.0, 3765450.0,     289.0,     289.0,       0.0);
( 439749.0, 3765450.0,     289.0,     289.0,       0.0);
     ( 439774.0, 3765450.0,     289.0,     289.0,       0.0);
( 439844.0, 3765450.0,     289.0,     289.0,       0.0);
     ( 439849.0, 3765450.0,     289.0,     289.0,       0.0);
( 439854.0, 3765450.0,     289.0,     289.0,       0.0);
     ( 439859.0, 3765450.0,     289.0,     289.0,       0.0);
( 439674.0, 3765455.0,     289.0,     289.0,       0.0);
     ( 439679.0, 3765455.0,     289.0,     289.0,       0.0);
( 439684.0, 3765455.0,     289.0,     289.0,       0.0);
     ( 439689.0, 3765455.0,     289.0,     289.0,       0.0);
( 439694.0, 3765455.0,     289.0,     289.0,       0.0);
```

```
     ( 439699.0, 3765455.0,     289.0,     289.0,       0.0);
( 439704.0, 3765455.0,     289.0,     289.0,       0.0);
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)

(METERS)

(439709.0, 3765455.0, 289.0, 289.0, 0.0);
(439714.0, 3765455.0, 289.0, 289.0, 0.0);
(439719.0, 3765455.0, 289.0, 289.0, 0.0);
(439729.0, 3765455.0, 289.0, 289.0, 0.0);
(439734.0, 3765455.0, 289.0, 289.0, 0.0);
(439739.0, 3765455.0, 289.0, 289.0, 0.0);
(439744.0, 3765455.0, 289.0, 289.0, 0.0);
(439749.0, 3765455.0, 289.0, 289.0, 0.0);
(439844.0, 3765455.0, 289.0, 289.0, 0.0);
(439849.0, 3765455.0, 289.0, 289.0, 0.0);
(439854.0, 3765455.0, 289.0, 289.0, 0.0);
(439859.0, 3765455.0, 289.0, 289.0, 0.0);
(439674.0, 3765460.0, 289.0, 289.0, 0.0);
(439679.0, 3765460.0, 289.0, 289.0, 0.0);
(439684.0, 3765460.0, 289.0, 289.0, 0.0);
(439689.0, 3765460.0, 289.0, 289.0, 0.0);
(439694.0, 3765460.0, 289.0, 289.0, 0.0);
(439699.0, 3765460.0, 289.0, 289.0, 0.0);
(439704.0, 3765460.0, 289.0, 289.0, 0.0);
(439709.0, 3765460.0, 289.0, 289.0, 0.0);
(439714.0, 3765460.0, 289.0, 289.0, 0.0);
(439719.0, 3765460.0, 289.0, 289.0, 0.0);
(439729.0, 3765460.0, 289.0, 289.0, 0.0);
(439734.0, 3765460.0, 289.0, 289.0, 0.0);
(439739.0, 3765460.0, 289.0, 289.0, 0.0);
(439744.0, 3765460.0, 289.0, 289.0, 0.0);
(439749.0, 3765460.0, 289.0, 289.0, 0.0);
(439789.0, 3765460.0, 289.0, 289.0, 0.0);
(439794.0, 3765460.0, 289.0, 289.0, 0.0);
(439799.0, 3765460.0, 289.0, 289.0, 0.0);
(439804.0, 3765460.0, 289.0, 289.0, 0.0);
(439809.0, 3765460.0, 289.0, 289.0, 0.0);
(439814.0, 3765460.0, 289.0, 289.0, 0.0);
(439819.0, 3765460.0, 289.0, 289.0, 0.0);
(439824.0, 3765460.0, 289.0, 289.0, 0.0);
(439829.0, 3765460.0, 289.0, 289.0, 0.0);

```
     ( 439844.0, 3765460.0,     289.0,     289.0,       0.0);
( 439849.0, 3765460.0,     289.0,     289.0,       0.0);
     ( 439854.0, 3765460.0,     289.0,     289.0,       0.0);
( 439859.0, 3765460.0,     289.0,     289.0,       0.0);
     ( 439674.0, 3765465.0,     289.0,     289.0,       0.0);
( 439679.0, 3765465.0,     289.0,     289.0,       0.0);
     ( 439684.0, 3765465.0,     289.0,     289.0,       0.0);
( 439689.0, 3765465.0,     289.0,     289.0,       0.0);
     ( 439694.0, 3765465.0,     289.0,     289.0,       0.0);
( 439699.0, 3765465.0,     289.0,     289.0,       0.0);
     ( 439704.0, 3765465.0,     289.0,     289.0,       0.0);
( 439709.0, 3765465.0,     289.0,     289.0,       0.0);
     ( 439714.0, 3765465.0,     289.0,     289.0,       0.0);
( 439719.0, 3765465.0,     289.0,     289.0,       0.0);
     ( 439729.0, 3765465.0,     289.0,     289.0,       0.0);
( 439734.0, 3765465.0,     289.0,     289.0,       0.0);
     ( 439739.0, 3765465.0,     289.0,     289.0,       0.0);
( 439744.0, 3765465.0,     289.0,     289.0,       0.0);
     ( 439749.0, 3765465.0,     289.0,     289.0,       0.0);
( 439789.0, 3765465.0,     289.0,     289.0,       0.0);
     ( 439794.0, 3765465.0,     289.0,     289.0,       0.0);
( 439799.0, 3765465.0,     289.0,     289.0,       0.0);
     ( 439804.0, 3765465.0,     289.0,     289.0,       0.0);
( 439809.0, 3765465.0,     289.0,     289.0,       0.0);
     ( 439814.0, 3765465.0,     289.0,     289.0,       0.0);
( 439819.0, 3765465.0,     289.0,     289.0,       0.0);
     ( 439824.0, 3765465.0,     289.0,     289.0,       0.0);
( 439829.0, 3765465.0,     289.0,     289.0,       0.0);
     ( 439844.0, 3765465.0,     289.0,     289.0,       0.0);
( 439849.0, 3765465.0,     289.0,     289.0,       0.0);
     ( 439854.0, 3765465.0,     289.0,     289.0,       0.0);
( 439859.0, 3765465.0,     289.0,     289.0,       0.0);
     ( 439674.0, 3765470.0,     289.0,     289.0,       0.0);
( 439679.0, 3765470.0,     289.0,     289.0,       0.0);
     ( 439684.0, 3765470.0,     289.0,     289.0,       0.0);
( 439689.0, 3765470.0,     289.0,     289.0,       0.0);
     ( 439694.0, 3765470.0,     289.0,     289.0,       0.0);
( 439699.0, 3765470.0,     289.0,     289.0,       0.0);
     ( 439704.0, 3765470.0,     289.0,     289.0,       0.0);
( 439709.0, 3765470.0,     289.0,     289.0,       0.0);
     ( 439714.0, 3765470.0,     289.0,     289.0,       0.0);
( 439719.0, 3765470.0,     289.0,     289.0,       0.0);
     ( 439729.0, 3765470.0,     289.0,     289.0,       0.0);
( 439734.0, 3765470.0,     289.0,     289.0,       0.0);
     ( 439739.0, 3765470.0,     289.0,     289.0,       0.0);
( 439744.0, 3765470.0,     289.0,     289.0,       0.0);
     ( 439749.0, 3765470.0,     289.0,     289.0,       0.0);
( 439789.0, 3765470.0,     289.0,     289.0,       0.0);
     ( 439794.0, 3765470.0,     289.0,     289.0,       0.0);
( 439799.0, 3765470.0,     289.0,     289.0,       0.0);
     ( 439804.0, 3765470.0,     289.0,     289.0,       0.0);
( 439809.0, 3765470.0,     289.0,     289.0,       0.0);
```

```
     ( 439814.0, 3765470.0,     289.0,     289.0,       0.0);
( 439819.0, 3765470.0,     289.0,     289.0,       0.0);
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)

(METERS)

(439824.0, 3765470.0, 289.0, 289.0, 0.0);
(439829.0, 3765470.0, 289.0, 289.0, 0.0);
(439844.0, 3765470.0, 289.0, 289.0, 0.0);
(439849.0, 3765470.0, 289.0, 289.0, 0.0);
(439854.0, 3765470.0, 289.0, 289.0, 0.0);
(439859.0, 3765470.0, 289.0, 289.0, 0.0);
(439674.0, 3765475.0, 289.0, 289.0, 0.0);
(439679.0, 3765475.0, 289.0, 289.0, 0.0);
(439684.0, 3765475.0, 289.0, 289.0, 0.0);
(439689.0, 3765475.0, 289.0, 289.0, 0.0);
(439694.0, 3765475.0, 289.0, 289.0, 0.0);
(439699.0, 3765475.0, 289.0, 289.0, 0.0);
(439704.0, 3765475.0, 289.0, 289.0, 0.0);
(439709.0, 3765475.0, 289.0, 289.0, 0.0);
(439714.0, 3765475.0, 289.0, 289.0, 0.0);
(439719.0, 3765475.0, 289.0, 289.0, 0.0);
(439729.0, 3765475.0, 289.0, 289.0, 0.0);
(439734.0, 3765475.0, 289.0, 289.0, 0.0);
(439739.0, 3765475.0, 289.0, 289.0, 0.0);
(439744.0, 3765475.0, 289.0, 289.0, 0.0);
(439749.0, 3765475.0, 289.0, 289.0, 0.0);
(439754.0, 3765475.0, 289.0, 289.0, 0.0);
(439789.0, 3765475.0, 289.0, 289.0, 0.0);
(439794.0, 3765475.0, 289.0, 289.0, 0.0);
(439799.0, 3765475.0, 289.0, 289.0, 0.0);
(439804.0, 3765475.0, 289.0, 289.0, 0.0);
(439809.0, 3765475.0, 289.0, 289.0, 0.0);
(439814.0, 3765475.0, 289.0, 289.0, 0.0);
(439819.0, 3765475.0, 289.0, 289.0, 0.0);
(439824.0, 3765475.0, 289.0, 289.0, 0.0);
(439829.0, 3765475.0, 289.0, 289.0, 0.0);
(439269.0, 3764900.0, 289.0, 289.0, 0.0);
(439369.0, 3764900.0, 289.0, 289.0, 0.0);
(439469.0, 3764900.0, 289.0, 289.0, 0.0);
(439569.0, 3764900.0, 289.0, 289.0, 0.0);
(439669.0, 3764900.0, 289.0, 289.0, 0.0);

```
     ( 439769.0, 3764900.0,     289.0,     289.0,       0.0);
( 439869.0, 3764900.0,     289.0,     289.0,       0.0);
     ( 439969.0, 3764900.0,     289.0,     289.0,       0.0);
( 440069.0, 3764900.0,     289.0,     289.0,       0.0);
     ( 440169.0, 3764900.0,     289.0,     289.0,       0.0);
( 440269.0, 3764900.0,     289.0,     289.0,       0.0);
     ( 439269.0, 3765000.0,     289.0,     289.0,       0.0);
( 439369.0, 3765000.0,     289.0,     289.0,       0.0);
     ( 439469.0, 3765000.0,     289.0,     289.0,       0.0);
( 439569.0, 3765000.0,     289.0,     289.0,       0.0);
     ( 439669.0, 3765000.0,     289.0,     289.0,       0.0);
( 439769.0, 3765000.0,     289.0,     289.0,       0.0);
     ( 439869.0, 3765000.0,     289.0,     289.0,       0.0);
( 439969.0, 3765000.0,     289.0,     289.0,       0.0);
     ( 440069.0, 3765000.0,     289.0,     289.0,       0.0);
( 440169.0, 3765000.0,     289.0,     289.0,       0.0);
     ( 440269.0, 3765000.0,     289.0,     289.0,       0.0);
( 439269.0, 3765100.0,     289.0,     289.0,       0.0);
     ( 439369.0, 3765100.0,     289.0,     289.0,       0.0);
( 439469.0, 3765100.0,     289.0,     289.0,       0.0);
     ( 439569.0, 3765100.0,     289.0,     289.0,       0.0);
( 439669.0, 3765100.0,     289.0,     289.0,       0.0);
     ( 439769.0, 3765100.0,     289.0,     289.0,       0.0);
( 439869.0, 3765100.0,     289.0,     289.0,       0.0);
     ( 439969.0, 3765100.0,     289.0,     289.0,       0.0);
( 440069.0, 3765100.0,     289.0,     289.0,       0.0);
     ( 440169.0, 3765100.0,     289.0,     289.0,       0.0);
( 440269.0, 3765100.0,     289.0,     289.0,       0.0);
     ( 439269.0, 3765200.0,     289.0,     289.0,       0.0);
( 439369.0, 3765200.0,     289.0,     289.0,       0.0);
     ( 439469.0, 3765200.0,     289.0,     289.0,       0.0);
( 439569.0, 3765200.0,     289.0,     289.0,       0.0);
     ( 439669.0, 3765200.0,     289.0,     289.0,       0.0);
( 439769.0, 3765200.0,     289.0,     289.0,       0.0);
     ( 439869.0, 3765200.0,     289.0,     289.0,       0.0);
( 439969.0, 3765200.0,     289.0,     289.0,       0.0);
     ( 440069.0, 3765200.0,     289.0,     289.0,       0.0);
( 440169.0, 3765200.0,     289.0,     289.0,       0.0);
     ( 440269.0, 3765200.0,     289.0,     289.0,       0.0);
( 439269.0, 3765300.0,     289.0,     289.0,       0.0);
     ( 439369.0, 3765300.0,     289.0,     289.0,       0.0);
( 439469.0, 3765300.0,     289.0,     289.0,       0.0);
     ( 439569.0, 3765300.0,     289.0,     289.0,       0.0);
( 439669.0, 3765300.0,     289.0,     289.0,       0.0);
     ( 439769.0, 3765300.0,     289.0,     289.0,       0.0);
( 439869.0, 3765300.0,     289.0,     289.0,       0.0);
     ( 439969.0, 3765300.0,     289.0,     289.0,       0.0);
( 440069.0, 3765300.0,     289.0,     289.0,       0.0);
     ( 440169.0, 3765300.0,     289.0,     289.0,       0.0);
( 440269.0, 3765300.0,     289.0,     289.0,       0.0);
     ( 439269.0, 3765400.0,     289.0,     289.0,       0.0);
( 439369.0, 3765400.0,     289.0,     289.0,       0.0);
```

```
     ( 439469.0, 3765400.0,     289.0,     289.0,       0.0);
( 439569.0, 3765400.0,     289.0,     289.0,       0.0);
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)

(METERS)

(439669.0, 3765400.0, 289.0, 289.0, 0.0);
(439769.0, 3765400.0, 289.0, 289.0, 0.0);
(439869.0, 3765400.0, 289.0, 289.0, 0.0);
(439969.0, 3765400.0, 289.0, 289.0, 0.0);
(440069.0, 3765400.0, 289.0, 289.0, 0.0);
(440169.0, 3765400.0, 289.0, 289.0, 0.0);
(440269.0, 3765400.0, 289.0, 289.0, 0.0);
(439269.0, 3765500.0, 289.0, 289.0, 0.0);
(439369.0, 3765500.0, 289.0, 289.0, 0.0);
(439469.0, 3765500.0, 289.0, 289.0, 0.0);
(439569.0, 3765500.0, 289.0, 289.0, 0.0);
(439669.0, 3765500.0, 289.0, 289.0, 0.0);
(439769.0, 3765500.0, 289.0, 289.0, 0.0);
(439869.0, 3765500.0, 289.0, 289.0, 0.0);
(439969.0, 3765500.0, 289.0, 289.0, 0.0);
(440069.0, 3765500.0, 289.0, 289.0, 0.0);
(440169.0, 3765500.0, 289.0, 289.0, 0.0);
(440269.0, 3765500.0, 289.0, 289.0, 0.0);
(439269.0, 3765600.0, 289.0, 289.0, 0.0);
(439369.0, 3765600.0, 289.0, 289.0, 0.0);
(439469.0, 3765600.0, 289.0, 289.0, 0.0);
(439569.0, 3765600.0, 289.0, 289.0, 0.0);
(439669.0, 3765600.0, 289.0, 289.0, 0.0);
(439769.0, 3765600.0, 289.0, 289.0, 0.0);
(439869.0, 3765600.0, 289.0, 289.0, 0.0);
(439969.0, 3765600.0, 289.0, 289.0, 0.0);
(440069.0, 3765600.0, 289.0, 289.0, 0.0);
(440169.0, 3765600.0, 289.0, 289.0, 0.0);
(440269.0, 3765600.0, 289.0, 289.0, 0.0);
(439269.0, 3765700.0, 289.0, 289.0, 0.0);
(439369.0, 3765700.0, 289.0, 289.0, 0.0);
(439469.0, 3765700.0, 289.0, 289.0, 0.0);
(439569.0, 3765700.0, 289.0, 289.0, 0.0);
(439669.0, 3765700.0, 289.0, 289.0, 0.0);
(439769.0, 3765700.0, 289.0, 289.0, 0.0);
(439869.0, 3765700.0, 289.0, 289.0, 0.0);

```
     ( 439969.0, 3765700.0,     289.0,     289.0,       0.0);
( 440069.0, 3765700.0,     289.0,     289.0,       0.0);
     ( 440169.0, 3765700.0,     289.0,     289.0,       0.0);
( 440269.0, 3765700.0,     289.0,     289.0,       0.0);
     ( 439269.0, 3765800.0,     289.0,     289.0,       0.0);
( 439369.0, 3765800.0,     289.0,     289.0,       0.0);
     ( 439469.0, 3765800.0,     289.0,     289.0,       0.0);
( 439569.0, 3765800.0,     289.0,     289.0,       0.0);
     ( 439669.0, 3765800.0,     289.0,     289.0,       0.0);
( 439769.0, 3765800.0,     289.0,     289.0,       0.0);
     ( 439869.0, 3765800.0,     289.0,     289.0,       0.0);
( 439969.0, 3765800.0,     289.0,     289.0,       0.0);
     ( 440069.0, 3765800.0,     289.0,     289.0,       0.0);
( 440169.0, 3765800.0,     289.0,     289.0,       0.0);
     ( 440269.0, 3765800.0,     289.0,     289.0,       0.0);
( 439269.0, 3765900.0,     289.0,     289.0,       0.0);
     ( 439369.0, 3765900.0,     289.0,     289.0,       0.0);
( 439469.0, 3765900.0,     289.0,     289.0,       0.0);
     ( 439569.0, 3765900.0,     289.0,     289.0,       0.0);
( 439669.0, 3765900.0,     289.0,     289.0,       0.0);
     ( 439769.0, 3765900.0,     289.0,     289.0,       0.0);
( 439869.0, 3765900.0,     289.0,     289.0,       0.0);
     ( 439969.0, 3765900.0,     289.0,     289.0,       0.0);
( 440069.0, 3765900.0,     289.0,     289.0,       0.0);
     ( 440169.0, 3765900.0,     289.0,     289.0,       0.0);
( 440269.0, 3765900.0,     289.0,     289.0,       0.0);
     ( 439649.0, 3765310.0,     289.0,     289.0,       0.0);
( 439679.0, 3765310.0,     289.0,     289.0,       0.0);
     ( 439709.0, 3765310.0,     289.0,     289.0,       0.0);
( 439739.0, 3765310.0,     289.0,     289.0,       0.0);
     ( 439769.0, 3765310.0,     289.0,     289.0,       0.0);
( 439799.0, 3765310.0,     289.0,     289.0,       0.0);
     ( 439829.0, 3765310.0,     289.0,     289.0,       0.0);
( 439859.0, 3765310.0,     289.0,     289.0,       0.0);
     ( 439889.0, 3765310.0,     289.0,     289.0,       0.0);
( 439649.0, 3765340.0,     289.0,     289.0,       0.0);
     ( 439679.0, 3765340.0,     289.0,     289.0,       0.0);
( 439709.0, 3765340.0,     289.0,     289.0,       0.0);
     ( 439739.0, 3765340.0,     289.0,     289.0,       0.0);
( 439769.0, 3765340.0,     289.0,     289.0,       0.0);
     ( 439799.0, 3765340.0,     289.0,     289.0,       0.0);
( 439829.0, 3765340.0,     289.0,     289.0,       0.0);
     ( 439859.0, 3765340.0,     289.0,     289.0,       0.0);
( 439889.0, 3765340.0,     289.0,     289.0,       0.0);
     ( 439649.0, 3765370.0,     289.0,     289.0,       0.0);
( 439679.0, 3765370.0,     289.0,     289.0,       0.0);
     ( 439709.0, 3765370.0,     289.0,     289.0,       0.0);
( 439739.0, 3765370.0,     289.0,     289.0,       0.0);
     ( 439769.0, 3765370.0,     289.0,     289.0,       0.0);
( 439799.0, 3765370.0,     289.0,     289.0,       0.0);
     ( 439829.0, 3765370.0,     289.0,     289.0,       0.0);
( 439859.0, 3765370.0,     289.0,     289.0,       0.0);
```

```
     ( 439889.0, 3765370.0,     289.0,     289.0,       0.0);
( 439649.0, 3765400.0,     289.0,     289.0,       0.0);
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)

(METERS)

(439679.0, 3765400.0, 289.0, 289.0, 0.0);
(439709.0, 3765400.0, 289.0, 289.0, 0.0);
(439739.0, 3765400.0, 289.0, 289.0, 0.0);
(439769.0, 3765400.0, 289.0, 289.0, 0.0);
(439799.0, 3765400.0, 289.0, 289.0, 0.0);
(439829.0, 3765400.0, 289.0, 289.0, 0.0);
(439859.0, 3765400.0, 289.0, 289.0, 0.0);
(439889.0, 3765400.0, 289.0, 289.0, 0.0);
(439649.0, 3765430.0, 289.0, 289.0, 0.0);
(439679.0, 3765430.0, 289.0, 289.0, 0.0);
(439709.0, 3765430.0, 289.0, 289.0, 0.0);
(439739.0, 3765430.0, 289.0, 289.0, 0.0);
(439769.0, 3765430.0, 289.0, 289.0, 0.0);
(439799.0, 3765430.0, 289.0, 289.0, 0.0);
(439829.0, 3765430.0, 289.0, 289.0, 0.0);
(439859.0, 3765430.0, 289.0, 289.0, 0.0);
(439889.0, 3765430.0, 289.0, 289.0, 0.0);
(439649.0, 3765460.0, 289.0, 289.0, 0.0);
(439679.0, 3765460.0, 289.0, 289.0, 0.0);
(439709.0, 3765460.0, 289.0, 289.0, 0.0);
(439739.0, 3765460.0, 289.0, 289.0, 0.0);
(439769.0, 3765460.0, 289.0, 289.0, 0.0);
(439799.0, 3765460.0, 289.0, 289.0, 0.0);
(439829.0, 3765460.0, 289.0, 289.0, 0.0);
(439859.0, 3765460.0, 289.0, 289.0, 0.0);
(439889.0, 3765460.0, 289.0, 289.0, 0.0);
(439649.0, 3765490.0, 289.0, 289.0, 0.0);
(439679.0, 3765490.0, 289.0, 289.0, 0.0);
(439709.0, 3765490.0, 289.0, 289.0, 0.0);
(439739.0, 3765490.0, 289.0, 289.0, 0.0);
(439769.0, 3765490.0, 289.0, 289.0, 0.0);
(439799.0, 3765490.0, 289.0, 289.0, 0.0);
(439829.0, 3765490.0, 289.0, 289.0, 0.0);
(439859.0, 3765490.0, 289.0, 289.0, 0.0);
(439889.0, 3765490.0, 289.0, 289.0, 0.0);

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** METEOROLOGICAL DAYS SELECTED FOR PROCESSING ***

(1=YES; 0=NO)

```
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1
1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1
1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1
1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1
1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1
1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1
1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1
1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1
```

NOTE: METEOROLOGICAL DATA ACTUALLY PROCESSED WILL ALSO DEPEND ON WHAT IS INCLUDED IN THE DATA FILE.

*** UPPER BOUND OF FIRST THROUGH FIFTH WIND SPEED CATEGORIES ***

(METERS/SEC)

1.54, 3.09, 5.14, 8.23, 10.80,

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** UP TO THE FIRST 24 HOURS OF METEOROLOGICAL DATA ***

Surface file: C:\Users\sjremote\Desktop\Ontario_PUD-Legacy\OntarioIntlAirportADJU (1)\KONT_V9_ Met Version: 16216
Profile file: C:\Users\sjremote\Desktop\Ontario_PUD-Legacy\OntarioIntlAirportADJU (1)\KONT_V9_
Surface format: FREE
Profile format: FREE
Surface station no.: 3102 Upper air station no.: 3190
Name: ONTARIO_APT Name: UNKNOWN
Year: 2012 Year: 2012

First 24 hours of scalar data

YR	MO	DY	JDY	HR	H0	U*	W*	DT/DZ	ZICNV	ZIMCH	M-O LEN	Z0	BOWEN	ALBEDO	REF WS	WD	HT	REF TA	HT
12	01	01	1	01	-16.4	0.171	-9.000	-9.000	-999.	170.	32.3	0.09	1.12	1.00	2.03	43.	7.9	285.9	2.0
12	01	01	1	02	-18.8	0.194	-9.000	-9.000	-999.	205.	41.3	0.09	1.12	1.00	2.28	34.	7.9	285.4	2.0
12	01	01	1	03	-17.8	0.182	-9.000	-9.000	-999.	187.	36.5	0.09	1.12	1.00	2.15	24.	7.9	282.0	2.0
12	01	01	1	04	-9.4	0.128	-9.000	-9.000	-999.	110.	19.6	0.09	1.12	1.00	1.55	41.	7.9	283.1	2.0
12	01	01	1	05	-16.9	0.173	-9.000	-9.000	-999.	173.	33.0	0.09	1.12	1.00	2.05	39.	7.9	280.4	2.0
12	01	01	1	06	-8.0	0.117	-9.000	-9.000	-999.	97.	17.8	0.09	1.12	1.00	1.43	21.	7.9	282.0	2.0
12	01	01	1	07	-7.6	0.115	-9.000	-9.000	-999.	93.	17.4	0.09	1.12	1.00	1.40	31.	7.9	282.5	2.0
12	01	01	1	08	-13.6	0.184	-9.000	-9.000	-999.	190.	40.5	0.09	1.12	0.54	2.16	34.	7.9	284.2	2.0
12	01	01	1	09	28.4	0.126	0.300	0.011	33.	108.	-6.2	0.09	1.12	0.32	1.03	29.	7.9	289.2	2.0
12	01	01	1	10	79.8	0.133	0.607	0.010	99.	116.	-2.6	0.09	1.12	0.25	0.94	173.	7.9	292.5	2.0
12	01	01	1	11	115.8	0.137	0.932	0.006	246.	121.	-2.0	0.09	1.12	0.22	0.92	172.	7.9	295.4	2.0

```
 12 01 01   1 12  133.7  0.139  1.197  0.005  453.  125.     -1.8
0.09   1.12   0.21    0.92  146.    7.9  297.5    2.0
 12 01 01   1 13  133.2  0.160  1.354  0.005  657.  153.     -2.7
0.09   1.12   0.21    1.14  117.    7.9  299.9    2.0
 12 01 01   1 14  113.5  0.159  1.454  0.005  955.  151.     -3.1
0.09   1.12   0.23    1.16  285.    7.9  300.9    2.0
 12 01 01   1 15   76.2  0.166  1.350  0.005 1138.  163.     -5.3
0.09   1.12   0.26    1.33   72.    7.9  302.0    2.0
 12 01 01   1 16   23.5  0.175  0.925  0.005 1183.  175.    -19.9
0.09   1.12   0.35    1.65  107.    7.9  301.4    2.0
 12 01 01   1 17   -6.1  0.107 -9.000 -9.000 -999.   86.     18.0
0.09   1.12   0.63    1.31  107.    7.9  298.1    2.0
 12 01 01   1 18  -11.1  0.141 -9.000 -9.000 -999.  127.     22.1
0.09   1.12   1.00    1.69   86.    7.9  293.1    2.0
 12 01 01   1 19   -3.2  0.076 -9.000 -9.000 -999.   51.     11.8
0.09   1.12   1.00    0.91   64.    7.9  292.0    2.0
 12 01 01   1 20   -2.3  0.066 -9.000 -9.000 -999.   41.     11.2
0.09   1.12   1.00    0.74   73.    7.9  288.8    2.0
 12 01 01   1 21  -10.0  0.133 -9.000 -9.000 -999.  116.     20.5
0.09   1.12   1.00    1.60   14.    7.9  288.1    2.0
 12 01 01   1 22  -19.4  0.201 -9.000 -9.000 -999.  216.     44.5
0.09   1.12   1.00    2.36   22.    7.9  287.5    2.0
 12 01 01   1 23  -23.7  0.246 -9.000 -9.000 -999.  293.     66.5
0.09   1.12   1.00    2.86   40.    7.9  287.0    2.0
 12 01 01   1 24  -12.3  0.147 -9.000 -9.000 -999.  139.     23.8
0.09   1.12   1.00    1.76   40.    7.9  283.8    2.0


 First hour of profile data
 YR MO DY HR HEIGHT F  WDIR    WSPD AMB_TMP sigmaA  sigmaW
sigmaV
 12 01 01 01    7.9 1   43.    2.03   286.0
99.0  -99.00  -99.00

 F indicates top of profile (=1) or below (=0)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: EXH *** INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439674.00	3765310.00	0.32467	439679.00	3765310.00	0.32467
439684.00	3765310.00	0.32466	439689.00	3765310.00	0.32464
439694.00	3765310.00	0.32462	439699.00	3765310.00	0.32458
439704.00	3765310.00	0.32455	439709.00	3765310.00	0.32450
439714.00	3765310.00	0.32445	439719.00	3765310.00	0.32439
439729.00	3765310.00	0.32425	439734.00	3765310.00	0.32417
439739.00	3765310.00	0.32409	439744.00	3765310.00	0.32399
439749.00	3765310.00	0.32389	439764.00	3765310.00	0.32355
439769.00	3765310.00	0.32341	439774.00	3765310.00	0.32327

```
          439779.00    3765310.00        0.32313
439784.00    3765310.00        0.32297
          439789.00    3765310.00        0.32281
439794.00    3765310.00        0.32263
          439799.00    3765310.00        0.32245
439804.00    3765310.00        0.32226
          439809.00    3765310.00        0.32206
439814.00    3765310.00        0.32184
          439819.00    3765310.00        0.32162
439824.00    3765310.00        0.32139
          439829.00    3765310.00        0.32115
439839.00    3765310.00        0.32064
          439844.00    3765310.00        0.32036
439849.00    3765310.00        0.32008
          439854.00    3765310.00        0.31978
439859.00    3765310.00        0.31948
          439864.00    3765310.00        0.31916
439869.00    3765310.00        0.31883
          439874.00    3765310.00        0.31848
439879.00    3765310.00        0.31813
          439884.00    3765310.00        0.31777
439674.00    3765315.00        0.32908
          439679.00    3765315.00        0.32908
439684.00    3765315.00        0.32908
          439689.00    3765315.00        0.32906
439694.00    3765315.00        0.32904
          439699.00    3765315.00        0.32902
439704.00    3765315.00        0.32898
          439709.00    3765315.00        0.32894
439714.00    3765315.00        0.32889
          439719.00    3765315.00        0.32884
439729.00    3765315.00        0.32871
          439734.00    3765315.00        0.32864
439739.00    3765315.00        0.32856
          439744.00    3765315.00        0.32847
439749.00    3765315.00        0.32837
          439764.00    3765315.00        0.32804
439769.00    3765315.00        0.32792
          439774.00    3765315.00        0.32778
439779.00    3765315.00        0.32764
          439784.00    3765315.00        0.32749
439789.00    3765315.00        0.32733
          439794.00    3765315.00        0.32716
439799.00    3765315.00        0.32699
          439804.00    3765315.00        0.32680
439809.00    3765315.00        0.32661
          439814.00    3765315.00        0.32640
439819.00    3765315.00        0.32618
          439824.00    3765315.00        0.32596
439829.00    3765315.00        0.32572
          439839.00    3765315.00        0.32522
439844.00    3765315.00        0.32495
```

```
         439849.00    3765315.00        0.32468
439854.00    3765315.00        0.32438
         439859.00    3765315.00        0.32408
439864.00    3765315.00        0.32377
         439869.00    3765315.00        0.32344
439874.00    3765315.00        0.32311
         439879.00    3765315.00        0.32276
439884.00    3765315.00        0.32240
         439674.00    3765320.00        0.33359
439679.00    3765320.00        0.33360
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: EXH *** INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 , A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439684.00	3765320.00	0.33360	439689.00	3765320.00	0.33359
439694.00	3765320.00	0.33357	439699.00	3765320.00	0.33355
439704.00	3765320.00	0.33352	439709.00	3765320.00	0.33349
439714.00	3765320.00	0.33345	439719.00	3765320.00	0.33340
439729.00	3765320.00	0.33328	439734.00	3765320.00	0.33321
439739.00	3765320.00	0.33313	439744.00	3765320.00	0.33305
439749.00	3765320.00	0.33296	439764.00	3765320.00	0.33264
439769.00	3765320.00	0.33253	439774.00	3765320.00	0.33239
439779.00	3765320.00	0.33226	439784.00	3765320.00	0.33212

```
         439789.00    3765320.00        0.33196
439794.00    3765320.00        0.33180
         439799.00    3765320.00        0.33163
439804.00    3765320.00        0.33145
         439809.00    3765320.00        0.33126
439814.00    3765320.00        0.33106
         439819.00    3765320.00        0.33085
439824.00    3765320.00        0.33063
         439829.00    3765320.00        0.33040
439839.00    3765320.00        0.32991
         439844.00    3765320.00        0.32965
439849.00    3765320.00        0.32938
         439854.00    3765320.00        0.32909
439859.00    3765320.00        0.32879
         439864.00    3765320.00        0.32849
439869.00    3765320.00        0.32817
         439874.00    3765320.00        0.32784
439879.00    3765320.00        0.32750
         439884.00    3765320.00        0.32714
439674.00    3765325.00        0.33821
         439679.00    3765325.00        0.33822
439684.00    3765325.00        0.33822
         439689.00    3765325.00        0.33822
439694.00    3765325.00        0.33821
         439699.00    3765325.00        0.33819
439704.00    3765325.00        0.33817
         439709.00    3765325.00        0.33814
439714.00    3765325.00        0.33810
         439719.00    3765325.00        0.33806
439729.00    3765325.00        0.33795
         439734.00    3765325.00        0.33789
439739.00    3765325.00        0.33781
         439744.00    3765325.00        0.33774
439749.00    3765325.00        0.33765
         439754.00    3765325.00        0.33756
439769.00    3765325.00        0.33724
         439774.00    3765325.00        0.33712
439779.00    3765325.00        0.33699
         439784.00    3765325.00        0.33685
439789.00    3765325.00        0.33670
         439794.00    3765325.00        0.33655
439799.00    3765325.00        0.33638
         439804.00    3765325.00        0.33621
439809.00    3765325.00        0.33603
         439814.00    3765325.00        0.33583
439819.00    3765325.00        0.33563
         439824.00    3765325.00        0.33541
439829.00    3765325.00        0.33519
         439839.00    3765325.00        0.33472
439844.00    3765325.00        0.33446
         439849.00    3765325.00        0.33419
439854.00    3765325.00        0.33391
```

```
         439859.00    3765325.00        0.33362
439864.00    3765325.00        0.33332
         439869.00    3765325.00        0.33301
439874.00    3765325.00        0.33268
         439879.00    3765325.00        0.33235
439884.00    3765325.00        0.33199
         439674.00    3765330.00        0.34294
439679.00    3765330.00        0.34295
         439684.00    3765330.00        0.34296
439689.00    3765330.00        0.34296
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: EXH *** INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439694.00	3765330.00	0.34296	439699.00	3765330.00	0.34294
439704.00	3765330.00	0.34293	439709.00	3765330.00	0.34290
439714.00	3765330.00	0.34287	439719.00	3765330.00	0.34283
439729.00	3765330.00	0.34273	439734.00	3765330.00	0.34267
439739.00	3765330.00	0.34261	439744.00	3765330.00	0.34253
439749.00	3765330.00	0.34246	439754.00	3765330.00	0.34237
439774.00	3765330.00	0.34195	439779.00	3765330.00	0.34183
439784.00	3765330.00	0.34169	439789.00	3765330.00	0.34156
439794.00	3765330.00	0.34141	439799.00	3765330.00	0.34124

```
          439804.00    3765330.00         0.34108
439809.00    3765330.00         0.34090
          439814.00    3765330.00         0.34072
439819.00    3765330.00         0.34052
          439824.00    3765330.00         0.34031
439829.00    3765330.00         0.34009
          439839.00    3765330.00         0.33963
439844.00    3765330.00         0.33938
          439849.00    3765330.00         0.33912
439854.00    3765330.00         0.33885
          439859.00    3765330.00         0.33857
439864.00    3765330.00         0.33827
          439869.00    3765330.00         0.33796
439874.00    3765330.00         0.33764
          439879.00    3765330.00         0.33731
439884.00    3765330.00         0.33697
          439674.00    3765335.00         0.34778
439679.00    3765335.00         0.34780
          439684.00    3765335.00         0.34781
439689.00    3765335.00         0.34783
          439694.00    3765335.00         0.34782
439699.00    3765335.00         0.34782
          439704.00    3765335.00         0.34780
439709.00    3765335.00         0.34778
          439714.00    3765335.00         0.34775
439719.00    3765335.00         0.34772
          439729.00    3765335.00         0.34764
439734.00    3765335.00         0.34758
          439739.00    3765335.00         0.34752
439744.00    3765335.00         0.34745
          439749.00    3765335.00         0.34738
439774.00    3765335.00         0.34690
          439779.00    3765335.00         0.34678
439784.00    3765335.00         0.34666
          439789.00    3765335.00         0.34652
439794.00    3765335.00         0.34638
          439839.00    3765335.00         0.34467
439844.00    3765335.00         0.34443
          439849.00    3765335.00         0.34417
439854.00    3765335.00         0.34391
          439859.00    3765335.00         0.34363
439864.00    3765335.00         0.34334
          439869.00    3765335.00         0.34304
439874.00    3765335.00         0.34273
          439879.00    3765335.00         0.34240
439884.00    3765335.00         0.34206
          439674.00    3765340.00         0.35274
439679.00    3765340.00         0.35277
          439684.00    3765340.00         0.35279
439689.00    3765340.00         0.35280
          439694.00    3765340.00         0.35281
439699.00    3765340.00         0.35280
```

```
         439704.00    3765340.00        0.35280
439709.00    3765340.00        0.35278
         439714.00    3765340.00        0.35275
439719.00    3765340.00        0.35273
         439729.00    3765340.00        0.35265
439734.00    3765340.00        0.35260
         439739.00    3765340.00        0.35255
439744.00    3765340.00        0.35249
         439749.00    3765340.00        0.35242
439774.00    3765340.00        0.35197
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: EXH *** INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439779.00	3765340.00	0.35186	439784.00	3765340.00	0.35174
439789.00	3765340.00	0.35162	439794.00	3765340.00	0.35148
439839.00	3765340.00	0.34983	439844.00	3765340.00	0.34960
439849.00	3765340.00	0.34935	439854.00	3765340.00	0.34909
439859.00	3765340.00	0.34882	439864.00	3765340.00	0.34854
439869.00	3765340.00	0.34824	439874.00	3765340.00	0.34794
439879.00	3765340.00	0.34762	439884.00	3765340.00	0.34728
439674.00	3765345.00	0.35783	439679.00	3765345.00	0.35786
439684.00	3765345.00	0.35789	439689.00	3765345.00	0.35790

```
          439694.00    3765345.00        0.35791
439699.00    3765345.00        0.35792
          439704.00    3765345.00        0.35791
439709.00    3765345.00        0.35790
          439714.00    3765345.00        0.35788
439719.00    3765345.00        0.35786
          439729.00    3765345.00        0.35779
439734.00    3765345.00        0.35775
          439739.00    3765345.00        0.35770
439744.00    3765345.00        0.35764
          439749.00    3765345.00        0.35759
439774.00    3765345.00        0.35717
          439779.00    3765345.00        0.35706
439784.00    3765345.00        0.35695
          439789.00    3765345.00        0.35683
439794.00    3765345.00        0.35670
          439839.00    3765345.00        0.35512
439844.00    3765345.00        0.35489
          439849.00    3765345.00        0.35465
439854.00    3765345.00        0.35440
          439859.00    3765345.00        0.35414
439864.00    3765345.00        0.35386
          439869.00    3765345.00        0.35357
439874.00    3765345.00        0.35328
          439879.00    3765345.00        0.35296
439884.00    3765345.00        0.35264
          439674.00    3765350.00        0.36305
439679.00    3765350.00        0.36309
          439684.00    3765350.00        0.36311
439689.00    3765350.00        0.36314
          439694.00    3765350.00        0.36315
439699.00    3765350.00        0.36316
          439704.00    3765350.00        0.36316
439709.00    3765350.00        0.36315
          439714.00    3765350.00        0.36314
439719.00    3765350.00        0.36312
          439729.00    3765350.00        0.36307
439734.00    3765350.00        0.36303
          439739.00    3765350.00        0.36299
439744.00    3765350.00        0.36294
          439749.00    3765350.00        0.36288
439774.00    3765350.00        0.36250
          439779.00    3765350.00        0.36240
439784.00    3765350.00        0.36229
          439789.00    3765350.00        0.36218
439794.00    3765350.00        0.36205
          439839.00    3765350.00        0.36055
439844.00    3765350.00        0.36032
          439849.00    3765350.00        0.36009
439854.00    3765350.00        0.35985
          439859.00    3765350.00        0.35959
439864.00    3765350.00        0.35932
```

```
          439869.00    3765350.00        0.35905
439874.00    3765350.00        0.35875
          439879.00    3765350.00        0.35845
439884.00    3765350.00        0.35813
          439674.00    3765355.00        0.36841
439679.00    3765355.00        0.36844
          439684.00    3765355.00        0.36848
439689.00    3765355.00        0.36850
          439694.00    3765355.00        0.36853
439699.00    3765355.00        0.36854
```

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: EXH *** INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439704.00	3765355.00	0.36854	439709.00	3765355.00	0.36854
439714.00	3765355.00	0.36853	439719.00	3765355.00	0.36853
439729.00	3765355.00	0.36848	439734.00	3765355.00	0.36844
439739.00	3765355.00	0.36841	439744.00	3765355.00	0.36836
439749.00	3765355.00	0.36832	439774.00	3765355.00	0.36796
439779.00	3765355.00	0.36787	439784.00	3765355.00	0.36777
439789.00	3765355.00	0.36766	439794.00	3765355.00	0.36755
439839.00	3765355.00	0.36610	439844.00	3765355.00	0.36590
439849.00	3765355.00	0.36566	439854.00	3765355.00	0.36544

```
          439859.00    3765355.00        0.36518
439864.00    3765355.00        0.36493
          439869.00    3765355.00        0.36465
439874.00    3765355.00        0.36437
          439879.00    3765355.00        0.36407
439884.00    3765355.00        0.36376
          439674.00    3765360.00        0.37389
439679.00    3765360.00        0.37394
          439684.00    3765360.00        0.37398
439689.00    3765360.00        0.37401
          439694.00    3765360.00        0.37404
439699.00    3765360.00        0.37405
          439704.00    3765360.00        0.37407
439709.00    3765360.00        0.37407
          439714.00    3765360.00        0.37407
439719.00    3765360.00        0.37406
          439729.00    3765360.00        0.37402
439734.00    3765360.00        0.37400
          439739.00    3765360.00        0.37396
439744.00    3765360.00        0.37393
          439749.00    3765360.00        0.37388
439774.00    3765360.00        0.37356
          439779.00    3765360.00        0.37347
439784.00    3765360.00        0.37338
          439789.00    3765360.00        0.37329
439794.00    3765360.00        0.37318
          439799.00    3765360.00        0.37306
439804.00    3765360.00        0.37293
          439809.00    3765360.00        0.37281
439814.00    3765360.00        0.37266
          439839.00    3765360.00        0.37182
439844.00    3765360.00        0.37160
          439849.00    3765360.00        0.37139
439854.00    3765360.00        0.37116
          439859.00    3765360.00        0.37093
439864.00    3765360.00        0.37067
          439869.00    3765360.00        0.37041
439874.00    3765360.00        0.37013
          439879.00    3765360.00        0.36984
439884.00    3765360.00        0.36954
          439674.00    3765365.00        0.37953
439679.00    3765365.00        0.37958
          439684.00    3765365.00        0.37963
439689.00    3765365.00        0.37967
          439694.00    3765365.00        0.37969
439699.00    3765365.00        0.37972
          439704.00    3765365.00        0.37973
439709.00    3765365.00        0.37975
          439714.00    3765365.00        0.37975
439719.00    3765365.00        0.37975
          439729.00    3765365.00        0.37972
439734.00    3765365.00        0.37970
```

```
          439739.00    3765365.00        0.37968
439744.00    3765365.00        0.37964
          439749.00    3765365.00        0.37960
439774.00    3765365.00        0.37931
          439779.00    3765365.00        0.37923
439784.00    3765365.00        0.37915
          439789.00    3765365.00        0.37905
439794.00    3765365.00        0.37896
          439799.00    3765365.00        0.37885
439804.00    3765365.00        0.37874
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: EXH *** INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 , A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439809.00	3765365.00	0.37861	439814.00	3765365.00	0.37848
439839.00	3765365.00	0.37766	439844.00	3765365.00	0.37747
439849.00	3765365.00	0.37727	439854.00	3765365.00	0.37705
439859.00	3765365.00	0.37682	439864.00	3765365.00	0.37657
439869.00	3765365.00	0.37632	439874.00	3765365.00	0.37605
439879.00	3765365.00	0.37577	439884.00	3765365.00	0.37547
439674.00	3765370.00	0.38533	439679.00	3765370.00	0.38538
439684.00	3765370.00	0.38544	439689.00	3765370.00	0.38547
439694.00	3765370.00	0.38551	439699.00	3765370.00	0.38553

```
          439704.00    3765370.00        0.38556
439709.00    3765370.00        0.38557
          439714.00    3765370.00        0.38558
439719.00    3765370.00        0.38558
          439729.00    3765370.00        0.38557
439734.00    3765370.00        0.38555
          439739.00    3765370.00        0.38553
439744.00    3765370.00        0.38550
          439749.00    3765370.00        0.38547
439774.00    3765370.00        0.38521
          439779.00    3765370.00        0.38514
439784.00    3765370.00        0.38506
          439789.00    3765370.00        0.38498
439794.00    3765370.00        0.38489
          439799.00    3765370.00        0.38479
439804.00    3765370.00        0.38468
          439809.00    3765370.00        0.38457
439814.00    3765370.00        0.38444
          439839.00    3765370.00        0.38368
439844.00    3765370.00        0.38350
          439849.00    3765370.00        0.38329
439854.00    3765370.00        0.38309
          439859.00    3765370.00        0.38287
439864.00    3765370.00        0.38263
          439869.00    3765370.00        0.38238
439874.00    3765370.00        0.38213
          439879.00    3765370.00        0.38185
439884.00    3765370.00        0.38157
          439674.00    3765375.00        0.39127
439679.00    3765375.00        0.39134
          439684.00    3765375.00        0.39139
439689.00    3765375.00        0.39145
          439694.00    3765375.00        0.39147
439699.00    3765375.00        0.39151
          439704.00    3765375.00        0.39154
439709.00    3765375.00        0.39156
          439714.00    3765375.00        0.39157
439719.00    3765375.00        0.39157
          439729.00    3765375.00        0.39157
439734.00    3765375.00        0.39157
          439739.00    3765375.00        0.39154
439744.00    3765375.00        0.39153
          439749.00    3765375.00        0.39149
439754.00    3765375.00        0.39147
          439774.00    3765375.00        0.39128
439779.00    3765375.00        0.39121
          439784.00    3765375.00        0.39114
439789.00    3765375.00        0.39106
          439794.00    3765375.00        0.39098
439799.00    3765375.00        0.39089
          439804.00    3765375.00        0.39079
439809.00    3765375.00        0.39069
```

```
         439814.00    3765375.00        0.39056
439839.00    3765375.00        0.38986
         439844.00    3765375.00        0.38967
439849.00    3765375.00        0.38950
         439854.00    3765375.00        0.38929
439859.00    3765375.00        0.38908
         439864.00    3765375.00        0.38885
439869.00    3765375.00        0.38862
         439874.00    3765375.00        0.38837
439879.00    3765375.00        0.38810
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: EXH *** INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 , A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439884.00	3765375.00	0.38782	439774.00	3765380.00	0.39750
439779.00	3765380.00	0.39745	439784.00	3765380.00	0.39738
439789.00	3765380.00	0.39730	439794.00	3765380.00	0.39724
439799.00	3765380.00	0.39715	439804.00	3765380.00	0.39707
439809.00	3765380.00	0.39696	439814.00	3765380.00	0.39687
439769.00	3765385.00	0.40394	439819.00	3765385.00	0.40324
439769.00	3765400.00	0.42424	439844.00	3765400.00	0.42330
439849.00	3765400.00	0.42317	439674.00	3765405.00	0.43074
439714.00	3765405.00	0.43128	439719.00	3765405.00	0.43132

```
          439734.00    3765405.00        0.43139
439749.00    3765405.00        0.43143
          439754.00    3765405.00        0.43142
439774.00    3765405.00        0.43138
          439779.00    3765405.00        0.43138
439784.00    3765405.00        0.43135
          439789.00    3765405.00        0.43132
439794.00    3765405.00        0.43128
          439799.00    3765405.00        0.43126
439804.00    3765405.00        0.43121
          439809.00    3765405.00        0.43116
439814.00    3765405.00        0.43112
          439819.00    3765405.00        0.43104
439824.00    3765405.00        0.43098
          439829.00    3765405.00        0.43090
439834.00    3765405.00        0.43083
          439839.00    3765405.00        0.43072
439844.00    3765405.00        0.43063
          439849.00    3765405.00        0.43051
439854.00    3765405.00        0.43038
          439859.00    3765405.00        0.43024
439674.00    3765410.00        0.43802
          439679.00    3765410.00        0.43813
439684.00    3765410.00        0.43822
          439689.00    3765410.00        0.43830
439694.00    3765410.00        0.43838
          439699.00    3765410.00        0.43844
439704.00    3765410.00        0.43850
          439709.00    3765410.00        0.43856
439714.00    3765410.00        0.43861
          439719.00    3765410.00        0.43864
439729.00    3765410.00        0.43871
          439734.00    3765410.00        0.43874
439739.00    3765410.00        0.43875
          439744.00    3765410.00        0.43878
439749.00    3765410.00        0.43878
          439774.00    3765410.00        0.43879
439779.00    3765410.00        0.43877
          439784.00    3765410.00        0.43875
439789.00    3765410.00        0.43874
          439794.00    3765410.00        0.43871
439799.00    3765410.00        0.43869
          439804.00    3765410.00        0.43865
439809.00    3765410.00        0.43863
          439814.00    3765410.00        0.43856
439819.00    3765410.00        0.43853
          439824.00    3765410.00        0.43847
439829.00    3765410.00        0.43841
          439834.00    3765410.00        0.43832
439839.00    3765410.00        0.43826
          439844.00    3765410.00        0.43816
439849.00    3765410.00        0.43807
```

```
         439854.00    3765410.00        0.43795
439859.00    3765410.00        0.43783
         439674.00    3765415.00        0.44553
439679.00    3765415.00        0.44564
         439684.00    3765415.00        0.44574
439689.00    3765415.00        0.44583
         439694.00    3765415.00        0.44590
439699.00    3765415.00        0.44599
         439704.00    3765415.00        0.44605
439709.00    3765415.00        0.44611
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: EXH *** INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 , A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439714.00	3765415.00	0.44615	439719.00	3765415.00	0.44621
439729.00	3765415.00	0.44629	439734.00	3765415.00	0.44630
439739.00	3765415.00	0.44634	439744.00	3765415.00	0.44635
439749.00	3765415.00	0.44637	439774.00	3765415.00	0.44639
439779.00	3765415.00	0.44639	439784.00	3765415.00	0.44639
439789.00	3765415.00	0.44638	439794.00	3765415.00	0.44636
439799.00	3765415.00	0.44634	439804.00	3765415.00	0.44633
439809.00	3765415.00	0.44629	439814.00	3765415.00	0.44628
439819.00	3765415.00	0.44622	439824.00	3765415.00	0.44619

```
          439829.00    3765415.00        0.44613
439834.00    3765415.00        0.44609
          439839.00    3765415.00        0.44600
439844.00    3765415.00        0.44594
          439849.00    3765415.00        0.44585
439854.00    3765415.00        0.44576
          439859.00    3765415.00        0.44565
439674.00    3765420.00        0.45329
          439679.00    3765420.00        0.45340
439684.00    3765420.00        0.45351
          439689.00    3765420.00        0.45359
439694.00    3765420.00        0.45369
          439699.00    3765420.00        0.45376
439704.00    3765420.00        0.45383
          439709.00    3765420.00        0.45389
439714.00    3765420.00        0.45396
          439719.00    3765420.00        0.45400
439729.00    3765420.00        0.45408
          439734.00    3765420.00        0.45413
439739.00    3765420.00        0.45415
          439744.00    3765420.00        0.45418
439749.00    3765420.00        0.45419
          439774.00    3765420.00        0.45426
439779.00    3765420.00        0.45426
          439784.00    3765420.00        0.45425
439789.00    3765420.00        0.45426
          439794.00    3765420.00        0.45425
439799.00    3765420.00        0.45425
          439804.00    3765420.00        0.45423
439809.00    3765420.00        0.45423
          439814.00    3765420.00        0.45419
439819.00    3765420.00        0.45418
          439824.00    3765420.00        0.45414
439829.00    3765420.00        0.45412
          439834.00    3765420.00        0.45406
439839.00    3765420.00        0.45403
          439844.00    3765420.00        0.45395
439849.00    3765420.00        0.45389
          439854.00    3765420.00        0.45380
439859.00    3765420.00        0.45372
          439674.00    3765425.00        0.46128
439679.00    3765425.00        0.46141
          439684.00    3765425.00        0.46151
439689.00    3765425.00        0.46162
          439694.00    3765425.00        0.46170
439699.00    3765425.00        0.46180
          439704.00    3765425.00        0.46187
439709.00    3765425.00        0.46195
          439714.00    3765425.00        0.46199
439719.00    3765425.00        0.46206
          439729.00    3765425.00        0.46215
439734.00    3765425.00        0.46218
```

```
         439739.00    3765425.00        0.46222
439744.00    3765425.00        0.46225
         439749.00    3765425.00        0.46228
439774.00    3765425.00        0.46236
         439779.00    3765425.00        0.46237
439784.00    3765425.00        0.46239
         439789.00    3765425.00        0.46238
439794.00    3765425.00        0.46239
         439799.00    3765425.00        0.46239
439804.00    3765425.00        0.46240
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: EXH *** INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439809.00	3765425.00	0.46238	439814.00	3765425.00	0.46239
439819.00	3765425.00	0.46236	439824.00	3765425.00	0.46237
439829.00	3765425.00	0.46232	439834.00	3765425.00	0.46231
439839.00	3765425.00	0.46226	439844.00	3765425.00	0.46223
439849.00	3765425.00	0.46217	439854.00	3765425.00	0.46211
439859.00	3765425.00	0.46203	439674.00	3765430.00	0.46956
439679.00	3765430.00	0.46968	439684.00	3765430.00	0.46980
439689.00	3765430.00	0.46990	439694.00	3765430.00	0.47001
439699.00	3765430.00	0.47008	439704.00	3765430.00	0.47017

```
          439709.00    3765430.00         0.47024
439714.00    3765430.00         0.47032
          439719.00    3765430.00         0.47036
439729.00    3765430.00         0.47047
          439734.00    3765430.00         0.47051
439739.00    3765430.00         0.47055
          439744.00    3765430.00         0.47059
439749.00    3765430.00         0.47062
          439774.00    3765430.00         0.47073
439779.00    3765430.00         0.47075
          439784.00    3765430.00         0.47076
439789.00    3765430.00         0.47079
          439794.00    3765430.00         0.47079
439799.00    3765430.00         0.47081
          439804.00    3765430.00         0.47081
439809.00    3765430.00         0.47084
          439814.00    3765430.00         0.47082
439819.00    3765430.00         0.47084
          439824.00    3765430.00         0.47082
439829.00    3765430.00         0.47083
          439834.00    3765430.00         0.47080
439839.00    3765430.00         0.47080
          439844.00    3765430.00         0.47076
439849.00    3765430.00         0.47073
          439854.00    3765430.00         0.47068
439859.00    3765430.00         0.47063
          439674.00    3765435.00         0.47810
439679.00    3765435.00         0.47824
          439684.00    3765435.00         0.47835
439689.00    3765435.00         0.47847
          439694.00    3765435.00         0.47856
439699.00    3765435.00         0.47867
          439704.00    3765435.00         0.47875
439709.00    3765435.00         0.47883
          439714.00    3765435.00         0.47890
439719.00    3765435.00         0.47897
          439729.00    3765435.00         0.47908
439734.00    3765435.00         0.47912
          439739.00    3765435.00         0.47917
439744.00    3765435.00         0.47921
          439749.00    3765435.00         0.47924
439774.00    3765435.00         0.47938
          439779.00    3765435.00         0.47941
439784.00    3765435.00         0.47943
          439789.00    3765435.00         0.47945
439794.00    3765435.00         0.47948
          439799.00    3765435.00         0.47950
439804.00    3765435.00         0.47952
          439809.00    3765435.00         0.47953
439814.00    3765435.00         0.47956
          439819.00    3765435.00         0.47956
439824.00    3765435.00         0.47959
```

```
          439829.00    3765435.00        0.47958
439834.00    3765435.00        0.47960
          439839.00    3765435.00        0.47958
439844.00    3765435.00        0.47959
          439849.00    3765435.00        0.47956
439854.00    3765435.00        0.47954
          439859.00    3765435.00        0.47950
439674.00    3765440.00        0.48694
          439679.00    3765440.00        0.48708
439684.00    3765440.00        0.48721
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: EXH *** INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 , A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439689.00	3765440.00	0.48732	439694.00	3765440.00	0.48744
439699.00	3765440.00	0.48753	439704.00	3765440.00	0.48763
439709.00	3765440.00	0.48771	439714.00	3765440.00	0.48779
439719.00	3765440.00	0.48785	439729.00	3765440.00	0.48797
439734.00	3765440.00	0.48802	439739.00	3765440.00	0.48807
439744.00	3765440.00	0.48812	439749.00	3765440.00	0.48816
439774.00	3765440.00	0.48832	439779.00	3765440.00	0.48836
439784.00	3765440.00	0.48838	439789.00	3765440.00	0.48842
439794.00	3765440.00	0.48845	439799.00	3765440.00	0.48848

```
          439804.00    3765440.00        0.48851
439809.00    3765440.00        0.48855
          439814.00    3765440.00        0.48856
439819.00    3765440.00        0.48861
          439824.00    3765440.00        0.48862
439829.00    3765440.00        0.48866
          439834.00    3765440.00        0.48866
439839.00    3765440.00        0.48869
          439844.00    3765440.00        0.48869
439849.00    3765440.00        0.48870
          439854.00    3765440.00        0.48869
439859.00    3765440.00        0.48868
          439674.00    3765445.00        0.49609
439679.00    3765445.00        0.49624
          439684.00    3765445.00        0.49637
439689.00    3765445.00        0.49650
          439694.00    3765445.00        0.49661
439699.00    3765445.00        0.49672
          439704.00    3765445.00        0.49681
439709.00    3765445.00        0.49690
          439714.00    3765445.00        0.49698
439719.00    3765445.00        0.49706
          439729.00    3765445.00        0.49718
439734.00    3765445.00        0.49724
          439739.00    3765445.00        0.49729
439744.00    3765445.00        0.49734
          439749.00    3765445.00        0.49738
439774.00    3765445.00        0.49758
          439779.00    3765445.00        0.49761
439784.00    3765445.00        0.49766
          439789.00    3765445.00        0.49769
439794.00    3765445.00        0.49773
          439799.00    3765445.00        0.49777
439804.00    3765445.00        0.49781
          439809.00    3765445.00        0.49785
439814.00    3765445.00        0.49790
          439819.00    3765445.00        0.49793
439824.00    3765445.00        0.49798
          439829.00    3765445.00        0.49801
439834.00    3765445.00        0.49806
          439839.00    3765445.00        0.49809
439844.00    3765445.00        0.49812
          439849.00    3765445.00        0.49814
439854.00    3765445.00        0.49816
          439859.00    3765445.00        0.49817
439674.00    3765450.00        0.50556
          439679.00    3765450.00        0.50571
439684.00    3765450.00        0.50586
          439689.00    3765450.00        0.50599
439694.00    3765450.00        0.50611
          439699.00    3765450.00        0.50622
439704.00    3765450.00        0.50633
```

```
         439709.00    3765450.00        0.50642
439714.00    3765450.00        0.50651
         439719.00    3765450.00        0.50658
439729.00    3765450.00        0.50672
         439734.00    3765450.00        0.50678
439739.00    3765450.00        0.50684
         439744.00    3765450.00        0.50689
439749.00    3765450.00        0.50694
         439774.00    3765450.00        0.50715
439844.00    3765450.00        0.50787
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: EXH *** INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 , A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439849.00	3765450.00	0.50792	439854.00	3765450.00	0.50795
439859.00	3765450.00	0.50799	439674.00	3765455.00	0.51538
439679.00	3765455.00	0.51554	439684.00	3765455.00	0.51569
439689.00	3765455.00	0.51583	439694.00	3765455.00	0.51596
439699.00	3765455.00	0.51608	439704.00	3765455.00	0.51618
439709.00	3765455.00	0.51628	439714.00	3765455.00	0.51638
439719.00	3765455.00	0.51646	439729.00	3765455.00	0.51661
439734.00	3765455.00	0.51667	439739.00	3765455.00	0.51673
439744.00	3765455.00	0.51679	439749.00	3765455.00	0.51684

```
          439844.00    3765455.00         0.51797
439849.00    3765455.00         0.51804
          439854.00    3765455.00         0.51810
439859.00    3765455.00         0.51816
          439674.00    3765460.00         0.52556
439679.00    3765460.00         0.52573
          439684.00    3765460.00         0.52589
439689.00    3765460.00         0.52603
          439694.00    3765460.00         0.52617
439699.00    3765460.00         0.52629
          439704.00    3765460.00         0.52641
439709.00    3765460.00         0.52651
          439714.00    3765460.00         0.52661
439719.00    3765460.00         0.52670
          439729.00    3765460.00         0.52686
439734.00    3765460.00         0.52693
          439739.00    3765460.00         0.52700
439744.00    3765460.00         0.52705
          439749.00    3765460.00         0.52712
439789.00    3765460.00         0.52754
          439794.00    3765460.00         0.52761
439799.00    3765460.00         0.52767
          439804.00    3765460.00         0.52774
439809.00    3765460.00         0.52782
          439814.00    3765460.00         0.52789
439819.00    3765460.00         0.52798
          439824.00    3765460.00         0.52807
439829.00    3765460.00         0.52816
          439844.00    3765460.00         0.52844
439849.00    3765460.00         0.52853
          439854.00    3765460.00         0.52862
439859.00    3765460.00         0.52870
          439674.00    3765465.00         0.53612
439679.00    3765465.00         0.53631
          439684.00    3765465.00         0.53647
439689.00    3765465.00         0.53663
          439694.00    3765465.00         0.53676
439699.00    3765465.00         0.53690
          439704.00    3765465.00         0.53702
439709.00    3765465.00         0.53714
          439714.00    3765465.00         0.53724
439719.00    3765465.00         0.53733
          439729.00    3765465.00         0.53750
439734.00    3765465.00         0.53758
          439739.00    3765465.00         0.53764
439744.00    3765465.00         0.53771
          439749.00    3765465.00         0.53777
439789.00    3765465.00         0.53824
          439794.00    3765465.00         0.53831
439799.00    3765465.00         0.53839
          439804.00    3765465.00         0.53846
439809.00    3765465.00         0.53855
```

```
         439814.00    3765465.00        0.53864
439819.00    3765465.00        0.53874
         439824.00    3765465.00        0.53884
439829.00    3765465.00        0.53895
         439844.00    3765465.00        0.53929
439849.00    3765465.00        0.53941
         439854.00    3765465.00        0.53952
439859.00    3765465.00        0.53963
         439674.00    3765470.00        0.54710
439679.00    3765470.00        0.54728
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: EXH *** INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439684.00	3765470.00	0.54747	439689.00	3765470.00	0.54762
439694.00	3765470.00	0.54778	439699.00	3765470.00	0.54792
439704.00	3765470.00	0.54805	439709.00	3765470.00	0.54816
439714.00	3765470.00	0.54828	439719.00	3765470.00	0.54838
439729.00	3765470.00	0.54856	439734.00	3765470.00	0.54863
439739.00	3765470.00	0.54871	439744.00	3765470.00	0.54878
439749.00	3765470.00	0.54885	439789.00	3765470.00	0.54935
439794.00	3765470.00	0.54943	439799.00	3765470.00	0.54951
439804.00	3765470.00	0.54960	439809.00	3765470.00	0.54969

```
         439814.00    3765470.00        0.54979
439819.00    3765470.00        0.54990
         439824.00    3765470.00        0.55002
439829.00    3765470.00        0.55014
         439844.00    3765470.00        0.55055
439849.00    3765470.00        0.55069
         439854.00    3765470.00        0.55084
439859.00    3765470.00        0.55097
         439674.00    3765475.00        0.55849
439679.00    3765475.00        0.55870
         439684.00    3765475.00        0.55888
439689.00    3765475.00        0.55907
         439694.00    3765475.00        0.55922
439699.00    3765475.00        0.55938
         439704.00    3765475.00        0.55951
439709.00    3765475.00        0.55964
         439714.00    3765475.00        0.55975
439719.00    3765475.00        0.55987
         439729.00    3765475.00        0.56005
439734.00    3765475.00        0.56014
         439739.00    3765475.00        0.56022
439744.00    3765475.00        0.56030
         439749.00    3765475.00        0.56036
439754.00    3765475.00        0.56043
         439789.00    3765475.00        0.56090
439794.00    3765475.00        0.56098
         439799.00    3765475.00        0.56107
439804.00    3765475.00        0.56116
         439809.00    3765475.00        0.56127
439814.00    3765475.00        0.56138
         439819.00    3765475.00        0.56150
439824.00    3765475.00        0.56164
         439829.00    3765475.00        0.56178
439269.00    3764900.00        0.14143
         439369.00    3764900.00        0.14292
439469.00    3764900.00        0.14294
         439569.00    3764900.00        0.14145
439669.00    3764900.00        0.13844
         439769.00    3764900.00        0.13393
439869.00    3764900.00        0.12797
         439969.00    3764900.00        0.12069
440069.00    3764900.00        0.11232
         440169.00    3764900.00        0.10323
440269.00    3764900.00        0.09391
         439269.00    3765000.00        0.16487
439369.00    3765000.00        0.16769
         439469.00    3765000.00        0.16870
439569.00    3765000.00        0.16791
         439669.00    3765000.00        0.16532
439769.00    3765000.00        0.16086
         439869.00    3765000.00        0.15443
439969.00    3765000.00        0.14608
```

```
         440069.00    3765000.00        0.13604
440169.00    3765000.00        0.12473
         440269.00    3765000.00        0.11281
439269.00    3765100.00        0.19480
         439369.00    3765100.00        0.19950
439469.00    3765100.00        0.20196
         439569.00    3765100.00        0.20224
439669.00    3765100.00        0.20044
         439769.00    3765100.00        0.19641
439869.00    3765100.00        0.18982
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: EXH ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439969.00	3765100.00	0.18055	440069.00	3765100.00	0.16871
440169.00	3765100.00	0.15470	440269.00	3765100.00	0.13931
439269.00	3765200.00	0.23442	439369.00	3765200.00	0.24200
439469.00	3765200.00	0.24665	439569.00	3765200.00	0.24855
439669.00	3765200.00	0.24799	439769.00	3765200.00	0.24492
439869.00	3765200.00	0.23875	439969.00	3765200.00	0.22902
440069.00	3765200.00	0.21550	440169.00	3765200.00	0.19836
440269.00	3765200.00	0.17837	439269.00	3765300.00	0.28944
439369.00	3765300.00	0.30196	439469.00	3765300.00	0.31037

```
          439569.00    3765300.00         0.31486
439669.00    3765300.00         0.31616
          439769.00    3765300.00         0.31471
439869.00    3765300.00         0.30991
          439969.00    3765300.00         0.30060
440069.00    3765300.00         0.28597
          440169.00    3765300.00         0.26562
440269.00    3765300.00         0.23971
          439269.00    3765400.00         0.37150
439369.00    3765400.00         0.39359
          439469.00    3765400.00         0.40980
439569.00    3765400.00         0.41937
          439669.00    3765400.00         0.42358
439769.00    3765400.00         0.42424
          439869.00    3765400.00         0.42254
439969.00    3765400.00         0.41548
          440069.00    3765400.00         0.40085
440169.00    3765400.00         0.37773
          440269.00    3765400.00         0.34468
439269.00    3765500.00         0.51072
          439369.00    3765500.00         0.55371
439469.00    3765500.00         0.59006
          439569.00    3765500.00         0.61236
439669.00    3765500.00         0.62273
          439769.00    3765500.00         0.62602
439869.00    3765500.00         0.63005
          439969.00    3765500.00         0.63278
440069.00    3765500.00         0.61996
          440169.00    3765500.00         0.59357
440269.00    3765500.00         0.55185
          439269.00    3765600.00         0.83497
439369.00    3765600.00         0.92480
          439469.00    3765600.00         1.03675
439569.00    3765600.00         1.10543
          439669.00    3765600.00         1.14335
439769.00    3765600.00         1.17649
          439869.00    3765600.00         1.19283
439969.00    3765600.00         1.29155
          440069.00    3765600.00         1.25952
440169.00    3765600.00         1.19682
          440269.00    3765600.00         1.12370
439269.00    3765700.00         4.20940
          439369.00    3765700.00         4.51295
439469.00    3765700.00         7.08246
          439569.00    3765700.00         7.56523
439669.00    3765700.00         6.67604
          439769.00    3765700.00         6.28150
439869.00    3765700.00         5.91312
          439969.00    3765700.00         5.76266
440069.00    3765700.00         6.15807
          440169.00    3765700.00         6.77010
440269.00    3765700.00         8.02168
```

```
         439269.00    3765800.00        1.85507
439369.00    3765800.00        1.97273
         439469.00    3765800.00        2.18051
439569.00    3765800.00        2.50815
         439669.00    3765800.00        2.80305
439769.00    3765800.00        3.24441
         439869.00    3765800.00        4.19210
439969.00    3765800.00        2.84239
         440069.00    3765800.00        2.53678
440169.00    3765800.00        2.45150
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: EXH *** INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
440269.00	3765800.00	2.43137	439269.00	3765900.00	0.60419
439369.00	3765900.00	0.70341	439469.00	3765900.00	0.78957
439569.00	3765900.00	0.87542	439669.00	3765900.00	0.96396
439769.00	3765900.00	1.04849	439869.00	3765900.00	1.11889
439969.00	3765900.00	1.15396	440069.00	3765900.00	1.14186
440169.00	3765900.00	1.11763	440269.00	3765900.00	1.10044
439649.00	3765310.00	0.32459	439679.00	3765310.00	0.32467
439709.00	3765310.00	0.32450	439739.00	3765310.00	0.32409
439769.00	3765310.00	0.32341	439799.00	3765310.00	0.32245

```
          439829.00    3765310.00        0.32115
439859.00    3765310.00        0.31948
          439889.00    3765310.00        0.31739
439649.00    3765340.00        0.35251
          439679.00    3765340.00        0.35277
439709.00    3765340.00        0.35278
          439739.00    3765340.00        0.35255
439769.00    3765340.00        0.35208
          439799.00    3765340.00        0.35133
439829.00    3765340.00        0.35027
          439859.00    3765340.00        0.34882
439889.00    3765340.00        0.34694
          439649.00    3765370.00        0.38492
439679.00    3765370.00        0.38538
          439709.00    3765370.00        0.38557
439739.00    3765370.00        0.38553
          439769.00    3765370.00        0.38528
439799.00    3765370.00        0.38479
          439829.00    3765370.00        0.38401
439859.00    3765370.00        0.38287
          439889.00    3765370.00        0.38126
439649.00    3765400.00        0.42310
          439679.00    3765400.00        0.42377
439709.00    3765400.00        0.42414
          439739.00    3765400.00        0.42428
439769.00    3765400.00        0.42424
          439799.00    3765400.00        0.42403
439829.00    3765400.00        0.42362
          439859.00    3765400.00        0.42288
439889.00    3765400.00        0.42168
          439649.00    3765430.00        0.46877
439679.00    3765430.00        0.46968
          439709.00    3765430.00        0.47024
439739.00    3765430.00        0.47055
          439769.00    3765430.00        0.47072
439799.00    3765430.00        0.47081
          439829.00    3765430.00        0.47083
439859.00    3765430.00        0.47063
          439889.00    3765430.00        0.47000
439649.00    3765460.00        0.52450
          439679.00    3765460.00        0.52573
439709.00    3765460.00        0.52651
          439739.00    3765460.00        0.52700
439769.00    3765460.00        0.52732
          439799.00    3765460.00        0.52767
439829.00    3765460.00        0.52816
          439859.00    3765460.00        0.52870
439889.00    3765460.00        0.52896
          439649.00    3765490.00        0.59415
439679.00    3765490.00        0.59583
          439709.00    3765490.00        0.59695
439739.00    3765490.00        0.59767
```

```
          439769.00    3765490.00        0.59817
439799.00    3765490.00        0.59870
          439829.00    3765490.00        0.59959
439859.00    3765490.00        0.60104
          439889.00    3765490.00        0.60267
```

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: EVAP ***
INCLUDING SOURCE(S):
A0000067 , A0000068 , A0000069 , A0000070 , A0000071 ,
A0000072 , A0000073 , A0000074 , A0000075 , A0000076 , A0000077 , A0000078 , A0000079 ,
A0000080 , A0000081 , A0000082 , A0000083 , A0000084 , A0000085 , A0000086 , A0000087 ,
A0000088 , A0000089 , A0000090 , A0000091 , A0000092 , A0000093 ,
A0000094 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439674.00	3765310.00	0.21343	439679.00	3765310.00	0.21367
439684.00	3765310.00	0.21390	439689.00	3765310.00	0.21414
439694.00	3765310.00	0.21438	439699.00	3765310.00	0.21461
439704.00	3765310.00	0.21484	439709.00	3765310.00	0.21506
439714.00	3765310.00	0.21529	439719.00	3765310.00	0.21551
439729.00	3765310.00	0.21594	439734.00	3765310.00	0.21615
439739.00	3765310.00	0.21636	439744.00	3765310.00	0.21656
439749.00	3765310.00	0.21676	439764.00	3765310.00	0.21732
439769.00	3765310.00	0.21749	439774.00	3765310.00	0.21766

```
          439779.00    3765310.00        0.21782
439784.00    3765310.00        0.21797
          439789.00    3765310.00        0.21811
439794.00    3765310.00        0.21825
          439799.00    3765310.00        0.21838
439804.00    3765310.00        0.21849
          439809.00    3765310.00        0.21860
439814.00    3765310.00        0.21870
          439819.00    3765310.00        0.21879
439824.00    3765310.00        0.21886
          439829.00    3765310.00        0.21894
439839.00    3765310.00        0.21904
          439844.00    3765310.00        0.21907
439849.00    3765310.00        0.21909
          439854.00    3765310.00        0.21910
439859.00    3765310.00        0.21910
          439864.00    3765310.00        0.21908
439869.00    3765310.00        0.21906
          439874.00    3765310.00        0.21901
439879.00    3765310.00        0.21896
          439884.00    3765310.00        0.21890
439674.00    3765315.00        0.21617
          439679.00    3765315.00        0.21642
439684.00    3765315.00        0.21667
          439689.00    3765315.00        0.21691
439694.00    3765315.00        0.21715
          439699.00    3765315.00        0.21740
439704.00    3765315.00        0.21764
          439709.00    3765315.00        0.21788
439714.00    3765315.00        0.21811
          439719.00    3765315.00        0.21835
439729.00    3765315.00        0.21880
          439734.00    3765315.00        0.21902
439739.00    3765315.00        0.21924
          439744.00    3765315.00        0.21946
439749.00    3765315.00        0.21967
          439764.00    3765315.00        0.22026
439769.00    3765315.00        0.22045
          439774.00    3765315.00        0.22063
439779.00    3765315.00        0.22080
          439784.00    3765315.00        0.22097
439789.00    3765315.00        0.22113
          439794.00    3765315.00        0.22127
439799.00    3765315.00        0.22141
          439804.00    3765315.00        0.22155
439809.00    3765315.00        0.22167
          439814.00    3765315.00        0.22178
439819.00    3765315.00        0.22188
          439824.00    3765315.00        0.22198
439829.00    3765315.00        0.22206
          439839.00    3765315.00        0.22218
439844.00    3765315.00        0.22223
```

```
         439849.00    3765315.00        0.22227
439854.00    3765315.00        0.22229
         439859.00    3765315.00        0.22230
439864.00    3765315.00        0.22230
         439869.00    3765315.00        0.22228
439874.00    3765315.00        0.22225
         439879.00    3765315.00        0.22221
439884.00    3765315.00        0.22216
         439674.00    3765320.00        0.21897
439679.00    3765320.00        0.21923
```

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: EVAP ***
INCLUDING SOURCE(S):
A0000067 , A0000068 , A0000069 , A0000070 , A0000071 ,
A0000072 , A0000073 , A0000074 , A0000075 , A0000076 , A0000077 , A0000078 , A0000079 ,
A0000080 , A0000081 , A0000082 , A0000083 , A0000084 , A0000085 , A0000086 , A0000087 ,
A0000088 , A0000089 , A0000090 , A0000091 , A0000092 , A0000093 ,
A0000094 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439684.00	3765320.00	0.21949	439689.00	3765320.00	0.21974
439694.00	3765320.00	0.22000	439699.00	3765320.00	0.22025
439704.00	3765320.00	0.22050	439709.00	3765320.00	0.22075
439714.00	3765320.00	0.22099	439719.00	3765320.00	0.22124
439729.00	3765320.00	0.22172	439734.00	3765320.00	0.22195
439739.00	3765320.00	0.22218	439744.00	3765320.00	0.22241
439749.00	3765320.00	0.22263	439764.00	3765320.00	0.22327
439769.00	3765320.00	0.22347	439774.00	3765320.00	0.22366
439779.00	3765320.00	0.22385	439784.00	3765320.00	0.22403

```
          439789.00    3765320.00         0.22420
439794.00    3765320.00         0.22436
          439799.00    3765320.00         0.22452
439804.00    3765320.00         0.22467
          439809.00    3765320.00         0.22480
439814.00    3765320.00         0.22493
          439819.00    3765320.00         0.22505
439824.00    3765320.00         0.22516
          439829.00    3765320.00         0.22525
439839.00    3765320.00         0.22541
          439844.00    3765320.00         0.22547
439849.00    3765320.00         0.22552
          439854.00    3765320.00         0.22555
439859.00    3765320.00         0.22557
          439864.00    3765320.00         0.22559
439869.00    3765320.00         0.22558
          439874.00    3765320.00         0.22557
439879.00    3765320.00         0.22554
          439884.00    3765320.00         0.22549
439674.00    3765325.00         0.22183
          439679.00    3765325.00         0.22210
439684.00    3765325.00         0.22236
          439689.00    3765325.00         0.22263
439694.00    3765325.00         0.22289
          439699.00    3765325.00         0.22316
439704.00    3765325.00         0.22342
          439709.00    3765325.00         0.22368
439714.00    3765325.00         0.22394
          439719.00    3765325.00         0.22419
439729.00    3765325.00         0.22469
          439734.00    3765325.00         0.22494
439739.00    3765325.00         0.22518
          439744.00    3765325.00         0.22543
439749.00    3765325.00         0.22566
          439754.00    3765325.00         0.22589
439769.00    3765325.00         0.22655
          439774.00    3765325.00         0.22676
439779.00    3765325.00         0.22697
          439784.00    3765325.00         0.22716
439789.00    3765325.00         0.22735
          439794.00    3765325.00         0.22753
439799.00    3765325.00         0.22770
          439804.00    3765325.00         0.22785
439809.00    3765325.00         0.22801
          439814.00    3765325.00         0.22815
439819.00    3765325.00         0.22828
          439824.00    3765325.00         0.22840
439829.00    3765325.00         0.22851
          439839.00    3765325.00         0.22870
439844.00    3765325.00         0.22878
          439849.00    3765325.00         0.22884
439854.00    3765325.00         0.22889
```

```
         439859.00    3765325.00        0.22893
439864.00    3765325.00        0.22895
         439869.00    3765325.00        0.22896
439874.00    3765325.00        0.22896
         439879.00    3765325.00        0.22894
439884.00    3765325.00        0.22891
         439674.00    3765330.00        0.22476
439679.00    3765330.00        0.22503
         439684.00    3765330.00        0.22531
439689.00    3765330.00        0.22558
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: EVAP ***
INCLUDING SOURCE(S):
A0000067 , A0000068 , A0000069 , A0000070 , A0000071 ,
A0000072 , A0000073 , A0000074 , A0000075 , A0000076 , A0000077 , A0000078 , A0000079 ,
A0000080 , A0000081 , A0000082 , A0000083 , A0000084 , A0000085 , A0000086 , A0000087 ,
A0000088 , A0000089 , A0000090 , A0000091 , A0000092 , A0000093 ,
A0000094 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439694.00	3765330.00	0.22586	439699.00	3765330.00	0.22613
439704.00	3765330.00	0.22640	439709.00	3765330.00	0.22667
439714.00	3765330.00	0.22694	439719.00	3765330.00	0.22721
439729.00	3765330.00	0.22774	439734.00	3765330.00	0.22800
439739.00	3765330.00	0.22825	439744.00	3765330.00	0.22851
439749.00	3765330.00	0.22876	439754.00	3765330.00	0.22900
439774.00	3765330.00	0.22993	439779.00	3765330.00	0.23014
439784.00	3765330.00	0.23036	439789.00	3765330.00	0.23056
439794.00	3765330.00	0.23075	439799.00	3765330.00	0.23094

```
          439804.00    3765330.00        0.23112
439809.00    3765330.00        0.23129
          439814.00    3765330.00        0.23144
439819.00    3765330.00        0.23159
          439824.00    3765330.00        0.23173
439829.00    3765330.00        0.23185
          439839.00    3765330.00        0.23207
439844.00    3765330.00        0.23216
          439849.00    3765330.00        0.23224
439854.00    3765330.00        0.23230
          439859.00    3765330.00        0.23236
439864.00    3765330.00        0.23240
          439869.00    3765330.00        0.23242
439874.00    3765330.00        0.23243
          439879.00    3765330.00        0.23243
439884.00    3765330.00        0.23241
          439674.00    3765335.00        0.22774
439679.00    3765335.00        0.22803
          439684.00    3765335.00        0.22831
439689.00    3765335.00        0.22860
          439694.00    3765335.00        0.22888
439699.00    3765335.00        0.22917
          439704.00    3765335.00        0.22945
439709.00    3765335.00        0.22973
          439714.00    3765335.00        0.23001
439719.00    3765335.00        0.23029
          439729.00    3765335.00        0.23084
439734.00    3765335.00        0.23112
          439739.00    3765335.00        0.23139
439744.00    3765335.00        0.23165
          439749.00    3765335.00        0.23192
439774.00    3765335.00        0.23316
          439779.00    3765335.00        0.23340
439784.00    3765335.00        0.23363
          439789.00    3765335.00        0.23384
439794.00    3765335.00        0.23405
          439839.00    3765335.00        0.23552
439844.00    3765335.00        0.23563
          439849.00    3765335.00        0.23572
439854.00    3765335.00        0.23580
          439859.00    3765335.00        0.23587
439864.00    3765335.00        0.23592
          439869.00    3765335.00        0.23596
439874.00    3765335.00        0.23599
          439879.00    3765335.00        0.23600
439884.00    3765335.00        0.23599
          439674.00    3765340.00        0.23080
439679.00    3765340.00        0.23109
          439684.00    3765340.00        0.23139
439689.00    3765340.00        0.23168
          439694.00    3765340.00        0.23198
439699.00    3765340.00        0.23227
```

```
         439704.00    3765340.00        0.23257
439709.00    3765340.00        0.23286
         439714.00    3765340.00        0.23315
439719.00    3765340.00        0.23344
         439729.00    3765340.00        0.23402
439734.00    3765340.00        0.23430
         439739.00    3765340.00        0.23459
439744.00    3765340.00        0.23487
         439749.00    3765340.00        0.23515
439774.00    3765340.00        0.23648
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: EVAP ***
INCLUDING SOURCE(S):
A0000067 , A0000068 , A0000069 , A0000070 , A0000071 ,
A0000072 , A0000073 , A0000074 , A0000075 , A0000076 , A0000077 , A0000078 , A0000079 ,
A0000080 , A0000081 , A0000082 , A0000083 , A0000084 , A0000085 , A0000086 , A0000087 ,
A0000088 , A0000089 , A0000090 , A0000091 , A0000092 , A0000093 ,
A0000094 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439779.00	3765340.00	0.23672	439784.00	3765340.00	0.23696
439789.00	3765340.00	0.23720	439794.00	3765340.00	0.23743
439839.00	3765340.00	0.23905	439844.00	3765340.00	0.23917
439849.00	3765340.00	0.23928	439854.00	3765340.00	0.23938
439859.00	3765340.00	0.23946	439864.00	3765340.00	0.23954
439869.00	3765340.00	0.23959	439874.00	3765340.00	0.23963
439879.00	3765340.00	0.23966	439884.00	3765340.00	0.23966
439674.00	3765345.00	0.23392	439679.00	3765345.00	0.23423
439684.00	3765345.00	0.23453	439689.00	3765345.00	0.23483

```
          439694.00    3765345.00        0.23514
439699.00    3765345.00        0.23544
          439704.00    3765345.00        0.23575
439709.00    3765345.00        0.23605
          439714.00    3765345.00        0.23636
439719.00    3765345.00        0.23666
          439729.00    3765345.00        0.23726
439734.00    3765345.00        0.23757
          439739.00    3765345.00        0.23786
439744.00    3765345.00        0.23816
          439749.00    3765345.00        0.23845
439774.00    3765345.00        0.23986
          439779.00    3765345.00        0.24012
439784.00    3765345.00        0.24038
          439789.00    3765345.00        0.24063
439794.00    3765345.00        0.24088
          439839.00    3765345.00        0.24266
439844.00    3765345.00        0.24281
          439849.00    3765345.00        0.24293
439854.00    3765345.00        0.24305
          439859.00    3765345.00        0.24315
439864.00    3765345.00        0.24323
          439869.00    3765345.00        0.24330
439874.00    3765345.00        0.24336
          439879.00    3765345.00        0.24340
439884.00    3765345.00        0.24343
          439674.00    3765350.00        0.23712
439679.00    3765350.00        0.23743
          439684.00    3765350.00        0.23774
439689.00    3765350.00        0.23806
          439694.00    3765350.00        0.23837
439699.00    3765350.00        0.23869
          439704.00    3765350.00        0.23900
439709.00    3765350.00        0.23932
          439714.00    3765350.00        0.23964
439719.00    3765350.00        0.23995
          439729.00    3765350.00        0.24058
439734.00    3765350.00        0.24090
          439739.00    3765350.00        0.24121
439744.00    3765350.00        0.24152
          439749.00    3765350.00        0.24183
439774.00    3765350.00        0.24332
          439779.00    3765350.00        0.24360
439784.00    3765350.00        0.24388
          439789.00    3765350.00        0.24415
439794.00    3765350.00        0.24441
          439839.00    3765350.00        0.24637
439844.00    3765350.00        0.24652
          439849.00    3765350.00        0.24667
439854.00    3765350.00        0.24680
          439859.00    3765350.00        0.24692
439864.00    3765350.00        0.24702
```

```
         439869.00    3765350.00        0.24712
439874.00    3765350.00        0.24719
         439879.00    3765350.00        0.24725
439884.00    3765350.00        0.24729
         439674.00    3765355.00        0.24039
439679.00    3765355.00        0.24071
         439684.00    3765355.00        0.24104
439689.00    3765355.00        0.24135
         439694.00    3765355.00        0.24169
439699.00    3765355.00        0.24201
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: EVAP ***
INCLUDING SOURCE(S):
A0000067 , A0000068 , A0000069 , A0000070 , A0000071 ,
A0000072 , A0000073 , A0000074 , A0000075 , A0000076 , A0000077 , A0000078 , A0000079 ,
A0000080 , A0000081 , A0000082 , A0000083 , A0000084 , A0000085 , A0000086 , A0000087 ,
A0000088 , A0000089 , A0000090 , A0000091 , A0000092 , A0000093 ,
A0000094 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439704.00	3765355.00	0.24234	439709.00	3765355.00	0.24266
439714.00	3765355.00	0.24299	439719.00	3765355.00	0.24332
439729.00	3765355.00	0.24398	439734.00	3765355.00	0.24430
439739.00	3765355.00	0.24464	439744.00	3765355.00	0.24495
439749.00	3765355.00	0.24528	439774.00	3765355.00	0.24685
439779.00	3765355.00	0.24715	439784.00	3765355.00	0.24745
439789.00	3765355.00	0.24774	439794.00	3765355.00	0.24802
439839.00	3765355.00	0.25015	439844.00	3765355.00	0.25034
439849.00	3765355.00	0.25050	439854.00	3765355.00	0.25065

```
         439859.00    3765355.00        0.25079
439864.00    3765355.00        0.25091
         439869.00    3765355.00        0.25102
439874.00    3765355.00        0.25111
         439879.00    3765355.00        0.25119
439884.00    3765355.00        0.25125
         439674.00    3765360.00        0.24374
439679.00    3765360.00        0.24407
         439684.00    3765360.00        0.24440
439689.00    3765360.00        0.24474
         439694.00    3765360.00        0.24507
439699.00    3765360.00        0.24541
         439704.00    3765360.00        0.24575
439709.00    3765360.00        0.24608
         439714.00    3765360.00        0.24643
439719.00    3765360.00        0.24677
         439729.00    3765360.00        0.24745
439734.00    3765360.00        0.24779
         439739.00    3765360.00        0.24813
439744.00    3765360.00        0.24848
         439749.00    3765360.00        0.24881
439774.00    3765360.00        0.25047
         439779.00    3765360.00        0.25079
439784.00    3765360.00        0.25111
         439789.00    3765360.00        0.25142
439794.00    3765360.00        0.25172
         439799.00    3765360.00        0.25202
439804.00    3765360.00        0.25230
         439809.00    3765360.00        0.25258
439814.00    3765360.00        0.25285
         439839.00    3765360.00        0.25404
439844.00    3765360.00        0.25423
         439849.00    3765360.00        0.25443
439854.00    3765360.00        0.25460
         439859.00    3765360.00        0.25476
439864.00    3765360.00        0.25490
         439869.00    3765360.00        0.25503
439874.00    3765360.00        0.25514
         439879.00    3765360.00        0.25523
439884.00    3765360.00        0.25531
         439674.00    3765365.00        0.24717
439679.00    3765365.00        0.24751
         439684.00    3765365.00        0.24785
439689.00    3765365.00        0.24820
         439694.00    3765365.00        0.24854
439699.00    3765365.00        0.24889
         439704.00    3765365.00        0.24923
439709.00    3765365.00        0.24959
         439714.00    3765365.00        0.24994
439719.00    3765365.00        0.25029
         439729.00    3765365.00        0.25100
439734.00    3765365.00        0.25136
```

```
         439739.00    3765365.00        0.25172
439744.00    3765365.00        0.25207
         439749.00    3765365.00        0.25243
439774.00    3765365.00        0.25418
         439779.00    3765365.00        0.25452
439784.00    3765365.00        0.25486
         439789.00    3765365.00        0.25518
439794.00    3765365.00        0.25551
         439799.00    3765365.00        0.25582
439804.00    3765365.00        0.25613
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: EVAP ***
INCLUDING SOURCE(S):
A0000067 , A0000068 , A0000069 , A0000070 , A0000071 ,
A0000072 , A0000073 , A0000074 , A0000075 , A0000076 , A0000077 , A0000078 , A0000079 ,
A0000080 , A0000081 , A0000082 , A0000083 , A0000084 , A0000085 , A0000086 , A0000087 ,
A0000088 , A0000089 , A0000090 , A0000091 , A0000092 , A0000093 ,
A0000094 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439809.00	3765365.00	0.25643	439814.00	3765365.00	0.25673
439839.00	3765365.00	0.25802	439844.00	3765365.00	0.25824
439849.00	3765365.00	0.25845	439854.00	3765365.00	0.25864
439859.00	3765365.00	0.25882	439864.00	3765365.00	0.25899
439869.00	3765365.00	0.25914	439874.00	3765365.00	0.25926
439879.00	3765365.00	0.25939	439884.00	3765365.00	0.25948
439674.00	3765370.00	0.25068	439679.00	3765370.00	0.25103
439684.00	3765370.00	0.25138	439689.00	3765370.00	0.25173
439694.00	3765370.00	0.25209	439699.00	3765370.00	0.25245

```
          439704.00    3765370.00        0.25281
439709.00    3765370.00        0.25317
          439714.00    3765370.00        0.25354
439719.00    3765370.00        0.25390
          439729.00    3765370.00        0.25465
439734.00    3765370.00        0.25501
          439739.00    3765370.00        0.25539
439744.00    3765370.00        0.25576
          439749.00    3765370.00        0.25613
439774.00    3765370.00        0.25797
          439779.00    3765370.00        0.25833
439784.00    3765370.00        0.25869
          439789.00    3765370.00        0.25904
439794.00    3765370.00        0.25938
          439799.00    3765370.00        0.25972
439804.00    3765370.00        0.26005
          439809.00    3765370.00        0.26038
439814.00    3765370.00        0.26069
          439839.00    3765370.00        0.26210
439844.00    3765370.00        0.26235
          439849.00    3765370.00        0.26257
439854.00    3765370.00        0.26280
          439859.00    3765370.00        0.26299
439864.00    3765370.00        0.26318
          439869.00    3765370.00        0.26335
439874.00    3765370.00        0.26351
          439879.00    3765370.00        0.26364
439884.00    3765370.00        0.26376
          439674.00    3765375.00        0.25428
439679.00    3765375.00        0.25464
          439684.00    3765375.00        0.25500
439689.00    3765375.00        0.25537
          439694.00    3765375.00        0.25573
439699.00    3765375.00        0.25610
          439704.00    3765375.00        0.25647
439709.00    3765375.00        0.25685
          439714.00    3765375.00        0.25722
439719.00    3765375.00        0.25760
          439729.00    3765375.00        0.25837
439734.00    3765375.00        0.25876
          439739.00    3765375.00        0.25914
439744.00    3765375.00        0.25953
          439749.00    3765375.00        0.25992
439754.00    3765375.00        0.26032
          439774.00    3765375.00        0.26186
439779.00    3765375.00        0.26224
          439784.00    3765375.00        0.26262
439789.00    3765375.00        0.26299
          439794.00    3765375.00        0.26335
439799.00    3765375.00        0.26372
          439804.00    3765375.00        0.26407
439809.00    3765375.00        0.26442
```

```
         439814.00    3765375.00        0.26475
439839.00    3765375.00        0.26629
         439844.00    3765375.00        0.26655
439849.00    3765375.00        0.26682
         439854.00    3765375.00        0.26705
439859.00    3765375.00        0.26728
         439864.00    3765375.00        0.26748
439869.00    3765375.00        0.26768
         439874.00    3765375.00        0.26786
439879.00    3765375.00        0.26801
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: EVAP ***
INCLUDING SOURCE(S):
A0000067 , A0000068 , A0000069 , A0000070 , A0000071 ,
A0000072 , A0000073 , A0000074 , A0000075 , A0000076 , A0000077 , A0000078 , A0000079 ,
A0000080 , A0000081 , A0000082 , A0000083 , A0000084 , A0000085 , A0000086 , A0000087 ,
A0000088 , A0000089 , A0000090 , A0000091 , A0000092 , A0000093 ,
A0000094 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439884.00	3765375.00	0.26815	439774.00	3765380.00	0.26584
439779.00	3765380.00	0.26624	439784.00	3765380.00	0.26664
439789.00	3765380.00	0.26703	439794.00	3765380.00	0.26743
439799.00	3765380.00	0.26781	439804.00	3765380.00	0.26819
439809.00	3765380.00	0.26855	439814.00	3765380.00	0.26893
439769.00	3765385.00	0.26949	439819.00	3765385.00	0.27358
439769.00	3765400.00	0.28228	439844.00	3765400.00	0.28933
439849.00	3765400.00	0.28974	439674.00	3765405.00	0.27798
439714.00	3765405.00	0.28138	439719.00	3765405.00	0.28184

```
          439734.00    3765405.00        0.28326
439749.00    3765405.00        0.28473
          439754.00    3765405.00        0.28523
439774.00    3765405.00        0.28728
          439779.00    3765405.00        0.28781
439784.00    3765405.00        0.28832
          439789.00    3765405.00        0.28884
439794.00    3765405.00        0.28937
          439799.00    3765405.00        0.28989
439804.00    3765405.00        0.29040
          439809.00    3765405.00        0.29091
439814.00    3765405.00        0.29142
          439819.00    3765405.00        0.29192
439824.00    3765405.00        0.29241
          439829.00    3765405.00        0.29289
439834.00    3765405.00        0.29337
          439839.00    3765405.00        0.29382
439844.00    3765405.00        0.29427
          439849.00    3765405.00        0.29471
439854.00    3765405.00        0.29512
          439859.00    3765405.00        0.29552
439674.00    3765410.00        0.28232
          439679.00    3765410.00        0.28273
439684.00    3765410.00        0.28314
          439689.00    3765410.00        0.28356
439694.00    3765410.00        0.28400
          439699.00    3765410.00        0.28443
439704.00    3765410.00        0.28488
          439709.00    3765410.00        0.28533
439714.00    3765410.00        0.28580
          439719.00    3765410.00        0.28626
439729.00    3765410.00        0.28723
          439734.00    3765410.00        0.28772
439739.00    3765410.00        0.28822
          439744.00    3765410.00        0.28874
439749.00    3765410.00        0.28925
          439774.00    3765410.00        0.29192
439779.00    3765410.00        0.29246
          439784.00    3765410.00        0.29300
439789.00    3765410.00        0.29356
          439794.00    3765410.00        0.29411
439799.00    3765410.00        0.29465
          439804.00    3765410.00        0.29520
439809.00    3765410.00        0.29575
          439814.00    3765410.00        0.29628
439819.00    3765410.00        0.29682
          439824.00    3765410.00        0.29734
439829.00    3765410.00        0.29786
          439834.00    3765410.00        0.29836
439839.00    3765410.00        0.29887
          439844.00    3765410.00        0.29934
439849.00    3765410.00        0.29982
```

```
         439854.00    3765410.00        0.30027
439859.00    3765410.00        0.30071
         439674.00    3765415.00        0.28678
439679.00    3765415.00        0.28720
         439684.00    3765415.00        0.28762
439689.00    3765415.00        0.28806
         439694.00    3765415.00        0.28848
439699.00    3765415.00        0.28894
         439704.00    3765415.00        0.28939
439709.00    3765415.00        0.28985
```

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: EVAP ***
INCLUDING SOURCE(S):
A0000067 , A0000068 , A0000069 , A0000070 , A0000071 ,
A0000072 , A0000073 , A0000074 , A0000075 , A0000076 , A0000077 , A0000078 , A0000079 ,
A0000080 , A0000081 , A0000082 , A0000083 , A0000084 , A0000085 , A0000086 , A0000087 ,
A0000088 , A0000089 , A0000090 , A0000091 , A0000092 , A0000093 ,
A0000094 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439714.00	3765415.00	0.29032	439719.00	3765415.00	0.29081
439729.00	3765415.00	0.29180	439734.00	3765415.00	0.29231
439739.00	3765415.00	0.29283	439744.00	3765415.00	0.29335
439749.00	3765415.00	0.29389	439774.00	3765415.00	0.29666
439779.00	3765415.00	0.29724	439784.00	3765415.00	0.29782
439789.00	3765415.00	0.29839	439794.00	3765415.00	0.29897
439799.00	3765415.00	0.29955	439804.00	3765415.00	0.30014
439809.00	3765415.00	0.30071	439814.00	3765415.00	0.30129
439819.00	3765415.00	0.30185	439824.00	3765415.00	0.30241

```
          439829.00    3765415.00        0.30296
439834.00    3765415.00        0.30352
          439839.00    3765415.00        0.30404
439844.00    3765415.00        0.30457
          439849.00    3765415.00        0.30507
439854.00    3765415.00        0.30556
          439859.00    3765415.00        0.30604
439674.00    3765420.00        0.29139
          439679.00    3765420.00        0.29180
439684.00    3765420.00        0.29224
          439689.00    3765420.00        0.29266
439694.00    3765420.00        0.29312
          439699.00    3765420.00        0.29357
439704.00    3765420.00        0.29403
          439709.00    3765420.00        0.29450
439714.00    3765420.00        0.29499
          439719.00    3765420.00        0.29548
439729.00    3765420.00        0.29650
          439734.00    3765420.00        0.29703
439739.00    3765420.00        0.29756
          439744.00    3765420.00        0.29810
439749.00    3765420.00        0.29865
          439774.00    3765420.00        0.30155
439779.00    3765420.00        0.30215
          439784.00    3765420.00        0.30275
439789.00    3765420.00        0.30336
          439794.00    3765420.00        0.30397
439799.00    3765420.00        0.30459
          439804.00    3765420.00        0.30519
439809.00    3765420.00        0.30582
          439814.00    3765420.00        0.30641
439819.00    3765420.00        0.30703
          439824.00    3765420.00        0.30762
439829.00    3765420.00        0.30822
          439834.00    3765420.00        0.30879
439839.00    3765420.00        0.30938
          439844.00    3765420.00        0.30993
439849.00    3765420.00        0.31048
          439854.00    3765420.00        0.31101
439859.00    3765420.00        0.31153
          439674.00    3765425.00        0.29612
439679.00    3765425.00        0.29655
          439684.00    3765425.00        0.29698
439689.00    3765425.00        0.29743
          439694.00    3765425.00        0.29787
439699.00    3765425.00        0.29834
          439704.00    3765425.00        0.29881
439709.00    3765425.00        0.29930
          439714.00    3765425.00        0.29978
439719.00    3765425.00        0.30030
          439729.00    3765425.00        0.30134
439734.00    3765425.00        0.30188
```

```
         439739.00    3765425.00        0.30243
439744.00    3765425.00        0.30299
         439749.00    3765425.00        0.30356
439774.00    3765425.00        0.30657
         439779.00    3765425.00        0.30719
439784.00    3765425.00        0.30783
         439789.00    3765425.00        0.30846
439794.00    3765425.00        0.30911
         439799.00    3765425.00        0.30976
439804.00    3765425.00        0.31041
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: EVAP ***
INCLUDING SOURCE(S):
A0000067 , A0000068 , A0000069 , A0000070 , A0000071 ,
A0000072 , A0000073 , A0000074 , A0000075 , A0000076 , A0000077 , A0000078 , A0000079 ,
A0000080 , A0000081 , A0000082 , A0000083 , A0000084 , A0000085 , A0000086 , A0000087 ,
A0000088 , A0000089 , A0000090 , A0000091 , A0000092 , A0000093 ,
A0000094 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439809.00	3765425.00	0.31105	439814.00	3765425.00	0.31171
439819.00	3765425.00	0.31234	439824.00	3765425.00	0.31299
439829.00	3765425.00	0.31361	439834.00	3765425.00	0.31425
439839.00	3765425.00	0.31485	439844.00	3765425.00	0.31547
439849.00	3765425.00	0.31605	439854.00	3765425.00	0.31663
439859.00	3765425.00	0.31718	439674.00	3765430.00	0.30101
439679.00	3765430.00	0.30144	439684.00	3765430.00	0.30188
439689.00	3765430.00	0.30232	439694.00	3765430.00	0.30279
439699.00	3765430.00	0.30325	439704.00	3765430.00	0.30374

```
          439709.00    3765430.00         0.30422
439714.00    3765430.00         0.30473
          439719.00    3765430.00         0.30524
439729.00    3765430.00         0.30631
          439734.00    3765430.00         0.30687
439739.00    3765430.00         0.30743
          439744.00    3765430.00         0.30801
439749.00    3765430.00         0.30860
          439774.00    3765430.00         0.31173
439779.00    3765430.00         0.31238
          439784.00    3765430.00         0.31304
439789.00    3765430.00         0.31372
          439794.00    3765430.00         0.31439
439799.00    3765430.00         0.31507
          439804.00    3765430.00         0.31576
439809.00    3765430.00         0.31645
          439814.00    3765430.00         0.31713
439819.00    3765430.00         0.31782
          439824.00    3765430.00         0.31850
439829.00    3765430.00         0.31918
          439834.00    3765430.00         0.31984
439839.00    3765430.00         0.32051
          439844.00    3765430.00         0.32115
439849.00    3765430.00         0.32179
          439854.00    3765430.00         0.32241
439859.00    3765430.00         0.32302
          439674.00    3765435.00         0.30605
439679.00    3765435.00         0.30648
          439684.00    3765435.00         0.30693
439689.00    3765435.00         0.30738
          439694.00    3765435.00         0.30784
439699.00    3765435.00         0.30832
          439704.00    3765435.00         0.30880
439709.00    3765435.00         0.30931
          439714.00    3765435.00         0.30982
439719.00    3765435.00         0.31035
          439729.00    3765435.00         0.31144
439734.00    3765435.00         0.31201
          439739.00    3765435.00         0.31259
439744.00    3765435.00         0.31319
          439749.00    3765435.00         0.31379
439774.00    3765435.00         0.31704
          439779.00    3765435.00         0.31772
439784.00    3765435.00         0.31842
          439789.00    3765435.00         0.31912
439794.00    3765435.00         0.31983
          439799.00    3765435.00         0.32055
439804.00    3765435.00         0.32127
          439809.00    3765435.00         0.32199
439814.00    3765435.00         0.32273
          439819.00    3765435.00         0.32345
439824.00    3765435.00         0.32418
```

```
         439829.00    3765435.00        0.32489
439834.00    3765435.00        0.32562
         439839.00    3765435.00        0.32631
439844.00    3765435.00        0.32702
         439849.00    3765435.00        0.32770
439854.00    3765435.00        0.32837
         439859.00    3765435.00        0.32902
439674.00    3765440.00        0.31125
         439679.00    3765440.00        0.31169
439684.00    3765440.00        0.31214
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: EVAP ***
INCLUDING SOURCE(S):
A0000067 , A0000068 , A0000069 , A0000070 , A0000071 ,
A0000072 , A0000073 , A0000074 , A0000075 , A0000076 , A0000077 , A0000078 , A0000079 ,
A0000080 , A0000081 , A0000082 , A0000083 , A0000084 , A0000085 , A0000086 , A0000087 ,
A0000088 , A0000089 , A0000090 , A0000091 , A0000092 , A0000093 ,
A0000094 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439689.00	3765440.00	0.31259	439694.00	3765440.00	0.31307
439699.00	3765440.00	0.31354	439704.00	3765440.00	0.31405
439709.00	3765440.00	0.31455	439714.00	3765440.00	0.31507
439719.00	3765440.00	0.31561	439729.00	3765440.00	0.31672
439734.00	3765440.00	0.31730	439739.00	3765440.00	0.31790
439744.00	3765440.00	0.31851	439749.00	3765440.00	0.31914
439774.00	3765440.00	0.32250	439779.00	3765440.00	0.32321
439784.00	3765440.00	0.32394	439789.00	3765440.00	0.32468
439794.00	3765440.00	0.32542	439799.00	3765440.00	0.32618

```
          439804.00    3765440.00         0.32694
439809.00    3765440.00         0.32771
          439814.00    3765440.00         0.32847
439819.00    3765440.00         0.32925
          439824.00    3765440.00         0.33002
439829.00    3765440.00         0.33079
          439834.00    3765440.00         0.33155
439839.00    3765440.00         0.33231
          439844.00    3765440.00         0.33306
439849.00    3765440.00         0.33380
          439854.00    3765440.00         0.33452
439859.00    3765440.00         0.33522
          439674.00    3765445.00         0.31663
439679.00    3765445.00         0.31707
          439684.00    3765445.00         0.31752
439689.00    3765445.00         0.31799
          439694.00    3765445.00         0.31846
439699.00    3765445.00         0.31895
          439704.00    3765445.00         0.31944
439709.00    3765445.00         0.31996
          439714.00    3765445.00         0.32049
439719.00    3765445.00         0.32103
          439729.00    3765445.00         0.32217
439734.00    3765445.00         0.32276
          439739.00    3765445.00         0.32338
439744.00    3765445.00         0.32400
          439749.00    3765445.00         0.32465
439774.00    3765445.00         0.32813
          439779.00    3765445.00         0.32887
439784.00    3765445.00         0.32963
          439789.00    3765445.00         0.33040
439794.00    3765445.00         0.33118
          439799.00    3765445.00         0.33197
439804.00    3765445.00         0.33278
          439809.00    3765445.00         0.33358
439814.00    3765445.00         0.33441
          439819.00    3765445.00         0.33522
439824.00    3765445.00         0.33604
          439829.00    3765445.00         0.33685
439834.00    3765445.00         0.33768
          439839.00    3765445.00         0.33848
439844.00    3765445.00         0.33929
          439849.00    3765445.00         0.34007
439854.00    3765445.00         0.34086
          439859.00    3765445.00         0.34162
439674.00    3765450.00         0.32219
          439679.00    3765450.00         0.32263
439684.00    3765450.00         0.32308
          439689.00    3765450.00         0.32355
439694.00    3765450.00         0.32403
          439699.00    3765450.00         0.32452
439704.00    3765450.00         0.32503
```

```
         439709.00    3765450.00        0.32554
439714.00    3765450.00        0.32608
         439719.00    3765450.00        0.32664
439729.00    3765450.00        0.32779
         439734.00    3765450.00        0.32840
439739.00    3765450.00        0.32902
         439744.00    3765450.00        0.32967
439749.00    3765450.00        0.33033
         439774.00    3765450.00        0.33392
439844.00    3765450.00        0.34571
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: EVAP ***
INCLUDING SOURCE(S):
A0000067 , A0000068 , A0000069 , A0000070 , A0000071 ,
A0000072 , A0000073 , A0000074 , A0000075 , A0000076 , A0000077 , A0000078 , A0000079 ,
A0000080 , A0000081 , A0000082 , A0000083 , A0000084 , A0000085 , A0000086 , A0000087 ,
A0000088 , A0000089 , A0000090 , A0000091 , A0000092 , A0000093 ,
A0000094 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439849.00	3765450.00	0.34656	439854.00	3765450.00	0.34740
439859.00	3765450.00	0.34823	439674.00	3765455.00	0.32794
439679.00	3765455.00	0.32838	439684.00	3765455.00	0.32884
439689.00	3765455.00	0.32931	439694.00	3765455.00	0.32979
439699.00	3765455.00	0.33028	439704.00	3765455.00	0.33079
439709.00	3765455.00	0.33132	439714.00	3765455.00	0.33186
439719.00	3765455.00	0.33242	439729.00	3765455.00	0.33360
439734.00	3765455.00	0.33422	439739.00	3765455.00	0.33485
439744.00	3765455.00	0.33551	439749.00	3765455.00	0.33619

```
          439844.00    3765455.00        0.35234
439849.00    3765455.00        0.35325
          439854.00    3765455.00        0.35416
439859.00    3765455.00        0.35505
          439674.00    3765460.00        0.33390
439679.00    3765460.00        0.33434
          439684.00    3765460.00        0.33480
439689.00    3765460.00        0.33526
          439694.00    3765460.00        0.33575
439699.00    3765460.00        0.33624
          439704.00    3765460.00        0.33676
439709.00    3765460.00        0.33729
          439714.00    3765460.00        0.33784
439719.00    3765460.00        0.33840
          439729.00    3765460.00        0.33960
439734.00    3765460.00        0.34023
          439739.00    3765460.00        0.34088
439744.00    3765460.00        0.34155
          439749.00    3765460.00        0.34225
439789.00    3765460.00        0.34863
          439794.00    3765460.00        0.34953
439799.00    3765460.00        0.35045
          439804.00    3765460.00        0.35138
439809.00    3765460.00        0.35233
          439814.00    3765460.00        0.35328
439819.00    3765460.00        0.35426
          439824.00    3765460.00        0.35524
439829.00    3765460.00        0.35623
          439844.00    3765460.00        0.35919
439849.00    3765460.00        0.36017
          439854.00    3765460.00        0.36114
439859.00    3765460.00        0.36210
          439674.00    3765465.00        0.34007
439679.00    3765465.00        0.34051
          439684.00    3765465.00        0.34096
439689.00    3765465.00        0.34144
          439694.00    3765465.00        0.34192
439699.00    3765465.00        0.34242
          439704.00    3765465.00        0.34294
439709.00    3765465.00        0.34347
          439714.00    3765465.00        0.34402
439719.00    3765465.00        0.34460
          439729.00    3765465.00        0.34580
439734.00    3765465.00        0.34645
          439739.00    3765465.00        0.34710
439744.00    3765465.00        0.34779
          439749.00    3765465.00        0.34850
439789.00    3765465.00        0.35510
          439794.00    3765465.00        0.35604
439799.00    3765465.00        0.35700
          439804.00    3765465.00        0.35797
439809.00    3765465.00        0.35897
```

```
         439814.00    3765465.00        0.35998
439819.00    3765465.00        0.36101
         439824.00    3765465.00        0.36205
439829.00    3765465.00        0.36309
         439844.00    3765465.00        0.36626
439849.00    3765465.00        0.36731
         439854.00    3765465.00        0.36835
439859.00    3765465.00        0.36938
         439674.00    3765470.00        0.34647
439679.00    3765470.00        0.34691
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: EVAP ***
INCLUDING SOURCE(S):
A0000067 , A0000068 , A0000069 , A0000070 , A0000071 ,
A0000072 , A0000073 , A0000074 , A0000075 , A0000076 , A0000077 , A0000078 , A0000079 ,
A0000080 , A0000081 , A0000082 , A0000083 , A0000084 , A0000085 , A0000086 , A0000087 ,
A0000088 , A0000089 , A0000090 , A0000091 , A0000092 , A0000093 ,
A0000094 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439684.00	3765470.00	0.34737	439689.00	3765470.00	0.34783
439694.00	3765470.00	0.34832	439699.00	3765470.00	0.34882
439704.00	3765470.00	0.34934	439709.00	3765470.00	0.34987
439714.00	3765470.00	0.35043	439719.00	3765470.00	0.35101
439729.00	3765470.00	0.35224	439734.00	3765470.00	0.35288
439739.00	3765470.00	0.35355	439744.00	3765470.00	0.35425
439749.00	3765470.00	0.35498	439789.00	3765470.00	0.36178
439794.00	3765470.00	0.36276	439799.00	3765470.00	0.36375
439804.00	3765470.00	0.36478	439809.00	3765470.00	0.36583

```
          439814.00    3765470.00        0.36689
439819.00    3765470.00        0.36798
          439824.00    3765470.00        0.36908
439829.00    3765470.00        0.37019
          439844.00    3765470.00        0.37356
439849.00    3765470.00        0.37469
          439854.00    3765470.00        0.37581
439859.00    3765470.00        0.37692
          439674.00    3765475.00        0.35311
439679.00    3765475.00        0.35356
          439684.00    3765475.00        0.35400
439689.00    3765475.00        0.35448
          439694.00    3765475.00        0.35496
439699.00    3765475.00        0.35546
          439704.00    3765475.00        0.35598
439709.00    3765475.00        0.35652
          439714.00    3765475.00        0.35708
439719.00    3765475.00        0.35766
          439729.00    3765475.00        0.35889
439734.00    3765475.00        0.35955
          439739.00    3765475.00        0.36023
439744.00    3765475.00        0.36094
          439749.00    3765475.00        0.36167
439754.00    3765475.00        0.36244
          439789.00    3765475.00        0.36868
439794.00    3765475.00        0.36969
          439799.00    3765475.00        0.37074
439804.00    3765475.00        0.37181
          439809.00    3765475.00        0.37291
439814.00    3765475.00        0.37403
          439819.00    3765475.00        0.37518
439824.00    3765475.00        0.37634
          439829.00    3765475.00        0.37752
439269.00    3764900.00        0.09144
          439369.00    3764900.00        0.09303
439469.00    3764900.00        0.09372
          439569.00    3764900.00        0.09342
439669.00    3764900.00        0.09205
          439769.00    3764900.00        0.08956
439869.00    3764900.00        0.08595
          439969.00    3764900.00        0.08132
440069.00    3764900.00        0.07586
          440169.00    3764900.00        0.06989
440269.00    3764900.00        0.06376
          439269.00    3765000.00        0.10608
439369.00    3765000.00        0.10868
          439469.00    3765000.00        0.11028
439569.00    3765000.00        0.11078
          439669.00    3765000.00        0.11006
439769.00    3765000.00        0.10792
          439869.00    3765000.00        0.10420
439969.00    3765000.00        0.09894
```

```
         440069.00    3765000.00        0.09235
440169.00    3765000.00        0.08483
         440269.00    3765000.00        0.07690
439269.00    3765100.00        0.12459
         439369.00    3765100.00        0.12850
439469.00    3765100.00        0.13130
         439569.00    3765100.00        0.13298
439669.00    3765100.00        0.13341
         439769.00    3765100.00        0.13217
439869.00    3765100.00        0.12879
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: EVAP ***
INCLUDING SOURCE(S):
A0000067 , A0000068 , A0000069 , A0000070 , A0000071 ,
A0000072 , A0000073 , A0000074 , A0000075 , A0000076 , A0000077 , A0000078 , A0000079 ,
A0000080 , A0000081 , A0000082 , A0000083 , A0000084 , A0000085 , A0000086 , A0000087 ,
A0000088 , A0000089 , A0000090 , A0000091 , A0000092 , A0000093 ,
A0000094 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439969.00	3765100.00	0.12312	440069.00	3765100.00	0.11531
440169.00	3765100.00	0.10585	440269.00	3765100.00	0.09541
439269.00	3765200.00	0.14902	439369.00	3765200.00	0.15468
439469.00	3765200.00	0.15903	439569.00	3765200.00	0.16230
439669.00	3765200.00	0.16454	439769.00	3765200.00	0.16512
439869.00	3765200.00	0.16299	439969.00	3765200.00	0.15753
440069.00	3765200.00	0.14869	440169.00	3765200.00	0.13688
440269.00	3765200.00	0.12290	439269.00	3765300.00	0.18311
439369.00	3765300.00	0.19157	439469.00	3765300.00	0.19801

```
         439569.00    3765300.00        0.20318
439669.00    3765300.00        0.20788
         439769.00    3765300.00        0.21176
439869.00    3765300.00        0.21282
         439969.00    3765300.00        0.20910
440069.00    3765300.00        0.19997
         440169.00    3765300.00        0.18556
440269.00    3765300.00        0.16653
         439269.00    3765400.00        0.23447
439369.00    3765400.00        0.24842
         439469.00    3765400.00        0.25874
439569.00    3765400.00        0.26628
         439669.00    3765400.00        0.27337
439769.00    3765400.00        0.28228
         439869.00    3765400.00        0.29117
439969.00    3765400.00        0.29317
         440069.00    3765400.00        0.28575
440169.00    3765400.00        0.26880
         440269.00    3765400.00        0.24269
439269.00    3765500.00        0.32255
         439369.00    3765500.00        0.34940
439469.00    3765500.00        0.36983
         439569.00    3765500.00        0.38223
439669.00    3765500.00        0.39015
         439769.00    3765500.00        0.40272
439869.00    3765500.00        0.43167
         439969.00    3765500.00        0.45599
440069.00    3765500.00        0.45477
         440169.00    3765500.00        0.43473
440269.00    3765500.00        0.39902
         439269.00    3765600.00        0.53003
439369.00    3765600.00        0.59110
         439469.00    3765600.00        0.64757
439569.00    3765600.00        0.67619
         439669.00    3765600.00        0.68610
439769.00    3765600.00        0.69464
         439869.00    3765600.00        0.75013
439969.00    3765600.00        0.99152
         440069.00    3765600.00        0.99187
440169.00    3765600.00        0.93788
         440269.00    3765600.00        0.86769
439269.00    3765700.00        3.04476
         439369.00    3765700.00        3.30958
439469.00    3765700.00        4.07275
         439569.00    3765700.00        4.33857
439669.00    3765700.00        4.26516
         439769.00    3765700.00        4.22817
439869.00    3765700.00        4.15175
         439969.00    3765700.00        4.29164
440069.00    3765700.00        4.99170
         440169.00    3765700.00        5.84784
440269.00    3765700.00        7.49644
```

```
         439269.00    3765800.00        1.13569
439369.00    3765800.00        1.22334
         439469.00    3765800.00        1.43259
439569.00    3765800.00        1.78112
         439669.00    3765800.00        2.08787
439769.00    3765800.00        2.62679
         439869.00    3765800.00        3.86597
439969.00    3765800.00        2.10074
         440069.00    3765800.00        1.74667
440169.00    3765800.00        1.68548
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: EVAP ***
INCLUDING SOURCE(S):
A0000067 , A0000068 , A0000069 , A0000070 , A0000071 ,
A0000072 , A0000073 , A0000074 , A0000075 , A0000076 , A0000077 , A0000078 , A0000079 ,
A0000080 , A0000081 , A0000082 , A0000083 , A0000084 , A0000085 , A0000086 , A0000087 ,
A0000088 , A0000089 , A0000090 , A0000091 , A0000092 , A0000093 ,
A0000094 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
440269.00	3765800.00	1.70829	439269.00	3765900.00	0.37802
439369.00	3765900.00	0.44420	439469.00	3765900.00	0.50621
439569.00	3765900.00	0.57509	439669.00	3765900.00	0.65261
439769.00	3765900.00	0.72950	439869.00	3765900.00	0.79633
439969.00	3765900.00	0.82815	440069.00	3765900.00	0.80664
440169.00	3765900.00	0.77711	440269.00	3765900.00	0.76499
439649.00	3765310.00	0.21221	439679.00	3765310.00	0.21367
439709.00	3765310.00	0.21506	439739.00	3765310.00	0.21636
439769.00	3765310.00	0.21749	439799.00	3765310.00	0.21838

```
          439829.00    3765310.00        0.21894
439859.00    3765310.00        0.21910
          439889.00    3765310.00        0.21882
439649.00    3765340.00        0.22934
          439679.00    3765340.00        0.23109
439709.00    3765340.00        0.23286
          439739.00    3765340.00        0.23459
439769.00    3765340.00        0.23622
          439799.00    3765340.00        0.23765
439829.00    3765340.00        0.23877
          439859.00    3765340.00        0.23946
439889.00    3765340.00        0.23966
          439649.00    3765370.00        0.24898
439679.00    3765370.00        0.25103
          439709.00    3765370.00        0.25317
439739.00    3765370.00        0.25539
          439769.00    3765370.00        0.25761
439799.00    3765370.00        0.25972
          439829.00    3765370.00        0.26157
439859.00    3765370.00        0.26299
          439889.00    3765370.00        0.26386
439649.00    3765400.00        0.27186
          439679.00    3765400.00        0.27416
439709.00    3765400.00        0.27665
          439739.00    3765400.00        0.27938
439769.00    3765400.00        0.28228
          439799.00    3765400.00        0.28524
439829.00    3765400.00        0.28806
          439859.00    3765400.00        0.29048
439889.00    3765400.00        0.29230
          439649.00    3765430.00        0.29898
439679.00    3765430.00        0.30144
          439709.00    3765430.00        0.30422
439739.00    3765430.00        0.30743
          439769.00    3765430.00        0.31108
439799.00    3765430.00        0.31507
          439829.00    3765430.00        0.31918
439859.00    3765430.00        0.32302
          439889.00    3765430.00        0.32621
439649.00    3765460.00        0.33182
          439679.00    3765460.00        0.33434
439709.00    3765460.00        0.33729
          439739.00    3765460.00        0.34088
439769.00    3765460.00        0.34526
          439799.00    3765460.00        0.35045
439829.00    3765460.00        0.35623
          439859.00    3765460.00        0.36210
439889.00    3765460.00        0.36739
          439649.00    3765490.00        0.37266
439679.00    3765490.00        0.37510
          439709.00    3765490.00        0.37802
439739.00    3765490.00        0.38178
```

```
          439769.00    3765490.00        0.38676
439799.00    3765490.00        0.39318
          439829.00    3765490.00        0.40106
439859.00    3765490.00        0.40986
          439889.00    3765490.00        0.41850
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: FREEEXH ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439674.00	3765310.00	0.24726	439679.00	3765310.00	0.24721
439684.00	3765310.00	0.24715	439689.00	3765310.00	0.24709
439694.00	3765310.00	0.24703	439699.00	3765310.00	0.24696
439704.00	3765310.00	0.24689	439709.00	3765310.00	0.24681
439714.00	3765310.00	0.24673	439719.00	3765310.00	0.24665
439729.00	3765310.00	0.24647	439734.00	3765310.00	0.24638
439739.00	3765310.00	0.24628	439744.00	3765310.00	0.24618
439749.00	3765310.00	0.24607	439764.00	3765310.00	0.24572
439769.00	3765310.00	0.24560	439774.00	3765310.00	0.24547
439779.00	3765310.00	0.24534	439784.00	3765310.00	0.24520

```
         439789.00    3765310.00        0.24506
439794.00    3765310.00        0.24492
         439799.00    3765310.00        0.24477
439804.00    3765310.00        0.24461
         439809.00    3765310.00        0.24445
439814.00    3765310.00        0.24429
         439819.00    3765310.00        0.24412
439824.00    3765310.00        0.24395
         439829.00    3765310.00        0.24377
439839.00    3765310.00        0.24340
         439844.00    3765310.00        0.24321
439849.00    3765310.00        0.24301
         439854.00    3765310.00        0.24281
439859.00    3765310.00        0.24260
         439864.00    3765310.00        0.24238
439869.00    3765310.00        0.24217
         439874.00    3765310.00        0.24194
439879.00    3765310.00        0.24171
         439884.00    3765310.00        0.24148
439674.00    3765315.00        0.25048
         439679.00    3765315.00        0.25043
439684.00    3765315.00        0.25038
         439689.00    3765315.00        0.25032
439694.00    3765315.00        0.25026
         439699.00    3765315.00        0.25020
439704.00    3765315.00        0.25013
         439709.00    3765315.00        0.25006
439714.00    3765315.00        0.24998
         439719.00    3765315.00        0.24990
439729.00    3765315.00        0.24973
         439734.00    3765315.00        0.24964
439739.00    3765315.00        0.24954
         439744.00    3765315.00        0.24944
439749.00    3765315.00        0.24934
         439764.00    3765315.00        0.24900
439769.00    3765315.00        0.24888
         439774.00    3765315.00        0.24875
439779.00    3765315.00        0.24862
         439784.00    3765315.00        0.24849
439789.00    3765315.00        0.24835
         439794.00    3765315.00        0.24821
439799.00    3765315.00        0.24806
         439804.00    3765315.00        0.24791
439809.00    3765315.00        0.24775
         439814.00    3765315.00        0.24760
439819.00    3765315.00        0.24743
         439824.00    3765315.00        0.24726
439829.00    3765315.00        0.24708
         439839.00    3765315.00        0.24672
439844.00    3765315.00        0.24653
         439849.00    3765315.00        0.24633
439854.00    3765315.00        0.24613
```

```
         439859.00    3765315.00        0.24592
439864.00    3765315.00        0.24572
         439869.00    3765315.00        0.24550
439874.00    3765315.00        0.24528
         439879.00    3765315.00        0.24505
439884.00    3765315.00        0.24482
         439674.00    3765320.00        0.25378
439679.00    3765320.00        0.25374
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: FREEEXH ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439684.00	3765320.00	0.25369	439689.00	3765320.00	0.25363
439694.00	3765320.00	0.25357	439699.00	3765320.00	0.25351
439704.00	3765320.00	0.25345	439709.00	3765320.00	0.25338
439714.00	3765320.00	0.25330	439719.00	3765320.00	0.25323
439729.00	3765320.00	0.25306	439734.00	3765320.00	0.25297
439739.00	3765320.00	0.25288	439744.00	3765320.00	0.25278
439749.00	3765320.00	0.25268	439764.00	3765320.00	0.25235
439769.00	3765320.00	0.25223	439774.00	3765320.00	0.25211
439779.00	3765320.00	0.25199	439784.00	3765320.00	0.25186
439789.00	3765320.00	0.25172	439794.00	3765320.00	0.25158

```
         439799.00    3765320.00        0.25144
439804.00    3765320.00        0.25129
         439809.00    3765320.00        0.25113
439814.00    3765320.00        0.25098
         439819.00    3765320.00        0.25081
439824.00    3765320.00        0.25064
         439829.00    3765320.00        0.25047
439839.00    3765320.00        0.25011
         439844.00    3765320.00        0.24992
439849.00    3765320.00        0.24973
         439854.00    3765320.00        0.24953
439859.00    3765320.00        0.24933
         439864.00    3765320.00        0.24912
439869.00    3765320.00        0.24891
         439874.00    3765320.00        0.24869
439879.00    3765320.00        0.24846
         439884.00    3765320.00        0.24823
439674.00    3765325.00        0.25716
         439679.00    3765325.00        0.25712
439684.00    3765325.00        0.25707
         439689.00    3765325.00        0.25702
439694.00    3765325.00        0.25696
         439699.00    3765325.00        0.25690
439704.00    3765325.00        0.25684
         439709.00    3765325.00        0.25677
439714.00    3765325.00        0.25671
         439719.00    3765325.00        0.25663
439729.00    3765325.00        0.25647
         439734.00    3765325.00        0.25638
439739.00    3765325.00        0.25629
         439744.00    3765325.00        0.25620
439749.00    3765325.00        0.25610
         439754.00    3765325.00        0.25600
439769.00    3765325.00        0.25567
         439774.00    3765325.00        0.25555
439779.00    3765325.00        0.25542
         439784.00    3765325.00        0.25529
439789.00    3765325.00        0.25516
         439794.00    3765325.00        0.25503
439799.00    3765325.00        0.25488
         439804.00    3765325.00        0.25474
439809.00    3765325.00        0.25459
         439814.00    3765325.00        0.25443
439819.00    3765325.00        0.25427
         439824.00    3765325.00        0.25411
439829.00    3765325.00        0.25394
         439839.00    3765325.00        0.25358
439844.00    3765325.00        0.25340
         439849.00    3765325.00        0.25321
439854.00    3765325.00        0.25301
         439859.00    3765325.00        0.25281
439864.00    3765325.00        0.25260
```

```
         439869.00    3765325.00        0.25239
439874.00    3765325.00        0.25218
         439879.00    3765325.00        0.25196
439884.00    3765325.00        0.25173
         439674.00    3765330.00        0.26061
439679.00    3765330.00        0.26057
         439684.00    3765330.00        0.26053
439689.00    3765330.00        0.26048
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: FREEEXH ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439694.00	3765330.00	0.26043	439699.00	3765330.00	0.26037
439704.00	3765330.00	0.26032	439709.00	3765330.00	0.26025
439714.00	3765330.00	0.26018	439719.00	3765330.00	0.26011
439729.00	3765330.00	0.25996	439734.00	3765330.00	0.25988
439739.00	3765330.00	0.25979	439744.00	3765330.00	0.25970
439749.00	3765330.00	0.25960	439754.00	3765330.00	0.25950
439774.00	3765330.00	0.25906	439779.00	3765330.00	0.25894
439784.00	3765330.00	0.25882	439789.00	3765330.00	0.25869
439794.00	3765330.00	0.25855	439799.00	3765330.00	0.25841
439804.00	3765330.00	0.25827	439809.00	3765330.00	0.25812

```
          439814.00    3765330.00        0.25797
439819.00    3765330.00        0.25781
          439824.00    3765330.00        0.25765
439829.00    3765330.00        0.25748
          439839.00    3765330.00        0.25713
439844.00    3765330.00        0.25695
          439849.00    3765330.00        0.25676
439854.00    3765330.00        0.25657
          439859.00    3765330.00        0.25638
439864.00    3765330.00        0.25617
          439869.00    3765330.00        0.25596
439874.00    3765330.00        0.25575
          439879.00    3765330.00        0.25553
439884.00    3765330.00        0.25531
          439674.00    3765335.00        0.26415
439679.00    3765335.00        0.26411
          439684.00    3765335.00        0.26407
439689.00    3765335.00        0.26403
          439694.00    3765335.00        0.26398
439699.00    3765335.00        0.26393
          439704.00    3765335.00        0.26387
439709.00    3765335.00        0.26381
          439714.00    3765335.00        0.26375
439719.00    3765335.00        0.26368
          439729.00    3765335.00        0.26353
439734.00    3765335.00        0.26345
          439739.00    3765335.00        0.26337
439744.00    3765335.00        0.26328
          439749.00    3765335.00        0.26319
439774.00    3765335.00        0.26266
          439779.00    3765335.00        0.26255
439784.00    3765335.00        0.26242
          439789.00    3765335.00        0.26230
439794.00    3765335.00        0.26217
          439839.00    3765335.00        0.26077
439844.00    3765335.00        0.26059
          439849.00    3765335.00        0.26041
439854.00    3765335.00        0.26022
          439859.00    3765335.00        0.26002
439864.00    3765335.00        0.25982
          439869.00    3765335.00        0.25962
439874.00    3765335.00        0.25941
          439879.00    3765335.00        0.25919
439884.00    3765335.00        0.25897
          439674.00    3765340.00        0.26777
439679.00    3765340.00        0.26774
          439684.00    3765340.00        0.26770
439689.00    3765340.00        0.26766
          439694.00    3765340.00        0.26762
439699.00    3765340.00        0.26756
          439704.00    3765340.00        0.26751
439709.00    3765340.00        0.26746
```

```
         439714.00    3765340.00        0.26740
439719.00    3765340.00        0.26733
         439729.00    3765340.00        0.26719
439734.00    3765340.00        0.26711
         439739.00    3765340.00        0.26703
439744.00    3765340.00        0.26695
         439749.00    3765340.00        0.26686
439774.00    3765340.00        0.26635
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: FREEEXH ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439779.00	3765340.00	0.26624	439784.00	3765340.00	0.26612
439789.00	3765340.00	0.26599	439794.00	3765340.00	0.26586
439839.00	3765340.00	0.26450	439844.00	3765340.00	0.26432
439849.00	3765340.00	0.26414	439854.00	3765340.00	0.26395
439859.00	3765340.00	0.26376	439864.00	3765340.00	0.26356
439869.00	3765340.00	0.26336	439874.00	3765340.00	0.26315
439879.00	3765340.00	0.26294	439884.00	3765340.00	0.26272
439674.00	3765345.00	0.27148	439679.00	3765345.00	0.27145
439684.00	3765345.00	0.27142	439689.00	3765345.00	0.27138
439694.00	3765345.00	0.27134	439699.00	3765345.00	0.27129

```
          439704.00    3765345.00        0.27125
439709.00    3765345.00        0.27119
          439714.00    3765345.00        0.27113
439719.00    3765345.00        0.27107
          439729.00    3765345.00        0.27094
439734.00    3765345.00        0.27086
          439739.00    3765345.00        0.27079
439744.00    3765345.00        0.27070
          439749.00    3765345.00        0.27062
439774.00    3765345.00        0.27013
          439779.00    3765345.00        0.27002
439784.00    3765345.00        0.26990
          439789.00    3765345.00        0.26978
439794.00    3765345.00        0.26965
          439839.00    3765345.00        0.26831
439844.00    3765345.00        0.26814
          439849.00    3765345.00        0.26796
439854.00    3765345.00        0.26778
          439859.00    3765345.00        0.26759
439864.00    3765345.00        0.26740
          439869.00    3765345.00        0.26719
439874.00    3765345.00        0.26699
          439879.00    3765345.00        0.26677
439884.00    3765345.00        0.26656
          439674.00    3765350.00        0.27528
439679.00    3765350.00        0.27526
          439684.00    3765350.00        0.27522
439689.00    3765350.00        0.27520
          439694.00    3765350.00        0.27515
439699.00    3765350.00        0.27512
          439704.00    3765350.00        0.27506
439709.00    3765350.00        0.27502
          439714.00    3765350.00        0.27496
439719.00    3765350.00        0.27491
          439729.00    3765350.00        0.27478
439734.00    3765350.00        0.27471
          439739.00    3765350.00        0.27463
439744.00    3765350.00        0.27456
          439749.00    3765350.00        0.27447
439774.00    3765350.00        0.27400
          439779.00    3765350.00        0.27389
439784.00    3765350.00        0.27378
          439789.00    3765350.00        0.27366
439794.00    3765350.00        0.27354
          439839.00    3765350.00        0.27223
439844.00    3765350.00        0.27205
          439849.00    3765350.00        0.27188
439854.00    3765350.00        0.27170
          439859.00    3765350.00        0.27151
439864.00    3765350.00        0.27132
          439869.00    3765350.00        0.27112
439874.00    3765350.00        0.27092
```

```
          439879.00    3765350.00        0.27072
439884.00    3765350.00        0.27050
          439674.00    3765355.00        0.27919
439679.00    3765355.00        0.27916
          439684.00    3765355.00        0.27914
439689.00    3765355.00        0.27910
          439694.00    3765355.00        0.27907
439699.00    3765355.00        0.27903
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: FREEEXH ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439704.00	3765355.00	0.27899	439709.00	3765355.00	0.27894
439714.00	3765355.00	0.27889	439719.00	3765355.00	0.27884
439729.00	3765355.00	0.27872	439734.00	3765355.00	0.27864
439739.00	3765355.00	0.27858	439744.00	3765355.00	0.27850
439749.00	3765355.00	0.27843	439774.00	3765355.00	0.27796
439779.00	3765355.00	0.27786	439784.00	3765355.00	0.27775
439789.00	3765355.00	0.27764	439794.00	3765355.00	0.27752
439839.00	3765355.00	0.27623	439844.00	3765355.00	0.27607
439849.00	3765355.00	0.27589	439854.00	3765355.00	0.27572
439859.00	3765355.00	0.27553	439864.00	3765355.00	0.27535

```
          439869.00    3765355.00        0.27515
439874.00    3765355.00        0.27495
          439879.00    3765355.00        0.27475
439884.00    3765355.00        0.27454
          439674.00    3765360.00        0.28318
439679.00    3765360.00        0.28316
          439684.00    3765360.00        0.28314
439689.00    3765360.00        0.28311
          439694.00    3765360.00        0.28308
439699.00    3765360.00        0.28305
          439704.00    3765360.00        0.28301
439709.00    3765360.00        0.28296
          439714.00    3765360.00        0.28292
439719.00    3765360.00        0.28287
          439729.00    3765360.00        0.28275
439734.00    3765360.00        0.28269
          439739.00    3765360.00        0.28262
439744.00    3765360.00        0.28256
          439749.00    3765360.00        0.28247
439774.00    3765360.00        0.28203
          439779.00    3765360.00        0.28193
439784.00    3765360.00        0.28183
          439789.00    3765360.00        0.28172
439794.00    3765360.00        0.28160
          439799.00    3765360.00        0.28148
439804.00    3765360.00        0.28135
          439809.00    3765360.00        0.28123
439814.00    3765360.00        0.28109
          439839.00    3765360.00        0.28035
439844.00    3765360.00        0.28018
          439849.00    3765360.00        0.28001
439854.00    3765360.00        0.27983
          439859.00    3765360.00        0.27966
439864.00    3765360.00        0.27947
          439869.00    3765360.00        0.27928
439874.00    3765360.00        0.27909
          439879.00    3765360.00        0.27888
439884.00    3765360.00        0.27868
          439674.00    3765365.00        0.28728
439679.00    3765365.00        0.28727
          439684.00    3765365.00        0.28725
439689.00    3765365.00        0.28723
          439694.00    3765365.00        0.28719
439699.00    3765365.00        0.28717
          439704.00    3765365.00        0.28713
439709.00    3765365.00        0.28709
          439714.00    3765365.00        0.28705
439719.00    3765365.00        0.28701
          439729.00    3765365.00        0.28690
439734.00    3765365.00        0.28684
          439739.00    3765365.00        0.28678
439744.00    3765365.00        0.28670
```

```
         439749.00    3765365.00        0.28664
439774.00    3765365.00        0.28621
         439779.00    3765365.00        0.28611
439784.00    3765365.00        0.28601
         439789.00    3765365.00        0.28590
439794.00    3765365.00        0.28579
         439799.00    3765365.00        0.28567
439804.00    3765365.00        0.28555
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: FREEEXH ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439809.00	3765365.00	0.28542	439814.00	3765365.00	0.28530
439839.00	3765365.00	0.28456	439844.00	3765365.00	0.28440
439849.00	3765365.00	0.28423	439854.00	3765365.00	0.28406
439859.00	3765365.00	0.28389	439864.00	3765365.00	0.28370
439869.00	3765365.00	0.28352	439874.00	3765365.00	0.28332
439879.00	3765365.00	0.28313	439884.00	3765365.00	0.28292
439674.00	3765370.00	0.29149	439679.00	3765370.00	0.29147
439684.00	3765370.00	0.29147	439689.00	3765370.00	0.29144
439694.00	3765370.00	0.29143	439699.00	3765370.00	0.29139
439704.00	3765370.00	0.29137	439709.00	3765370.00	0.29133

```
          439714.00    3765370.00         0.29129
439719.00    3765370.00         0.29124
          439729.00    3765370.00         0.29115
439734.00    3765370.00         0.29109
          439739.00    3765370.00         0.29103
439744.00    3765370.00         0.29097
          439749.00    3765370.00         0.29090
439774.00    3765370.00         0.29049
          439779.00    3765370.00         0.29040
439784.00    3765370.00         0.29029
          439789.00    3765370.00         0.29020
439794.00    3765370.00         0.29008
          439799.00    3765370.00         0.28997
439804.00    3765370.00         0.28985
          439809.00    3765370.00         0.28973
439814.00    3765370.00         0.28960
          439839.00    3765370.00         0.28889
439844.00    3765370.00         0.28874
          439849.00    3765370.00         0.28857
439854.00    3765370.00         0.28840
          439859.00    3765370.00         0.28823
439864.00    3765370.00         0.28805
          439869.00    3765370.00         0.28786
439874.00    3765370.00         0.28768
          439879.00    3765370.00         0.28747
439884.00    3765370.00         0.28728
          439674.00    3765375.00         0.29580
439679.00    3765375.00         0.29581
          439684.00    3765375.00         0.29579
439689.00    3765375.00         0.29578
          439694.00    3765375.00         0.29576
439699.00    3765375.00         0.29573
          439704.00    3765375.00         0.29571
439709.00    3765375.00         0.29568
          439714.00    3765375.00         0.29564
439719.00    3765375.00         0.29560
          439729.00    3765375.00         0.29551
439734.00    3765375.00         0.29547
          439739.00    3765375.00         0.29540
439744.00    3765375.00         0.29535
          439749.00    3765375.00         0.29527
439754.00    3765375.00         0.29522
          439774.00    3765375.00         0.29490
439779.00    3765375.00         0.29480
          439784.00    3765375.00         0.29470
439789.00    3765375.00         0.29460
          439794.00    3765375.00         0.29450
439799.00    3765375.00         0.29439
          439804.00    3765375.00         0.29427
439809.00    3765375.00         0.29416
          439814.00    3765375.00         0.29402
439839.00    3765375.00         0.29334
```

```
         439844.00    3765375.00        0.29317
439849.00    3765375.00        0.29303
         439854.00    3765375.00        0.29285
439859.00    3765375.00        0.29268
         439864.00    3765375.00        0.29250
439869.00    3765375.00        0.29233
         439874.00    3765375.00        0.29214
439879.00    3765375.00        0.29194
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: FREEEXH ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439884.00	3765375.00	0.29174	439774.00	3765380.00	0.29940
439779.00	3765380.00	0.29932	439784.00	3765380.00	0.29923
439789.00	3765380.00	0.29912	439794.00	3765380.00	0.29903
439799.00	3765380.00	0.29892	439804.00	3765380.00	0.29882
439809.00	3765380.00	0.29868	439814.00	3765380.00	0.29858
439769.00	3765385.00	0.30412	439819.00	3765385.00	0.30313
439769.00	3765400.00	0.31883	439844.00	3765400.00	0.31731
439849.00	3765400.00	0.31717	439674.00	3765405.00	0.32438
439714.00	3765405.00	0.32441	439719.00	3765405.00	0.32441
439734.00	3765405.00	0.32433	439749.00	3765405.00	0.32423

```
         439754.00    3765405.00        0.32418
439774.00    3765405.00        0.32395
         439779.00    3765405.00        0.32389
439784.00    3765405.00        0.32381
         439789.00    3765405.00        0.32373
439794.00    3765405.00        0.32365
         439799.00    3765405.00        0.32357
439804.00    3765405.00        0.32347
         439809.00    3765405.00        0.32337
439814.00    3765405.00        0.32328
         439819.00    3765405.00        0.32316
439824.00    3765405.00        0.32306
         439829.00    3765405.00        0.32294
439834.00    3765405.00        0.32282
         439839.00    3765405.00        0.32268
439844.00    3765405.00        0.32256
         439849.00    3765405.00        0.32242
439854.00    3765405.00        0.32227
         439859.00    3765405.00        0.32212
439674.00    3765410.00        0.32963
         439679.00    3765410.00        0.32966
439684.00    3765410.00        0.32967
         439689.00    3765410.00        0.32969
439694.00    3765410.00        0.32971
         439699.00    3765410.00        0.32970
439704.00    3765410.00        0.32972
         439709.00    3765410.00        0.32971
439714.00    3765410.00        0.32971
         439719.00    3765410.00        0.32969
439729.00    3765410.00        0.32966
         439734.00    3765410.00        0.32965
439739.00    3765410.00        0.32961
         439744.00    3765410.00        0.32959
439749.00    3765410.00        0.32954
         439774.00    3765410.00        0.32930
439779.00    3765410.00        0.32923
         439784.00    3765410.00        0.32916
439789.00    3765410.00        0.32909
         439794.00    3765410.00        0.32901
439799.00    3765410.00        0.32893
         439804.00    3765410.00        0.32884
439809.00    3765410.00        0.32876
         439814.00    3765410.00        0.32864
439819.00    3765410.00        0.32856
         439824.00    3765410.00        0.32844
439829.00    3765410.00        0.32834
         439834.00    3765410.00        0.32820
439839.00    3765410.00        0.32810
         439844.00    3765410.00        0.32795
439849.00    3765410.00        0.32783
         439854.00    3765410.00        0.32769
439859.00    3765410.00        0.32754
```

```
         439674.00    3765415.00        0.33505
439679.00    3765415.00        0.33507
         439684.00    3765415.00        0.33510
439689.00    3765415.00        0.33512
         439694.00    3765415.00        0.33513
439699.00    3765415.00        0.33515
         439704.00    3765415.00        0.33515
439709.00    3765415.00        0.33516
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: FREEEXH ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439714.00	3765415.00	0.33515	439719.00	3765415.00	0.33516
439729.00	3765415.00	0.33514	439734.00	3765415.00	0.33511
439739.00	3765415.00	0.33509	439744.00	3765415.00	0.33506
439749.00	3765415.00	0.33504	439774.00	3765415.00	0.33480
439779.00	3765415.00	0.33474	439784.00	3765415.00	0.33468
439789.00	3765415.00	0.33461	439794.00	3765415.00	0.33454
439799.00	3765415.00	0.33446	439804.00	3765415.00	0.33438
439809.00	3765415.00	0.33428	439814.00	3765415.00	0.33420
439819.00	3765415.00	0.33408	439824.00	3765415.00	0.33400
439829.00	3765415.00	0.33387	439834.00	3765415.00	0.33378

```
          439839.00    3765415.00        0.33364
439844.00    3765415.00        0.33353
          439849.00    3765415.00        0.33339
439854.00    3765415.00        0.33326
          439859.00    3765415.00        0.33311
439674.00    3765420.00        0.34062
          439679.00    3765420.00        0.34066
439684.00    3765420.00        0.34069
          439689.00    3765420.00        0.34071
439694.00    3765420.00        0.34074
          439699.00    3765420.00        0.34075
439704.00    3765420.00        0.34077
          439709.00    3765420.00        0.34077
439714.00    3765420.00        0.34079
          439719.00    3765420.00        0.34077
439729.00    3765420.00        0.34076
          439734.00    3765420.00        0.34075
439739.00    3765420.00        0.34073
          439744.00    3765420.00        0.34071
439749.00    3765420.00        0.34068
          439774.00    3765420.00        0.34048
439779.00    3765420.00        0.34042
          439784.00    3765420.00        0.34036
439789.00    3765420.00        0.34030
          439794.00    3765420.00        0.34023
439799.00    3765420.00        0.34016
          439804.00    3765420.00        0.34007
439809.00    3765420.00        0.34000
          439814.00    3765420.00        0.33989
439819.00    3765420.00        0.33981
          439824.00    3765420.00        0.33970
439829.00    3765420.00        0.33961
          439834.00    3765420.00        0.33948
439839.00    3765420.00        0.33939
          439844.00    3765420.00        0.33925
439849.00    3765420.00        0.33913
          439854.00    3765420.00        0.33900
439859.00    3765420.00        0.33886
          439674.00    3765425.00        0.34637
439679.00    3765425.00        0.34642
          439684.00    3765425.00        0.34645
439689.00    3765425.00        0.34649
          439694.00    3765425.00        0.34650
439699.00    3765425.00        0.34654
          439704.00    3765425.00        0.34655
439709.00    3765425.00        0.34657
          439714.00    3765425.00        0.34656
439719.00    3765425.00        0.34658
          439729.00    3765425.00        0.34658
439734.00    3765425.00        0.34656
          439739.00    3765425.00        0.34655
439744.00    3765425.00        0.34653
```

```
         439749.00    3765425.00        0.34651
439774.00    3765425.00        0.34633
         439779.00    3765425.00        0.34628
439784.00    3765425.00        0.34623
         439789.00    3765425.00        0.34615
439794.00    3765425.00        0.34610
         439799.00    3765425.00        0.34603
439804.00    3765425.00        0.34596
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: FREEEXH ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439809.00	3765425.00	0.34586	439814.00	3765425.00	0.34580
439819.00	3765425.00	0.34569	439824.00	3765425.00	0.34561
439829.00	3765425.00	0.34549	439834.00	3765425.00	0.34540
439839.00	3765425.00	0.34527	439844.00	3765425.00	0.34517
439849.00	3765425.00	0.34505	439854.00	3765425.00	0.34492
439859.00	3765425.00	0.34478	439674.00	3765430.00	0.35232
439679.00	3765430.00	0.35235	439684.00	3765430.00	0.35240
439689.00	3765430.00	0.35243	439694.00	3765430.00	0.35248
439699.00	3765430.00	0.35249	439704.00	3765430.00	0.35252
439709.00	3765430.00	0.35253	439714.00	3765430.00	0.35256

```
          439719.00    3765430.00        0.35255
439729.00    3765430.00        0.35256
          439734.00    3765430.00        0.35256
439739.00    3765430.00        0.35255
          439744.00    3765430.00        0.35254
439749.00    3765430.00        0.35252
          439774.00    3765430.00        0.35236
439779.00    3765430.00        0.35232
          439784.00    3765430.00        0.35226
439789.00    3765430.00        0.35222
          439794.00    3765430.00        0.35215
439799.00    3765430.00        0.35209
          439804.00    3765430.00        0.35201
439809.00    3765430.00        0.35195
          439814.00    3765430.00        0.35185
439819.00    3765430.00        0.35178
          439824.00    3765430.00        0.35168
439829.00    3765430.00        0.35160
          439834.00    3765430.00        0.35148
439839.00    3765430.00        0.35139
          439844.00    3765430.00        0.35126
439849.00    3765430.00        0.35115
          439854.00    3765430.00        0.35102
439859.00    3765430.00        0.35090
          439674.00    3765435.00        0.35843
439679.00    3765435.00        0.35849
          439684.00    3765435.00        0.35853
439689.00    3765435.00        0.35858
          439694.00    3765435.00        0.35861
439699.00    3765435.00        0.35865
          439704.00    3765435.00        0.35867
439709.00    3765435.00        0.35870
          439714.00    3765435.00        0.35871
439719.00    3765435.00        0.35874
          439729.00    3765435.00        0.35875
439734.00    3765435.00        0.35875
          439739.00    3765435.00        0.35875
439744.00    3765435.00        0.35874
          439749.00    3765435.00        0.35872
439774.00    3765435.00        0.35859
          439779.00    3765435.00        0.35855
439784.00    3765435.00        0.35851
          439789.00    3765435.00        0.35845
439794.00    3765435.00        0.35840
          439799.00    3765435.00        0.35834
439804.00    3765435.00        0.35828
          439809.00    3765435.00        0.35820
439814.00    3765435.00        0.35813
          439819.00    3765435.00        0.35804
439824.00    3765435.00        0.35797
          439829.00    3765435.00        0.35786
439834.00    3765435.00        0.35778
```

```
          439839.00    3765435.00        0.35766
439844.00    3765435.00        0.35756
          439849.00    3765435.00        0.35744
439854.00    3765435.00        0.35733
          439859.00    3765435.00        0.35720
439674.00    3765440.00        0.36477
          439679.00    3765440.00        0.36482
439684.00    3765440.00        0.36488
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: FREEEXH ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439689.00	3765440.00	0.36492	439694.00	3765440.00	0.36497
439699.00	3765440.00	0.36500	439704.00	3765440.00	0.36504
439709.00	3765440.00	0.36506	439714.00	3765440.00	0.36509
439719.00	3765440.00	0.36511	439729.00	3765440.00	0.36514
439734.00	3765440.00	0.36514	439739.00	3765440.00	0.36514
439744.00	3765440.00	0.36514	439749.00	3765440.00	0.36514
439774.00	3765440.00	0.36502	439779.00	3765440.00	0.36499
439784.00	3765440.00	0.36495	439789.00	3765440.00	0.36491
439794.00	3765440.00	0.36485	439799.00	3765440.00	0.36480
439804.00	3765440.00	0.36473	439809.00	3765440.00	0.36467

```
          439814.00    3765440.00        0.36459
439819.00    3765440.00        0.36453
          439824.00    3765440.00        0.36444
439829.00    3765440.00        0.36436
          439834.00    3765440.00        0.36425
439839.00    3765440.00        0.36417
          439844.00    3765440.00        0.36405
439849.00    3765440.00        0.36395
          439854.00    3765440.00        0.36383
439859.00    3765440.00        0.36372
          439674.00    3765445.00        0.37131
439679.00    3765445.00        0.37137
          439684.00    3765445.00        0.37142
439689.00    3765445.00        0.37148
          439694.00    3765445.00        0.37153
439699.00    3765445.00        0.37157
          439704.00    3765445.00        0.37161
439709.00    3765445.00        0.37165
          439714.00    3765445.00        0.37167
439719.00    3765445.00        0.37170
          439729.00    3765445.00        0.37174
439734.00    3765445.00        0.37175
          439739.00    3765445.00        0.37176
439744.00    3765445.00        0.37176
          439749.00    3765445.00        0.37176
439774.00    3765445.00        0.37168
          439779.00    3765445.00        0.37164
439784.00    3765445.00        0.37161
          439789.00    3765445.00        0.37157
439794.00    3765445.00        0.37153
          439799.00    3765445.00        0.37147
439804.00    3765445.00        0.37142
          439809.00    3765445.00        0.37135
439814.00    3765445.00        0.37129
          439819.00    3765445.00        0.37121
439824.00    3765445.00        0.37114
          439829.00    3765445.00        0.37105
439834.00    3765445.00        0.37097
          439839.00    3765445.00        0.37087
439844.00    3765445.00        0.37078
          439849.00    3765445.00        0.37066
439854.00    3765445.00        0.37056
          439859.00    3765445.00        0.37044
439674.00    3765450.00        0.37807
          439679.00    3765450.00        0.37814
439684.00    3765450.00        0.37820
          439689.00    3765450.00        0.37826
439694.00    3765450.00        0.37831
          439699.00    3765450.00        0.37836
439704.00    3765450.00        0.37841
          439709.00    3765450.00        0.37845
439714.00    3765450.00        0.37849
```

```
         439719.00    3765450.00        0.37852
439729.00    3765450.00        0.37857
         439734.00    3765450.00        0.37858
439739.00    3765450.00        0.37859
         439744.00    3765450.00        0.37860
439749.00    3765450.00        0.37861
         439774.00    3765450.00        0.37855
439844.00    3765450.00        0.37772
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: FREEEXH ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439849.00	3765450.00	0.37762	439854.00	3765450.00	0.37751
439859.00	3765450.00	0.37740	439674.00	3765455.00	0.38507
439679.00	3765455.00	0.38514	439684.00	3765455.00	0.38521
439689.00	3765455.00	0.38528	439694.00	3765455.00	0.38534
439699.00	3765455.00	0.38539	439704.00	3765455.00	0.38544
439709.00	3765455.00	0.38549	439714.00	3765455.00	0.38553
439719.00	3765455.00	0.38557	439729.00	3765455.00	0.38563
439734.00	3765455.00	0.38565	439739.00	3765455.00	0.38567
439744.00	3765455.00	0.38568	439749.00	3765455.00	0.38569
439844.00	3765455.00	0.38491	439849.00	3765455.00	0.38481

```
          439854.00    3765455.00         0.38471
439859.00    3765455.00         0.38460
          439674.00    3765460.00         0.39232
439679.00    3765460.00         0.39239
          439684.00    3765460.00         0.39247
439689.00    3765460.00         0.39254
          439694.00    3765460.00         0.39261
439699.00    3765460.00         0.39267
          439704.00    3765460.00         0.39273
439709.00    3765460.00         0.39278
          439714.00    3765460.00         0.39282
439719.00    3765460.00         0.39287
          439729.00    3765460.00         0.39295
439734.00    3765460.00         0.39297
          439739.00    3765460.00         0.39300
439744.00    3765460.00         0.39301
          439749.00    3765460.00         0.39303
439789.00    3765460.00         0.39297
          439794.00    3765460.00         0.39294
439799.00    3765460.00         0.39290
          439804.00    3765460.00         0.39286
439809.00    3765460.00         0.39282
          439814.00    3765460.00         0.39276
439819.00    3765460.00         0.39271
          439824.00    3765460.00         0.39264
439829.00    3765460.00         0.39258
          439844.00    3765460.00         0.39234
439849.00    3765460.00         0.39225
          439854.00    3765460.00         0.39216
439859.00    3765460.00         0.39205
          439674.00    3765465.00         0.39982
439679.00    3765465.00         0.39991
          439684.00    3765465.00         0.39999
439689.00    3765465.00         0.40007
          439694.00    3765465.00         0.40014
439699.00    3765465.00         0.40021
          439704.00    3765465.00         0.40027
439709.00    3765465.00         0.40033
          439714.00    3765465.00         0.40039
439719.00    3765465.00         0.40043
          439729.00    3765465.00         0.40052
439734.00    3765465.00         0.40056
          439739.00    3765465.00         0.40058
439744.00    3765465.00         0.40061
          439749.00    3765465.00         0.40062
439789.00    3765465.00         0.40061
          439794.00    3765465.00         0.40059
439799.00    3765465.00         0.40056
          439804.00    3765465.00         0.40052
439809.00    3765465.00         0.40048
          439814.00    3765465.00         0.40044
439819.00    3765465.00         0.40038
```

```
         439824.00    3765465.00        0.40033
439829.00    3765465.00        0.40026
         439844.00    3765465.00        0.40004
439849.00    3765465.00        0.39996
         439854.00    3765465.00        0.39987
439859.00    3765465.00        0.39978
         439674.00    3765470.00        0.40762
439679.00    3765470.00        0.40770
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: FREEEXH ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439684.00	3765470.00	0.40780	439689.00	3765470.00	0.40787
439694.00	3765470.00	0.40796	439699.00	3765470.00	0.40803
439704.00	3765470.00	0.40810	439709.00	3765470.00	0.40816
439714.00	3765470.00	0.40822	439719.00	3765470.00	0.40828
439729.00	3765470.00	0.40838	439734.00	3765470.00	0.40841
439739.00	3765470.00	0.40845	439744.00	3765470.00	0.40848
439749.00	3765470.00	0.40852	439789.00	3765470.00	0.40854
439794.00	3765470.00	0.40852	439799.00	3765470.00	0.40849
439804.00	3765470.00	0.40847	439809.00	3765470.00	0.40843
439814.00	3765470.00	0.40839	439819.00	3765470.00	0.40834

```
          439824.00    3765470.00        0.40829
439829.00    3765470.00        0.40823
          439844.00    3765470.00        0.40803
439849.00    3765470.00        0.40795
          439854.00    3765470.00        0.40787
439859.00    3765470.00        0.40777
          439674.00    3765475.00        0.41568
439679.00    3765475.00        0.41579
          439684.00    3765475.00        0.41587
439689.00    3765475.00        0.41598
          439694.00    3765475.00        0.41605
439699.00    3765475.00        0.41614
          439704.00    3765475.00        0.41621
439709.00    3765475.00        0.41629
          439714.00    3765475.00        0.41635
439719.00    3765475.00        0.41642
          439729.00    3765475.00        0.41652
439734.00    3765475.00        0.41657
          439739.00    3765475.00        0.41661
439744.00    3765475.00        0.41665
          439749.00    3765475.00        0.41668
439754.00    3765475.00        0.41671
          439789.00    3765475.00        0.41676
439794.00    3765475.00        0.41675
          439799.00    3765475.00        0.41673
439804.00    3765475.00        0.41670
          439809.00    3765475.00        0.41668
439814.00    3765475.00        0.41664
          439819.00    3765475.00        0.41660
439824.00    3765475.00        0.41656
          439829.00    3765475.00        0.41650
439269.00    3764900.00        0.11272
          439369.00    3764900.00        0.11327
439469.00    3764900.00        0.11287
          439569.00    3764900.00        0.11148
439669.00    3764900.00        0.10909
          439769.00    3764900.00        0.10568
439869.00    3764900.00        0.10126
          439969.00    3764900.00        0.09589
440069.00    3764900.00        0.08965
          440169.00    3764900.00        0.08276
440269.00    3764900.00        0.07557
          439269.00    3765000.00        0.13139
439369.00    3765000.00        0.13256
          439469.00    3765000.00        0.13262
439569.00    3765000.00        0.13157
          439669.00    3765000.00        0.12939
439769.00    3765000.00        0.12601
          439869.00    3765000.00        0.12135
439969.00    3765000.00        0.11538
          440069.00    3765000.00        0.10815
440169.00    3765000.00        0.09983
```

```
         440269.00    3765000.00        0.09079
439269.00    3765100.00        0.15545
         439369.00    3765100.00        0.15738
439469.00    3765100.00        0.15803
         439569.00    3765100.00        0.15747
439669.00    3765100.00        0.15566
         439769.00    3765100.00        0.15251
439869.00    3765100.00        0.14786
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: FREEEXH ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439969.00	3765100.00	0.14152	440069.00	3765100.00	0.13338
440169.00	3765100.00	0.12349	440269.00	3765100.00	0.11214
439269.00	3765200.00	0.18773	439369.00	3765200.00	0.19063
439469.00	3765200.00	0.19207	439569.00	3765200.00	0.19216
439669.00	3765200.00	0.19092	439769.00	3765200.00	0.18826
439869.00	3765200.00	0.18395	439969.00	3765200.00	0.17767
440069.00	3765200.00	0.16900	440169.00	3765200.00	0.15761
440269.00	3765200.00	0.14351	439269.00	3765300.00	0.23357
439369.00	3765300.00	0.23782	439469.00	3765300.00	0.24036
439569.00	3765300.00	0.24142	439669.00	3765300.00	0.24107

```
         439769.00    3765300.00        0.23926
439869.00    3765300.00        0.23572
         439969.00    3765300.00        0.23002
440069.00    3765300.00        0.22147
         440169.00    3765300.00        0.20915
440269.00    3765300.00        0.19223
         439269.00    3765400.00        0.30461
439369.00    3765400.00        0.31095
         439469.00    3765400.00        0.31533
439569.00    3765400.00        0.31805
         439669.00    3765400.00        0.31926
439769.00    3765400.00        0.31883
         439869.00    3765400.00        0.31655
439969.00    3765400.00        0.31197
         440069.00    3765400.00        0.30429
440169.00    3765400.00        0.29215
         440269.00    3765400.00        0.27341
439269.00    3765500.00        0.43248
         439369.00    3765500.00        0.44306
439469.00    3765500.00        0.45116
         439569.00    3765500.00        0.45706
439669.00    3765500.00        0.46098
         439769.00    3765500.00        0.46288
439869.00    3765500.00        0.46261
         439969.00    3765500.00        0.45986
440069.00    3765500.00        0.45390
         440169.00    3765500.00        0.44334
440269.00    3765500.00        0.42515
         439269.00    3765600.00        0.75084
439369.00    3765600.00        0.77243
         439469.00    3765600.00        0.78930
439569.00    3765600.00        0.80230
         439669.00    3765600.00        0.81192
439769.00    3765600.00        0.81854
         439869.00    3765600.00        0.82228
439969.00    3765600.00        0.82306
         440069.00    3765600.00        0.82052
440169.00    3765600.00        0.81381
         440269.00    3765600.00        0.79979
439269.00    3765700.00        4.13462
         439369.00    3765700.00        4.32925
439469.00    3765700.00        4.52490
         439569.00    3765700.00        4.72540
439669.00    3765700.00        4.86807
         439769.00    3765700.00        4.98531
439869.00    3765700.00        5.05422
         439969.00    3765700.00        5.11092
440069.00    3765700.00        5.16995
         440169.00    3765700.00        5.20211
440269.00    3765700.00        5.23339
         439269.00    3765800.00        1.80341
439369.00    3765800.00        1.88088
```

```
         439469.00    3765800.00        1.92794
439569.00    3765800.00        1.95799
         439669.00    3765800.00        1.97776
439769.00    3765800.00        1.99076
         439869.00    3765800.00        1.99870
439969.00    3765800.00        2.00254
         440069.00    3765800.00        2.00199
440169.00    3765800.00        1.99518
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: FREEEXH ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
440269.00	3765800.00	1.97689	439269.00	3765900.00	0.56991
439369.00	3765900.00	0.65615	439469.00	3765900.00	0.71994
439569.00	3765900.00	0.76676	439669.00	3765900.00	0.80139
439769.00	3765900.00	0.82715	439869.00	3765900.00	0.84626
439969.00	3765900.00	0.86007	440069.00	3765900.00	0.86937
440169.00	3765900.00	0.87429	440269.00	3765900.00	0.87445
439649.00	3765310.00	0.24747	439679.00	3765310.00	0.24721
439709.00	3765310.00	0.24681	439739.00	3765310.00	0.24628
439769.00	3765310.00	0.24560	439799.00	3765310.00	0.24477
439829.00	3765310.00	0.24377	439859.00	3765310.00	0.24260

```
          439889.00    3765310.00        0.24124
439649.00    3765340.00        0.26788
          439679.00    3765340.00        0.26774
439709.00    3765340.00        0.26746
          439739.00    3765340.00        0.26703
439769.00    3765340.00        0.26646
          439799.00    3765340.00        0.26573
439829.00    3765340.00        0.26483
          439859.00    3765340.00        0.26376
439889.00    3765340.00        0.26249
          439649.00    3765370.00        0.29149
439679.00    3765370.00        0.29147
          439709.00    3765370.00        0.29133
439739.00    3765370.00        0.29103
          439769.00    3765370.00        0.29058
439799.00    3765370.00        0.28997
          439829.00    3765370.00        0.28919
439859.00    3765370.00        0.28823
          439889.00    3765370.00        0.28707
439649.00    3765400.00        0.31915
          439679.00    3765400.00        0.31929
439709.00    3765400.00        0.31930
          439739.00    3765400.00        0.31914
439769.00    3765400.00        0.31883
          439799.00    3765400.00        0.31835
439829.00    3765400.00        0.31770
          439859.00    3765400.00        0.31687
439889.00    3765400.00        0.31584
          439649.00    3765430.00        0.35203
439679.00    3765430.00        0.35235
          439709.00    3765430.00        0.35253
439739.00    3765430.00        0.35255
          439769.00    3765430.00        0.35241
439799.00    3765430.00        0.35209
          439829.00    3765430.00        0.35160
439859.00    3765430.00        0.35090
          439889.00    3765430.00        0.34999
439649.00    3765460.00        0.39185
          439679.00    3765460.00        0.39239
439709.00    3765460.00        0.39278
          439739.00    3765460.00        0.39300
439769.00    3765460.00        0.39304
          439799.00    3765460.00        0.39290
439829.00    3765460.00        0.39258
          439859.00    3765460.00        0.39205
439889.00    3765460.00        0.39132
          439649.00    3765490.00        0.44118
439679.00    3765490.00        0.44199
          439709.00    3765490.00        0.44261
439739.00    3765490.00        0.44305
          439769.00    3765490.00        0.44333
439799.00    3765490.00        0.44341
```

```
          439829.00    3765490.00        0.44329
439859.00    3765490.00        0.44297
          439889.00    3765490.00        0.44242
```

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONOFFEXH ***
INCLUDING SOURCE(S):
A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , A0000029 , A0000030 , A0000031 , A0000032 , A0000033 , A0000034 , A0000035 ,
A0000036 , A0000037 , A0000038 , A0000039 , A0000040 , A0000041 , A0000042 , A0000043 ,
A0000044 , A0000045 , A0000046 , A0000047 , A0000048 , A0000049 , A0000050 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439674.00	3765310.00	0.07741	439679.00	3765310.00	0.07746
439684.00	3765310.00	0.07751	439689.00	3765310.00	0.07755
439694.00	3765310.00	0.07759	439699.00	3765310.00	0.07762
439704.00	3765310.00	0.07766	439709.00	3765310.00	0.07769
439714.00	3765310.00	0.07772	439719.00	3765310.00	0.07774
439729.00	3765310.00	0.07778	439734.00	3765310.00	0.07780
439739.00	3765310.00	0.07781	439744.00	3765310.00	0.07782
439749.00	3765310.00	0.07782	439764.00	3765310.00	0.07782
439769.00	3765310.00	0.07781	439774.00	3765310.00	0.07780

```
          439779.00    3765310.00        0.07779
439784.00    3765310.00        0.07777
          439789.00    3765310.00        0.07774
439794.00    3765310.00        0.07771
          439799.00    3765310.00        0.07768
439804.00    3765310.00        0.07764
          439809.00    3765310.00        0.07760
439814.00    3765310.00        0.07755
          439819.00    3765310.00        0.07750
439824.00    3765310.00        0.07744
          439829.00    3765310.00        0.07738
439839.00    3765310.00        0.07724
          439844.00    3765310.00        0.07715
439849.00    3765310.00        0.07707
          439854.00    3765310.00        0.07698
439859.00    3765310.00        0.07688
          439864.00    3765310.00        0.07677
439869.00    3765310.00        0.07666
          439874.00    3765310.00        0.07654
439879.00    3765310.00        0.07642
          439884.00    3765310.00        0.07629
439674.00    3765315.00        0.07860
          439679.00    3765315.00        0.07865
439684.00    3765315.00        0.07870
          439689.00    3765315.00        0.07874
439694.00    3765315.00        0.07878
          439699.00    3765315.00        0.07882
439704.00    3765315.00        0.07885
          439709.00    3765315.00        0.07889
439714.00    3765315.00        0.07891
          439719.00    3765315.00        0.07894
439729.00    3765315.00        0.07898
          439734.00    3765315.00        0.07900
439739.00    3765315.00        0.07902
          439744.00    3765315.00        0.07903
439749.00    3765315.00        0.07904
          439764.00    3765315.00        0.07904
439769.00    3765315.00        0.07904
          439774.00    3765315.00        0.07903
439779.00    3765315.00        0.07902
          439784.00    3765315.00        0.07900
439789.00    3765315.00        0.07898
          439794.00    3765315.00        0.07895
439799.00    3765315.00        0.07892
          439804.00    3765315.00        0.07889
439809.00    3765315.00        0.07885
          439814.00    3765315.00        0.07880
439819.00    3765315.00        0.07876
          439824.00    3765315.00        0.07870
439829.00    3765315.00        0.07864
          439839.00    3765315.00        0.07850
439844.00    3765315.00        0.07843
```

```
         439849.00    3765315.00        0.07834
439854.00    3765315.00        0.07825
         439859.00    3765315.00        0.07816
439864.00    3765315.00        0.07805
         439869.00    3765315.00        0.07795
439874.00    3765315.00        0.07783
         439879.00    3765315.00        0.07771
439884.00    3765315.00        0.07758
         439674.00    3765320.00        0.07981
439679.00    3765320.00        0.07986
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONOFFEXH ***
INCLUDING SOURCE(S):
A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , A0000029 , A0000030 , A0000031 , A0000032 , A0000033 , A0000034 , A0000035 ,
A0000036 , A0000037 , A0000038 , A0000039 , A0000040 , A0000041 , A0000042 , A0000043 ,
A0000044 , A0000045 , A0000046 , A0000047 , A0000048 , A0000049 , A0000050 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439684.00	3765320.00	0.07991	439689.00	3765320.00	0.07996
439694.00	3765320.00	0.08000	439699.00	3765320.00	0.08004
439704.00	3765320.00	0.08008	439709.00	3765320.00	0.08011
439714.00	3765320.00	0.08014	439719.00	3765320.00	0.08017
439729.00	3765320.00	0.08022	439734.00	3765320.00	0.08024
439739.00	3765320.00	0.08025	439744.00	3765320.00	0.08027
439749.00	3765320.00	0.08028	439764.00	3765320.00	0.08029
439769.00	3765320.00	0.08029	439774.00	3765320.00	0.08028
439779.00	3765320.00	0.08027	439784.00	3765320.00	0.08026

```
         439789.00    3765320.00        0.08024
439794.00    3765320.00        0.08022
         439799.00    3765320.00        0.08020
439804.00    3765320.00        0.08016
         439809.00    3765320.00        0.08013
439814.00    3765320.00        0.08009
         439819.00    3765320.00        0.08004
439824.00    3765320.00        0.07999
         439829.00    3765320.00        0.07993
439839.00    3765320.00        0.07980
         439844.00    3765320.00        0.07973
439849.00    3765320.00        0.07965
         439854.00    3765320.00        0.07956
439859.00    3765320.00        0.07947
         439864.00    3765320.00        0.07937
439869.00    3765320.00        0.07926
         439874.00    3765320.00        0.07915
439879.00    3765320.00        0.07903
         439884.00    3765320.00        0.07891
439674.00    3765325.00        0.08105
         439679.00    3765325.00        0.08111
439684.00    3765325.00        0.08115
         439689.00    3765325.00        0.08120
439694.00    3765325.00        0.08125
         439699.00    3765325.00        0.08129
439704.00    3765325.00        0.08133
         439709.00    3765325.00        0.08136
439714.00    3765325.00        0.08140
         439719.00    3765325.00        0.08143
439729.00    3765325.00        0.08148
         439734.00    3765325.00        0.08150
439739.00    3765325.00        0.08152
         439744.00    3765325.00        0.08154
439749.00    3765325.00        0.08155
         439754.00    3765325.00        0.08156
439769.00    3765325.00        0.08157
         439774.00    3765325.00        0.08157
439779.00    3765325.00        0.08156
         439784.00    3765325.00        0.08155
439789.00    3765325.00        0.08154
         439794.00    3765325.00        0.08152
439799.00    3765325.00        0.08150
         439804.00    3765325.00        0.08147
439809.00    3765325.00        0.08144
         439814.00    3765325.00        0.08140
439819.00    3765325.00        0.08136
         439824.00    3765325.00        0.08131
439829.00    3765325.00        0.08126
         439839.00    3765325.00        0.08113
439844.00    3765325.00        0.08106
         439849.00    3765325.00        0.08098
439854.00    3765325.00        0.08090
```

```
         439859.00    3765325.00        0.08081
439864.00    3765325.00        0.08072
         439869.00    3765325.00        0.08061
439874.00    3765325.00        0.08051
         439879.00    3765325.00        0.08039
439884.00    3765325.00        0.08027
         439674.00    3765330.00        0.08233
439679.00    3765330.00        0.08238
         439684.00    3765330.00        0.08243
439689.00    3765330.00        0.08248
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONOFFEXH ***
INCLUDING SOURCE(S):
A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , A0000029 , A0000030 , A0000031 , A0000032 , A0000033 , A0000034 , A0000035 ,
A0000036 , A0000037 , A0000038 , A0000039 , A0000040 , A0000041 , A0000042 , A0000043 ,
A0000044 , A0000045 , A0000046 , A0000047 , A0000048 , A0000049 , A0000050 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439694.00	3765330.00	0.08253	439699.00	3765330.00	0.08257
439704.00	3765330.00	0.08261	439709.00	3765330.00	0.08265
439714.00	3765330.00	0.08268	439719.00	3765330.00	0.08272
439729.00	3765330.00	0.08277	439734.00	3765330.00	0.08280
439739.00	3765330.00	0.08282	439744.00	3765330.00	0.08284
439749.00	3765330.00	0.08285	439754.00	3765330.00	0.08287
439774.00	3765330.00	0.08289	439779.00	3765330.00	0.08288
439784.00	3765330.00	0.08288	439789.00	3765330.00	0.08287
439794.00	3765330.00	0.08285	439799.00	3765330.00	0.08283

```
          439804.00    3765330.00        0.08281
439809.00    3765330.00        0.08278
          439814.00    3765330.00        0.08274
439819.00    3765330.00        0.08271
          439824.00    3765330.00        0.08266
439829.00    3765330.00        0.08261
          439839.00    3765330.00        0.08250
439844.00    3765330.00        0.08243
          439849.00    3765330.00        0.08236
439854.00    3765330.00        0.08228
          439859.00    3765330.00        0.08219
439864.00    3765330.00        0.08210
          439869.00    3765330.00        0.08200
439874.00    3765330.00        0.08189
          439879.00    3765330.00        0.08178
439884.00    3765330.00        0.08166
          439674.00    3765335.00        0.08363
439679.00    3765335.00        0.08369
          439684.00    3765335.00        0.08374
439689.00    3765335.00        0.08380
          439694.00    3765335.00        0.08384
439699.00    3765335.00        0.08389
          439704.00    3765335.00        0.08393
439709.00    3765335.00        0.08397
          439714.00    3765335.00        0.08401
439719.00    3765335.00        0.08404
          439729.00    3765335.00        0.08410
439734.00    3765335.00        0.08413
          439739.00    3765335.00        0.08415
439744.00    3765335.00        0.08417
          439749.00    3765335.00        0.08419
439774.00    3765335.00        0.08424
          439779.00    3765335.00        0.08424
439784.00    3765335.00        0.08424
          439789.00    3765335.00        0.08423
439794.00    3765335.00        0.08421
          439839.00    3765335.00        0.08390
439844.00    3765335.00        0.08383
          439849.00    3765335.00        0.08376
439854.00    3765335.00        0.08369
          439859.00    3765335.00        0.08361
439864.00    3765335.00        0.08352
          439869.00    3765335.00        0.08342
439874.00    3765335.00        0.08332
          439879.00    3765335.00        0.08321
439884.00    3765335.00        0.08309
          439674.00    3765340.00        0.08497
439679.00    3765340.00        0.08503
          439684.00    3765340.00        0.08509
439689.00    3765340.00        0.08514
          439694.00    3765340.00        0.08519
439699.00    3765340.00        0.08524
```

```
         439704.00    3765340.00        0.08528
439709.00    3765340.00        0.08532
         439714.00    3765340.00        0.08536
439719.00    3765340.00        0.08540
         439729.00    3765340.00        0.08546
439734.00    3765340.00        0.08549
         439739.00    3765340.00        0.08552
439744.00    3765340.00        0.08554
         439749.00    3765340.00        0.08556
439774.00    3765340.00        0.08562
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONOFFEXH ***
INCLUDING SOURCE(S):
A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , A0000029 , A0000030 , A0000031 , A0000032 , A0000033 , A0000034 , A0000035 ,
A0000036 , A0000037 , A0000038 , A0000039 , A0000040 , A0000041 , A0000042 , A0000043 ,
A0000044 , A0000045 , A0000046 , A0000047 , A0000048 , A0000049 , A0000050 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439779.00	3765340.00	0.08562	439784.00	3765340.00	0.08562
439789.00	3765340.00	0.08562	439794.00	3765340.00	0.08561
439839.00	3765340.00	0.08533	439844.00	3765340.00	0.08527
439849.00	3765340.00	0.08521	439854.00	3765340.00	0.08514
439859.00	3765340.00	0.08506	439864.00	3765340.00	0.08497
439869.00	3765340.00	0.08488	439874.00	3765340.00	0.08478
439879.00	3765340.00	0.08468	439884.00	3765340.00	0.08456
439674.00	3765345.00	0.08635	439679.00	3765345.00	0.08641
439684.00	3765345.00	0.08647	439689.00	3765345.00	0.08652

```
          439694.00    3765345.00        0.08657
439699.00    3765345.00        0.08662
          439704.00    3765345.00        0.08667
439709.00    3765345.00        0.08671
          439714.00    3765345.00        0.08675
439719.00    3765345.00        0.08679
          439729.00    3765345.00        0.08686
439734.00    3765345.00        0.08689
          439739.00    3765345.00        0.08692
439744.00    3765345.00        0.08694
          439749.00    3765345.00        0.08697
439774.00    3765345.00        0.08704
          439779.00    3765345.00        0.08705
439784.00    3765345.00        0.08705
          439789.00    3765345.00        0.08705
439794.00    3765345.00        0.08705
          439839.00    3765345.00        0.08680
439844.00    3765345.00        0.08675
          439849.00    3765345.00        0.08669
439854.00    3765345.00        0.08662
          439859.00    3765345.00        0.08655
439864.00    3765345.00        0.08647
          439869.00    3765345.00        0.08638
439874.00    3765345.00        0.08629
          439879.00    3765345.00        0.08618
439884.00    3765345.00        0.08607
          439674.00    3765350.00        0.08777
439679.00    3765350.00        0.08783
          439684.00    3765350.00        0.08789
439689.00    3765350.00        0.08794
          439694.00    3765350.00        0.08799
439699.00    3765350.00        0.08804
          439704.00    3765350.00        0.08809
439709.00    3765350.00        0.08814
          439714.00    3765350.00        0.08818
439719.00    3765350.00        0.08822
          439729.00    3765350.00        0.08829
439734.00    3765350.00        0.08832
          439739.00    3765350.00        0.08835
439744.00    3765350.00        0.08838
          439749.00    3765350.00        0.08840
439774.00    3765350.00        0.08850
          439779.00    3765350.00        0.08851
439784.00    3765350.00        0.08851
          439789.00    3765350.00        0.08852
439794.00    3765350.00        0.08852
          439839.00    3765350.00        0.08832
439844.00    3765350.00        0.08827
          439849.00    3765350.00        0.08821
439854.00    3765350.00        0.08815
          439859.00    3765350.00        0.08808
439864.00    3765350.00        0.08800
```

```
         439869.00    3765350.00        0.08792
439874.00    3765350.00        0.08783
         439879.00    3765350.00        0.08773
439884.00    3765350.00        0.08763
         439674.00    3765355.00        0.08922
439679.00    3765355.00        0.08928
         439684.00    3765355.00        0.08934
439689.00    3765355.00        0.08940
         439694.00    3765355.00        0.08945
439699.00    3765355.00        0.08951
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONOFFEXH ***
INCLUDING SOURCE(S):
A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , A0000029 , A0000030 , A0000031 , A0000032 , A0000033 , A0000034 , A0000035 ,
A0000036 , A0000037 , A0000038 , A0000039 , A0000040 , A0000041 , A0000042 , A0000043 ,
A0000044 , A0000045 , A0000046 , A0000047 , A0000048 , A0000049 , A0000050 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439704.00	3765355.00	0.08956	439709.00	3765355.00	0.08960
439714.00	3765355.00	0.08964	439719.00	3765355.00	0.08969
439729.00	3765355.00	0.08976	439734.00	3765355.00	0.08980
439739.00	3765355.00	0.08983	439744.00	3765355.00	0.08986
439749.00	3765355.00	0.08989	439774.00	3765355.00	0.08999
439779.00	3765355.00	0.09001	439784.00	3765355.00	0.09002
439789.00	3765355.00	0.09002	439794.00	3765355.00	0.09003
439839.00	3765355.00	0.08987	439844.00	3765355.00	0.08983
439849.00	3765355.00	0.08977	439854.00	3765355.00	0.08972

```
          439859.00    3765355.00        0.08965
439864.00    3765355.00        0.08958
          439869.00    3765355.00        0.08950
439874.00    3765355.00        0.08942
          439879.00    3765355.00        0.08932
439884.00    3765355.00        0.08922
          439674.00    3765360.00        0.09071
439679.00    3765360.00        0.09078
          439684.00    3765360.00        0.09084
439689.00    3765360.00        0.09090
          439694.00    3765360.00        0.09096
439699.00    3765360.00        0.09101
          439704.00    3765360.00        0.09106
439709.00    3765360.00        0.09111
          439714.00    3765360.00        0.09115
439719.00    3765360.00        0.09119
          439729.00    3765360.00        0.09127
439734.00    3765360.00        0.09131
          439739.00    3765360.00        0.09134
439744.00    3765360.00        0.09138
          439749.00    3765360.00        0.09141
439774.00    3765360.00        0.09153
          439779.00    3765360.00        0.09154
439784.00    3765360.00        0.09156
          439789.00    3765360.00        0.09157
439794.00    3765360.00        0.09158
          439799.00    3765360.00        0.09158
439804.00    3765360.00        0.09158
          439809.00    3765360.00        0.09158
439814.00    3765360.00        0.09157
          439839.00    3765360.00        0.09146
439844.00    3765360.00        0.09142
          439849.00    3765360.00        0.09138
439854.00    3765360.00        0.09133
          439859.00    3765360.00        0.09127
439864.00    3765360.00        0.09120
          439869.00    3765360.00        0.09113
439874.00    3765360.00        0.09105
          439879.00    3765360.00        0.09096
439884.00    3765360.00        0.09086
          439674.00    3765365.00        0.09225
439679.00    3765365.00        0.09232
          439684.00    3765365.00        0.09238
439689.00    3765365.00        0.09244
          439694.00    3765365.00        0.09250
439699.00    3765365.00        0.09255
          439704.00    3765365.00        0.09260
439709.00    3765365.00        0.09265
          439714.00    3765365.00        0.09270
439719.00    3765365.00        0.09274
          439729.00    3765365.00        0.09282
439734.00    3765365.00        0.09286
```

```
         439739.00    3765365.00        0.09290
439744.00    3765365.00        0.09293
         439749.00    3765365.00        0.09297
439774.00    3765365.00        0.09310
         439779.00    3765365.00        0.09312
439784.00    3765365.00        0.09314
         439789.00    3765365.00        0.09316
439794.00    3765365.00        0.09317
         439799.00    3765365.00        0.09318
439804.00    3765365.00        0.09318
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONOFFEXH ***
INCLUDING SOURCE(S):
A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , A0000029 , A0000030 , A0000031 , A0000032 , A0000033 , A0000034 , A0000035 ,
A0000036 , A0000037 , A0000038 , A0000039 , A0000040 , A0000041 , A0000042 , A0000043 ,
A0000044 , A0000045 , A0000046 , A0000047 , A0000048 , A0000049 , A0000050 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439809.00	3765365.00	0.09319	439814.00	3765365.00	0.09318
439839.00	3765365.00	0.09310	439844.00	3765365.00	0.09307
439849.00	3765365.00	0.09303	439854.00	3765365.00	0.09298
439859.00	3765365.00	0.09293	439864.00	3765365.00	0.09287
439869.00	3765365.00	0.09280	439874.00	3765365.00	0.09273
439879.00	3765365.00	0.09264	439884.00	3765365.00	0.09255
439674.00	3765370.00	0.09383	439679.00	3765370.00	0.09390
439684.00	3765370.00	0.09397	439689.00	3765370.00	0.09403
439694.00	3765370.00	0.09409	439699.00	3765370.00	0.09414

```
         439704.00    3765370.00        0.09419
439709.00    3765370.00        0.09424
         439714.00    3765370.00        0.09429
439719.00    3765370.00        0.09434
         439729.00    3765370.00        0.09442
439734.00    3765370.00        0.09446
         439739.00    3765370.00        0.09450
439744.00    3765370.00        0.09454
         439749.00    3765370.00        0.09457
439774.00    3765370.00        0.09472
         439779.00    3765370.00        0.09474
439784.00    3765370.00        0.09477
         439789.00    3765370.00        0.09478
439794.00    3765370.00        0.09480
         439799.00    3765370.00        0.09482
439804.00    3765370.00        0.09483
         439809.00    3765370.00        0.09484
439814.00    3765370.00        0.09484
         439839.00    3765370.00        0.09479
439844.00    3765370.00        0.09476
         439849.00    3765370.00        0.09472
439854.00    3765370.00        0.09469
         439859.00    3765370.00        0.09464
439864.00    3765370.00        0.09458
         439869.00    3765370.00        0.09452
439874.00    3765370.00        0.09445
         439879.00    3765370.00        0.09437
439884.00    3765370.00        0.09429
         439674.00    3765375.00        0.09546
439679.00    3765375.00        0.09553
         439684.00    3765375.00        0.09560
439689.00    3765375.00        0.09566
         439694.00    3765375.00        0.09572
439699.00    3765375.00        0.09578
         439704.00    3765375.00        0.09583
439709.00    3765375.00        0.09588
         439714.00    3765375.00        0.09593
439719.00    3765375.00        0.09597
         439729.00    3765375.00        0.09606
439734.00    3765375.00        0.09611
         439739.00    3765375.00        0.09615
439744.00    3765375.00        0.09618
         439749.00    3765375.00        0.09622
439754.00    3765375.00        0.09625
         439774.00    3765375.00        0.09638
439779.00    3765375.00        0.09641
         439784.00    3765375.00        0.09644
439789.00    3765375.00        0.09646
         439794.00    3765375.00        0.09648
439799.00    3765375.00        0.09650
         439804.00    3765375.00        0.09652
439809.00    3765375.00        0.09653
```

```
         439814.00    3765375.00        0.09654
439839.00    3765375.00        0.09652
         439844.00    3765375.00        0.09650
439849.00    3765375.00        0.09647
         439854.00    3765375.00        0.09644
439859.00    3765375.00        0.09640
         439864.00    3765375.00        0.09635
439869.00    3765375.00        0.09629
         439874.00    3765375.00        0.09623
439879.00    3765375.00        0.09616
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONOFFEXH ***
INCLUDING SOURCE(S):
A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , A0000029 , A0000030 , A0000031 , A0000032 , A0000033 , A0000034 , A0000035 ,
A0000036 , A0000037 , A0000038 , A0000039 , A0000040 , A0000041 , A0000042 , A0000043 ,
A0000044 , A0000045 , A0000046 , A0000047 , A0000048 , A0000049 , A0000050 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439884.00	3765375.00	0.09608	439774.00	3765380.00	0.09809
439779.00	3765380.00	0.09813	439784.00	3765380.00	0.09815
439789.00	3765380.00	0.09818	439794.00	3765380.00	0.09821
439799.00	3765380.00	0.09823	439804.00	3765380.00	0.09825
439809.00	3765380.00	0.09827	439814.00	3765380.00	0.09829
439769.00	3765385.00	0.09982	439819.00	3765385.00	0.10011
439769.00	3765400.00	0.10541	439844.00	3765400.00	0.10599
439849.00	3765400.00	0.10600	439674.00	3765405.00	0.10636
439714.00	3765405.00	0.10686	439719.00	3765405.00	0.10692

```
          439734.00    3765405.00        0.10706
439749.00    3765405.00        0.10720
          439754.00    3765405.00        0.10725
439774.00    3765405.00        0.10744
          439779.00    3765405.00        0.10749
439784.00    3765405.00        0.10754
          439789.00    3765405.00        0.10759
439794.00    3765405.00        0.10764
          439799.00    3765405.00        0.10769
439804.00    3765405.00        0.10774
          439809.00    3765405.00        0.10778
439814.00    3765405.00        0.10783
          439819.00    3765405.00        0.10788
439824.00    3765405.00        0.10792
          439829.00    3765405.00        0.10797
439834.00    3765405.00        0.10800
          439839.00    3765405.00        0.10804
439844.00    3765405.00        0.10807
          439849.00    3765405.00        0.10809
439854.00    3765405.00        0.10811
          439859.00    3765405.00        0.10812
439674.00    3765410.00        0.10839
          439679.00    3765410.00        0.10847
439684.00    3765410.00        0.10854
          439689.00    3765410.00        0.10861
439694.00    3765410.00        0.10867
          439699.00    3765410.00        0.10873
439704.00    3765410.00        0.10879
          439709.00    3765410.00        0.10885
439714.00    3765410.00        0.10890
          439719.00    3765410.00        0.10895
439729.00    3765410.00        0.10905
          439734.00    3765410.00        0.10910
439739.00    3765410.00        0.10914
          439744.00    3765410.00        0.10919
439749.00    3765410.00        0.10924
          439774.00    3765410.00        0.10948
439779.00    3765410.00        0.10954
          439784.00    3765410.00        0.10959
439789.00    3765410.00        0.10964
          439794.00    3765410.00        0.10970
439799.00    3765410.00        0.10975
          439804.00    3765410.00        0.10981
439809.00    3765410.00        0.10987
          439814.00    3765410.00        0.10992
439819.00    3765410.00        0.10997
          439824.00    3765410.00        0.11003
439829.00    3765410.00        0.11008
          439834.00    3765410.00        0.11012
439839.00    3765410.00        0.11017
          439844.00    3765410.00        0.11021
439849.00    3765410.00        0.11024
```

```
         439854.00    3765410.00        0.11027
439859.00    3765410.00        0.11029
         439674.00    3765415.00        0.11049
439679.00    3765415.00        0.11057
         439684.00    3765415.00        0.11064
439689.00    3765415.00        0.11071
         439694.00    3765415.00        0.11077
439699.00    3765415.00        0.11083
         439704.00    3765415.00        0.11089
439709.00    3765415.00        0.11095
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONOFFEXH ***
INCLUDING SOURCE(S):
A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , A0000029 , A0000030 , A0000031 , A0000032 , A0000033 , A0000034 , A0000035 ,
A0000036 , A0000037 , A0000038 , A0000039 , A0000040 , A0000041 , A0000042 , A0000043 ,
A0000044 , A0000045 , A0000046 , A0000047 , A0000048 , A0000049 , A0000050 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439714.00	3765415.00	0.11100	439719.00	3765415.00	0.11105
439729.00	3765415.00	0.11115	439734.00	3765415.00	0.11120
439739.00	3765415.00	0.11125	439744.00	3765415.00	0.11129
439749.00	3765415.00	0.11134	439774.00	3765415.00	0.11160
439779.00	3765415.00	0.11165	439784.00	3765415.00	0.11171
439789.00	3765415.00	0.11177	439794.00	3765415.00	0.11183
439799.00	3765415.00	0.11189	439804.00	3765415.00	0.11195
439809.00	3765415.00	0.11201	439814.00	3765415.00	0.11207
439819.00	3765415.00	0.11214	439824.00	3765415.00	0.11220

```
          439829.00    3765415.00        0.11226
439834.00    3765415.00        0.11231
          439839.00    3765415.00        0.11237
439844.00    3765415.00        0.11242
          439849.00    3765415.00        0.11246
439854.00    3765415.00        0.11250
          439859.00    3765415.00        0.11254
439674.00    3765420.00        0.11266
          439679.00    3765420.00        0.11274
439684.00    3765420.00        0.11282
          439689.00    3765420.00        0.11288
439694.00    3765420.00        0.11295
          439699.00    3765420.00        0.11301
439704.00    3765420.00        0.11307
          439709.00    3765420.00        0.11312
439714.00    3765420.00        0.11317
          439719.00    3765420.00        0.11323
439729.00    3765420.00        0.11332
          439734.00    3765420.00        0.11337
439739.00    3765420.00        0.11342
          439744.00    3765420.00        0.11347
439749.00    3765420.00        0.11352
          439774.00    3765420.00        0.11378
439779.00    3765420.00        0.11384
          439784.00    3765420.00        0.11390
439789.00    3765420.00        0.11396
          439794.00    3765420.00        0.11403
439799.00    3765420.00        0.11409
          439804.00    3765420.00        0.11416
439809.00    3765420.00        0.11423
          439814.00    3765420.00        0.11430
439819.00    3765420.00        0.11437
          439824.00    3765420.00        0.11444
439829.00    3765420.00        0.11451
          439834.00    3765420.00        0.11457
439839.00    3765420.00        0.11464
          439844.00    3765420.00        0.11470
439849.00    3765420.00        0.11476
          439854.00    3765420.00        0.11481
439859.00    3765420.00        0.11485
          439674.00    3765425.00        0.11491
439679.00    3765425.00        0.11499
          439684.00    3765425.00        0.11507
439689.00    3765425.00        0.11514
          439694.00    3765425.00        0.11520
439699.00    3765425.00        0.11526
          439704.00    3765425.00        0.11532
439709.00    3765425.00        0.11538
          439714.00    3765425.00        0.11543
439719.00    3765425.00        0.11548
          439729.00    3765425.00        0.11558
439734.00    3765425.00        0.11562
```

```
         439739.00    3765425.00        0.11567
439744.00    3765425.00        0.11572
         439749.00    3765425.00        0.11577
439774.00    3765425.00        0.11604
         439779.00    3765425.00        0.11610
439784.00    3765425.00        0.11616
         439789.00    3765425.00        0.11622
439794.00    3765425.00        0.11630
         439799.00    3765425.00        0.11637
439804.00    3765425.00        0.11644
```

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONOFFEXH ***
INCLUDING SOURCE(S):
A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , A0000029 , A0000030 , A0000031 , A0000032 , A0000033 , A0000034 , A0000035 ,
A0000036 , A0000037 , A0000038 , A0000039 , A0000040 , A0000041 , A0000042 , A0000043 ,
A0000044 , A0000045 , A0000046 , A0000047 , A0000048 , A0000049 , A0000050 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439809.00	3765425.00	0.11652	439814.00	3765425.00	0.11660
439819.00	3765425.00	0.11667	439824.00	3765425.00	0.11675
439829.00	3765425.00	0.11683	439834.00	3765425.00	0.11691
439839.00	3765425.00	0.11699	439844.00	3765425.00	0.11706
439849.00	3765425.00	0.11713	439854.00	3765425.00	0.11719
439859.00	3765425.00	0.11725	439674.00	3765430.00	0.11724
439679.00	3765430.00	0.11733	439684.00	3765430.00	0.11740
439689.00	3765430.00	0.11747	439694.00	3765430.00	0.11754
439699.00	3765430.00	0.11760	439704.00	3765430.00	0.11766

```
          439709.00    3765430.00        0.11771
439714.00    3765430.00        0.11776
          439719.00    3765430.00        0.11781
439729.00    3765430.00        0.11791
          439734.00    3765430.00        0.11796
439739.00    3765430.00        0.11800
          439744.00    3765430.00        0.11805
439749.00    3765430.00        0.11810
          439774.00    3765430.00        0.11837
439779.00    3765430.00        0.11843
          439784.00    3765430.00        0.11850
439789.00    3765430.00        0.11857
          439794.00    3765430.00        0.11865
439799.00    3765430.00        0.11872
          439804.00    3765430.00        0.11880
439809.00    3765430.00        0.11889
          439814.00    3765430.00        0.11897
439819.00    3765430.00        0.11906
          439824.00    3765430.00        0.11915
439829.00    3765430.00        0.11924
          439834.00    3765430.00        0.11933
439839.00    3765430.00        0.11941
          439844.00    3765430.00        0.11950
439849.00    3765430.00        0.11958
          439854.00    3765430.00        0.11966
439859.00    3765430.00        0.11973
          439674.00    3765435.00        0.11967
439679.00    3765435.00        0.11974
          439684.00    3765435.00        0.11982
439689.00    3765435.00        0.11989
          439694.00    3765435.00        0.11996
439699.00    3765435.00        0.12002
          439704.00    3765435.00        0.12008
439709.00    3765435.00        0.12013
          439714.00    3765435.00        0.12018
439719.00    3765435.00        0.12023
          439729.00    3765435.00        0.12033
439734.00    3765435.00        0.12037
          439739.00    3765435.00        0.12042
439744.00    3765435.00        0.12047
          439749.00    3765435.00        0.12051
439774.00    3765435.00        0.12079
          439779.00    3765435.00        0.12086
439784.00    3765435.00        0.12093
          439789.00    3765435.00        0.12100
439794.00    3765435.00        0.12107
          439799.00    3765435.00        0.12116
439804.00    3765435.00        0.12124
          439809.00    3765435.00        0.12133
439814.00    3765435.00        0.12143
          439819.00    3765435.00        0.12152
439824.00    3765435.00        0.12162
```

```
         439829.00    3765435.00        0.12172
439834.00    3765435.00        0.12182
         439839.00    3765435.00        0.12192
439844.00    3765435.00        0.12203
         439849.00    3765435.00        0.12212
439854.00    3765435.00        0.12221
         439859.00    3765435.00        0.12230
439674.00    3765440.00        0.12217
         439679.00    3765440.00        0.12226
439684.00    3765440.00        0.12233
```

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONOFFEXH ***
INCLUDING SOURCE(S):
A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , A0000029 , A0000030 , A0000031 , A0000032 , A0000033 , A0000034 , A0000035 ,
A0000036 , A0000037 , A0000038 , A0000039 , A0000040 , A0000041 , A0000042 , A0000043 ,
A0000044 , A0000045 , A0000046 , A0000047 , A0000048 , A0000049 , A0000050 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439689.00	3765440.00	0.12240	439694.00	3765440.00	0.12247
439699.00	3765440.00	0.12253	439704.00	3765440.00	0.12259
439709.00	3765440.00	0.12265	439714.00	3765440.00	0.12269
439719.00	3765440.00	0.12274	439729.00	3765440.00	0.12284
439734.00	3765440.00	0.12288	439739.00	3765440.00	0.12293
439744.00	3765440.00	0.12297	439749.00	3765440.00	0.12302
439774.00	3765440.00	0.12330	439779.00	3765440.00	0.12337
439784.00	3765440.00	0.12344	439789.00	3765440.00	0.12351
439794.00	3765440.00	0.12360	439799.00	3765440.00	0.12368

```
          439804.00    3765440.00        0.12377
439809.00    3765440.00        0.12387
          439814.00    3765440.00        0.12397
439819.00    3765440.00        0.12408
          439824.00    3765440.00        0.12419
439829.00    3765440.00        0.12430
          439834.00    3765440.00        0.12441
439839.00    3765440.00        0.12452
          439844.00    3765440.00        0.12464
439849.00    3765440.00        0.12475
          439854.00    3765440.00        0.12486
439859.00    3765440.00        0.12496
          439674.00    3765445.00        0.12478
439679.00    3765445.00        0.12487
          439684.00    3765445.00        0.12494
439689.00    3765445.00        0.12502
          439694.00    3765445.00        0.12508
439699.00    3765445.00        0.12514
          439704.00    3765445.00        0.12520
439709.00    3765445.00        0.12525
          439714.00    3765445.00        0.12530
439719.00    3765445.00        0.12535
          439729.00    3765445.00        0.12545
439734.00    3765445.00        0.12549
          439739.00    3765445.00        0.12553
439744.00    3765445.00        0.12558
          439749.00    3765445.00        0.12562
439774.00    3765445.00        0.12590
          439779.00    3765445.00        0.12597
439784.00    3765445.00        0.12604
          439789.00    3765445.00        0.12612
439794.00    3765445.00        0.12621
          439799.00    3765445.00        0.12630
439804.00    3765445.00        0.12640
          439809.00    3765445.00        0.12650
439814.00    3765445.00        0.12661
          439819.00    3765445.00        0.12672
439824.00    3765445.00        0.12684
          439829.00    3765445.00        0.12696
439834.00    3765445.00        0.12709
          439839.00    3765445.00        0.12722
439844.00    3765445.00        0.12735
          439849.00    3765445.00        0.12747
439854.00    3765445.00        0.12760
          439859.00    3765445.00        0.12772
439674.00    3765450.00        0.12749
          439679.00    3765450.00        0.12758
439684.00    3765450.00        0.12766
          439689.00    3765450.00        0.12773
439694.00    3765450.00        0.12780
          439699.00    3765450.00        0.12786
439704.00    3765450.00        0.12792
```

```
         439709.00    3765450.00        0.12797
439714.00    3765450.00        0.12802
         439719.00    3765450.00        0.12807
439729.00    3765450.00        0.12815
         439734.00    3765450.00        0.12820
439739.00    3765450.00        0.12824
         439744.00    3765450.00        0.12829
439749.00    3765450.00        0.12833
         439774.00    3765450.00        0.12861
439844.00    3765450.00        0.13015
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONOFFEXH ***
INCLUDING SOURCE(S):
A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , A0000029 , A0000030 , A0000031 , A0000032 , A0000033 , A0000034 , A0000035 ,
A0000036 , A0000037 , A0000038 , A0000039 , A0000040 , A0000041 , A0000042 , A0000043 ,
A0000044 , A0000045 , A0000046 , A0000047 , A0000048 , A0000049 , A0000050 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439849.00	3765450.00	0.13030	439854.00	3765450.00	0.13044
439859.00	3765450.00	0.13059	439674.00	3765455.00	0.13031
439679.00	3765455.00	0.13040	439684.00	3765455.00	0.13048
439689.00	3765455.00	0.13055	439694.00	3765455.00	0.13062
439699.00	3765455.00	0.13068	439704.00	3765455.00	0.13074
439709.00	3765455.00	0.13079	439714.00	3765455.00	0.13084
439719.00	3765455.00	0.13089	439729.00	3765455.00	0.13098
439734.00	3765455.00	0.13102	439739.00	3765455.00	0.13106
439744.00	3765455.00	0.13110	439749.00	3765455.00	0.13115

```
          439844.00    3765455.00        0.13307
439849.00    3765455.00        0.13323
          439854.00    3765455.00        0.13340
439859.00    3765455.00        0.13356
          439674.00    3765460.00        0.13324
439679.00    3765460.00        0.13333
          439684.00    3765460.00        0.13342
439689.00    3765460.00        0.13349
          439694.00    3765460.00        0.13356
439699.00    3765460.00        0.13362
          439704.00    3765460.00        0.13368
439709.00    3765460.00        0.13374
          439714.00    3765460.00        0.13379
439719.00    3765460.00        0.13383
          439729.00    3765460.00        0.13392
439734.00    3765460.00        0.13396
          439739.00    3765460.00        0.13400
439744.00    3765460.00        0.13404
          439749.00    3765460.00        0.13408
439789.00    3765460.00        0.13457
          439794.00    3765460.00        0.13467
439799.00    3765460.00        0.13477
          439804.00    3765460.00        0.13488
439809.00    3765460.00        0.13500
          439814.00    3765460.00        0.13513
439819.00    3765460.00        0.13527
          439824.00    3765460.00        0.13542
439829.00    3765460.00        0.13558
          439844.00    3765460.00        0.13610
439849.00    3765460.00        0.13628
          439854.00    3765460.00        0.13646
439859.00    3765460.00        0.13665
          439674.00    3765465.00        0.13630
439679.00    3765465.00        0.13639
          439684.00    3765465.00        0.13648
439689.00    3765465.00        0.13656
          439694.00    3765465.00        0.13663
439699.00    3765465.00        0.13669
          439704.00    3765465.00        0.13675
439709.00    3765465.00        0.13680
          439714.00    3765465.00        0.13685
439719.00    3765465.00        0.13690
          439729.00    3765465.00        0.13698
439734.00    3765465.00        0.13702
          439739.00    3765465.00        0.13706
439744.00    3765465.00        0.13710
          439749.00    3765465.00        0.13714
439789.00    3765465.00        0.13763
          439794.00    3765465.00        0.13772
439799.00    3765465.00        0.13783
          439804.00    3765465.00        0.13794
439809.00    3765465.00        0.13807
```

```
         439814.00    3765465.00        0.13820
439819.00    3765465.00        0.13835
         439824.00    3765465.00        0.13851
439829.00    3765465.00        0.13868
         439844.00    3765465.00        0.13924
439849.00    3765465.00        0.13945
         439854.00    3765465.00        0.13965
439859.00    3765465.00        0.13986
         439674.00    3765470.00        0.13949
439679.00    3765470.00        0.13958
```

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONOFFEXH ***
INCLUDING SOURCE(S):
A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , A0000029 , A0000030 , A0000031 , A0000032 , A0000033 , A0000034 , A0000035 ,
A0000036 , A0000037 , A0000038 , A0000039 , A0000040 , A0000041 , A0000042 , A0000043 ,
A0000044 , A0000045 , A0000046 , A0000047 , A0000048 , A0000049 , A0000050 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439684.00	3765470.00	0.13967	439689.00	3765470.00	0.13975
439694.00	3765470.00	0.13982	439699.00	3765470.00	0.13989
439704.00	3765470.00	0.13995	439709.00	3765470.00	0.14000
439714.00	3765470.00	0.14006	439719.00	3765470.00	0.14010
439729.00	3765470.00	0.14019	439734.00	3765470.00	0.14022
439739.00	3765470.00	0.14026	439744.00	3765470.00	0.14030
439749.00	3765470.00	0.14034	439789.00	3765470.00	0.14081
439794.00	3765470.00	0.14091	439799.00	3765470.00	0.14101
439804.00	3765470.00	0.14113	439809.00	3765470.00	0.14126

```
          439814.00    3765470.00        0.14140
439819.00    3765470.00        0.14156
          439824.00    3765470.00        0.14173
439829.00    3765470.00        0.14191
          439844.00    3765470.00        0.14252
439849.00    3765470.00        0.14274
          439854.00    3765470.00        0.14297
439859.00    3765470.00        0.14320
          439674.00    3765475.00        0.14281
439679.00    3765475.00        0.14291
          439684.00    3765475.00        0.14301
439689.00    3765475.00        0.14309
          439694.00    3765475.00        0.14316
439699.00    3765475.00        0.14323
          439704.00    3765475.00        0.14329
439709.00    3765475.00        0.14335
          439714.00    3765475.00        0.14340
439719.00    3765475.00        0.14345
          439729.00    3765475.00        0.14353
439734.00    3765475.00        0.14357
          439739.00    3765475.00        0.14361
439744.00    3765475.00        0.14364
          439749.00    3765475.00        0.14368
439754.00    3765475.00        0.14372
          439789.00    3765475.00        0.14414
439794.00    3765475.00        0.14423
          439799.00    3765475.00        0.14434
439804.00    3765475.00        0.14446
          439809.00    3765475.00        0.14459
439814.00    3765475.00        0.14474
          439819.00    3765475.00        0.14490
439824.00    3765475.00        0.14508
          439829.00    3765475.00        0.14527
439269.00    3764900.00        0.02871
          439369.00    3764900.00        0.02965
439469.00    3764900.00        0.03007
          439569.00    3764900.00        0.02997
439669.00    3764900.00        0.02936
          439769.00    3764900.00        0.02825
439869.00    3764900.00        0.02670
          439969.00    3764900.00        0.02480
440069.00    3764900.00        0.02267
          440169.00    3764900.00        0.02047
440269.00    3764900.00        0.01834
          439269.00    3765000.00        0.03348
439369.00    3765000.00        0.03513
          439469.00    3765000.00        0.03608
439569.00    3765000.00        0.03634
          439669.00    3765000.00        0.03593
439769.00    3765000.00        0.03485
          439869.00    3765000.00        0.03307
439969.00    3765000.00        0.03069
```

```
         440069.00    3765000.00        0.02789
440169.00    3765000.00        0.02491
         440269.00    3765000.00        0.02202
439269.00    3765100.00        0.03935
         439369.00    3765100.00        0.04212
439469.00    3765100.00        0.04392
         439569.00    3765100.00        0.04477
439669.00    3765100.00        0.04478
         439769.00    3765100.00        0.04390
439869.00    3765100.00        0.04196
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONOFFEXH ***
INCLUDING SOURCE(S):
A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , A0000029 , A0000030 , A0000031 , A0000032 , A0000033 , A0000034 , A0000035 ,
A0000036 , A0000037 , A0000038 , A0000039 , A0000040 , A0000041 , A0000042 , A0000043 ,
A0000044 , A0000045 , A0000046 , A0000047 , A0000048 , A0000049 , A0000050 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439969.00	3765100.00	0.03903	440069.00	3765100.00	0.03532
440169.00	3765100.00	0.03121	440269.00	3765100.00	0.02717
439269.00	3765200.00	0.04669	439369.00	3765200.00	0.05136
439469.00	3765200.00	0.05458	439569.00	3765200.00	0.05639
439669.00	3765200.00	0.05707	439769.00	3765200.00	0.05666
439869.00	3765200.00	0.05479	439969.00	3765200.00	0.05135
440069.00	3765200.00	0.04650	440169.00	3765200.00	0.04076
440269.00	3765200.00	0.03486	439269.00	3765300.00	0.05587
439369.00	3765300.00	0.06414	439469.00	3765300.00	0.07002

```
         439569.00    3765300.00        0.07344
439669.00    3765300.00        0.07509
         439769.00    3765300.00        0.07545
439869.00    3765300.00        0.07419
         439969.00    3765300.00        0.07058
440069.00    3765300.00        0.06450
         440169.00    3765300.00        0.05647
440269.00    3765300.00        0.04748
         439269.00    3765400.00        0.06689
439369.00    3765400.00        0.08264
         439469.00    3765400.00        0.09448
439569.00    3765400.00        0.10132
         439669.00    3765400.00        0.10432
439769.00    3765400.00        0.10541
         439869.00    3765400.00        0.10599
439969.00    3765400.00        0.10352
         440069.00    3765400.00        0.09656
440169.00    3765400.00        0.08558
         440269.00    3765400.00        0.07127
439269.00    3765500.00        0.07824
         439369.00    3765500.00        0.11065
439469.00    3765500.00        0.13891
         439569.00    3765500.00        0.15530
439669.00    3765500.00        0.16175
         439769.00    3765500.00        0.16314
439869.00    3765500.00        0.16744
         439969.00    3765500.00        0.17292
440069.00    3765500.00        0.16606
         440169.00    3765500.00        0.15023
440269.00    3765500.00        0.12670
         439269.00    3765600.00        0.08414
439369.00    3765600.00        0.15237
         439469.00    3765600.00        0.24745
439569.00    3765600.00        0.30313
         439669.00    3765600.00        0.33142
439769.00    3765600.00        0.35795
         439869.00    3765600.00        0.37055
439969.00    3765600.00        0.46849
         440069.00    3765600.00        0.43901
440169.00    3765600.00        0.38301
         440269.00    3765600.00        0.32391
439269.00    3765700.00        0.07478
         439369.00    3765700.00        0.18371
439469.00    3765700.00        2.55756
         439569.00    3765700.00        2.83983
439669.00    3765700.00        1.80797
         439769.00    3765700.00        1.29619
439869.00    3765700.00        0.85891
         439969.00    3765700.00        0.65175
440069.00    3765700.00        0.98812
         440169.00    3765700.00        1.56800
440269.00    3765700.00        2.78830
```

```
         439269.00    3765800.00        0.05166
439369.00    3765800.00        0.09184
         439469.00    3765800.00        0.25257
439569.00    3765800.00        0.55015
         439669.00    3765800.00        0.82529
439769.00    3765800.00        1.25365
         439869.00    3765800.00        2.19339
439969.00    3765800.00        0.83984
         440069.00    3765800.00        0.53479
440169.00    3765800.00        0.45632
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONOFFEXH ***
INCLUDING SOURCE(S):
A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , A0000029 , A0000030 , A0000031 , A0000032 , A0000033 , A0000034 , A0000035 ,
A0000036 , A0000037 , A0000038 , A0000039 , A0000040 , A0000041 , A0000042 , A0000043 ,
A0000044 , A0000045 , A0000046 , A0000047 , A0000048 , A0000049 , A0000050 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
440269.00	3765800.00	0.45448	439269.00	3765900.00	0.03428
439369.00	3765900.00	0.04726	439469.00	3765900.00	0.06963
439569.00	3765900.00	0.10866	439669.00	3765900.00	0.16257
439769.00	3765900.00	0.22134	439869.00	3765900.00	0.27263
439969.00	3765900.00	0.29388	440069.00	3765900.00	0.27249
440169.00	3765900.00	0.24334	440269.00	3765900.00	0.22600
439649.00	3765310.00	0.07713	439679.00	3765310.00	0.07746
439709.00	3765310.00	0.07769	439739.00	3765310.00	0.07781
439769.00	3765310.00	0.07781	439799.00	3765310.00	0.07768

```
          439829.00    3765310.00        0.07738
439859.00    3765310.00        0.07688
          439889.00    3765310.00        0.07616
439649.00    3765340.00        0.08463
          439679.00    3765340.00        0.08503
439709.00    3765340.00        0.08532
          439739.00    3765340.00        0.08552
439769.00    3765340.00        0.08562
          439799.00    3765340.00        0.08560
439829.00    3765340.00        0.08543
          439859.00    3765340.00        0.08506
439889.00    3765340.00        0.08444
          439649.00    3765370.00        0.09343
439679.00    3765370.00        0.09390
          439709.00    3765370.00        0.09424
439739.00    3765370.00        0.09450
          439769.00    3765370.00        0.09469
439799.00    3765370.00        0.09482
          439829.00    3765370.00        0.09482
439859.00    3765370.00        0.09464
          439889.00    3765370.00        0.09420
439649.00    3765400.00        0.10395
          439679.00    3765400.00        0.10447
439709.00    3765400.00        0.10484
          439739.00    3765400.00        0.10514
439769.00    3765400.00        0.10541
          439799.00    3765400.00        0.10568
439829.00    3765400.00        0.10592
          439859.00    3765400.00        0.10601
439889.00    3765400.00        0.10584
          439649.00    3765430.00        0.11674
439679.00    3765430.00        0.11733
          439709.00    3765430.00        0.11771
439739.00    3765430.00        0.11800
          439769.00    3765430.00        0.11831
439799.00    3765430.00        0.11872
          439829.00    3765430.00        0.11924
439859.00    3765430.00        0.11973
          439889.00    3765430.00        0.12001
439649.00    3765460.00        0.13266
          439679.00    3765460.00        0.13333
439709.00    3765460.00        0.13374
          439739.00    3765460.00        0.13400
439769.00    3765460.00        0.13428
          439799.00    3765460.00        0.13477
439829.00    3765460.00        0.13558
          439859.00    3765460.00        0.13665
439889.00    3765460.00        0.13764
          439649.00    3765490.00        0.15297
439679.00    3765490.00        0.15384
          439709.00    3765490.00        0.15435
439739.00    3765490.00        0.15462
```

```
         439769.00    3765490.00        0.15484
439799.00    3765490.00        0.15529
         439829.00    3765490.00        0.15630
439859.00    3765490.00        0.15807
         439889.00    3765490.00        0.16025
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: FREEEVAP ***
INCLUDING SOURCE(S):
A0000067 , A0000068 , A0000069 , A0000070 , A0000071 ,
A0000072 , A0000073 , A0000074 , A0000075 , A0000076 , A0000077 , A0000078 , A0000079 ,
A0000080 , A0000081 , A0000082 , A0000083 , A0000084 , A0000085 , A0000086 , A0000087 ,
A0000088 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439674.00	3765310.00	0.14832	439679.00	3765310.00	0.14829
439684.00	3765310.00	0.14826	439689.00	3765310.00	0.14824
439694.00	3765310.00	0.14820	439699.00	3765310.00	0.14817
439704.00	3765310.00	0.14813	439709.00	3765310.00	0.14809
439714.00	3765310.00	0.14805	439719.00	3765310.00	0.14800
439729.00	3765310.00	0.14790	439734.00	3765310.00	0.14785
439739.00	3765310.00	0.14780	439744.00	3765310.00	0.14774
439749.00	3765310.00	0.14768	439764.00	3765310.00	0.14749
439769.00	3765310.00	0.14742	439774.00	3765310.00	0.14735
439779.00	3765310.00	0.14727	439784.00	3765310.00	0.14719

```
         439789.00    3765310.00        0.14711
439794.00    3765310.00        0.14703
         439799.00    3765310.00        0.14695
439804.00    3765310.00        0.14686
         439809.00    3765310.00        0.14677
439814.00    3765310.00        0.14667
         439819.00    3765310.00        0.14658
439824.00    3765310.00        0.14648
         439829.00    3765310.00        0.14637
439839.00    3765310.00        0.14616
         439844.00    3765310.00        0.14605
439849.00    3765310.00        0.14593
         439854.00    3765310.00        0.14582
439859.00    3765310.00        0.14570
         439864.00    3765310.00        0.14557
439869.00    3765310.00        0.14545
         439874.00    3765310.00        0.14531
439879.00    3765310.00        0.14518
         439884.00    3765310.00        0.14504
439674.00    3765315.00        0.15028
         439679.00    3765315.00        0.15026
439684.00    3765315.00        0.15023
         439689.00    3765315.00        0.15020
439694.00    3765315.00        0.15017
         439699.00    3765315.00        0.15014
439704.00    3765315.00        0.15010
         439709.00    3765315.00        0.15006
439714.00    3765315.00        0.15002
         439719.00    3765315.00        0.14998
439729.00    3765315.00        0.14988
         439734.00    3765315.00        0.14983
439739.00    3765315.00        0.14978
         439744.00    3765315.00        0.14973
439749.00    3765315.00        0.14967
         439764.00    3765315.00        0.14948
439769.00    3765315.00        0.14941
         439774.00    3765315.00        0.14934
439779.00    3765315.00        0.14927
         439784.00    3765315.00        0.14919
439789.00    3765315.00        0.14911
         439794.00    3765315.00        0.14903
439799.00    3765315.00        0.14895
         439804.00    3765315.00        0.14886
439809.00    3765315.00        0.14877
         439814.00    3765315.00        0.14868
439819.00    3765315.00        0.14859
         439824.00    3765315.00        0.14849
439829.00    3765315.00        0.14839
         439839.00    3765315.00        0.14818
439844.00    3765315.00        0.14807
         439849.00    3765315.00        0.14796
439854.00    3765315.00        0.14784
```

```
         439859.00    3765315.00        0.14772
439864.00    3765315.00        0.14760
         439869.00    3765315.00        0.14747
439874.00    3765315.00        0.14734
         439879.00    3765315.00        0.14721
439884.00    3765315.00        0.14708
         439674.00    3765320.00        0.15229
439679.00    3765320.00        0.15226
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: FREEEVAP ***
INCLUDING SOURCE(S):
A0000067 , A0000068 , A0000069 , A0000070 , A0000071 ,
A0000072 , A0000073 , A0000074 , A0000075 , A0000076 , A0000077 , A0000078 , A0000079 ,
A0000080 , A0000081 , A0000082 , A0000083 , A0000084 , A0000085 , A0000086 , A0000087 ,
A0000088 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439684.00	3765320.00	0.15224	439689.00	3765320.00	0.15221
439694.00	3765320.00	0.15218	439699.00	3765320.00	0.15215
439704.00	3765320.00	0.15212	439709.00	3765320.00	0.15208
439714.00	3765320.00	0.15204	439719.00	3765320.00	0.15200
439729.00	3765320.00	0.15191	439734.00	3765320.00	0.15186
439739.00	3765320.00	0.15181	439744.00	3765320.00	0.15176
439749.00	3765320.00	0.15170	439764.00	3765320.00	0.15152
439769.00	3765320.00	0.15145	439774.00	3765320.00	0.15138
439779.00	3765320.00	0.15131	439784.00	3765320.00	0.15124
439789.00	3765320.00	0.15116	439794.00	3765320.00	0.15108

```
          439799.00    3765320.00        0.15100
439804.00    3765320.00        0.15092
          439809.00    3765320.00        0.15083
439814.00    3765320.00        0.15074
          439819.00    3765320.00        0.15065
439824.00    3765320.00        0.15055
          439829.00    3765320.00        0.15045
439839.00    3765320.00        0.15024
          439844.00    3765320.00        0.15014
439849.00    3765320.00        0.15003
          439854.00    3765320.00        0.14991
439859.00    3765320.00        0.14979
          439864.00    3765320.00        0.14967
439869.00    3765320.00        0.14955
          439874.00    3765320.00        0.14942
439879.00    3765320.00        0.14929
          439884.00    3765320.00        0.14916
439674.00    3765325.00        0.15434
          439679.00    3765325.00        0.15432
439684.00    3765325.00        0.15429
          439689.00    3765325.00        0.15427
439694.00    3765325.00        0.15424
          439699.00    3765325.00        0.15421
439704.00    3765325.00        0.15418
          439709.00    3765325.00        0.15415
439714.00    3765325.00        0.15411
          439719.00    3765325.00        0.15407
439729.00    3765325.00        0.15398
          439734.00    3765325.00        0.15394
439739.00    3765325.00        0.15389
          439744.00    3765325.00        0.15384
439749.00    3765325.00        0.15378
          439754.00    3765325.00        0.15373
439769.00    3765325.00        0.15354
          439774.00    3765325.00        0.15347
439779.00    3765325.00        0.15341
          439784.00    3765325.00        0.15333
439789.00    3765325.00        0.15326
          439794.00    3765325.00        0.15318
439799.00    3765325.00        0.15310
          439804.00    3765325.00        0.15302
439809.00    3765325.00        0.15293
          439814.00    3765325.00        0.15284
439819.00    3765325.00        0.15275
          439824.00    3765325.00        0.15266
439829.00    3765325.00        0.15256
          439839.00    3765325.00        0.15236
439844.00    3765325.00        0.15225
          439849.00    3765325.00        0.15214
439854.00    3765325.00        0.15203
          439859.00    3765325.00        0.15191
439864.00    3765325.00        0.15179
```

```
         439869.00    3765325.00        0.15167
439874.00    3765325.00        0.15155
         439879.00    3765325.00        0.15142
439884.00    3765325.00        0.15128
         439674.00    3765330.00        0.15644
439679.00    3765330.00        0.15642
         439684.00    3765330.00        0.15640
439689.00    3765330.00        0.15638
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: FREEEVAP ***
INCLUDING SOURCE(S):
A0000067 , A0000068 , A0000069 , A0000070 , A0000071 ,
A0000072 , A0000073 , A0000074 , A0000075 , A0000076 , A0000077 , A0000078 , A0000079 ,
A0000080 , A0000081 , A0000082 , A0000083 , A0000084 , A0000085 , A0000086 , A0000087 ,
A0000088 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439694.00	3765330.00	0.15635	439699.00	3765330.00	0.15632
439704.00	3765330.00	0.15629	439709.00	3765330.00	0.15626
439714.00	3765330.00	0.15623	439719.00	3765330.00	0.15619
439729.00	3765330.00	0.15611	439734.00	3765330.00	0.15606
439739.00	3765330.00	0.15602	439744.00	3765330.00	0.15597
439749.00	3765330.00	0.15591	439754.00	3765330.00	0.15586
439774.00	3765330.00	0.15562	439779.00	3765330.00	0.15555
439784.00	3765330.00	0.15548	439789.00	3765330.00	0.15541
439794.00	3765330.00	0.15533	439799.00	3765330.00	0.15525
439804.00	3765330.00	0.15517	439809.00	3765330.00	0.15509

```
          439814.00    3765330.00        0.15500
439819.00    3765330.00        0.15491
          439824.00    3765330.00        0.15482
439829.00    3765330.00        0.15472
          439839.00    3765330.00        0.15452
439844.00    3765330.00        0.15442
          439849.00    3765330.00        0.15431
439854.00    3765330.00        0.15420
          439859.00    3765330.00        0.15408
439864.00    3765330.00        0.15397
          439869.00    3765330.00        0.15385
439874.00    3765330.00        0.15372
          439879.00    3765330.00        0.15360
439884.00    3765330.00        0.15347
          439674.00    3765335.00        0.15859
439679.00    3765335.00        0.15858
          439684.00    3765335.00        0.15856
439689.00    3765335.00        0.15854
          439694.00    3765335.00        0.15851
439699.00    3765335.00        0.15849
          439704.00    3765335.00        0.15846
439709.00    3765335.00        0.15843
          439714.00    3765335.00        0.15840
439719.00    3765335.00        0.15836
          439729.00    3765335.00        0.15828
439734.00    3765335.00        0.15824
          439739.00    3765335.00        0.15819
439744.00    3765335.00        0.15815
          439749.00    3765335.00        0.15810
439774.00    3765335.00        0.15781
          439779.00    3765335.00        0.15774
439784.00    3765335.00        0.15767
          439789.00    3765335.00        0.15760
439794.00    3765335.00        0.15753
          439839.00    3765335.00        0.15674
439844.00    3765335.00        0.15663
          439849.00    3765335.00        0.15653
439854.00    3765335.00        0.15642
          439859.00    3765335.00        0.15631
439864.00    3765335.00        0.15619
          439869.00    3765335.00        0.15608
439874.00    3765335.00        0.15595
          439879.00    3765335.00        0.15583
439884.00    3765335.00        0.15570
          439674.00    3765340.00        0.16080
439679.00    3765340.00        0.16078
          439684.00    3765340.00        0.16077
439689.00    3765340.00        0.16075
          439694.00    3765340.00        0.16073
439699.00    3765340.00        0.16070
          439704.00    3765340.00        0.16068
439709.00    3765340.00        0.16065
```

```
         439714.00    3765340.00        0.16062
439719.00    3765340.00        0.16058
         439729.00    3765340.00        0.16051
439734.00    3765340.00        0.16047
         439739.00    3765340.00        0.16043
439744.00    3765340.00        0.16038
         439749.00    3765340.00        0.16033
439774.00    3765340.00        0.16005
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: FREEEVAP ***
INCLUDING SOURCE(S):
A0000067 , A0000068 , A0000069 , A0000070 , A0000071 ,
A0000072 , A0000073 , A0000074 , A0000075 , A0000076 , A0000077 , A0000078 , A0000079 ,
A0000080 , A0000081 , A0000082 , A0000083 , A0000084 , A0000085 , A0000086 , A0000087 ,
A0000088 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439779.00	3765340.00	0.15999	439784.00	3765340.00	0.15992
439789.00	3765340.00	0.15986	439794.00	3765340.00	0.15978
439839.00	3765340.00	0.15901	439844.00	3765340.00	0.15891
439849.00	3765340.00	0.15880	439854.00	3765340.00	0.15870
439859.00	3765340.00	0.15859	439864.00	3765340.00	0.15847
439869.00	3765340.00	0.15836	439874.00	3765340.00	0.15823
439879.00	3765340.00	0.15811	439884.00	3765340.00	0.15798
439674.00	3765345.00	0.16306	439679.00	3765345.00	0.16305
439684.00	3765345.00	0.16303	439689.00	3765345.00	0.16301
439694.00	3765345.00	0.16300	439699.00	3765345.00	0.16297

```
          439704.00    3765345.00        0.16295
439709.00    3765345.00        0.16292
          439714.00    3765345.00        0.16289
439719.00    3765345.00        0.16286
          439729.00    3765345.00        0.16279
439734.00    3765345.00        0.16276
          439739.00    3765345.00        0.16272
439744.00    3765345.00        0.16267
          439749.00    3765345.00        0.16263
439774.00    3765345.00        0.16236
          439779.00    3765345.00        0.16230
439784.00    3765345.00        0.16223
          439789.00    3765345.00        0.16216
439794.00    3765345.00        0.16209
          439839.00    3765345.00        0.16134
439844.00    3765345.00        0.16124
          439849.00    3765345.00        0.16113
439854.00    3765345.00        0.16103
          439859.00    3765345.00        0.16092
439864.00    3765345.00        0.16081
          439869.00    3765345.00        0.16069
439874.00    3765345.00        0.16058
          439879.00    3765345.00        0.16045
439884.00    3765345.00        0.16033
          439674.00    3765350.00        0.16537
439679.00    3765350.00        0.16537
          439684.00    3765350.00        0.16535
439689.00    3765350.00        0.16534
          439694.00    3765350.00        0.16532
439699.00    3765350.00        0.16530
          439704.00    3765350.00        0.16528
439709.00    3765350.00        0.16526
          439714.00    3765350.00        0.16523
439719.00    3765350.00        0.16520
          439729.00    3765350.00        0.16513
439734.00    3765350.00        0.16510
          439739.00    3765350.00        0.16506
439744.00    3765350.00        0.16502
          439749.00    3765350.00        0.16497
439774.00    3765350.00        0.16472
          439779.00    3765350.00        0.16466
439784.00    3765350.00        0.16460
          439789.00    3765350.00        0.16453
439794.00    3765350.00        0.16446
          439839.00    3765350.00        0.16372
439844.00    3765350.00        0.16362
          439849.00    3765350.00        0.16353
439854.00    3765350.00        0.16342
          439859.00    3765350.00        0.16332
439864.00    3765350.00        0.16320
          439869.00    3765350.00        0.16309
439874.00    3765350.00        0.16297
```

```
         439879.00    3765350.00        0.16286
439884.00    3765350.00        0.16273
         439674.00    3765355.00        0.16775
439679.00    3765355.00        0.16774
         439684.00    3765355.00        0.16773
439689.00    3765355.00        0.16772
         439694.00    3765355.00        0.16771
439699.00    3765355.00        0.16769
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: FREEEVAP ***
INCLUDING SOURCE(S):
A0000067 , A0000068 , A0000069 , A0000070 , A0000071 ,
A0000072 , A0000073 , A0000074 , A0000075 , A0000076 , A0000077 , A0000078 , A0000079 ,
A0000080 , A0000081 , A0000082 , A0000083 , A0000084 , A0000085 , A0000086 , A0000087 ,
A0000088 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439704.00	3765355.00	0.16767	439709.00	3765355.00	0.16765
439714.00	3765355.00	0.16762	439719.00	3765355.00	0.16760
439729.00	3765355.00	0.16754	439734.00	3765355.00	0.16750
439739.00	3765355.00	0.16747	439744.00	3765355.00	0.16743
439749.00	3765355.00	0.16739	439774.00	3765355.00	0.16714
439779.00	3765355.00	0.16708	439784.00	3765355.00	0.16702
439789.00	3765355.00	0.16696	439794.00	3765355.00	0.16689
439839.00	3765355.00	0.16617	439844.00	3765355.00	0.16608
439849.00	3765355.00	0.16597	439854.00	3765355.00	0.16588
439859.00	3765355.00	0.16577	439864.00	3765355.00	0.16566

```
          439869.00    3765355.00        0.16555
439874.00    3765355.00        0.16543
          439879.00    3765355.00        0.16532
439884.00    3765355.00        0.16519
          439674.00    3765360.00        0.17019
439679.00    3765360.00        0.17018
          439684.00    3765360.00        0.17017
439689.00    3765360.00        0.17017
          439694.00    3765360.00        0.17015
439699.00    3765360.00        0.17014
          439704.00    3765360.00        0.17012
439709.00    3765360.00        0.17010
          439714.00    3765360.00        0.17008
439719.00    3765360.00        0.17005
          439729.00    3765360.00        0.17000
439734.00    3765360.00        0.16997
          439739.00    3765360.00        0.16993
439744.00    3765360.00        0.16990
          439749.00    3765360.00        0.16985
439774.00    3765360.00        0.16962
          439779.00    3765360.00        0.16956
439784.00    3765360.00        0.16951
          439789.00    3765360.00        0.16945
439794.00    3765360.00        0.16938
          439799.00    3765360.00        0.16932
439804.00    3765360.00        0.16924
          439809.00    3765360.00        0.16918
439814.00    3765360.00        0.16910
          439839.00    3765360.00        0.16868
439844.00    3765360.00        0.16858
          439849.00    3765360.00        0.16849
439854.00    3765360.00        0.16839
          439859.00    3765360.00        0.16829
439864.00    3765360.00        0.16818
          439869.00    3765360.00        0.16807
439874.00    3765360.00        0.16796
          439879.00    3765360.00        0.16784
439884.00    3765360.00        0.16772
          439674.00    3765365.00        0.17269
439679.00    3765365.00        0.17269
          439684.00    3765365.00        0.17268
439689.00    3765365.00        0.17268
          439694.00    3765365.00        0.17266
439699.00    3765365.00        0.17265
          439704.00    3765365.00        0.17264
439709.00    3765365.00        0.17262
          439714.00    3765365.00        0.17260
439719.00    3765365.00        0.17258
          439729.00    3765365.00        0.17253
439734.00    3765365.00        0.17250
          439739.00    3765365.00        0.17247
439744.00    3765365.00        0.17243
```

```
         439749.00    3765365.00        0.17239
439774.00    3765365.00        0.17217
         439779.00    3765365.00        0.17211
439784.00    3765365.00        0.17206
         439789.00    3765365.00        0.17200
439794.00    3765365.00        0.17194
         439799.00    3765365.00        0.17187
439804.00    3765365.00        0.17181
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: FREEEVAP ***
INCLUDING SOURCE(S):
A0000067 , A0000068 , A0000069 , A0000070 , A0000071 ,
A0000072 , A0000073 , A0000074 , A0000075 , A0000076 , A0000077 , A0000078 , A0000079 ,
A0000080 , A0000081 , A0000082 , A0000083 , A0000084 , A0000085 , A0000086 , A0000087 ,
A0000088 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439809.00	3765365.00	0.17173	439814.00	3765365.00	0.17167
439839.00	3765365.00	0.17125	439844.00	3765365.00	0.17116
439849.00	3765365.00	0.17107	439854.00	3765365.00	0.17097
439859.00	3765365.00	0.17087	439864.00	3765365.00	0.17076
439869.00	3765365.00	0.17066	439874.00	3765365.00	0.17054
439879.00	3765365.00	0.17044	439884.00	3765365.00	0.17031
439674.00	3765370.00	0.17526	439679.00	3765370.00	0.17526
439684.00	3765370.00	0.17526	439689.00	3765370.00	0.17525
439694.00	3765370.00	0.17524	439699.00	3765370.00	0.17523
439704.00	3765370.00	0.17522	439709.00	3765370.00	0.17521

```
          439714.00    3765370.00        0.17519
439719.00    3765370.00        0.17517
          439729.00    3765370.00        0.17512
439734.00    3765370.00        0.17509
          439739.00    3765370.00        0.17506
439744.00    3765370.00        0.17503
          439749.00    3765370.00        0.17500
439774.00    3765370.00        0.17478
          439779.00    3765370.00        0.17473
439784.00    3765370.00        0.17468
          439789.00    3765370.00        0.17462
439794.00    3765370.00        0.17456
          439799.00    3765370.00        0.17450
439804.00    3765370.00        0.17444
          439809.00    3765370.00        0.17437
439814.00    3765370.00        0.17430
          439839.00    3765370.00        0.17390
439844.00    3765370.00        0.17381
          439849.00    3765370.00        0.17371
439854.00    3765370.00        0.17362
          439859.00    3765370.00        0.17352
439864.00    3765370.00        0.17342
          439869.00    3765370.00        0.17331
439874.00    3765370.00        0.17321
          439879.00    3765370.00        0.17309
439884.00    3765370.00        0.17298
          439674.00    3765375.00        0.17789
439679.00    3765375.00        0.17790
          439684.00    3765375.00        0.17790
439689.00    3765375.00        0.17790
          439694.00    3765375.00        0.17789
439699.00    3765375.00        0.17788
          439704.00    3765375.00        0.17787
439709.00    3765375.00        0.17786
          439714.00    3765375.00        0.17785
439719.00    3765375.00        0.17783
          439729.00    3765375.00        0.17778
439734.00    3765375.00        0.17777
          439739.00    3765375.00        0.17773
439744.00    3765375.00        0.17771
          439749.00    3765375.00        0.17767
439754.00    3765375.00        0.17764
          439774.00    3765375.00        0.17747
439779.00    3765375.00        0.17742
          439784.00    3765375.00        0.17737
439789.00    3765375.00        0.17731
          439794.00    3765375.00        0.17726
439799.00    3765375.00        0.17720
          439804.00    3765375.00        0.17713
439809.00    3765375.00        0.17707
          439814.00    3765375.00        0.17699
439839.00    3765375.00        0.17662
```

```
          439844.00    3765375.00        0.17652
439849.00    3765375.00        0.17644
          439854.00    3765375.00        0.17634
439859.00    3765375.00        0.17625
          439864.00    3765375.00        0.17614
439869.00    3765375.00        0.17605
          439874.00    3765375.00        0.17593
439879.00    3765375.00        0.17583
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: FREEEVAP ***
INCLUDING SOURCE(S):
A0000067 , A0000068 , A0000069 , A0000070 , A0000071 ,
A0000072 , A0000073 , A0000074 , A0000075 , A0000076 , A0000077 , A0000078 , A0000079 ,
A0000080 , A0000081 , A0000082 , A0000083 , A0000084 , A0000085 , A0000086 , A0000087 ,
A0000088 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439884.00	3765375.00	0.17571	439774.00	3765380.00	0.18023
439779.00	3765380.00	0.18018	439784.00	3765380.00	0.18013
439789.00	3765380.00	0.18008	439794.00	3765380.00	0.18003
439799.00	3765380.00	0.17997	439804.00	3765380.00	0.17991
439809.00	3765380.00	0.17984	439814.00	3765380.00	0.17979
439769.00	3765385.00	0.18311	439819.00	3765385.00	0.18257
439769.00	3765400.00	0.19211	439844.00	3765400.00	0.19129
439849.00	3765400.00	0.19122	439674.00	3765405.00	0.19536
439714.00	3765405.00	0.19544	439719.00	3765405.00	0.19545
439734.00	3765405.00	0.19543	439749.00	3765405.00	0.19538

```
          439754.00    3765405.00        0.19536
439774.00    3765405.00        0.19525
          439779.00    3765405.00        0.19522
439784.00    3765405.00        0.19518
          439789.00    3765405.00        0.19514
439794.00    3765405.00        0.19510
          439799.00    3765405.00        0.19506
439804.00    3765405.00        0.19501
          439809.00    3765405.00        0.19495
439814.00    3765405.00        0.19491
          439819.00    3765405.00        0.19484
439824.00    3765405.00        0.19479
          439829.00    3765405.00        0.19472
439834.00    3765405.00        0.19466
          439839.00    3765405.00        0.19458
439844.00    3765405.00        0.19451
          439849.00    3765405.00        0.19444
439854.00    3765405.00        0.19435
          439859.00    3765405.00        0.19427
439674.00    3765410.00        0.19858
          439679.00    3765410.00        0.19860
439684.00    3765410.00        0.19862
          439689.00    3765410.00        0.19864
439694.00    3765410.00        0.19866
          439699.00    3765410.00        0.19866
439704.00    3765410.00        0.19868
          439709.00    3765410.00        0.19868
439714.00    3765410.00        0.19869
          439719.00    3765410.00        0.19868
439729.00    3765410.00        0.19868
          439734.00    3765410.00        0.19868
439739.00    3765410.00        0.19867
          439744.00    3765410.00        0.19866
439749.00    3765410.00        0.19864
          439774.00    3765410.00        0.19853
439779.00    3765410.00        0.19850
          439784.00    3765410.00        0.19846
439789.00    3765410.00        0.19843
          439794.00    3765410.00        0.19839
439799.00    3765410.00        0.19834
          439804.00    3765410.00        0.19830
439809.00    3765410.00        0.19826
          439814.00    3765410.00        0.19819
439819.00    3765410.00        0.19815
          439824.00    3765410.00        0.19808
439829.00    3765410.00        0.19803
          439834.00    3765410.00        0.19795
439839.00    3765410.00        0.19790
          439844.00    3765410.00        0.19782
439849.00    3765410.00        0.19775
          439854.00    3765410.00        0.19767
439859.00    3765410.00        0.19759
```

```
         439674.00    3765415.00        0.20190
439679.00    3765415.00        0.20192
         439684.00    3765415.00        0.20194
439689.00    3765415.00        0.20197
         439694.00    3765415.00        0.20198
439699.00    3765415.00        0.20200
         439704.00    3765415.00        0.20201
439709.00    3765415.00        0.20202
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: FREEEVAP ***
INCLUDING SOURCE(S):
A0000067 , A0000068 , A0000069 , A0000070 , A0000071 ,
A0000072 , A0000073 , A0000074 , A0000075 , A0000076 , A0000077 , A0000078 , A0000079 ,
A0000080 , A0000081 , A0000082 , A0000083 , A0000084 , A0000085 , A0000086 , A0000087 ,
A0000088 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439714.00	3765415.00	0.20202	439719.00	3765415.00	0.20204
439729.00	3765415.00	0.20204	439734.00	3765415.00	0.20203
439739.00	3765415.00	0.20203	439744.00	3765415.00	0.20201
439749.00	3765415.00	0.20201	439774.00	3765415.00	0.20190
439779.00	3765415.00	0.20188	439784.00	3765415.00	0.20185
439789.00	3765415.00	0.20181	439794.00	3765415.00	0.20177
439799.00	3765415.00	0.20174	439804.00	3765415.00	0.20169
439809.00	3765415.00	0.20164	439814.00	3765415.00	0.20160
439819.00	3765415.00	0.20154	439824.00	3765415.00	0.20149
439829.00	3765415.00	0.20143	439834.00	3765415.00	0.20138

```
          439839.00    3765415.00        0.20130
439844.00    3765415.00        0.20124
          439849.00    3765415.00        0.20117
439854.00    3765415.00        0.20109
          439859.00    3765415.00        0.20101
439674.00    3765420.00        0.20532
          439679.00    3765420.00        0.20535
439684.00    3765420.00        0.20537
          439689.00    3765420.00        0.20539
439694.00    3765420.00        0.20542
          439699.00    3765420.00        0.20543
439704.00    3765420.00        0.20545
          439709.00    3765420.00        0.20546
439714.00    3765420.00        0.20548
          439719.00    3765420.00        0.20548
439729.00    3765420.00        0.20549
          439734.00    3765420.00        0.20549
439739.00    3765420.00        0.20549
          439744.00    3765420.00        0.20548
439749.00    3765420.00        0.20547
          439774.00    3765420.00        0.20539
439779.00    3765420.00        0.20536
          439784.00    3765420.00        0.20533
439789.00    3765420.00        0.20531
          439794.00    3765420.00        0.20527
439799.00    3765420.00        0.20523
          439804.00    3765420.00        0.20519
439809.00    3765420.00        0.20515
          439814.00    3765420.00        0.20509
439819.00    3765420.00        0.20505
          439824.00    3765420.00        0.20500
439829.00    3765420.00        0.20495
          439834.00    3765420.00        0.20488
439839.00    3765420.00        0.20483
          439844.00    3765420.00        0.20475
439849.00    3765420.00        0.20469
          439854.00    3765420.00        0.20461
439859.00    3765420.00        0.20454
          439674.00    3765425.00        0.20884
439679.00    3765425.00        0.20888
          439684.00    3765425.00        0.20891
439689.00    3765425.00        0.20894
          439694.00    3765425.00        0.20895
439699.00    3765425.00        0.20898
          439704.00    3765425.00        0.20900
439709.00    3765425.00        0.20902
          439714.00    3765425.00        0.20903
439719.00    3765425.00        0.20904
          439729.00    3765425.00        0.20905
439734.00    3765425.00        0.20906
          439739.00    3765425.00        0.20906
439744.00    3765425.00        0.20905
```

```
          439749.00    3765425.00        0.20905
439774.00    3765425.00        0.20898
          439779.00    3765425.00        0.20896
439784.00    3765425.00        0.20893
          439789.00    3765425.00        0.20890
439794.00    3765425.00        0.20887
          439799.00    3765425.00        0.20884
439804.00    3765425.00        0.20880
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: FREEEVAP ***
INCLUDING SOURCE(S):
A0000067 , A0000068 , A0000069 , A0000070 , A0000071 ,
A0000072 , A0000073 , A0000074 , A0000075 , A0000076 , A0000077 , A0000078 , A0000079 ,
A0000080 , A0000081 , A0000082 , A0000083 , A0000084 , A0000085 , A0000086 , A0000087 ,
A0000088 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439809.00	3765425.00	0.20875	439814.00	3765425.00	0.20872
439819.00	3765425.00	0.20866	439824.00	3765425.00	0.20862
439829.00	3765425.00	0.20856	439834.00	3765425.00	0.20851
439839.00	3765425.00	0.20844	439844.00	3765425.00	0.20839
439849.00	3765425.00	0.20832	439854.00	3765425.00	0.20825
439859.00	3765425.00	0.20818	439674.00	3765430.00	0.21249
439679.00	3765430.00	0.21253	439684.00	3765430.00	0.21256
439689.00	3765430.00	0.21259	439694.00	3765430.00	0.21262
439699.00	3765430.00	0.21264	439704.00	3765430.00	0.21266
439709.00	3765430.00	0.21268	439714.00	3765430.00	0.21270

```
          439719.00    3765430.00        0.21271
439729.00    3765430.00        0.21273
          439734.00    3765430.00        0.21274
439739.00    3765430.00        0.21274
          439744.00    3765430.00        0.21274
439749.00    3765430.00        0.21274
          439774.00    3765430.00        0.21269
439779.00    3765430.00        0.21267
          439784.00    3765430.00        0.21264
439789.00    3765430.00        0.21262
          439794.00    3765430.00        0.21259
439799.00    3765430.00        0.21256
          439804.00    3765430.00        0.21252
439809.00    3765430.00        0.21249
          439814.00    3765430.00        0.21244
439819.00    3765430.00        0.21241
          439824.00    3765430.00        0.21235
439829.00    3765430.00        0.21231
          439834.00    3765430.00        0.21225
439839.00    3765430.00        0.21220
          439844.00    3765430.00        0.21213
439849.00    3765430.00        0.21207
          439854.00    3765430.00        0.21200
439859.00    3765430.00        0.21194
          439674.00    3765435.00        0.21625
439679.00    3765435.00        0.21630
          439684.00    3765435.00        0.21633
439689.00    3765435.00        0.21637
          439694.00    3765435.00        0.21639
439699.00    3765435.00        0.21642
          439704.00    3765435.00        0.21645
439709.00    3765435.00        0.21647
          439714.00    3765435.00        0.21649
439719.00    3765435.00        0.21651
          439729.00    3765435.00        0.21654
439734.00    3765435.00        0.21655
          439739.00    3765435.00        0.21655
439744.00    3765435.00        0.21655
          439749.00    3765435.00        0.21655
439774.00    3765435.00        0.21652
          439779.00    3765435.00        0.21650
439784.00    3765435.00        0.21648
          439789.00    3765435.00        0.21646
439794.00    3765435.00        0.21643
          439799.00    3765435.00        0.21640
439804.00    3765435.00        0.21637
          439809.00    3765435.00        0.21634
439814.00    3765435.00        0.21630
          439819.00    3765435.00        0.21626
439824.00    3765435.00        0.21622
          439829.00    3765435.00        0.21616
439834.00    3765435.00        0.21612
```

```
         439839.00    3765435.00        0.21606
439844.00    3765435.00        0.21601
         439849.00    3765435.00        0.21594
439854.00    3765435.00        0.21588
         439859.00    3765435.00        0.21581
439674.00    3765440.00        0.22014
         439679.00    3765440.00        0.22019
439684.00    3765440.00        0.22023
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: FREEEVAP ***
INCLUDING SOURCE(S):
A0000067 , A0000068 , A0000069 , A0000070 , A0000071 ,
A0000072 , A0000073 , A0000074 , A0000075 , A0000076 , A0000077 , A0000078 , A0000079 ,
A0000080 , A0000081 , A0000082 , A0000083 , A0000084 , A0000085 , A0000086 , A0000087 ,
A0000088 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439689.00	3765440.00	0.22026	439694.00	3765440.00	0.22030
439699.00	3765440.00	0.22033	439704.00	3765440.00	0.22036
439709.00	3765440.00	0.22039	439714.00	3765440.00	0.22041
439719.00	3765440.00	0.22043	439729.00	3765440.00	0.22046
439734.00	3765440.00	0.22047	439739.00	3765440.00	0.22048
439744.00	3765440.00	0.22049	439749.00	3765440.00	0.22050
439774.00	3765440.00	0.22047	439779.00	3765440.00	0.22046
439784.00	3765440.00	0.22044	439789.00	3765440.00	0.22043
439794.00	3765440.00	0.22040	439799.00	3765440.00	0.22038
439804.00	3765440.00	0.22035	439809.00	3765440.00	0.22032

```
          439814.00    3765440.00        0.22028
439819.00    3765440.00        0.22025
          439824.00    3765440.00        0.22020
439829.00    3765440.00        0.22016
          439834.00    3765440.00        0.22011
439839.00    3765440.00        0.22006
          439844.00    3765440.00        0.22000
439849.00    3765440.00        0.21995
          439854.00    3765440.00        0.21989
439859.00    3765440.00        0.21982
          439674.00    3765445.00        0.22417
439679.00    3765445.00        0.22422
          439684.00    3765445.00        0.22426
439689.00    3765445.00        0.22430
          439694.00    3765445.00        0.22434
439699.00    3765445.00        0.22437
          439704.00    3765445.00        0.22440
439709.00    3765445.00        0.22444
          439714.00    3765445.00        0.22446
439719.00    3765445.00        0.22449
          439729.00    3765445.00        0.22453
439734.00    3765445.00        0.22454
          439739.00    3765445.00        0.22456
439744.00    3765445.00        0.22457
          439749.00    3765445.00        0.22457
439774.00    3765445.00        0.22457
          439779.00    3765445.00        0.22455
439784.00    3765445.00        0.22455
          439789.00    3765445.00        0.22453
439794.00    3765445.00        0.22451
          439799.00    3765445.00        0.22448
439804.00    3765445.00        0.22446
          439809.00    3765445.00        0.22443
439814.00    3765445.00        0.22440
          439819.00    3765445.00        0.22436
439824.00    3765445.00        0.22433
          439829.00    3765445.00        0.22428
439834.00    3765445.00        0.22424
          439839.00    3765445.00        0.22419
439844.00    3765445.00        0.22414
          439849.00    3765445.00        0.22408
439854.00    3765445.00        0.22403
          439859.00    3765445.00        0.22396
439674.00    3765450.00        0.22833
          439679.00    3765450.00        0.22838
439684.00    3765450.00        0.22843
          439689.00    3765450.00        0.22847
439694.00    3765450.00        0.22851
          439699.00    3765450.00        0.22855
439704.00    3765450.00        0.22859
          439709.00    3765450.00        0.22862
439714.00    3765450.00        0.22866
```

```
         439719.00    3765450.00        0.22868
439729.00    3765450.00        0.22873
         439734.00    3765450.00        0.22875
439739.00    3765450.00        0.22877
         439744.00    3765450.00        0.22878
439749.00    3765450.00        0.22879
         439774.00    3765450.00        0.22880
439844.00    3765450.00        0.22842
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: FREEEVAP ***
INCLUDING SOURCE(S):
A0000067 , A0000068 , A0000069 , A0000070 , A0000071 ,
A0000072 , A0000073 , A0000074 , A0000075 , A0000076 , A0000077 , A0000078 , A0000079 ,
A0000080 , A0000081 , A0000082 , A0000083 , A0000084 , A0000085 , A0000086 , A0000087 ,
A0000088 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439849.00	3765450.00	0.22837	439854.00	3765450.00	0.22831
439859.00	3765450.00	0.22826	439674.00	3765455.00	0.23264
439679.00	3765455.00	0.23270	439684.00	3765455.00	0.23275
439689.00	3765455.00	0.23280	439694.00	3765455.00	0.23284
439699.00	3765455.00	0.23288	439704.00	3765455.00	0.23292
439709.00	3765455.00	0.23296	439714.00	3765455.00	0.23300
439719.00	3765455.00	0.23303	439729.00	3765455.00	0.23308
439734.00	3765455.00	0.23310	439739.00	3765455.00	0.23313
439744.00	3765455.00	0.23314	439749.00	3765455.00	0.23316
439844.00	3765455.00	0.23285	439849.00	3765455.00	0.23280

```
          439854.00    3765455.00        0.23275
439859.00    3765455.00        0.23269
          439674.00    3765460.00        0.23711
439679.00    3765460.00        0.23717
          439684.00    3765460.00        0.23722
439689.00    3765460.00        0.23727
          439694.00    3765460.00        0.23732
439699.00    3765460.00        0.23737
          439704.00    3765460.00        0.23742
439709.00    3765460.00        0.23745
          439714.00    3765460.00        0.23749
439719.00    3765460.00        0.23753
          439729.00    3765460.00        0.23759
439734.00    3765460.00        0.23762
          439739.00    3765460.00        0.23764
439744.00    3765460.00        0.23766
          439749.00    3765460.00        0.23768
439789.00    3765460.00        0.23772
          439794.00    3765460.00        0.23771
439799.00    3765460.00        0.23770
          439804.00    3765460.00        0.23768
439809.00    3765460.00        0.23766
          439814.00    3765460.00        0.23764
439819.00    3765460.00        0.23762
          439824.00    3765460.00        0.23759
439829.00    3765460.00        0.23756
          439844.00    3765460.00        0.23744
439849.00    3765460.00        0.23739
          439854.00    3765460.00        0.23735
439859.00    3765460.00        0.23729
          439674.00    3765465.00        0.24174
439679.00    3765465.00        0.24181
          439684.00    3765465.00        0.24186
439689.00    3765465.00        0.24192
          439694.00    3765465.00        0.24197
439699.00    3765465.00        0.24202
          439704.00    3765465.00        0.24207
439709.00    3765465.00        0.24212
          439714.00    3765465.00        0.24216
439719.00    3765465.00        0.24220
          439729.00    3765465.00        0.24227
439734.00    3765465.00        0.24230
          439739.00    3765465.00        0.24232
439744.00    3765465.00        0.24235
          439749.00    3765465.00        0.24237
439789.00    3765465.00        0.24244
          439794.00    3765465.00        0.24243
439799.00    3765465.00        0.24243
          439804.00    3765465.00        0.24241
439809.00    3765465.00        0.24240
          439814.00    3765465.00        0.24238
439819.00    3765465.00        0.24236
```

```
         439824.00    3765465.00        0.24233
439829.00    3765465.00        0.24230
         439844.00    3765465.00        0.24220
439849.00    3765465.00        0.24216
         439854.00    3765465.00        0.24211
439859.00    3765465.00        0.24206
         439674.00    3765470.00        0.24655
439679.00    3765470.00        0.24661
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: FREEEVAP ***
INCLUDING SOURCE(S):
A0000067 , A0000068 , A0000069 , A0000070 , A0000071 ,
A0000072 , A0000073 , A0000074 , A0000075 , A0000076 , A0000077 , A0000078 , A0000079 ,
A0000080 , A0000081 , A0000082 , A0000083 , A0000084 , A0000085 , A0000086 , A0000087 ,
A0000088 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439684.00	3765470.00	0.24668	439689.00	3765470.00	0.24673
439694.00	3765470.00	0.24680	439699.00	3765470.00	0.24685
439704.00	3765470.00	0.24690	439709.00	3765470.00	0.24695
439714.00	3765470.00	0.24700	439719.00	3765470.00	0.24704
439729.00	3765470.00	0.24712	439734.00	3765470.00	0.24715
439739.00	3765470.00	0.24719	439744.00	3765470.00	0.24721
439749.00	3765470.00	0.24724	439789.00	3765470.00	0.24733
439794.00	3765470.00	0.24734	439799.00	3765470.00	0.24733
439804.00	3765470.00	0.24732	439809.00	3765470.00	0.24731
439814.00	3765470.00	0.24729	439819.00	3765470.00	0.24727

```
          439824.00    3765470.00        0.24725
439829.00    3765470.00        0.24723
          439844.00    3765470.00        0.24713
439849.00    3765470.00        0.24709
          439854.00    3765470.00        0.24705
439859.00    3765470.00        0.24700
          439674.00    3765475.00        0.25153
439679.00    3765475.00        0.25161
          439684.00    3765475.00        0.25167
439689.00    3765475.00        0.25175
          439694.00    3765475.00        0.25180
439699.00    3765475.00        0.25187
          439704.00    3765475.00        0.25192
439709.00    3765475.00        0.25197
          439714.00    3765475.00        0.25203
439719.00    3765475.00        0.25207
          439729.00    3765475.00        0.25216
439734.00    3765475.00        0.25220
          439739.00    3765475.00        0.25223
439744.00    3765475.00        0.25227
          439749.00    3765475.00        0.25229
439754.00    3765475.00        0.25232
          439789.00    3765475.00        0.25242
439794.00    3765475.00        0.25242
          439799.00    3765475.00        0.25242
439804.00    3765475.00        0.25241
          439809.00    3765475.00        0.25241
439814.00    3765475.00        0.25240
          439819.00    3765475.00        0.25238
439824.00    3765475.00        0.25236
          439829.00    3765475.00        0.25234
439269.00    3764900.00        0.06694
          439369.00    3764900.00        0.06730
439469.00    3764900.00        0.06709
          439569.00    3764900.00        0.06629
439669.00    3764900.00        0.06490
          439769.00    3764900.00        0.06291
439869.00    3764900.00        0.06032
          439969.00    3764900.00        0.05716
440069.00    3764900.00        0.05349
          440169.00    3764900.00        0.04945
440269.00    3764900.00        0.04523
          439269.00    3765000.00        0.07813
439369.00    3765000.00        0.07886
          439469.00    3765000.00        0.07894
439569.00    3765000.00        0.07835
          439669.00    3765000.00        0.07708
439769.00    3765000.00        0.07510
          439869.00    3765000.00        0.07237
439969.00    3765000.00        0.06886
          440069.00    3765000.00        0.06460
440169.00    3765000.00        0.05970
```

```
         440269.00    3765000.00        0.05439
439269.00    3765100.00        0.09256
         439369.00    3765100.00        0.09377
439469.00    3765100.00        0.09421
         439569.00    3765100.00        0.09392
439669.00    3765100.00        0.09289
         439769.00    3765100.00        0.09105
439869.00    3765100.00        0.08832
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: FREEEVAP ***
INCLUDING SOURCE(S):
A0000067 , A0000068 , A0000069 , A0000070 , A0000071 ,
A0000072 , A0000073 , A0000074 , A0000075 , A0000076 , A0000077 , A0000078 , A0000079 ,
A0000080 , A0000081 , A0000082 , A0000083 , A0000084 , A0000085 , A0000086 , A0000087 ,
A0000088 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439969.00	3765100.00	0.08459	440069.00	3765100.00	0.07979
440169.00	3765100.00	0.07394	440269.00	3765100.00	0.06726
439269.00	3765200.00	0.11197	439369.00	3765200.00	0.11379
439469.00	3765200.00	0.11472	439569.00	3765200.00	0.11484
439669.00	3765200.00	0.11417	439769.00	3765200.00	0.11263
439869.00	3765200.00	0.11012	439969.00	3765200.00	0.10642
440069.00	3765200.00	0.10129	440169.00	3765200.00	0.09455
440269.00	3765200.00	0.08621	439269.00	3765300.00	0.13962
439369.00	3765300.00	0.14229	439469.00	3765300.00	0.14392
439569.00	3765300.00	0.14466	439669.00	3765300.00	0.14456

```
         439769.00    3765300.00        0.14356
439869.00    3765300.00        0.14152
         439969.00    3765300.00        0.13819
440069.00    3765300.00        0.13313
         440169.00    3765300.00        0.12583
440269.00    3765300.00        0.11578
         439269.00    3765400.00        0.18272
439369.00    3765400.00        0.18672
         439469.00    3765400.00        0.18953
439569.00    3765400.00        0.19134
         439669.00    3765400.00        0.19222
439769.00    3765400.00        0.19211
         439869.00    3765400.00        0.19087
439969.00    3765400.00        0.18824
         440069.00    3765400.00        0.18373
440169.00    3765400.00        0.17654
         440269.00    3765400.00        0.16538
439269.00    3765500.00        0.26115
         439369.00    3765500.00        0.26790
439469.00    3765500.00        0.27312
         439569.00    3765500.00        0.27697
439669.00    3765500.00        0.27960
         439769.00    3765500.00        0.28098
439869.00    3765500.00        0.28103
         439969.00    3765500.00        0.27957
440069.00    3765500.00        0.27615
         440169.00    3765500.00        0.26992
440269.00    3765500.00        0.25909
         439269.00    3765600.00        0.46137
439369.00    3765600.00        0.47549
         439469.00    3765600.00        0.48661
439569.00    3765600.00        0.49522
         439669.00    3765600.00        0.50162
439769.00    3765600.00        0.50609
         439869.00    3765600.00        0.50871
439969.00    3765600.00        0.50950
         440069.00    3765600.00        0.50821
440169.00    3765600.00        0.50426
         440269.00    3765600.00        0.49585
439269.00    3765700.00        2.98095
         439369.00    3765700.00        3.14515
439469.00    3765700.00        3.31373
         439569.00    3765700.00        3.49248
439669.00    3765700.00        3.61893
         439769.00    3765700.00        3.72200
439869.00    3765700.00        3.77977
         439969.00    3765700.00        3.82780
440069.00    3765700.00        3.87835
         440169.00    3765700.00        3.89913
440269.00    3765700.00        3.91286
         439269.00    3765800.00        1.09061
439369.00    3765800.00        1.13970
```

```
         439469.00    3765800.00        1.16949
439569.00    3765800.00        1.18842
         439669.00    3765800.00        1.20093
439769.00    3765800.00        1.20953
         439869.00    3765800.00        1.21519
439969.00    3765800.00        1.21847
         440069.00    3765800.00        1.21911
440169.00    3765800.00        1.21623
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: FREEEVAP ***
INCLUDING SOURCE(S):
A0000067 , A0000068 , A0000069 , A0000070 , A0000071 ,
A0000072 , A0000073 , A0000074 , A0000075 , A0000076 , A0000077 , A0000078 , A0000079 ,
A0000080 , A0000081 , A0000082 , A0000083 , A0000084 , A0000085 , A0000086 , A0000087 ,
A0000088 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
440269.00	3765800.00	1.20733	439269.00	3765900.00	0.34806
439369.00	3765900.00	0.40226	439469.00	3765900.00	0.44251
439569.00	3765900.00	0.47214	439669.00	3765900.00	0.49409
439769.00	3765900.00	0.51049	439869.00	3765900.00	0.52275
439969.00	3765900.00	0.53176	440069.00	3765900.00	0.53800
440169.00	3765900.00	0.54159	440269.00	3765900.00	0.54233
439649.00	3765310.00	0.14842	439679.00	3765310.00	0.14829
439709.00	3765310.00	0.14809	439739.00	3765310.00	0.14780
439769.00	3765310.00	0.14742	439799.00	3765310.00	0.14695
439829.00	3765310.00	0.14637	439859.00	3765310.00	0.14570

```
          439889.00    3765310.00         0.14491
439649.00    3765340.00         0.16084
          439679.00    3765340.00         0.16078
439709.00    3765340.00         0.16065
          439739.00    3765340.00         0.16043
439769.00    3765340.00         0.16012
          439799.00    3765340.00         0.15971
439829.00    3765340.00         0.15920
          439859.00    3765340.00         0.15859
439889.00    3765340.00         0.15786
          439649.00    3765370.00         0.17522
439679.00    3765370.00         0.17526
          439709.00    3765370.00         0.17521
439739.00    3765370.00         0.17506
          439769.00    3765370.00         0.17483
439799.00    3765370.00         0.17450
          439829.00    3765370.00         0.17406
439859.00    3765370.00         0.17352
          439889.00    3765370.00         0.17286
439649.00    3765400.00         0.19212
          439679.00    3765400.00         0.19225
439709.00    3765400.00         0.19230
          439739.00    3765400.00         0.19225
439769.00    3765400.00         0.19211
          439799.00    3765400.00         0.19186
439829.00    3765400.00         0.19151
          439859.00    3765400.00         0.19105
439889.00    3765400.00         0.19047
          439649.00    3765430.00         0.21228
439679.00    3765430.00         0.21253
          439709.00    3765430.00         0.21268
439739.00    3765430.00         0.21274
          439769.00    3765430.00         0.21271
439799.00    3765430.00         0.21256
          439829.00    3765430.00         0.21231
439859.00    3765430.00         0.21194
          439889.00    3765430.00         0.21144
439649.00    3765460.00         0.23678
          439679.00    3765460.00         0.23717
439709.00    3765460.00         0.23745
          439739.00    3765460.00         0.23764
439769.00    3765460.00         0.23773
          439799.00    3765460.00         0.23770
439829.00    3765460.00         0.23756
          439859.00    3765460.00         0.23729
439889.00    3765460.00         0.23690
          439649.00    3765490.00         0.26728
439679.00    3765490.00         0.26783
          439709.00    3765490.00         0.26827
439739.00    3765490.00         0.26860
          439769.00    3765490.00         0.26884
439799.00    3765490.00         0.26895
```

```
          439829.00    3765490.00        0.26894
439859.00    3765490.00        0.26880
          439889.00    3765490.00        0.26853
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONOFFEVA ***
INCLUDING SOURCE(S):
A0000089 , A0000090 , A0000091 , A0000092 , A0000093 ,
A0000094 , A0000095 , A0000096 , A0000097 , A0000098 , A0000099 , A0000100 , A0000101 ,
A0000102 , A0000103 , A0000104 , A0000105 , A0000106 , A0000107 , A0000108 , A0000109 ,
A0000110 , A0000111 , A0000112 , A0000113 , A0000114 , A0000115 ,
A0000116 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439674.00	3765310.00	0.06511	439679.00	3765310.00	0.06537
439684.00	3765310.00	0.06564	439689.00	3765310.00	0.06591
439694.00	3765310.00	0.06618	439699.00	3765310.00	0.06644
439704.00	3765310.00	0.06671	439709.00	3765310.00	0.06698
439714.00	3765310.00	0.06725	439719.00	3765310.00	0.06751
439729.00	3765310.00	0.06804	439734.00	3765310.00	0.06830
439739.00	3765310.00	0.06857	439744.00	3765310.00	0.06882
439749.00	3765310.00	0.06908	439764.00	3765310.00	0.06983
439769.00	3765310.00	0.07007	439774.00	3765310.00	0.07031

```
         439779.00    3765310.00        0.07055
439784.00    3765310.00        0.07077
         439789.00    3765310.00        0.07100
439794.00    3765310.00        0.07122
         439799.00    3765310.00        0.07143
439804.00    3765310.00        0.07164
         439809.00    3765310.00        0.07184
439814.00    3765310.00        0.07203
         439819.00    3765310.00        0.07221
439824.00    3765310.00        0.07239
         439829.00    3765310.00        0.07256
439839.00    3765310.00        0.07288
         439844.00    3765310.00        0.07302
439849.00    3765310.00        0.07316
         439854.00    3765310.00        0.07329
439859.00    3765310.00        0.07340
         439864.00    3765310.00        0.07351
439869.00    3765310.00        0.07361
         439874.00    3765310.00        0.07370
439879.00    3765310.00        0.07378
         439884.00    3765310.00        0.07385
439674.00    3765315.00        0.06589
         439679.00    3765315.00        0.06616
439684.00    3765315.00        0.06644
         439689.00    3765315.00        0.06671
439694.00    3765315.00        0.06699
         439699.00    3765315.00        0.06727
439704.00    3765315.00        0.06754
         439709.00    3765315.00        0.06782
439714.00    3765315.00        0.06809
         439719.00    3765315.00        0.06837
439729.00    3765315.00        0.06892
         439734.00    3765315.00        0.06919
439739.00    3765315.00        0.06946
         439744.00    3765315.00        0.06973
439749.00    3765315.00        0.07000
         439764.00    3765315.00        0.07078
439769.00    3765315.00        0.07104
         439774.00    3765315.00        0.07129
439779.00    3765315.00        0.07153
         439784.00    3765315.00        0.07177
439789.00    3765315.00        0.07201
         439794.00    3765315.00        0.07224
439799.00    3765315.00        0.07246
         439804.00    3765315.00        0.07268
439809.00    3765315.00        0.07290
         439814.00    3765315.00        0.07310
439819.00    3765315.00        0.07330
         439824.00    3765315.00        0.07349
439829.00    3765315.00        0.07367
         439839.00    3765315.00        0.07401
439844.00    3765315.00        0.07416
```

```
         439849.00    3765315.00        0.07431
439854.00    3765315.00        0.07445
         439859.00    3765315.00        0.07458
439864.00    3765315.00        0.07470
         439869.00    3765315.00        0.07481
439874.00    3765315.00        0.07491
         439879.00    3765315.00        0.07500
439884.00    3765315.00        0.07508
         439674.00    3765320.00        0.06669
439679.00    3765320.00        0.06697
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONOFFEVA ***
INCLUDING SOURCE(S):
A0000089 , A0000090 , A0000091 , A0000092 , A0000093 ,
A0000094 , A0000095 , A0000096 , A0000097 , A0000098 , A0000099 , A0000100 , A0000101 ,
A0000102 , A0000103 , A0000104 , A0000105 , A0000106 , A0000107 , A0000108 , A0000109 ,
A0000110 , A0000111 , A0000112 , A0000113 , A0000114 , A0000115 ,
A0000116 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439684.00	3765320.00	0.06725	439689.00	3765320.00	0.06753
439694.00	3765320.00	0.06782	439699.00	3765320.00	0.06810
439704.00	3765320.00	0.06838	439709.00	3765320.00	0.06867
439714.00	3765320.00	0.06895	439719.00	3765320.00	0.06924
439729.00	3765320.00	0.06981	439734.00	3765320.00	0.07009
439739.00	3765320.00	0.07037	439744.00	3765320.00	0.07065
439749.00	3765320.00	0.07093	439764.00	3765320.00	0.07175
439769.00	3765320.00	0.07202	439774.00	3765320.00	0.07228
439779.00	3765320.00	0.07254	439784.00	3765320.00	0.07279

```
          439789.00    3765320.00         0.07304
439794.00    3765320.00         0.07328
          439799.00    3765320.00         0.07352
439804.00    3765320.00         0.07375
          439809.00    3765320.00         0.07397
439814.00    3765320.00         0.07419
          439819.00    3765320.00         0.07440
439824.00    3765320.00         0.07461
          439829.00    3765320.00         0.07480
439839.00    3765320.00         0.07516
          439844.00    3765320.00         0.07533
439849.00    3765320.00         0.07549
          439854.00    3765320.00         0.07564
439859.00    3765320.00         0.07578
          439864.00    3765320.00         0.07591
439869.00    3765320.00         0.07603
          439874.00    3765320.00         0.07615
439879.00    3765320.00         0.07625
          439884.00    3765320.00         0.07634
439674.00    3765325.00         0.06749
          439679.00    3765325.00         0.06778
439684.00    3765325.00         0.06807
          439689.00    3765325.00         0.06836
439694.00    3765325.00         0.06865
          439699.00    3765325.00         0.06895
439704.00    3765325.00         0.06924
          439709.00    3765325.00         0.06953
439714.00    3765325.00         0.06983
          439719.00    3765325.00         0.07012
439729.00    3765325.00         0.07071
          439734.00    3765325.00         0.07100
439739.00    3765325.00         0.07130
          439744.00    3765325.00         0.07159
439749.00    3765325.00         0.07188
          439754.00    3765325.00         0.07216
439769.00    3765325.00         0.07301
          439774.00    3765325.00         0.07329
439779.00    3765325.00         0.07356
          439784.00    3765325.00         0.07382
439789.00    3765325.00         0.07409
          439794.00    3765325.00         0.07434
439799.00    3765325.00         0.07459
          439804.00    3765325.00         0.07484
439809.00    3765325.00         0.07508
          439814.00    3765325.00         0.07531
439819.00    3765325.00         0.07553
          439824.00    3765325.00         0.07575
439829.00    3765325.00         0.07595
          439839.00    3765325.00         0.07635
439844.00    3765325.00         0.07652
          439849.00    3765325.00         0.07670
439854.00    3765325.00         0.07686
```

```
         439859.00    3765325.00        0.07701
439864.00    3765325.00        0.07716
         439869.00    3765325.00        0.07729
439874.00    3765325.00        0.07741
         439879.00    3765325.00        0.07752
439884.00    3765325.00        0.07763
         439674.00    3765330.00        0.06832
439679.00    3765330.00        0.06861
         439684.00    3765330.00        0.06891
439689.00    3765330.00        0.06920
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONOFFEVA ***
INCLUDING SOURCE(S):
A0000089 , A0000090 , A0000091 , A0000092 , A0000093 ,
A0000094 , A0000095 , A0000096 , A0000097 , A0000098 , A0000099 , A0000100 , A0000101 ,
A0000102 , A0000103 , A0000104 , A0000105 , A0000106 , A0000107 , A0000108 , A0000109 ,
A0000110 , A0000111 , A0000112 , A0000113 , A0000114 , A0000115 ,
A0000116 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439694.00	3765330.00	0.06951	439699.00	3765330.00	0.06981
439704.00	3765330.00	0.07011	439709.00	3765330.00	0.07041
439714.00	3765330.00	0.07071	439719.00	3765330.00	0.07102
439729.00	3765330.00	0.07163	439734.00	3765330.00	0.07193
439739.00	3765330.00	0.07224	439744.00	3765330.00	0.07254
439749.00	3765330.00	0.07284	439754.00	3765330.00	0.07314
439774.00	3765330.00	0.07431	439779.00	3765330.00	0.07460
439784.00	3765330.00	0.07488	439789.00	3765330.00	0.07515
439794.00	3765330.00	0.07542	439799.00	3765330.00	0.07569

```
          439804.00    3765330.00         0.07595
439809.00    3765330.00         0.07620
          439814.00    3765330.00         0.07644
439819.00    3765330.00         0.07668
          439824.00    3765330.00         0.07691
439829.00    3765330.00         0.07713
          439839.00    3765330.00         0.07755
439844.00    3765330.00         0.07774
          439849.00    3765330.00         0.07793
439854.00    3765330.00         0.07811
          439859.00    3765330.00         0.07827
439864.00    3765330.00         0.07843
          439869.00    3765330.00         0.07857
439874.00    3765330.00         0.07871
          439879.00    3765330.00         0.07883
439884.00    3765330.00         0.07894
          439674.00    3765335.00         0.06915
439679.00    3765335.00         0.06945
          439684.00    3765335.00         0.06976
439689.00    3765335.00         0.07006
          439694.00    3765335.00         0.07037
439699.00    3765335.00         0.07068
          439704.00    3765335.00         0.07099
439709.00    3765335.00         0.07130
          439714.00    3765335.00         0.07162
439719.00    3765335.00         0.07193
          439729.00    3765335.00         0.07256
439734.00    3765335.00         0.07288
          439739.00    3765335.00         0.07319
439744.00    3765335.00         0.07351
          439749.00    3765335.00         0.07382
439774.00    3765335.00         0.07536
          439779.00    3765335.00         0.07566
439784.00    3765335.00         0.07595
          439789.00    3765335.00         0.07624
439794.00    3765335.00         0.07652
          439839.00    3765335.00         0.07878
439844.00    3765335.00         0.07899
          439849.00    3765335.00         0.07919
439854.00    3765335.00         0.07938
          439859.00    3765335.00         0.07956
439864.00    3765335.00         0.07973
          439869.00    3765335.00         0.07989
439874.00    3765335.00         0.08004
          439879.00    3765335.00         0.08017
439884.00    3765335.00         0.08030
          439674.00    3765340.00         0.07000
439679.00    3765340.00         0.07031
          439684.00    3765340.00         0.07062
439689.00    3765340.00         0.07093
          439694.00    3765340.00         0.07125
439699.00    3765340.00         0.07157
```

```
         439704.00    3765340.00        0.07189
439709.00    3765340.00        0.07221
         439714.00    3765340.00        0.07253
439719.00    3765340.00        0.07286
         439729.00    3765340.00        0.07351
439734.00    3765340.00        0.07383
         439739.00    3765340.00        0.07416
439744.00    3765340.00        0.07449
         439749.00    3765340.00        0.07481
439774.00    3765340.00        0.07642
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONOFFEVA ***
INCLUDING SOURCE(S):
A0000089 , A0000090 , A0000091 , A0000092 , A0000093 ,
A0000094 , A0000095 , A0000096 , A0000097 , A0000098 , A0000099 , A0000100 , A0000101 ,
A0000102 , A0000103 , A0000104 , A0000105 , A0000106 , A0000107 , A0000108 , A0000109 ,
A0000110 , A0000111 , A0000112 , A0000113 , A0000114 , A0000115 ,
A0000116 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439779.00	3765340.00	0.07673	439784.00	3765340.00	0.07704
439789.00	3765340.00	0.07735	439794.00	3765340.00	0.07765
439839.00	3765340.00	0.08004	439844.00	3765340.00	0.08026
439849.00	3765340.00	0.08048	439854.00	3765340.00	0.08068
439859.00	3765340.00	0.08088	439864.00	3765340.00	0.08106
439869.00	3765340.00	0.08123	439874.00	3765340.00	0.08140
439879.00	3765340.00	0.08154	439884.00	3765340.00	0.08168
439674.00	3765345.00	0.07086	439679.00	3765345.00	0.07118
439684.00	3765345.00	0.07150	439689.00	3765345.00	0.07182

```
          439694.00    3765345.00        0.07214
439699.00    3765345.00        0.07247
          439704.00    3765345.00        0.07280
439709.00    3765345.00        0.07313
          439714.00    3765345.00        0.07346
439719.00    3765345.00        0.07380
          439729.00    3765345.00        0.07447
439734.00    3765345.00        0.07481
          439739.00    3765345.00        0.07515
439744.00    3765345.00        0.07548
          439749.00    3765345.00        0.07583
439774.00    3765345.00        0.07750
          439779.00    3765345.00        0.07783
439784.00    3765345.00        0.07815
          439789.00    3765345.00        0.07847
439794.00    3765345.00        0.07879
          439839.00    3765345.00        0.08133
439844.00    3765345.00        0.08157
          439849.00    3765345.00        0.08180
439854.00    3765345.00        0.08202
          439859.00    3765345.00        0.08223
439864.00    3765345.00        0.08242
          439869.00    3765345.00        0.08261
439874.00    3765345.00        0.08279
          439879.00    3765345.00        0.08295
439884.00    3765345.00        0.08310
          439674.00    3765350.00        0.07175
439679.00    3765350.00        0.07207
          439684.00    3765350.00        0.07239
439689.00    3765350.00        0.07272
          439694.00    3765350.00        0.07305
439699.00    3765350.00        0.07339
          439704.00    3765350.00        0.07373
439709.00    3765350.00        0.07407
          439714.00    3765350.00        0.07441
439719.00    3765350.00        0.07475
          439729.00    3765350.00        0.07545
439734.00    3765350.00        0.07580
          439739.00    3765350.00        0.07615
439744.00    3765350.00        0.07650
          439749.00    3765350.00        0.07685
439774.00    3765350.00        0.07860
          439779.00    3765350.00        0.07894
439784.00    3765350.00        0.07928
          439789.00    3765350.00        0.07962
439794.00    3765350.00        0.07995
          439839.00    3765350.00        0.08264
439844.00    3765350.00        0.08290
          439849.00    3765350.00        0.08315
439854.00    3765350.00        0.08338
          439859.00    3765350.00        0.08361
439864.00    3765350.00        0.08382
```

```
          439869.00    3765350.00        0.08403
439874.00    3765350.00        0.08421
          439879.00    3765350.00        0.08439
439884.00    3765350.00        0.08456
          439674.00    3765355.00        0.07264
439679.00    3765355.00        0.07297
          439684.00    3765355.00        0.07330
439689.00    3765355.00        0.07364
          439694.00    3765355.00        0.07398
439699.00    3765355.00        0.07432
```

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONOFFEVA ***
INCLUDING SOURCE(S):
A0000089 , A0000090 , A0000091 , A0000092 , A0000093 ,
A0000094 , A0000095 , A0000096 , A0000097 , A0000098 , A0000099 , A0000100 , A0000101 ,
A0000102 , A0000103 , A0000104 , A0000105 , A0000106 , A0000107 , A0000108 , A0000109 ,
A0000110 , A0000111 , A0000112 , A0000113 , A0000114 , A0000115 ,
A0000116 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439704.00	3765355.00	0.07467	439709.00	3765355.00	0.07502
439714.00	3765355.00	0.07537	439719.00	3765355.00	0.07572
439729.00	3765355.00	0.07644	439734.00	3765355.00	0.07681
439739.00	3765355.00	0.07717	439744.00	3765355.00	0.07753
439749.00	3765355.00	0.07790	439774.00	3765355.00	0.07972
439779.00	3765355.00	0.08008	439784.00	3765355.00	0.08043
439789.00	3765355.00	0.08079	439794.00	3765355.00	0.08113
439839.00	3765355.00	0.08399	439844.00	3765355.00	0.08426
439849.00	3765355.00	0.08452	439854.00	3765355.00	0.08478

```
          439859.00    3765355.00         0.08502
439864.00    3765355.00         0.08525
          439869.00    3765355.00         0.08547
439874.00    3765355.00         0.08568
          439879.00    3765355.00         0.08587
439884.00    3765355.00         0.08606
          439674.00    3765360.00         0.07355
439679.00    3765360.00         0.07389
          439684.00    3765360.00         0.07423
439689.00    3765360.00         0.07457
          439694.00    3765360.00         0.07492
439699.00    3765360.00         0.07527
          439704.00    3765360.00         0.07563
439709.00    3765360.00         0.07598
          439714.00    3765360.00         0.07635
439719.00    3765360.00         0.07671
          439729.00    3765360.00         0.07745
439734.00    3765360.00         0.07783
          439739.00    3765360.00         0.07820
439744.00    3765360.00         0.07858
          439749.00    3765360.00         0.07896
439774.00    3765360.00         0.08085
          439779.00    3765360.00         0.08123
439784.00    3765360.00         0.08160
          439789.00    3765360.00         0.08197
439794.00    3765360.00         0.08234
          439799.00    3765360.00         0.08270
439804.00    3765360.00         0.08306
          439809.00    3765360.00         0.08341
439814.00    3765360.00         0.08375
          439839.00    3765360.00         0.08536
439844.00    3765360.00         0.08565
          439849.00    3765360.00         0.08594
439854.00    3765360.00         0.08621
          439859.00    3765360.00         0.08647
439864.00    3765360.00         0.08672
          439869.00    3765360.00         0.08696
439874.00    3765360.00         0.08718
          439879.00    3765360.00         0.08739
439884.00    3765360.00         0.08759
          439674.00    3765365.00         0.07448
439679.00    3765365.00         0.07482
          439684.00    3765365.00         0.07517
439689.00    3765365.00         0.07552
          439694.00    3765365.00         0.07587
439699.00    3765365.00         0.07623
          439704.00    3765365.00         0.07660
439709.00    3765365.00         0.07697
          439714.00    3765365.00         0.07734
439719.00    3765365.00         0.07771
          439729.00    3765365.00         0.07848
439734.00    3765365.00         0.07887
```

```
         439739.00    3765365.00        0.07925
439744.00    3765365.00        0.07964
         439749.00    3765365.00        0.08004
439774.00    3765365.00        0.08201
         439779.00    3765365.00        0.08240
439784.00    3765365.00        0.08280
         439789.00    3765365.00        0.08318
439794.00    3765365.00        0.08357
         439799.00    3765365.00        0.08395
439804.00    3765365.00        0.08433
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONOFFEVA ***
INCLUDING SOURCE(S):
A0000089 , A0000090 , A0000091 , A0000092 , A0000093 ,
A0000094 , A0000095 , A0000096 , A0000097 , A0000098 , A0000099 , A0000100 , A0000101 ,
A0000102 , A0000103 , A0000104 , A0000105 , A0000106 , A0000107 , A0000108 , A0000109 ,
A0000110 , A0000111 , A0000112 , A0000113 , A0000114 , A0000115 ,
A0000116 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439809.00	3765365.00	0.08470	439814.00	3765365.00	0.08506
439839.00	3765365.00	0.08676	439844.00	3765365.00	0.08708
439849.00	3765365.00	0.08738	439854.00	3765365.00	0.08767
439859.00	3765365.00	0.08795	439864.00	3765365.00	0.08822
439869.00	3765365.00	0.08848	439874.00	3765365.00	0.08872
439879.00	3765365.00	0.08895	439884.00	3765365.00	0.08916
439674.00	3765370.00	0.07543	439679.00	3765370.00	0.07577
439684.00	3765370.00	0.07613	439689.00	3765370.00	0.07648
439694.00	3765370.00	0.07685	439699.00	3765370.00	0.07722

```
         439704.00    3765370.00        0.07759
439709.00    3765370.00        0.07797
         439714.00    3765370.00        0.07835
439719.00    3765370.00        0.07874
         439729.00    3765370.00        0.07952
439734.00    3765370.00        0.07992
         439739.00    3765370.00        0.08032
439744.00    3765370.00        0.08073
         439749.00    3765370.00        0.08113
439774.00    3765370.00        0.08319
         439779.00    3765370.00        0.08360
439784.00    3765370.00        0.08401
         439789.00    3765370.00        0.08442
439794.00    3765370.00        0.08482
         439799.00    3765370.00        0.08522
439804.00    3765370.00        0.08562
         439809.00    3765370.00        0.08601
439814.00    3765370.00        0.08639
         439839.00    3765370.00        0.08820
439844.00    3765370.00        0.08854
         439849.00    3765370.00        0.08886
439854.00    3765370.00        0.08917
         439859.00    3765370.00        0.08947
439864.00    3765370.00        0.08976
         439869.00    3765370.00        0.09004
439874.00    3765370.00        0.09030
         439879.00    3765370.00        0.09055
439884.00    3765370.00        0.09078
         439674.00    3765375.00        0.07639
439679.00    3765375.00        0.07674
         439684.00    3765375.00        0.07710
439689.00    3765375.00        0.07747
         439694.00    3765375.00        0.07784
439699.00    3765375.00        0.07822
         439704.00    3765375.00        0.07860
439709.00    3765375.00        0.07899
         439714.00    3765375.00        0.07938
439719.00    3765375.00        0.07977
         439729.00    3765375.00        0.08058
439734.00    3765375.00        0.08099
         439739.00    3765375.00        0.08141
439744.00    3765375.00        0.08183
         439749.00    3765375.00        0.08225
439754.00    3765375.00        0.08267
         439774.00    3765375.00        0.08439
439779.00    3765375.00        0.08482
         439784.00    3765375.00        0.08525
439789.00    3765375.00        0.08567
         439794.00    3765375.00        0.08610
439799.00    3765375.00        0.08652
         439804.00    3765375.00        0.08693
439809.00    3765375.00        0.08735
```

```
         439814.00    3765375.00        0.08775
439839.00    3765375.00        0.08967
         439844.00    3765375.00        0.09003
439849.00    3765375.00        0.09038
         439854.00    3765375.00        0.09071
439859.00    3765375.00        0.09103
         439864.00    3765375.00        0.09134
439869.00    3765375.00        0.09164
         439874.00    3765375.00        0.09192
439879.00    3765375.00        0.09219
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONOFFEVA ***
INCLUDING SOURCE(S):
A0000089 , A0000090 , A0000091 , A0000092 , A0000093 ,
A0000094 , A0000095 , A0000096 , A0000097 , A0000098 , A0000099 , A0000100 , A0000101 ,
A0000102 , A0000103 , A0000104 , A0000105 , A0000106 , A0000107 , A0000108 , A0000109 ,
A0000110 , A0000111 , A0000112 , A0000113 , A0000114 , A0000115 ,
A0000116 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439884.00	3765375.00	0.09244	439774.00	3765380.00	0.08561
439779.00	3765380.00	0.08606	439784.00	3765380.00	0.08650
439789.00	3765380.00	0.08695	439794.00	3765380.00	0.08740
439799.00	3765380.00	0.08784	439804.00	3765380.00	0.08828
439809.00	3765380.00	0.08871	439814.00	3765380.00	0.08914
439769.00	3765385.00	0.08638	439819.00	3765385.00	0.09100
439769.00	3765400.00	0.09017	439844.00	3765400.00	0.09804
439849.00	3765400.00	0.09852	439674.00	3765405.00	0.08262
439714.00	3765405.00	0.08594	439719.00	3765405.00	0.08640

```
          439734.00    3765405.00        0.08783
439749.00    3765405.00        0.08935
          439754.00    3765405.00        0.08987
439774.00    3765405.00        0.09203
          439779.00    3765405.00        0.09259
439784.00    3765405.00        0.09314
          439789.00    3765405.00        0.09370
439794.00    3765405.00        0.09427
          439799.00    3765405.00        0.09483
439804.00    3765405.00        0.09539
          439809.00    3765405.00        0.09596
439814.00    3765405.00        0.09652
          439819.00    3765405.00        0.09707
439824.00    3765405.00        0.09763
          439829.00    3765405.00        0.09817
439834.00    3765405.00        0.09871
          439839.00    3765405.00        0.09924
439844.00    3765405.00        0.09976
          439849.00    3765405.00        0.10027
439854.00    3765405.00        0.10077
          439859.00    3765405.00        0.10125
439674.00    3765410.00        0.08374
          439679.00    3765410.00        0.08412
439684.00    3765410.00        0.08452
          439689.00    3765410.00        0.08493
439694.00    3765410.00        0.08534
          439699.00    3765410.00        0.08577
439704.00    3765410.00        0.08620
          439709.00    3765410.00        0.08665
439714.00    3765410.00        0.08711
          439719.00    3765410.00        0.08758
439729.00    3765410.00        0.08854
          439734.00    3765410.00        0.08904
439739.00    3765410.00        0.08955
          439744.00    3765410.00        0.09008
439749.00    3765410.00        0.09060
          439774.00    3765410.00        0.09338
439779.00    3765410.00        0.09396
          439784.00    3765410.00        0.09454
439789.00    3765410.00        0.09513
          439794.00    3765410.00        0.09572
439799.00    3765410.00        0.09631
          439804.00    3765410.00        0.09690
439809.00    3765410.00        0.09750
          439814.00    3765410.00        0.09809
439819.00    3765410.00        0.09867
          439824.00    3765410.00        0.09926
439829.00    3765410.00        0.09984
          439834.00    3765410.00        0.10041
439839.00    3765410.00        0.10097
          439844.00    3765410.00        0.10152
439849.00    3765410.00        0.10207
```

```
         439854.00    3765410.00        0.10260
439859.00    3765410.00        0.10311
         439674.00    3765415.00        0.08488
439679.00    3765415.00        0.08528
         439684.00    3765415.00        0.08567
439689.00    3765415.00        0.08609
         439694.00    3765415.00        0.08651
439699.00    3765415.00        0.08694
         439704.00    3765415.00        0.08738
439709.00    3765415.00        0.08783
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONOFFEVA ***
INCLUDING SOURCE(S):
A0000089 , A0000090 , A0000091 , A0000092 , A0000093 ,
A0000094 , A0000095 , A0000096 , A0000097 , A0000098 , A0000099 , A0000100 , A0000101 ,
A0000102 , A0000103 , A0000104 , A0000105 , A0000106 , A0000107 , A0000108 , A0000109 ,
A0000110 , A0000111 , A0000112 , A0000113 , A0000114 , A0000115 ,
A0000116 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439714.00	3765415.00	0.08830	439719.00	3765415.00	0.08878
439729.00	3765415.00	0.08977	439734.00	3765415.00	0.09028
439739.00	3765415.00	0.09080	439744.00	3765415.00	0.09134
439749.00	3765415.00	0.09188	439774.00	3765415.00	0.09476
439779.00	3765415.00	0.09536	439784.00	3765415.00	0.09597
439789.00	3765415.00	0.09658	439794.00	3765415.00	0.09720
439799.00	3765415.00	0.09782	439804.00	3765415.00	0.09844
439809.00	3765415.00	0.09906	439814.00	3765415.00	0.09969
439819.00	3765415.00	0.10031	439824.00	3765415.00	0.10092

```
          439829.00    3765415.00        0.10154
439834.00    3765415.00        0.10214
          439839.00    3765415.00        0.10274
439844.00    3765415.00        0.10333
          439849.00    3765415.00        0.10391
439854.00    3765415.00        0.10447
          439859.00    3765415.00        0.10503
439674.00    3765420.00        0.08607
          439679.00    3765420.00        0.08646
439684.00    3765420.00        0.08686
          439689.00    3765420.00        0.08727
439694.00    3765420.00        0.08770
          439699.00    3765420.00        0.08814
439704.00    3765420.00        0.08858
          439709.00    3765420.00        0.08904
439714.00    3765420.00        0.08952
          439719.00    3765420.00        0.09000
439729.00    3765420.00        0.09101
          439734.00    3765420.00        0.09154
439739.00    3765420.00        0.09207
          439744.00    3765420.00        0.09262
439749.00    3765420.00        0.09318
          439774.00    3765420.00        0.09616
439779.00    3765420.00        0.09679
          439784.00    3765420.00        0.09742
439789.00    3765420.00        0.09806
          439794.00    3765420.00        0.09871
439799.00    3765420.00        0.09935
          439804.00    3765420.00        0.10001
439809.00    3765420.00        0.10066
          439814.00    3765420.00        0.10132
439819.00    3765420.00        0.10197
          439824.00    3765420.00        0.10263
439829.00    3765420.00        0.10327
          439834.00    3765420.00        0.10392
439839.00    3765420.00        0.10455
          439844.00    3765420.00        0.10518
439849.00    3765420.00        0.10579
          439854.00    3765420.00        0.10640
439859.00    3765420.00        0.10699
          439674.00    3765425.00        0.08727
439679.00    3765425.00        0.08767
          439684.00    3765425.00        0.08807
439689.00    3765425.00        0.08849
          439694.00    3765425.00        0.08892
439699.00    3765425.00        0.08936
          439704.00    3765425.00        0.08981
439709.00    3765425.00        0.09028
          439714.00    3765425.00        0.09076
439719.00    3765425.00        0.09125
          439729.00    3765425.00        0.09228
439734.00    3765425.00        0.09282
```

```
         439739.00    3765425.00        0.09337
439744.00    3765425.00        0.09393
         439749.00    3765425.00        0.09451
439774.00    3765425.00        0.09759
         439779.00    3765425.00        0.09824
439784.00    3765425.00        0.09890
         439789.00    3765425.00        0.09956
439794.00    3765425.00        0.10024
         439799.00    3765425.00        0.10092
439804.00    3765425.00        0.10161
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONOFFEVA ***
INCLUDING SOURCE(S):
A0000089 , A0000090 , A0000091 , A0000092 , A0000093 ,
A0000094 , A0000095 , A0000096 , A0000097 , A0000098 , A0000099 , A0000100 , A0000101 ,
A0000102 , A0000103 , A0000104 , A0000105 , A0000106 , A0000107 , A0000108 , A0000109 ,
A0000110 , A0000111 , A0000112 , A0000113 , A0000114 , A0000115 ,
A0000116 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439809.00	3765425.00	0.10229	439814.00	3765425.00	0.10299
439819.00	3765425.00	0.10368	439824.00	3765425.00	0.10437
439829.00	3765425.00	0.10505	439834.00	3765425.00	0.10573
439839.00	3765425.00	0.10641	439844.00	3765425.00	0.10707
439849.00	3765425.00	0.10773	439854.00	3765425.00	0.10838
439859.00	3765425.00	0.10901	439674.00	3765430.00	0.08852
439679.00	3765430.00	0.08891	439684.00	3765430.00	0.08932
439689.00	3765430.00	0.08974	439694.00	3765430.00	0.09017
439699.00	3765430.00	0.09061	439704.00	3765430.00	0.09107

```
         439709.00    3765430.00        0.09154
439714.00    3765430.00        0.09203
         439719.00    3765430.00        0.09253
439729.00    3765430.00        0.09358
         439734.00    3765430.00        0.09413
439739.00    3765430.00        0.09469
         439744.00    3765430.00        0.09527
439749.00    3765430.00        0.09586
         439774.00    3765430.00        0.09904
439779.00    3765430.00        0.09972
         439784.00    3765430.00        0.10040
439789.00    3765430.00        0.10110
         439794.00    3765430.00        0.10180
439799.00    3765430.00        0.10252
         439804.00    3765430.00        0.10324
439809.00    3765430.00        0.10396
         439814.00    3765430.00        0.10469
439819.00    3765430.00        0.10541
         439824.00    3765430.00        0.10615
439829.00    3765430.00        0.10687
         439834.00    3765430.00        0.10759
439839.00    3765430.00        0.10831
         439844.00    3765430.00        0.10902
439849.00    3765430.00        0.10972
         439854.00    3765430.00        0.11041
439859.00    3765430.00        0.11108
         439674.00    3765435.00        0.08980
439679.00    3765435.00        0.09019
         439684.00    3765435.00        0.09060
439689.00    3765435.00        0.09102
         439694.00    3765435.00        0.09145
439699.00    3765435.00        0.09190
         439704.00    3765435.00        0.09236
439709.00    3765435.00        0.09284
         439714.00    3765435.00        0.09333
439719.00    3765435.00        0.09384
         439729.00    3765435.00        0.09491
439734.00    3765435.00        0.09546
         439739.00    3765435.00        0.09604
439744.00    3765435.00        0.09663
         439749.00    3765435.00        0.09724
439774.00    3765435.00        0.10052
         439779.00    3765435.00        0.10122
439784.00    3765435.00        0.10193
         439789.00    3765435.00        0.10266
439794.00    3765435.00        0.10340
         439799.00    3765435.00        0.10414
439804.00    3765435.00        0.10490
         439809.00    3765435.00        0.10566
439814.00    3765435.00        0.10642
         439819.00    3765435.00        0.10719
439824.00    3765435.00        0.10796
```

```
         439829.00    3765435.00        0.10873
439834.00    3765435.00        0.10949
         439839.00    3765435.00        0.11025
439844.00    3765435.00        0.11101
         439849.00    3765435.00        0.11176
439854.00    3765435.00        0.11249
         439859.00    3765435.00        0.11321
439674.00    3765440.00        0.09111
         439679.00    3765440.00        0.09150
439684.00    3765440.00        0.09191
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONOFFEVA ***
INCLUDING SOURCE(S):
A0000089 , A0000090 , A0000091 , A0000092 , A0000093 ,
A0000094 , A0000095 , A0000096 , A0000097 , A0000098 , A0000099 , A0000100 , A0000101 ,
A0000102 , A0000103 , A0000104 , A0000105 , A0000106 , A0000107 , A0000108 , A0000109 ,
A0000110 , A0000111 , A0000112 , A0000113 , A0000114 , A0000115 ,
A0000116 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439689.00	3765440.00	0.09233	439694.00	3765440.00	0.09277
439699.00	3765440.00	0.09322	439704.00	3765440.00	0.09368
439709.00	3765440.00	0.09417	439714.00	3765440.00	0.09466
439719.00	3765440.00	0.09518	439729.00	3765440.00	0.09626
439734.00	3765440.00	0.09683	439739.00	3765440.00	0.09741
439744.00	3765440.00	0.09802	439749.00	3765440.00	0.09864
439774.00	3765440.00	0.10203	439779.00	3765440.00	0.10275
439784.00	3765440.00	0.10350	439789.00	3765440.00	0.10425
439794.00	3765440.00	0.10502	439799.00	3765440.00	0.10580

```
          439804.00    3765440.00         0.10659
439809.00    3765440.00         0.10739
          439814.00    3765440.00         0.10819
439819.00    3765440.00         0.10901
          439824.00    3765440.00         0.10982
439829.00    3765440.00         0.11063
          439834.00    3765440.00         0.11144
439839.00    3765440.00         0.11225
          439844.00    3765440.00         0.11305
439849.00    3765440.00         0.11385
          439854.00    3765440.00         0.11463
439859.00    3765440.00         0.11540
          439674.00    3765445.00         0.09246
439679.00    3765445.00         0.09286
          439684.00    3765445.00         0.09326
439689.00    3765445.00         0.09369
          439694.00    3765445.00         0.09412
439699.00    3765445.00         0.09457
          439704.00    3765445.00         0.09504
439709.00    3765445.00         0.09553
          439714.00    3765445.00         0.09603
439719.00    3765445.00         0.09655
          439729.00    3765445.00         0.09765
439734.00    3765445.00         0.09822
          439739.00    3765445.00         0.09882
439744.00    3765445.00         0.09944
          439749.00    3765445.00         0.10008
439774.00    3765445.00         0.10356
          439779.00    3765445.00         0.10431
439784.00    3765445.00         0.10508
          439789.00    3765445.00         0.10587
439794.00    3765445.00         0.10667
          439799.00    3765445.00         0.10749
439804.00    3765445.00         0.10831
          439809.00    3765445.00         0.10915
439814.00    3765445.00         0.11000
          439819.00    3765445.00         0.11086
439824.00    3765445.00         0.11171
          439829.00    3765445.00         0.11257
439834.00    3765445.00         0.11343
          439839.00    3765445.00         0.11429
439844.00    3765445.00         0.11515
          439849.00    3765445.00         0.11599
439854.00    3765445.00         0.11683
          439859.00    3765445.00         0.11765
439674.00    3765450.00         0.09386
          439679.00    3765450.00         0.09425
439684.00    3765450.00         0.09466
          439689.00    3765450.00         0.09508
439694.00    3765450.00         0.09551
          439699.00    3765450.00         0.09597
439704.00    3765450.00         0.09643
```

```
         439709.00    3765450.00        0.09692
439714.00    3765450.00        0.09743
         439719.00    3765450.00        0.09795
439729.00    3765450.00        0.09906
         439734.00    3765450.00        0.09965
439739.00    3765450.00        0.10026
         439744.00    3765450.00        0.10089
439749.00    3765450.00        0.10154
         439774.00    3765450.00        0.10512
439844.00    3765450.00        0.11729
```

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONOFFEVA ***
INCLUDING SOURCE(S):
A0000089 , A0000090 , A0000091 , A0000092 , A0000093 ,
A0000094 , A0000095 , A0000096 , A0000097 , A0000098 , A0000099 , A0000100 , A0000101 ,
A0000102 , A0000103 , A0000104 , A0000105 , A0000106 , A0000107 , A0000108 , A0000109 ,
A0000110 , A0000111 , A0000112 , A0000113 , A0000114 , A0000115 ,
A0000116 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439849.00	3765450.00	0.11819	439854.00	3765450.00	0.11909
439859.00	3765450.00	0.11997	439674.00	3765455.00	0.09530
439679.00	3765455.00	0.09569	439684.00	3765455.00	0.09609
439689.00	3765455.00	0.09651	439694.00	3765455.00	0.09695
439699.00	3765455.00	0.09740	439704.00	3765455.00	0.09787
439709.00	3765455.00	0.09836	439714.00	3765455.00	0.09887
439719.00	3765455.00	0.09939	439729.00	3765455.00	0.10052
439734.00	3765455.00	0.10111	439739.00	3765455.00	0.10173
439744.00	3765455.00	0.10237	439749.00	3765455.00	0.10304

```
          439844.00    3765455.00        0.11949
439849.00    3765455.00        0.12045
          439854.00    3765455.00        0.12141
439859.00    3765455.00        0.12235
          439674.00    3765460.00        0.09679
439679.00    3765460.00        0.09717
          439684.00    3765460.00        0.09757
439689.00    3765460.00        0.09799
          439694.00    3765460.00        0.09842
439699.00    3765460.00        0.09887
          439704.00    3765460.00        0.09934
439709.00    3765460.00        0.09983
          439714.00    3765460.00        0.10034
439719.00    3765460.00        0.10087
          439729.00    3765460.00        0.10201
439734.00    3765460.00        0.10261
          439739.00    3765460.00        0.10324
439744.00    3765460.00        0.10389
          439749.00    3765460.00        0.10456
439789.00    3765460.00        0.11092
          439794.00    3765460.00        0.11182
439799.00    3765460.00        0.11275
          439804.00    3765460.00        0.11370
439809.00    3765460.00        0.11466
          439814.00    3765460.00        0.11564
439819.00    3765460.00        0.11664
          439824.00    3765460.00        0.11765
439829.00    3765460.00        0.11867
          439844.00    3765460.00        0.12175
439849.00    3765460.00        0.12277
          439854.00    3765460.00        0.12379
439859.00    3765460.00        0.12480
          439674.00    3765465.00        0.09833
439679.00    3765465.00        0.09871
          439684.00    3765465.00        0.09910
439689.00    3765465.00        0.09952
          439694.00    3765465.00        0.09995
439699.00    3765465.00        0.10040
          439704.00    3765465.00        0.10087
439709.00    3765465.00        0.10135
          439714.00    3765465.00        0.10186
439719.00    3765465.00        0.10240
          439729.00    3765465.00        0.10354
439734.00    3765465.00        0.10415
          439739.00    3765465.00        0.10478
439744.00    3765465.00        0.10544
          439749.00    3765465.00        0.10613
439789.00    3765465.00        0.11266
          439794.00    3765465.00        0.11360
439799.00    3765465.00        0.11457
          439804.00    3765465.00        0.11556
439809.00    3765465.00        0.11657
```

```
         439814.00    3765465.00        0.11760
439819.00    3765465.00        0.11865
         439824.00    3765465.00        0.11971
439829.00    3765465.00        0.12079
         439844.00    3765465.00        0.12406
439849.00    3765465.00        0.12515
         439854.00    3765465.00        0.12624
439859.00    3765465.00        0.12732
         439674.00    3765470.00        0.09992
439679.00    3765470.00        0.10030
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONOFFEVA ***
INCLUDING SOURCE(S):
A0000089 , A0000090 , A0000091 , A0000092 , A0000093 ,
A0000094 , A0000095 , A0000096 , A0000097 , A0000098 , A0000099 , A0000100 , A0000101 ,
A0000102 , A0000103 , A0000104 , A0000105 , A0000106 , A0000107 , A0000108 , A0000109 ,
A0000110 , A0000111 , A0000112 , A0000113 , A0000114 , A0000115 ,
A0000116 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439684.00	3765470.00	0.10069	439689.00	3765470.00	0.10110
439694.00	3765470.00	0.10152	439699.00	3765470.00	0.10197
439704.00	3765470.00	0.10244	439709.00	3765470.00	0.10292
439714.00	3765470.00	0.10344	439719.00	3765470.00	0.10397
439729.00	3765470.00	0.10511	439734.00	3765470.00	0.10572
439739.00	3765470.00	0.10636	439744.00	3765470.00	0.10704
439749.00	3765470.00	0.10774	439789.00	3765470.00	0.11445
439794.00	3765470.00	0.11542	439799.00	3765470.00	0.11643
439804.00	3765470.00	0.11746	439809.00	3765470.00	0.11852

```
          439814.00    3765470.00        0.11960
439819.00    3765470.00        0.12070
          439824.00    3765470.00        0.12182
439829.00    3765470.00        0.12296
          439844.00    3765470.00        0.12643
439849.00    3765470.00        0.12760
          439854.00    3765470.00        0.12876
439859.00    3765470.00        0.12991
          439674.00    3765475.00        0.10157
439679.00    3765475.00        0.10194
          439684.00    3765475.00        0.10233
439689.00    3765475.00        0.10273
          439694.00    3765475.00        0.10315
439699.00    3765475.00        0.10360
          439704.00    3765475.00        0.10406
439709.00    3765475.00        0.10454
          439714.00    3765475.00        0.10505
439719.00    3765475.00        0.10559
          439729.00    3765475.00        0.10673
439734.00    3765475.00        0.10735
          439739.00    3765475.00        0.10800
439744.00    3765475.00        0.10867
          439749.00    3765475.00        0.10938
439754.00    3765475.00        0.11012
          439789.00    3765475.00        0.11626
439794.00    3765475.00        0.11727
          439799.00    3765475.00        0.11832
439804.00    3765475.00        0.11940
          439809.00    3765475.00        0.12050
439814.00    3765475.00        0.12164
          439819.00    3765475.00        0.12279
439824.00    3765475.00        0.12397
          439829.00    3765475.00        0.12518
439269.00    3764900.00        0.02450
          439369.00    3764900.00        0.02574
439469.00    3764900.00        0.02664
          439569.00    3764900.00        0.02713
439669.00    3764900.00        0.02715
          439769.00    3764900.00        0.02665
439869.00    3764900.00        0.02563
          439969.00    3764900.00        0.02416
440069.00    3764900.00        0.02237
          440169.00    3764900.00        0.02044
440269.00    3764900.00        0.01853
          439269.00    3765000.00        0.02795
439369.00    3765000.00        0.02982
          439469.00    3765000.00        0.03134
439569.00    3765000.00        0.03243
          439669.00    3765000.00        0.03297
439769.00    3765000.00        0.03281
          439869.00    3765000.00        0.03183
439969.00    3765000.00        0.03008
```

```
         440069.00    3765000.00        0.02775
440169.00    3765000.00        0.02513
         440269.00    3765000.00        0.02251
439269.00    3765100.00        0.03203
         439369.00    3765100.00        0.03473
439469.00    3765100.00        0.03709
         439569.00    3765100.00        0.03906
439669.00    3765100.00        0.04053
         439769.00    3765100.00        0.04112
439869.00    3765100.00        0.04047
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONOFFEVA ***
INCLUDING SOURCE(S):
A0000089 , A0000090 , A0000091 , A0000092 , A0000093 ,
A0000094 , A0000095 , A0000096 , A0000097 , A0000098 , A0000099 , A0000100 , A0000101 ,
A0000102 , A0000103 , A0000104 , A0000105 , A0000106 , A0000107 , A0000108 , A0000109 ,
A0000110 , A0000111 , A0000112 , A0000113 , A0000114 , A0000115 ,
A0000116 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439969.00	3765100.00	0.03853	440069.00	3765100.00	0.03552
440169.00	3765100.00	0.03191	440269.00	3765100.00	0.02815
439269.00	3765200.00	0.03705	439369.00	3765200.00	0.04090
439469.00	3765200.00	0.04431	439569.00	3765200.00	0.04746
439669.00	3765200.00	0.05037	439769.00	3765200.00	0.05248
439869.00	3765200.00	0.05287	439969.00	3765200.00	0.05111
440069.00	3765200.00	0.04739	440169.00	3765200.00	0.04233
440269.00	3765200.00	0.03668	439269.00	3765300.00	0.04349
439369.00	3765300.00	0.04928	439469.00	3765300.00	0.05409

```
         439569.00    3765300.00        0.05852
439669.00    3765300.00        0.06333
         439769.00    3765300.00        0.06819
439869.00    3765300.00        0.07130
         439969.00    3765300.00        0.07091
440069.00    3765300.00        0.06684
         440169.00    3765300.00        0.05973
440269.00    3765300.00        0.05075
         439269.00    3765400.00        0.05175
439369.00    3765400.00        0.06170
         439469.00    3765400.00        0.06921
439569.00    3765400.00        0.07494
         439669.00    3765400.00        0.08115
439769.00    3765400.00        0.09017
         439869.00    3765400.00        0.10030
439969.00    3765400.00        0.10493
         440069.00    3765400.00        0.10202
440169.00    3765400.00        0.09226
         440269.00    3765400.00        0.07730
439269.00    3765500.00        0.06140
         439369.00    3765500.00        0.08150
439469.00    3765500.00        0.09671
         439569.00    3765500.00        0.10526
439669.00    3765500.00        0.11056
         439769.00    3765500.00        0.12174
439869.00    3765500.00        0.15064
         439969.00    3765500.00        0.17642
440069.00    3765500.00        0.17862
         440169.00    3765500.00        0.16481
440269.00    3765500.00        0.13993
         439269.00    3765600.00        0.06865
439369.00    3765600.00        0.11561
         439469.00    3765600.00        0.16096
439569.00    3765600.00        0.18097
         439669.00    3765600.00        0.18447
439769.00    3765600.00        0.18856
         439869.00    3765600.00        0.24142
439969.00    3765600.00        0.48202
         440069.00    3765600.00        0.48365
440169.00    3765600.00        0.43362
         440269.00    3765600.00        0.37185
439269.00    3765700.00        0.06381
         439369.00    3765700.00        0.16443
439469.00    3765700.00        0.75902
         439569.00    3765700.00        0.84610
439669.00    3765700.00        0.64623
         439769.00    3765700.00        0.50617
439869.00    3765700.00        0.37198
         439969.00    3765700.00        0.46383
440069.00    3765700.00        1.11334
         440169.00    3765700.00        1.94871
440269.00    3765700.00        3.58358
```

```
         439269.00    3765800.00        0.04509
439369.00    3765800.00        0.08363
         439469.00    3765800.00        0.26310
439569.00    3765800.00        0.59270
         439669.00    3765800.00        0.88694
439769.00    3765800.00        1.41727
         439869.00    3765800.00        2.65078
439969.00    3765800.00        0.88228
         440069.00    3765800.00        0.52756
440169.00    3765800.00        0.46924
```

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONOFFEVA ***
INCLUDING SOURCE(S):
A0000089 , A0000090 , A0000091 , A0000092 , A0000093 ,
A0000094 , A0000095 , A0000096 , A0000097 , A0000098 , A0000099 , A0000100 , A0000101 ,
A0000102 , A0000103 , A0000104 , A0000105 , A0000106 , A0000107 , A0000108 , A0000109 ,
A0000110 , A0000111 , A0000112 , A0000113 , A0000114 , A0000115 ,
A0000116 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
440269.00	3765800.00	0.50096	439269.00	3765900.00	0.02997
439369.00	3765900.00	0.04194	439469.00	3765900.00	0.06370
439569.00	3765900.00	0.10296	439669.00	3765900.00	0.15851
439769.00	3765900.00	0.21901	439869.00	3765900.00	0.27358
439969.00	3765900.00	0.29639	440069.00	3765900.00	0.26864
440169.00	3765900.00	0.23552	440269.00	3765900.00	0.22265
439649.00	3765310.00	0.06379	439679.00	3765310.00	0.06537
439709.00	3765310.00	0.06698	439739.00	3765310.00	0.06857
439769.00	3765310.00	0.07007	439799.00	3765310.00	0.07143

```
          439829.00    3765310.00        0.07256
439859.00    3765310.00        0.07340
          439889.00    3765310.00        0.07391
439649.00    3765340.00        0.06850
          439679.00    3765340.00        0.07031
439709.00    3765340.00        0.07221
          439739.00    3765340.00        0.07416
439769.00    3765340.00        0.07610
          439799.00    3765340.00        0.07794
439829.00    3765340.00        0.07956
          439859.00    3765340.00        0.08088
439889.00    3765340.00        0.08181
          439649.00    3765370.00        0.07376
439679.00    3765370.00        0.07577
          439709.00    3765370.00        0.07797
439739.00    3765370.00        0.08032
          439769.00    3765370.00        0.08278
439799.00    3765370.00        0.08522
          439829.00    3765370.00        0.08750
439859.00    3765370.00        0.08947
          439889.00    3765370.00        0.09100
439649.00    3765400.00        0.07974
          439679.00    3765400.00        0.08190
439709.00    3765400.00        0.08435
          439739.00    3765400.00        0.08713
439769.00    3765400.00        0.09017
          439799.00    3765400.00        0.09338
439829.00    3765400.00        0.09655
          439859.00    3765400.00        0.09944
439889.00    3765400.00        0.10183
          439649.00    3765430.00        0.08670
439679.00    3765430.00        0.08891
          439709.00    3765430.00        0.09154
439739.00    3765430.00        0.09469
          439769.00    3765430.00        0.09838
439799.00    3765430.00        0.10252
          439829.00    3765430.00        0.10687
439859.00    3765430.00        0.11108
          439889.00    3765430.00        0.11477
439649.00    3765460.00        0.09505
          439679.00    3765460.00        0.09717
439709.00    3765460.00        0.09983
          439739.00    3765460.00        0.10324
439769.00    3765460.00        0.10753
          439799.00    3765460.00        0.11275
439829.00    3765460.00        0.11867
          439859.00    3765460.00        0.12480
439889.00    3765460.00        0.13049
          439649.00    3765490.00        0.10539
439679.00    3765490.00        0.10727
          439709.00    3765490.00        0.10975
439739.00    3765490.00        0.11318
```

```
         439769.00    3765490.00        0.11792
439799.00    3765490.00        0.12423
         439829.00    3765490.00        0.13212
439859.00    3765490.00        0.14106
         439889.00    3765490.00        0.14996
```

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439674.00	3765310.00	0.53810	439679.00	3765310.00	0.53834
439684.00	3765310.00	0.53856	439689.00	3765310.00	0.53878
439694.00	3765310.00	0.53899	439699.00	3765310.00	0.53919
439704.00	3765310.00	0.53939	439709.00	3765310.00	0.53957
439714.00	3765310.00	0.53974	439719.00	3765310.00	0.53990
439729.00	3765310.00	0.54020	439734.00	3765310.00	0.54033
439739.00	3765310.00	0.54045	439744.00	3765310.00	0.54056
439749.00	3765310.00	0.54065	439764.00	3765310.00	0.54086
439769.00	3765310.00	0.54090	439774.00	3765310.00	0.54093

```
         439779.00    3765310.00        0.54095
439784.00    3765310.00        0.54094
         439789.00    3765310.00        0.54092
439794.00    3765310.00        0.54088
         439799.00    3765310.00        0.54082
439804.00    3765310.00        0.54075
         439809.00    3765310.00        0.54066
439814.00    3765310.00        0.54055
         439819.00    3765310.00        0.54041
439824.00    3765310.00        0.54025
         439829.00    3765310.00        0.54009
439839.00    3765310.00        0.53967
         439844.00    3765310.00        0.53943
439849.00    3765310.00        0.53917
         439854.00    3765310.00        0.53889
439859.00    3765310.00        0.53858
         439864.00    3765310.00        0.53824
439869.00    3765310.00        0.53789
         439874.00    3765310.00        0.53750
439879.00    3765310.00        0.53710
         439884.00    3765310.00        0.53667
439674.00    3765315.00        0.54525
         439679.00    3765315.00        0.54550
439684.00    3765315.00        0.54575
         439689.00    3765315.00        0.54597
439694.00    3765315.00        0.54619
         439699.00    3765315.00        0.54642
439704.00    3765315.00        0.54662
         439709.00    3765315.00        0.54682
439714.00    3765315.00        0.54701
         439719.00    3765315.00        0.54719
439729.00    3765315.00        0.54751
         439734.00    3765315.00        0.54766
439739.00    3765315.00        0.54780
         439744.00    3765315.00        0.54792
439749.00    3765315.00        0.54804
         439764.00    3765315.00        0.54830
439769.00    3765315.00        0.54837
         439774.00    3765315.00        0.54841
439779.00    3765315.00        0.54844
         439784.00    3765315.00        0.54846
439789.00    3765315.00        0.54846
         439794.00    3765315.00        0.54844
439799.00    3765315.00        0.54840
         439804.00    3765315.00        0.54835
439809.00    3765315.00        0.54828
         439814.00    3765315.00        0.54818
439819.00    3765315.00        0.54807
         439824.00    3765315.00        0.54793
439829.00    3765315.00        0.54778
         439839.00    3765315.00        0.54740
439844.00    3765315.00        0.54718
```

```
         439849.00    3765315.00        0.54695
439854.00    3765315.00        0.54667
         439859.00    3765315.00        0.54638
439864.00    3765315.00        0.54607
         439869.00    3765315.00        0.54572
439874.00    3765315.00        0.54536
         439879.00    3765315.00        0.54497
439884.00    3765315.00        0.54456
         439674.00    3765320.00        0.55257
439679.00    3765320.00        0.55282
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439684.00	3765320.00	0.55309	439689.00	3765320.00	0.55333
439694.00	3765320.00	0.55357	439699.00	3765320.00	0.55380
439704.00	3765320.00	0.55402	439709.00	3765320.00	0.55423
439714.00	3765320.00	0.55444	439719.00	3765320.00	0.55464
439729.00	3765320.00	0.55500	439734.00	3765320.00	0.55516
439739.00	3765320.00	0.55532	439744.00	3765320.00	0.55546
439749.00	3765320.00	0.55559	439764.00	3765320.00	0.55591
439769.00	3765320.00	0.55600	439774.00	3765320.00	0.55606
439779.00	3765320.00	0.55611	439784.00	3765320.00	0.55615

```
          439789.00    3765320.00         0.55616
439794.00    3765320.00         0.55616
          439799.00    3765320.00         0.55616
439804.00    3765320.00         0.55612
          439809.00    3765320.00         0.55606
439814.00    3765320.00         0.55599
          439819.00    3765320.00         0.55590
439824.00    3765320.00         0.55579
          439829.00    3765320.00         0.55565
439839.00    3765320.00         0.55532
          439844.00    3765320.00         0.55512
439849.00    3765320.00         0.55490
          439854.00    3765320.00         0.55464
439859.00    3765320.00         0.55437
          439864.00    3765320.00         0.55408
439869.00    3765320.00         0.55375
          439874.00    3765320.00         0.55341
439879.00    3765320.00         0.55304
          439884.00    3765320.00         0.55263
439674.00    3765325.00         0.56004
          439679.00    3765325.00         0.56033
439684.00    3765325.00         0.56058
          439689.00    3765325.00         0.56085
439694.00    3765325.00         0.56110
          439699.00    3765325.00         0.56135
439704.00    3765325.00         0.56159
          439709.00    3765325.00         0.56182
439714.00    3765325.00         0.56204
          439719.00    3765325.00         0.56225
439729.00    3765325.00         0.56264
          439734.00    3765325.00         0.56283
439739.00    3765325.00         0.56300
          439744.00    3765325.00         0.56317
439749.00    3765325.00         0.56332
          439754.00    3765325.00         0.56345
439769.00    3765325.00         0.56379
          439774.00    3765325.00         0.56388
439779.00    3765325.00         0.56395
          439784.00    3765325.00         0.56400
439789.00    3765325.00         0.56405
          439794.00    3765325.00         0.56407
439799.00    3765325.00         0.56408
          439804.00    3765325.00         0.56406
439809.00    3765325.00         0.56403
          439814.00    3765325.00         0.56399
439819.00    3765325.00         0.56391
          439824.00    3765325.00         0.56382
439829.00    3765325.00         0.56371
          439839.00    3765325.00         0.56342
439844.00    3765325.00         0.56323
          439849.00    3765325.00         0.56303
439854.00    3765325.00         0.56280
```

```
          439859.00    3765325.00        0.56255
439864.00    3765325.00        0.56227
          439869.00    3765325.00        0.56197
439874.00    3765325.00        0.56164
          439879.00    3765325.00        0.56129
439884.00    3765325.00        0.56090
          439674.00    3765330.00        0.56770
439679.00    3765330.00        0.56798
          439684.00    3765330.00        0.56827
439689.00    3765330.00        0.56854
```

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439694.00	3765330.00	0.56882	439699.00	3765330.00	0.56907
439704.00	3765330.00	0.56933	439709.00	3765330.00	0.56958
439714.00	3765330.00	0.56981	439719.00	3765330.00	0.57004
439729.00	3765330.00	0.57047	439734.00	3765330.00	0.57067
439739.00	3765330.00	0.57087	439744.00	3765330.00	0.57104
439749.00	3765330.00	0.57121	439754.00	3765330.00	0.57138
439774.00	3765330.00	0.57188	439779.00	3765330.00	0.57197
439784.00	3765330.00	0.57205	439789.00	3765330.00	0.57212
439794.00	3765330.00	0.57216	439799.00	3765330.00	0.57218

```
          439804.00    3765330.00         0.57220
439809.00    3765330.00         0.57219
          439814.00    3765330.00         0.57216
439819.00    3765330.00         0.57211
          439824.00    3765330.00         0.57204
439829.00    3765330.00         0.57195
          439839.00    3765330.00         0.57170
439844.00    3765330.00         0.57154
          439849.00    3765330.00         0.57136
439854.00    3765330.00         0.57116
          439859.00    3765330.00         0.57092
439864.00    3765330.00         0.57067
          439869.00    3765330.00         0.57038
439874.00    3765330.00         0.57007
          439879.00    3765330.00         0.56974
439884.00    3765330.00         0.56938
          439674.00    3765335.00         0.57552
439679.00    3765335.00         0.57583
          439684.00    3765335.00         0.57612
439689.00    3765335.00         0.57643
          439694.00    3765335.00         0.57670
439699.00    3765335.00         0.57698
          439704.00    3765335.00         0.57725
439709.00    3765335.00         0.57751
          439714.00    3765335.00         0.57777
439719.00    3765335.00         0.57801
          439729.00    3765335.00         0.57848
439734.00    3765335.00         0.57870
          439739.00    3765335.00         0.57890
439744.00    3765335.00         0.57911
          439749.00    3765335.00         0.57930
439774.00    3765335.00         0.58006
          439779.00    3765335.00         0.58018
439784.00    3765335.00         0.58029
          439789.00    3765335.00         0.58036
439794.00    3765335.00         0.58043
          439839.00    3765335.00         0.58019
439844.00    3765335.00         0.58005
          439849.00    3765335.00         0.57990
439854.00    3765335.00         0.57971
          439859.00    3765335.00         0.57950
439864.00    3765335.00         0.57926
          439869.00    3765335.00         0.57900
439874.00    3765335.00         0.57871
          439879.00    3765335.00         0.57840
439884.00    3765335.00         0.57805
          439674.00    3765340.00         0.58355
439679.00    3765340.00         0.58386
          439684.00    3765340.00         0.58418
439689.00    3765340.00         0.58448
          439694.00    3765340.00         0.58478
439699.00    3765340.00         0.58507
```

```
         439704.00    3765340.00        0.58536
439709.00    3765340.00        0.58563
         439714.00    3765340.00        0.58590
439719.00    3765340.00        0.58617
         439729.00    3765340.00        0.58667
439734.00    3765340.00        0.58691
         439739.00    3765340.00        0.58714
439744.00    3765340.00        0.58736
         439749.00    3765340.00        0.58757
439774.00    3765340.00        0.58845
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439779.00	3765340.00	0.58858	439784.00	3765340.00	0.58870
439789.00	3765340.00	0.58882	439794.00	3765340.00	0.58891
439839.00	3765340.00	0.58887	439844.00	3765340.00	0.58877
439849.00	3765340.00	0.58863	439854.00	3765340.00	0.58847
439859.00	3765340.00	0.58828	439864.00	3765340.00	0.58807
439869.00	3765340.00	0.58783	439874.00	3765340.00	0.58757
439879.00	3765340.00	0.58727	439884.00	3765340.00	0.58694
439674.00	3765345.00	0.59176	439679.00	3765345.00	0.59209
439684.00	3765345.00	0.59242	439689.00	3765345.00	0.59274

```
          439694.00    3765345.00        0.59305
439699.00    3765345.00        0.59336
          439704.00    3765345.00        0.59366
439709.00    3765345.00        0.59395
          439714.00    3765345.00        0.59424
439719.00    3765345.00        0.59452
          439729.00    3765345.00        0.59506
439734.00    3765345.00        0.59532
          439739.00    3765345.00        0.59557
439744.00    3765345.00        0.59580
          439749.00    3765345.00        0.59604
439774.00    3765345.00        0.59702
          439779.00    3765345.00        0.59719
439784.00    3765345.00        0.59733
          439789.00    3765345.00        0.59746
439794.00    3765345.00        0.59758
          439839.00    3765345.00        0.59778
439844.00    3765345.00        0.59770
          439849.00    3765345.00        0.59758
439854.00    3765345.00        0.59745
          439859.00    3765345.00        0.59729
439864.00    3765345.00        0.59710
          439869.00    3765345.00        0.59688
439874.00    3765345.00        0.59664
          439879.00    3765345.00        0.59636
439884.00    3765345.00        0.59607
          439674.00    3765350.00        0.60017
439679.00    3765350.00        0.60052
          439684.00    3765350.00        0.60085
439689.00    3765350.00        0.60120
          439694.00    3765350.00        0.60152
439699.00    3765350.00        0.60185
          439704.00    3765350.00        0.60216
439709.00    3765350.00        0.60248
          439714.00    3765350.00        0.60278
439719.00    3765350.00        0.60308
          439729.00    3765350.00        0.60365
439734.00    3765350.00        0.60393
          439739.00    3765350.00        0.60419
439744.00    3765350.00        0.60447
          439749.00    3765350.00        0.60470
439774.00    3765350.00        0.60581
          439779.00    3765350.00        0.60600
439784.00    3765350.00        0.60617
          439789.00    3765350.00        0.60632
439794.00    3765350.00        0.60646
          439839.00    3765350.00        0.60691
439844.00    3765350.00        0.60684
          439849.00    3765350.00        0.60677
439854.00    3765350.00        0.60665
          439859.00    3765350.00        0.60651
439864.00    3765350.00        0.60634
```

```
         439869.00    3765350.00        0.60616
439874.00    3765350.00        0.60593
         439879.00    3765350.00        0.60570
439884.00    3765350.00        0.60542
         439674.00    3765355.00        0.60880
439679.00    3765355.00        0.60915
         439684.00    3765355.00        0.60951
439689.00    3765355.00        0.60985
         439694.00    3765355.00        0.61021
439699.00    3765355.00        0.61055
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439704.00	3765355.00	0.61088	439709.00	3765355.00	0.61121
439714.00	3765355.00	0.61153	439719.00	3765355.00	0.61185
439729.00	3765355.00	0.61246	439734.00	3765355.00	0.61275
439739.00	3765355.00	0.61305	439744.00	3765355.00	0.61331
439749.00	3765355.00	0.61360	439774.00	3765355.00	0.61481
439779.00	3765355.00	0.61502	439784.00	3765355.00	0.61522
439789.00	3765355.00	0.61540	439794.00	3765355.00	0.61557
439839.00	3765355.00	0.61625	439844.00	3765355.00	0.61623
439849.00	3765355.00	0.61616	439854.00	3765355.00	0.61609

```
          439859.00    3765355.00         0.61597
439864.00    3765355.00         0.61584
          439869.00    3765355.00         0.61567
439874.00    3765355.00         0.61548
          439879.00    3765355.00         0.61526
439884.00    3765355.00         0.61501
          439674.00    3765360.00         0.61763
439679.00    3765360.00         0.61801
          439684.00    3765360.00         0.61838
439689.00    3765360.00         0.61875
          439694.00    3765360.00         0.61911
439699.00    3765360.00         0.61946
          439704.00    3765360.00         0.61981
439709.00    3765360.00         0.62015
          439714.00    3765360.00         0.62050
439719.00    3765360.00         0.62083
          439729.00    3765360.00         0.62147
439734.00    3765360.00         0.62180
          439739.00    3765360.00         0.62210
439744.00    3765360.00         0.62241
          439749.00    3765360.00         0.62269
439774.00    3765360.00         0.62403
          439779.00    3765360.00         0.62427
439784.00    3765360.00         0.62449
          439789.00    3765360.00         0.62471
439794.00    3765360.00         0.62490
          439799.00    3765360.00         0.62508
439804.00    3765360.00         0.62524
          439809.00    3765360.00         0.62539
439814.00    3765360.00         0.62551
          439839.00    3765360.00         0.62586
439844.00    3765360.00         0.62583
          439849.00    3765360.00         0.62582
439854.00    3765360.00         0.62576
          439859.00    3765360.00         0.62569
439864.00    3765360.00         0.62557
          439869.00    3765360.00         0.62543
439874.00    3765360.00         0.62527
          439879.00    3765360.00         0.62507
439884.00    3765360.00         0.62486
          439674.00    3765365.00         0.62670
439679.00    3765365.00         0.62709
          439684.00    3765365.00         0.62748
439689.00    3765365.00         0.62787
          439694.00    3765365.00         0.62823
439699.00    3765365.00         0.62861
          439704.00    3765365.00         0.62897
439709.00    3765365.00         0.62934
          439714.00    3765365.00         0.62969
439719.00    3765365.00         0.63004
          439729.00    3765365.00         0.63073
439734.00    3765365.00         0.63106
```

```
         439739.00    3765365.00        0.63140
439744.00    3765365.00        0.63171
         439749.00    3765365.00        0.63203
439774.00    3765365.00        0.63349
         439779.00    3765365.00        0.63375
439784.00    3765365.00        0.63401
         439789.00    3765365.00        0.63424
439794.00    3765365.00        0.63446
         439799.00    3765365.00        0.63467
439804.00    3765365.00        0.63487
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439809.00	3765365.00	0.63503	439814.00	3765365.00	0.63521
439839.00	3765365.00	0.63568	439844.00	3765365.00	0.63572
439849.00	3765365.00	0.63572	439854.00	3765365.00	0.63569
439859.00	3765365.00	0.63564	439864.00	3765365.00	0.63556
439869.00	3765365.00	0.63546	439874.00	3765365.00	0.63531
439879.00	3765365.00	0.63516	439884.00	3765365.00	0.63494
439674.00	3765370.00	0.63601	439679.00	3765370.00	0.63641
439684.00	3765370.00	0.63682	439689.00	3765370.00	0.63720
439694.00	3765370.00	0.63761	439699.00	3765370.00	0.63798

```
          439704.00    3765370.00         0.63837
439709.00    3765370.00         0.63875
          439714.00    3765370.00         0.63912
439719.00    3765370.00         0.63949
          439729.00    3765370.00         0.64022
439734.00    3765370.00         0.64057
          439739.00    3765370.00         0.64092
439744.00    3765370.00         0.64126
          439749.00    3765370.00         0.64160
439774.00    3765370.00         0.64318
          439779.00    3765370.00         0.64348
439784.00    3765370.00         0.64374
          439789.00    3765370.00         0.64402
439794.00    3765370.00         0.64427
          439799.00    3765370.00         0.64451
439804.00    3765370.00         0.64473
          439809.00    3765370.00         0.64494
439814.00    3765370.00         0.64513
          439839.00    3765370.00         0.64578
439844.00    3765370.00         0.64584
          439849.00    3765370.00         0.64587
439854.00    3765370.00         0.64589
          439859.00    3765370.00         0.64586
439864.00    3765370.00         0.64582
          439869.00    3765370.00         0.64573
439874.00    3765370.00         0.64564
          439879.00    3765370.00         0.64548
439884.00    3765370.00         0.64533
          439674.00    3765375.00         0.64555
439679.00    3765375.00         0.64599
          439684.00    3765375.00         0.64639
439689.00    3765375.00         0.64681
          439694.00    3765375.00         0.64720
439699.00    3765375.00         0.64761
          439704.00    3765375.00         0.64801
439709.00    3765375.00         0.64841
          439714.00    3765375.00         0.64880
439719.00    3765375.00         0.64917
          439729.00    3765375.00         0.64994
439734.00    3765375.00         0.65034
          439739.00    3765375.00         0.65068
439744.00    3765375.00         0.65106
          439749.00    3765375.00         0.65141
439754.00    3765375.00         0.65179
          439774.00    3765375.00         0.65314
439779.00    3765375.00         0.65345
          439784.00    3765375.00         0.65376
439789.00    3765375.00         0.65405
          439794.00    3765375.00         0.65433
439799.00    3765375.00         0.65461
          439804.00    3765375.00         0.65486
439809.00    3765375.00         0.65510
```

```
         439814.00    3765375.00        0.65531
439839.00    3765375.00        0.65614
         439844.00    3765375.00        0.65623
439849.00    3765375.00        0.65632
         439854.00    3765375.00        0.65634
439859.00    3765375.00        0.65636
         439864.00    3765375.00        0.65634
439869.00    3765375.00        0.65631
         439874.00    3765375.00        0.65623
439879.00    3765375.00        0.65612
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439884.00	3765375.00	0.65598	439774.00	3765380.00	0.66333
439779.00	3765380.00	0.66369	439784.00	3765380.00	0.66402
439789.00	3765380.00	0.66433	439794.00	3765380.00	0.66467
439799.00	3765380.00	0.66496	439804.00	3765380.00	0.66526
439809.00	3765380.00	0.66551	439814.00	3765380.00	0.66580
439769.00	3765385.00	0.67343	439819.00	3765385.00	0.67681
439769.00	3765400.00	0.70652	439844.00	3765400.00	0.71263
439849.00	3765400.00	0.71291	439674.00	3765405.00	0.70872
439714.00	3765405.00	0.71266	439719.00	3765405.00	0.71317

```
          439734.00    3765405.00        0.71465
439749.00    3765405.00        0.71616
          439754.00    3765405.00        0.71665
439774.00    3765405.00        0.71866
          439779.00    3765405.00        0.71918
439784.00    3765405.00        0.71967
          439789.00    3765405.00        0.72016
439794.00    3765405.00        0.72065
          439799.00    3765405.00        0.72115
439804.00    3765405.00        0.72161
          439809.00    3765405.00        0.72207
439814.00    3765405.00        0.72254
          439819.00    3765405.00        0.72296
439824.00    3765405.00        0.72340
          439829.00    3765405.00        0.72379
439834.00    3765405.00        0.72419
          439839.00    3765405.00        0.72454
439844.00    3765405.00        0.72490
          439849.00    3765405.00        0.72521
439854.00    3765405.00        0.72550
          439859.00    3765405.00        0.72576
439674.00    3765410.00        0.72034
          439679.00    3765410.00        0.72085
439684.00    3765410.00        0.72136
          439689.00    3765410.00        0.72186
439694.00    3765410.00        0.72238
          439699.00    3765410.00        0.72287
439704.00    3765410.00        0.72338
          439709.00    3765410.00        0.72389
439714.00    3765410.00        0.72440
          439719.00    3765410.00        0.72490
439729.00    3765410.00        0.72594
          439734.00    3765410.00        0.72646
439739.00    3765410.00        0.72697
          439744.00    3765410.00        0.72751
439749.00    3765410.00        0.72803
          439774.00    3765410.00        0.73070
439779.00    3765410.00        0.73122
          439784.00    3765410.00        0.73175
439789.00    3765410.00        0.73229
          439794.00    3765410.00        0.73282
439799.00    3765410.00        0.73334
          439804.00    3765410.00        0.73385
439809.00    3765410.00        0.73438
          439814.00    3765410.00        0.73484
439819.00    3765410.00        0.73535
          439824.00    3765410.00        0.73581
439829.00    3765410.00        0.73628
          439834.00    3765410.00        0.73668
439839.00    3765410.00        0.73713
          439844.00    3765410.00        0.73750
439849.00    3765410.00        0.73788
```

```
         439854.00    3765410.00        0.73822
439859.00    3765410.00        0.73854
         439674.00    3765415.00        0.73231
439679.00    3765415.00        0.73284
         439684.00    3765415.00        0.73335
439689.00    3765415.00        0.73389
         439694.00    3765415.00        0.73438
439699.00    3765415.00        0.73492
         439704.00    3765415.00        0.73544
439709.00    3765415.00        0.73596
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439714.00	3765415.00	0.73648	439719.00	3765415.00	0.73703
439729.00	3765415.00	0.73809	439734.00	3765415.00	0.73861
439739.00	3765415.00	0.73917	439744.00	3765415.00	0.73970
439749.00	3765415.00	0.74026	439774.00	3765415.00	0.74306
439779.00	3765415.00	0.74363	439784.00	3765415.00	0.74421
439789.00	3765415.00	0.74477	439794.00	3765415.00	0.74534
439799.00	3765415.00	0.74590	439804.00	3765415.00	0.74646
439809.00	3765415.00	0.74699	439814.00	3765415.00	0.74757
439819.00	3765415.00	0.74807	439824.00	3765415.00	0.74861

```
          439829.00    3765415.00        0.74909
439834.00    3765415.00        0.74961
          439839.00    3765415.00        0.75004
439844.00    3765415.00        0.75051
          439849.00    3765415.00        0.75092
439854.00    3765415.00        0.75132
          439859.00    3765415.00        0.75169
439674.00    3765420.00        0.74468
          439679.00    3765420.00        0.74520
439684.00    3765420.00        0.74574
          439689.00    3765420.00        0.74625
439694.00    3765420.00        0.74682
          439699.00    3765420.00        0.74732
439704.00    3765420.00        0.74786
          439709.00    3765420.00        0.74839
439714.00    3765420.00        0.74895
          439719.00    3765420.00        0.74948
439729.00    3765420.00        0.75058
          439734.00    3765420.00        0.75115
439739.00    3765420.00        0.75171
          439744.00    3765420.00        0.75228
439749.00    3765420.00        0.75285
          439774.00    3765420.00        0.75581
439779.00    3765420.00        0.75641
          439784.00    3765420.00        0.75701
439789.00    3765420.00        0.75763
          439794.00    3765420.00        0.75822
439799.00    3765420.00        0.75883
          439804.00    3765420.00        0.75942
439809.00    3765420.00        0.76005
          439814.00    3765420.00        0.76060
439819.00    3765420.00        0.76121
          439824.00    3765420.00        0.76176
439829.00    3765420.00        0.76234
          439834.00    3765420.00        0.76285
439839.00    3765420.00        0.76341
          439844.00    3765420.00        0.76388
439849.00    3765420.00        0.76437
          439854.00    3765420.00        0.76482
439859.00    3765420.00        0.76525
          439674.00    3765425.00        0.75740
439679.00    3765425.00        0.75796
          439684.00    3765425.00        0.75849
439689.00    3765425.00        0.75905
          439694.00    3765425.00        0.75957
439699.00    3765425.00        0.76014
          439704.00    3765425.00        0.76068
439709.00    3765425.00        0.76125
          439714.00    3765425.00        0.76177
439719.00    3765425.00        0.76236
          439729.00    3765425.00        0.76349
439734.00    3765425.00        0.76406
```

```
         439739.00    3765425.00        0.76464
439744.00    3765425.00        0.76523
         439749.00    3765425.00        0.76584
439774.00    3765425.00        0.76893
         439779.00    3765425.00        0.76957
439784.00    3765425.00        0.77022
         439789.00    3765425.00        0.77084
439794.00    3765425.00        0.77151
         439799.00    3765425.00        0.77215
439804.00    3765425.00        0.77281
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439809.00	3765425.00	0.77343	439814.00	3765425.00	0.77410
439819.00	3765425.00	0.77470	439824.00	3765425.00	0.77535
439829.00	3765425.00	0.77594	439834.00	3765425.00	0.77656
439839.00	3765425.00	0.77711	439844.00	3765425.00	0.77770
439849.00	3765425.00	0.77823	439854.00	3765425.00	0.77874
439859.00	3765425.00	0.77922	439674.00	3765430.00	0.77057
439679.00	3765430.00	0.77112	439684.00	3765430.00	0.77168
439689.00	3765430.00	0.77222	439694.00	3765430.00	0.77280
439699.00	3765430.00	0.77333	439704.00	3765430.00	0.77391

```
          439709.00    3765430.00         0.77446
439714.00    3765430.00         0.77505
          439719.00    3765430.00         0.77561
439729.00    3765430.00         0.77678
          439734.00    3765430.00         0.77738
439739.00    3765430.00         0.77798
          439744.00    3765430.00         0.77860
439749.00    3765430.00         0.77923
          439774.00    3765430.00         0.78246
439779.00    3765430.00         0.78313
          439784.00    3765430.00         0.78381
439789.00    3765430.00         0.78451
          439794.00    3765430.00         0.78519
439799.00    3765430.00         0.78588
          439804.00    3765430.00         0.78657
439809.00    3765430.00         0.78729
          439814.00    3765430.00         0.78795
439819.00    3765430.00         0.78866
          439824.00    3765430.00         0.78932
439829.00    3765430.00         0.79001
          439834.00    3765430.00         0.79064
439839.00    3765430.00         0.79131
          439844.00    3765430.00         0.79191
439849.00    3765430.00         0.79252
          439854.00    3765430.00         0.79309
439859.00    3765430.00         0.79365
          439674.00    3765435.00         0.78415
439679.00    3765435.00         0.78472
          439684.00    3765435.00         0.78528
439689.00    3765435.00         0.78586
          439694.00    3765435.00         0.78640
439699.00    3765435.00         0.78700
          439704.00    3765435.00         0.78755
439709.00    3765435.00         0.78814
          439714.00    3765435.00         0.78872
439719.00    3765435.00         0.78932
          439729.00    3765435.00         0.79052
439734.00    3765435.00         0.79113
          439739.00    3765435.00         0.79176
439744.00    3765435.00         0.79239
          439749.00    3765435.00         0.79303
439774.00    3765435.00         0.79642
          439779.00    3765435.00         0.79713
439784.00    3765435.00         0.79785
          439789.00    3765435.00         0.79857
439794.00    3765435.00         0.79931
          439799.00    3765435.00         0.80004
439804.00    3765435.00         0.80079
          439809.00    3765435.00         0.80153
439814.00    3765435.00         0.80229
          439819.00    3765435.00         0.80301
439824.00    3765435.00         0.80377
```

```
         439829.00    3765435.00        0.80448
439834.00    3765435.00        0.80522
         439839.00    3765435.00        0.80590
439844.00    3765435.00        0.80661
         439849.00    3765435.00        0.80726
439854.00    3765435.00        0.80792
         439859.00    3765435.00        0.80853
439674.00    3765440.00        0.79819
         439679.00    3765440.00        0.79877
439684.00    3765440.00        0.79935
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439689.00	3765440.00	0.79991	439694.00	3765440.00	0.80051
439699.00	3765440.00	0.80107	439704.00	3765440.00	0.80168
439709.00	3765440.00	0.80226	439714.00	3765440.00	0.80286
439719.00	3765440.00	0.80346	439729.00	3765440.00	0.80470
439734.00	3765440.00	0.80533	439739.00	3765440.00	0.80597
439744.00	3765440.00	0.80663	439749.00	3765440.00	0.80730
439774.00	3765440.00	0.81082	439779.00	3765440.00	0.81157
439784.00	3765440.00	0.81232	439789.00	3765440.00	0.81309
439794.00	3765440.00	0.81387	439799.00	3765440.00	0.81466

```
          439804.00    3765440.00        0.81545
439809.00    3765440.00        0.81625
          439814.00    3765440.00        0.81703
439819.00    3765440.00        0.81786
          439824.00    3765440.00        0.81864
439829.00    3765440.00        0.81945
          439834.00    3765440.00        0.82021
439839.00    3765440.00        0.82101
          439844.00    3765440.00        0.82175
439849.00    3765440.00        0.82250
          439854.00    3765440.00        0.82321
439859.00    3765440.00        0.82390
          439674.00    3765445.00        0.81272
439679.00    3765445.00        0.81331
          439684.00    3765445.00        0.81388
439689.00    3765445.00        0.81448
          439694.00    3765445.00        0.81506
439699.00    3765445.00        0.81566
          439704.00    3765445.00        0.81625
439709.00    3765445.00        0.81686
          439714.00    3765445.00        0.81747
439719.00    3765445.00        0.81809
          439729.00    3765445.00        0.81936
439734.00    3765445.00        0.82000
          439739.00    3765445.00        0.82067
439744.00    3765445.00        0.82134
          439749.00    3765445.00        0.82203
439774.00    3765445.00        0.82571
          439779.00    3765445.00        0.82648
439784.00    3765445.00        0.82728
          439789.00    3765445.00        0.82809
439794.00    3765445.00        0.82892
          439799.00    3765445.00        0.82974
439804.00    3765445.00        0.83059
          439809.00    3765445.00        0.83143
439814.00    3765445.00        0.83231
          439819.00    3765445.00        0.83315
439824.00    3765445.00        0.83402
          439829.00    3765445.00        0.83487
439834.00    3765445.00        0.83574
          439839.00    3765445.00        0.83657
439844.00    3765445.00        0.83741
          439849.00    3765445.00        0.83821
439854.00    3765445.00        0.83902
          439859.00    3765445.00        0.83978
439674.00    3765450.00        0.82775
          439679.00    3765450.00        0.82834
439684.00    3765450.00        0.82894
          439689.00    3765450.00        0.82953
439694.00    3765450.00        0.83014
          439699.00    3765450.00        0.83074
439704.00    3765450.00        0.83135
```

```
         439709.00    3765450.00        0.83196
439714.00    3765450.00        0.83259
         439719.00    3765450.00        0.83322
439729.00    3765450.00        0.83451
         439734.00    3765450.00        0.83518
439739.00    3765450.00        0.83586
         439744.00    3765450.00        0.83656
439749.00    3765450.00        0.83727
         439774.00    3765450.00        0.84107
439844.00    3765450.00        0.85358
```

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439849.00	3765450.00	0.85449	439854.00	3765450.00	0.85535
439859.00	3765450.00	0.85622	439674.00	3765455.00	0.84331
439679.00	3765455.00	0.84392	439684.00	3765455.00	0.84453
439689.00	3765455.00	0.84514	439694.00	3765455.00	0.84574
439699.00	3765455.00	0.84636	439704.00	3765455.00	0.84697
439709.00	3765455.00	0.84760	439714.00	3765455.00	0.84824
439719.00	3765455.00	0.84888	439729.00	3765455.00	0.85021
439734.00	3765455.00	0.85089	439739.00	3765455.00	0.85158
439744.00	3765455.00	0.85230	439749.00	3765455.00	0.85303

```
          439844.00    3765455.00         0.87032
439849.00    3765455.00         0.87129
          439854.00    3765455.00         0.87226
439859.00    3765455.00         0.87320
          439674.00    3765460.00         0.85945
439679.00    3765460.00         0.86007
          439684.00    3765460.00         0.86068
439689.00    3765460.00         0.86129
          439694.00    3765460.00         0.86192
439699.00    3765460.00         0.86253
          439704.00    3765460.00         0.86317
439709.00    3765460.00         0.86380
          439714.00    3765460.00         0.86445
439719.00    3765460.00         0.86510
          439729.00    3765460.00         0.86646
439734.00    3765460.00         0.86715
          439739.00    3765460.00         0.86788
439744.00    3765460.00         0.86861
          439749.00    3765460.00         0.86936
439789.00    3765460.00         0.87618
          439794.00    3765460.00         0.87714
439799.00    3765460.00         0.87812
          439804.00    3765460.00         0.87912
439809.00    3765460.00         0.88014
          439814.00    3765460.00         0.88118
439819.00    3765460.00         0.88224
          439824.00    3765460.00         0.88330
439829.00    3765460.00         0.88439
          439844.00    3765460.00         0.88763
439849.00    3765460.00         0.88869
          439854.00    3765460.00         0.88976
439859.00    3765460.00         0.89080
          439674.00    3765465.00         0.87619
439679.00    3765465.00         0.87682
          439684.00    3765465.00         0.87743
439689.00    3765465.00         0.87807
          439694.00    3765465.00         0.87868
439699.00    3765465.00         0.87932
          439704.00    3765465.00         0.87996
439709.00    3765465.00         0.88061
          439714.00    3765465.00         0.88126
439719.00    3765465.00         0.88193
          439729.00    3765465.00         0.88330
439734.00    3765465.00         0.88403
          439739.00    3765465.00         0.88475
439744.00    3765465.00         0.88550
          439749.00    3765465.00         0.88627
439789.00    3765465.00         0.89334
          439794.00    3765465.00         0.89435
439799.00    3765465.00         0.89538
          439804.00    3765465.00         0.89644
439809.00    3765465.00         0.89752
```

```
         439814.00    3765465.00        0.89862
439819.00    3765465.00        0.89975
         439824.00    3765465.00        0.90089
439829.00    3765465.00        0.90204
         439844.00    3765465.00        0.90554
439849.00    3765465.00        0.90672
         439854.00    3765465.00        0.90787
439859.00    3765465.00        0.90902
         439674.00    3765470.00        0.89358
439679.00    3765470.00        0.89419
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439684.00	3765470.00	0.89484	439689.00	3765470.00	0.89545
439694.00	3765470.00	0.89610	439699.00	3765470.00	0.89674
439704.00	3765470.00	0.89739	439709.00	3765470.00	0.89804
439714.00	3765470.00	0.89871	439719.00	3765470.00	0.89939
439729.00	3765470.00	0.90080	439734.00	3765470.00	0.90151
439739.00	3765470.00	0.90227	439744.00	3765470.00	0.90303
439749.00	3765470.00	0.90383	439789.00	3765470.00	0.91113
439794.00	3765470.00	0.91219	439799.00	3765470.00	0.91326
439804.00	3765470.00	0.91438	439809.00	3765470.00	0.91552

```
          439814.00    3765470.00         0.91669
439819.00    3765470.00         0.91788
          439824.00    3765470.00         0.91910
439829.00    3765470.00         0.92033
          439844.00    3765470.00         0.92412
439849.00    3765470.00         0.92538
          439854.00    3765470.00         0.92665
439859.00    3765470.00         0.92789
          439674.00    3765475.00         0.91159
439679.00    3765475.00         0.91226
          439684.00    3765475.00         0.91288
439689.00    3765475.00         0.91354
          439694.00    3765475.00         0.91417
439699.00    3765475.00         0.91484
          439704.00    3765475.00         0.91549
439709.00    3765475.00         0.91616
          439714.00    3765475.00         0.91683
439719.00    3765475.00         0.91752
          439729.00    3765475.00         0.91894
439734.00    3765475.00         0.91968
          439739.00    3765475.00         0.92045
439744.00    3765475.00         0.92124
          439749.00    3765475.00         0.92203
439754.00    3765475.00         0.92288
          439789.00    3765475.00         0.92958
439794.00    3765475.00         0.93067
          439799.00    3765475.00         0.93181
439804.00    3765475.00         0.93297
          439809.00    3765475.00         0.93418
439814.00    3765475.00         0.93542
          439819.00    3765475.00         0.93668
439824.00    3765475.00         0.93798
          439829.00    3765475.00         0.93930
439269.00    3764900.00         0.23287
          439369.00    3764900.00         0.23596
439469.00    3764900.00         0.23666
          439569.00    3764900.00         0.23487
439669.00    3764900.00         0.23049
          439769.00    3764900.00         0.22349
439869.00    3764900.00         0.21392
          439969.00    3764900.00         0.20201
440069.00    3764900.00         0.18818
          440169.00    3764900.00         0.17312
440269.00    3764900.00         0.15767
          439269.00    3765000.00         0.27095
439369.00    3765000.00         0.27637
          439469.00    3765000.00         0.27898
439569.00    3765000.00         0.27869
          439669.00    3765000.00         0.27538
439769.00    3765000.00         0.26878
          439869.00    3765000.00         0.25862
439969.00    3765000.00         0.24502
```

```
         440069.00    3765000.00        0.22839
440169.00    3765000.00        0.20957
         440269.00    3765000.00        0.18971
439269.00    3765100.00        0.31939
         439369.00    3765100.00        0.32800
439469.00    3765100.00        0.33326
         439569.00    3765100.00        0.33523
439669.00    3765100.00        0.33386
         439769.00    3765100.00        0.32859
439869.00    3765100.00        0.31861
```

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439969.00	3765100.00	0.30367	440069.00	3765100.00	0.28402
440169.00	3765100.00	0.26055	440269.00	3765100.00	0.23472
439269.00	3765200.00	0.38343	439369.00	3765200.00	0.39668
439469.00	3765200.00	0.40568	439569.00	3765200.00	0.41085
439669.00	3765200.00	0.41253	439769.00	3765200.00	0.41003
439869.00	3765200.00	0.40173	439969.00	3765200.00	0.38655
440069.00	3765200.00	0.36419	440169.00	3765200.00	0.33524
440269.00	3765200.00	0.30127	439269.00	3765300.00	0.47255
439369.00	3765300.00	0.49353	439469.00	3765300.00	0.50839

```
         439569.00    3765300.00        0.51804
439669.00    3765300.00        0.52405
         439769.00    3765300.00        0.52646
439869.00    3765300.00        0.52273
         439969.00    3765300.00        0.50970
440069.00    3765300.00        0.48594
         440169.00    3765300.00        0.45117
440269.00    3765300.00        0.40624
         439269.00    3765400.00        0.60597
439369.00    3765400.00        0.64201
         439469.00    3765400.00        0.66855
439569.00    3765400.00        0.68565
         439669.00    3765400.00        0.69695
439769.00    3765400.00        0.70652
         439869.00    3765400.00        0.71371
439969.00    3765400.00        0.70865
         440069.00    3765400.00        0.68661
440169.00    3765400.00        0.64653
         440269.00    3765400.00        0.58737
439269.00    3765500.00        0.83327
         439369.00    3765500.00        0.90310
439469.00    3765500.00        0.95989
         439569.00    3765500.00        0.99459
439669.00    3765500.00        1.01288
         439769.00    3765500.00        1.02874
439869.00    3765500.00        1.06171
         439969.00    3765500.00        1.08877
440069.00    3765500.00        1.07473
         440169.00    3765500.00        1.02830
440269.00    3765500.00        0.95087
         439269.00    3765600.00        1.36500
439369.00    3765600.00        1.51590
         439469.00    3765600.00        1.68432
439569.00    3765600.00        1.78162
         439669.00    3765600.00        1.82944
439769.00    3765600.00        1.87113
         439869.00    3765600.00        1.94297
439969.00    3765600.00        2.28307
         440069.00    3765600.00        2.25139
440169.00    3765600.00        2.13470
         440269.00    3765600.00        1.99139
439269.00    3765700.00        7.25416
         439369.00    3765700.00        7.82253
439469.00    3765700.00       11.15521
         439569.00    3765700.00       11.90380
439669.00    3765700.00       10.94120
         439769.00    3765700.00       10.50967
439869.00    3765700.00       10.06488
         439969.00    3765700.00       10.05430
440069.00    3765700.00       11.14977
         440169.00    3765700.00       12.61795
440269.00    3765700.00       15.51813
```

```
         439269.00    3765800.00        2.99077
439369.00    3765800.00        3.19606
         439469.00    3765800.00        3.61311
439569.00    3765800.00        4.28926
         439669.00    3765800.00        4.89092
439769.00    3765800.00        5.87121
         439869.00    3765800.00        8.05806
439969.00    3765800.00        4.94313
         440069.00    3765800.00        4.28344
440169.00    3765800.00        4.13698
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
440269.00	3765800.00	4.13966	439269.00	3765900.00	0.98221
439369.00	3765900.00	1.14760	439469.00	3765900.00	1.29578
439569.00	3765900.00	1.45052	439669.00	3765900.00	1.61656
439769.00	3765900.00	1.77799	439869.00	3765900.00	1.91522
439969.00	3765900.00	1.98210	440069.00	3765900.00	1.94850
440169.00	3765900.00	1.89475	440269.00	3765900.00	1.86543
439649.00	3765310.00	0.53681	439679.00	3765310.00	0.53834
439709.00	3765310.00	0.53957	439739.00	3765310.00	0.54045
439769.00	3765310.00	0.54090	439799.00	3765310.00	0.54082

```
          439829.00    3765310.00        0.54009
439859.00    3765310.00        0.53858
          439889.00    3765310.00        0.53621
439649.00    3765340.00        0.58184
          439679.00    3765340.00        0.58386
439709.00    3765340.00        0.58563
          439739.00    3765340.00        0.58714
439769.00    3765340.00        0.58830
          439799.00    3765340.00        0.58898
439829.00    3765340.00        0.58903
          439859.00    3765340.00        0.58828
439889.00    3765340.00        0.58660
          439649.00    3765370.00        0.63390
439679.00    3765370.00        0.63641
          439709.00    3765370.00        0.63875
439739.00    3765370.00        0.64092
          439769.00    3765370.00        0.64289
439799.00    3765370.00        0.64451
          439829.00    3765370.00        0.64558
439859.00    3765370.00        0.64586
          439889.00    3765370.00        0.64512
439649.00    3765400.00        0.69496
          439679.00    3765400.00        0.69792
439709.00    3765400.00        0.70079
          439739.00    3765400.00        0.70365
439769.00    3765400.00        0.70652
          439799.00    3765400.00        0.70927
439829.00    3765400.00        0.71168
          439859.00    3765400.00        0.71336
439889.00    3765400.00        0.71398
          439649.00    3765430.00        0.76775
439679.00    3765430.00        0.77112
          439709.00    3765430.00        0.77446
439739.00    3765430.00        0.77798
          439769.00    3765430.00        0.78180
439799.00    3765430.00        0.78588
          439829.00    3765430.00        0.79001
439859.00    3765430.00        0.79365
          439889.00    3765430.00        0.79621
439649.00    3765460.00        0.85632
          439679.00    3765460.00        0.86007
439709.00    3765460.00        0.86380
          439739.00    3765460.00        0.86788
439769.00    3765460.00        0.87258
          439799.00    3765460.00        0.87812
439829.00    3765460.00        0.88439
          439859.00    3765460.00        0.89080
439889.00    3765460.00        0.89635
          439649.00    3765490.00        0.96681
439679.00    3765490.00        0.97094
          439709.00    3765490.00        0.97497
439739.00    3765490.00        0.97946
```

```
         439769.00    3765490.00        0.98493
439799.00    3765490.00        0.99188
         439829.00    3765490.00        1.00065
439859.00    3765490.00        1.01090
         439889.00    3765490.00        1.02117
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: EXH ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439674.00	3765310.00	4.80622	(12010217)	439679.00	3765310.00	4.79062	(12010217)
439684.00	3765310.00	4.77559	(12010217)	439689.00	3765310.00	4.75935	(12010217)
439694.00	3765310.00	4.74398	(12010217)	439699.00	3765310.00	4.72759	(12010217)
439704.00	3765310.00	4.71189	(12010217)	439709.00	3765310.00	4.69850	(13121718)
439714.00	3765310.00	4.69178	(13121718)	439719.00	3765310.00	4.68119	(13121718)
439729.00	3765310.00	4.66061	(13121718)	439734.00	3765310.00	4.65045	(13121718)
439739.00	3765310.00	4.63862	(13121718)	439744.00	3765310.00	4.62535	(13121718)
439749.00	3765310.00	4.61261	(12011808)	439764.00	3765310.00	4.60027	(15010717)
439769.00	3765310.00	4.62296	(15010717)				

```
439774.00   3765310.00        4.64394  (15010717)
        439779.00   3765310.00        4.66491  (15010717)
439784.00   3765310.00        4.68481  (15010717)
        439789.00   3765310.00        4.70391  (15010717)
439794.00   3765310.00        4.72243  (15010717)
        439799.00   3765310.00        4.73988  (15010717)
439804.00   3765310.00        4.75670  (15010717)
        439809.00   3765310.00        4.77290  (15010717)
439814.00   3765310.00        4.78799  (15010717)
        439819.00   3765310.00        4.80271  (15010717)
439824.00   3765310.00        4.81596  (15010717)
        439829.00   3765310.00        4.83014  (15010717)
439839.00   3765310.00        4.85418  (15010717)
        439844.00   3765310.00        4.86513  (15010717)
439849.00   3765310.00        4.87620  (15010717)
        439854.00   3765310.00        4.88503  (15010717)
439859.00   3765310.00        4.89602  (15010717)
        439864.00   3765310.00        4.90426  (15010717)
439869.00   3765310.00        4.91305  (15010717)
        439874.00   3765310.00        4.92030  (15010717)
439879.00   3765310.00        4.92816  (15010717)
        439884.00   3765310.00        4.93499  (15010717)
439674.00   3765315.00        4.85276  (12010217)
        439679.00   3765315.00        4.83691  (12010217)
439684.00   3765315.00        4.82170  (12010217)
        439689.00   3765315.00        4.80536  (12010217)
439694.00   3765315.00        4.78990  (12010217)
        439699.00   3765315.00        4.77303  (12010217)
439704.00   3765315.00        4.76368  (13121718)
        439709.00   3765315.00        4.75553  (13121718)
439714.00   3765315.00        4.74835  (13121718)
        439719.00   3765315.00        4.74074  (13121718)
439729.00   3765315.00        4.72200  (13121718)
        439734.00   3765315.00        4.71092  (13121718)
439739.00   3765315.00        4.70041  (13121718)
        439744.00   3765315.00        4.68859  (13121718)
439749.00   3765315.00        4.67621  (13121718)
        439764.00   3765315.00        4.65516  (15010717)
439769.00   3765315.00        4.67741  (15010717)
        439774.00   3765315.00        4.69854  (15010717)
439779.00   3765315.00        4.71890  (15010717)
        439784.00   3765315.00        4.73931  (15010717)
439789.00   3765315.00        4.75727  (15010717)
        439794.00   3765315.00        4.77545  (15010717)
439799.00   3765315.00        4.79306  (15010717)
        439804.00   3765315.00        4.80917  (15010717)
439809.00   3765315.00        4.82493  (15010717)
        439814.00   3765315.00        4.83983  (15010717)
439819.00   3765315.00        4.85416  (15010717)
        439824.00   3765315.00        4.86772  (15010717)
439829.00   3765315.00        4.88038  (15010717)
        439839.00   3765315.00        4.90373  (15010717)
```

```
439844.00   3765315.00        4.91513  (15010717)
        439849.00   3765315.00        4.92499  (15010717)
439854.00   3765315.00        4.93506  (15010717)
        439859.00   3765315.00        4.94381  (15010717)
439864.00   3765315.00        4.95333  (15010717)
        439869.00   3765315.00        4.96070  (15010717)
439874.00   3765315.00        4.96809  (15010717)
        439879.00   3765315.00        4.97601  (15010717)
439884.00   3765315.00        4.98284  (15010717)
        439674.00   3765320.00        4.90035  (12010217)
439679.00   3765320.00        4.88586  (12010217)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: EXH ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439684.00	3765320.00	4.86914	(12010217)	439689.00	3765320.00	4.85374	(12010217)
439694.00	3765320.00	4.83675	(12010217)	439699.00	3765320.00	4.82488	(13121718)
439704.00	3765320.00	4.81978	(13121718)	439709.00	3765320.00	4.81509	(13121718)
439714.00	3765320.00	4.80637	(13121718)	439719.00	3765320.00	4.79943	(13121718)
439729.00	3765320.00	4.78318	(13121718)	439734.00	3765320.00	4.77404	(13121718)
439739.00	3765320.00	4.76187	(13121718)	439744.00	3765320.00	4.75238	(13121718)
439749.00	3765320.00	4.73871	(13121718)	439764.00	3765320.00	4.71141	(15010717)
439769.00	3765320.00	4.73226	(15010717)	439774.00	3765320.00	4.75425	(15010717)
439779.00	3765320.00	4.77418	(15010717)				

439784.00 3765320.00 4.79366 (15010717)
439789.00 3765320.00 4.81182 (15010717)
439794.00 3765320.00 4.82967 (15010717)
439799.00 3765320.00 4.84681 (15010717)
439804.00 3765320.00 4.86291 (15010717)
439809.00 3765320.00 4.87805 (15010717)
439814.00 3765320.00 4.89281 (15010717)
439819.00 3765320.00 4.90667 (15010717)
439824.00 3765320.00 4.91997 (15010717)
439829.00 3765320.00 4.93195 (15010717)
439839.00 3765320.00 4.95494 (15010717)
439844.00 3765320.00 4.96584 (15010717)
439849.00 3765320.00 4.97560 (15010717)
439854.00 3765320.00 4.98578 (15010717)
439859.00 3765320.00 4.99363 (15010717)
439864.00 3765320.00 5.00238 (15010717)
439869.00 3765320.00 5.01029 (15010717)
439874.00 3765320.00 5.01804 (15010717)
439879.00 3765320.00 5.02389 (15010717)
439884.00 3765320.00 5.03125 (15010717)
439674.00 3765325.00 4.94954 (12010217)
439679.00 3765325.00 4.93405 (12010217)
439684.00 3765325.00 4.91797 (12010217)
439689.00 3765325.00 4.90220 (12010217)
439694.00 3765325.00 4.88543 (13121718)
439699.00 3765325.00 4.87990 (13121718)
439704.00 3765325.00 4.87569 (13121718)
439709.00 3765325.00 4.87054 (13121718)
439714.00 3765325.00 4.86643 (13121718)
439719.00 3765325.00 4.85876 (13121718)
439729.00 3765325.00 4.84329 (13121718)
439734.00 3765325.00 4.83443 (13121718)
439739.00 3765325.00 4.82682 (13121718)
439744.00 3765325.00 4.81402 (13121718)
439749.00 3765325.00 4.80516 (13121718)
439754.00 3765325.00 4.79035 (13121718)
439769.00 3765325.00 4.78928 (15010717)
439774.00 3765325.00 4.81010 (15010717)
439779.00 3765325.00 4.83052 (15010717)
439784.00 3765325.00 4.84892 (15010717)
439789.00 3765325.00 4.86746 (15010717)
439794.00 3765325.00 4.88471 (15010717)
439799.00 3765325.00 4.90127 (15010717)
439804.00 3765325.00 4.91748 (15010717)
439809.00 3765325.00 4.93165 (15010717)
439814.00 3765325.00 4.94632 (15010717)
439819.00 3765325.00 4.95949 (15010717)
439824.00 3765325.00 4.97253 (15010717)
439829.00 3765325.00 4.98461 (15010717)
439839.00 3765325.00 5.00671 (15010717)
439844.00 3765325.00 5.01687 (15010717)
439849.00 3765325.00 5.02674 (15010717)

```
439854.00   3765325.00        5.03569  (15010717)
        439859.00   3765325.00        5.04473  (15010717)
439864.00   3765325.00        5.05179  (15010717)
        439869.00   3765325.00        5.06029  (15010717)
439874.00   3765325.00        5.06708  (15010717)
        439879.00   3765325.00        5.07333  (15010717)
439884.00   3765325.00        5.07951  (15010717)
        439674.00   3765330.00        4.99987  (12010217)
439679.00   3765330.00        4.98352  (12010217)
        439684.00   3765330.00        4.96823  (12010217)
439689.00   3765330.00        4.95164  (12010217)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: EXH ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439694.00	3765330.00	4.93755	(13121718)
439699.00	3765330.00	4.93661	(13121718)
439704.00	3765330.00	4.93307	(13121718)
439709.00	3765330.00	4.92805	(13121718)
439714.00	3765330.00	4.92277	(13121718)
439719.00	3765330.00	4.91817	(13121718)
439729.00	3765330.00	4.90459	(13121718)
439734.00	3765330.00	4.89623	(13121718)
439739.00	3765330.00	4.88742	(13121718)
439744.00	3765330.00	4.87954	(13121718)
439749.00	3765330.00	4.86820	(13121718)
439754.00	3765330.00	4.85827	(13121718)
439774.00	3765330.00	4.86691	(15010717)
439779.00	3765330.00	4.88764	(15010717)
439784.00	3765330.00	4.90559	(15010717)
439789.00	3765330.00	4.92354	(15010717)
439794.00	3765330.00	4.94046	(15010717)

```
439799.00   3765330.00        4.95710  (15010717)
        439804.00   3765330.00        4.97191  (15010717)
439809.00   3765330.00        4.98673  (15010717)
        439814.00   3765330.00        5.00037  (15010717)
439819.00   3765330.00        5.01391  (15010717)
        439824.00   3765330.00        5.02625  (15010717)
439829.00   3765330.00        5.03826  (15010717)
        439839.00   3765330.00        5.05950  (15010717)
439844.00   3765330.00        5.06939  (15010717)
        439849.00   3765330.00        5.07876  (15010717)
439854.00   3765330.00        5.08718  (15010717)
        439859.00   3765330.00        5.09607  (15010717)
439864.00   3765330.00        5.10341  (15010717)
        439869.00   3765330.00        5.11029  (15010717)
439874.00   3765330.00        5.11754  (15010717)
        439879.00   3765330.00        5.12426  (15010717)
439884.00   3765330.00        5.12868  (15010717)
        439674.00   3765335.00        5.05096  (12010217)
439679.00   3765335.00        5.03514  (12010217)
        439684.00   3765335.00        5.01899  (12010217)
439689.00   3765335.00        5.00269  (12010217)
        439694.00   3765335.00        4.99205  (13121718)
439699.00   3765335.00        4.99055  (13121718)
        439704.00   3765335.00        4.98819  (13121718)
439709.00   3765335.00        4.98671  (13121718)
        439714.00   3765335.00        4.98197  (13121718)
439719.00   3765335.00        4.97617  (13121718)
        439729.00   3765335.00        4.96550  (13121718)
439734.00   3765335.00        4.95975  (13121718)
        439739.00   3765335.00        4.95021  (13121718)
439744.00   3765335.00        4.94226  (13121718)
        439749.00   3765335.00        4.93274  (13121718)
439774.00   3765335.00        4.92605  (15010717)
        439779.00   3765335.00        4.94451  (15010717)
439784.00   3765335.00        4.96343  (15010717)
        439789.00   3765335.00        4.98029  (15010717)
439794.00   3765335.00        4.99757  (15010717)
        439839.00   3765335.00        5.11250  (15010717)
439844.00   3765335.00        5.12202  (15010717)
        439849.00   3765335.00        5.13147  (15010717)
439854.00   3765335.00        5.13957  (15010717)
        439859.00   3765335.00        5.14723  (15010717)
439864.00   3765335.00        5.15585  (15010717)
        439869.00   3765335.00        5.16158  (15010717)
439874.00   3765335.00        5.16863  (15010717)
        439879.00   3765335.00        5.17483  (15010717)
439884.00   3765335.00        5.18047  (15010717)
        439674.00   3765340.00        5.10336  (12010217)
439679.00   3765340.00        5.08731  (12010217)
        439684.00   3765340.00        5.07149  (12010217)
439689.00   3765340.00        5.05468  (12010217)
        439694.00   3765340.00        5.04964  (13121718)
```

```
439699.00   3765340.00        5.04635  (13121718)
        439704.00   3765340.00        5.04478  (13121718)
439709.00   3765340.00        5.04222  (13121718)
        439714.00   3765340.00        5.04031  (13121718)
439719.00   3765340.00        5.03791  (13121718)
        439729.00   3765340.00        5.02674  (13121718)
439734.00   3765340.00        5.01959  (13121718)
        439739.00   3765340.00        5.01535  (13121718)
439744.00   3765340.00        5.00580  (13121718)
        439749.00   3765340.00        4.99820  (13121718)
439774.00   3765340.00        4.98533  (15010717)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: EXH ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439779.00	3765340.00	5.00343	(15010717)	439784.00	3765340.00	5.02156	(15010717)
439789.00	3765340.00	5.03873	(15010717)	439794.00	3765340.00	5.05532	(15010717)
439839.00	3765340.00	5.16672	(15010717)	439844.00	3765340.00	5.17605	(15010717)
439849.00	3765340.00	5.18495	(15010717)	439854.00	3765340.00	5.19314	(15010717)
439859.00	3765340.00	5.20046	(15010717)	439864.00	3765340.00	5.20779	(15010717)
439869.00	3765340.00	5.21508	(15010717)	439874.00	3765340.00	5.22016	(15010717)
439879.00	3765340.00	5.22614	(15010717)	439884.00	3765340.00	5.23273	(15010717)
439674.00	3765345.00	5.15677	(12010217)	439679.00	3765345.00	5.14093	(12010217)
439684.00	3765345.00	5.12501	(12010217)				

439689.00 3765345.00 5.10765 (12010217)
439694.00 3765345.00 5.10064 (13121718)
439699.00 3765345.00 5.10258 (13121718)
439704.00 3765345.00 5.10257 (13121718)
439709.00 3765345.00 5.09988 (13121718)
439714.00 3765345.00 5.09779 (13121718)
439719.00 3765345.00 5.09458 (13121718)
439729.00 3765345.00 5.08758 (13121718)
439734.00 3765345.00 5.08297 (13121718)
439739.00 3765345.00 5.07569 (13121718)
439744.00 3765345.00 5.07142 (13121718)
439749.00 3765345.00 5.06283 (13121718)
439774.00 3765345.00 5.04421 (15010717)
439779.00 3765345.00 5.06417 (15010717)
439784.00 3765345.00 5.08038 (15010717)
439789.00 3765345.00 5.09809 (15010717)
439794.00 3765345.00 5.11320 (15010717)
439839.00 3765345.00 5.22204 (15010717)
439844.00 3765345.00 5.23112 (15010717)
439849.00 3765345.00 5.23885 (15010717)
439854.00 3765345.00 5.24747 (15010717)
439859.00 3765345.00 5.25437 (15010717)
439864.00 3765345.00 5.26074 (15010717)
439869.00 3765345.00 5.26791 (15010717)
439874.00 3765345.00 5.27356 (15010717)
439879.00 3765345.00 5.27921 (15010717)
439884.00 3765345.00 5.28417 (15010717)
439674.00 3765350.00 5.21159 (12010217)
439679.00 3765350.00 5.19634 (12010217)
439684.00 3765350.00 5.17922 (12010217)
439689.00 3765350.00 5.16256 (12010217)
439694.00 3765350.00 5.15650 (13121718)
439699.00 3765350.00 5.15658 (13121718)
439704.00 3765350.00 5.15673 (13121718)
439709.00 3765350.00 5.15857 (13121718)
439714.00 3765350.00 5.15689 (13121718)
439719.00 3765350.00 5.15478 (13121718)
439729.00 3765350.00 5.14986 (13121718)
439734.00 3765350.00 5.14512 (13121718)
439739.00 3765350.00 5.14095 (13121718)
439744.00 3765350.00 5.13309 (13121718)
439749.00 3765350.00 5.12912 (13121718)
439774.00 3765350.00 5.10656 (15010717)
439779.00 3765350.00 5.12370 (15010717)
439784.00 3765350.00 5.14189 (15010717)
439789.00 3765350.00 5.15728 (15010717)
439794.00 3765350.00 5.17310 (15010717)
439839.00 3765350.00 5.27801 (15010717)
439844.00 3765350.00 5.28638 (15010717)
439849.00 3765350.00 5.29461 (15010717)
439854.00 3765350.00 5.30177 (15010717)
439859.00 3765350.00 5.30965 (15010717)

```
439864.00   3765350.00        5.31546  (15010717)
        439869.00   3765350.00        5.32136  (15010717)
439874.00   3765350.00        5.32871  (15010717)
        439879.00   3765350.00        5.33271  (15010717)
439884.00   3765350.00        5.33775  (15010717)
        439674.00   3765355.00        5.26807  (12010217)
439679.00   3765355.00        5.25214  (12010217)
        439684.00   3765355.00        5.23554  (12010217)
439689.00   3765355.00        5.21871  (12010217)
        439694.00   3765355.00        5.21097  (13121718)
439699.00   3765355.00        5.21384  (13121718)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: EXH ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439704.00	3765355.00	5.21382	(13121718)
439709.00	3765355.00	5.21316	(13121718)
439714.00	3765355.00	5.21486	(13121718)
439719.00	3765355.00	5.21488	(13121718)
439729.00	3765355.00	5.20928	(13121718)
439734.00	3765355.00	5.20761	(13121718)
439739.00	3765355.00	5.20307	(13121718)
439744.00	3765355.00	5.20074	(13121718)
439749.00	3765355.00	5.19161	(13121718)
439774.00	3765355.00	5.16837	(15010717)
439779.00	3765355.00	5.18572	(15010717)
439784.00	3765355.00	5.20316	(15010717)
439789.00	3765355.00	5.21842	(15010717)
439794.00	3765355.00	5.23379	(15010717)
439839.00	3765355.00	5.33438	(15010717)
439844.00	3765355.00	5.34321	(15010717)
439849.00	3765355.00	5.35133	(15010717)

439854.00 3765355.00 5.35760 (15010717)
439859.00 3765355.00 5.36517 (15010717)
439864.00 3765355.00 5.37124 (15010717)
439869.00 3765355.00 5.37702 (15010717)
439874.00 3765355.00 5.38211 (15010717)
439879.00 3765355.00 5.38793 (15010717)
439884.00 3765355.00 5.39246 (15010717)
439674.00 3765360.00 5.35165 (12011417)
439679.00 3765360.00 5.33658 (12011417)
439684.00 3765360.00 5.32170 (12011417)
439689.00 3765360.00 5.30373 (12011417)
439694.00 3765360.00 5.28669 (12011417)
439699.00 3765360.00 5.26723 (12011417)
439704.00 3765360.00 5.27108 (13121718)
439709.00 3765360.00 5.27282 (13121718)
439714.00 3765360.00 5.27178 (13121718)
439719.00 3765360.00 5.27291 (13121718)
439729.00 3765360.00 5.27327 (13121718)
439734.00 3765360.00 5.26929 (13121718)
439739.00 3765360.00 5.26706 (13121718)
439744.00 3765360.00 5.26213 (13121718)
439749.00 3765360.00 5.26043 (13121718)
439774.00 3765360.00 5.23100 (15010717)
439779.00 3765360.00 5.24969 (15010717)
439784.00 3765360.00 5.26454 (15010717)
439789.00 3765360.00 5.28152 (15010717)
439794.00 3765360.00 5.29429 (15010717)
439799.00 3765360.00 5.30906 (15010717)
439804.00 3765360.00 5.32148 (15010717)
439809.00 3765360.00 5.33417 (15010717)
439814.00 3765360.00 5.34496 (15010717)
439839.00 3765360.00 5.39270 (15010717)
439844.00 3765360.00 5.40098 (15010717)
439849.00 3765360.00 5.40842 (15010717)
439854.00 3765360.00 5.41538 (15010717)
439859.00 3765360.00 5.42100 (15010717)
439864.00 3765360.00 5.42810 (15010717)
439869.00 3765360.00 5.43335 (15010717)
439874.00 3765360.00 5.43829 (15010717)
439879.00 3765360.00 5.44337 (15010717)
439884.00 3765360.00 5.44815 (15010717)
439674.00 3765365.00 5.44073 (12011417)
439679.00 3765365.00 5.42622 (12011417)
439684.00 3765365.00 5.41159 (12011417)
439689.00 3765365.00 5.39656 (12011417)
439694.00 3765365.00 5.38023 (12011417)
439699.00 3765365.00 5.36344 (12011417)
439704.00 3765365.00 5.34403 (12011417)
439709.00 3765365.00 5.32890 (13121718)
439714.00 3765365.00 5.33272 (13121718)
439719.00 3765365.00 5.33250 (13121718)
439729.00 3765365.00 5.33271 (13121718)

```
439734.00   3765365.00        5.33328  (13121718)
        439739.00   3765365.00        5.33168  (13121718)
439744.00   3765365.00        5.32787  (13121718)
        439749.00   3765365.00        5.32403  (13121718)
439774.00   3765365.00        5.29627  (15010717)
        439779.00   3765365.00        5.31208  (15010717)
439784.00   3765365.00        5.32935  (15010717)
        439789.00   3765365.00        5.34283  (15010717)
439794.00   3765365.00        5.35804  (15010717)
        439799.00   3765365.00        5.37086  (15010717)
439804.00   3765365.00        5.38344  (15010717)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: EXH ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439809.00	3765365.00	5.39522	(15010717)	439814.00	3765365.00	5.40561	(15010717)
439839.00	3765365.00	5.45198	(15010717)	439844.00	3765365.00	5.45900	(15010717)
439849.00	3765365.00	5.46624	(15010717)	439854.00	3765365.00	5.47288	(15010717)
439859.00	3765365.00	5.47922	(15010717)	439864.00	3765365.00	5.48511	(15010717)
439869.00	3765365.00	5.49030	(15010717)	439874.00	3765365.00	5.49621	(15010717)
439879.00	3765365.00	5.49977	(15010717)	439884.00	3765365.00	5.50476	(15010717)
439674.00	3765370.00	5.52913	(12011417)	439679.00	3765370.00	5.51709	(12011417)
439684.00	3765370.00	5.50310	(12011417)	439689.00	3765370.00	5.48819	(12011417)
439694.00	3765370.00	5.47358	(12011417)				

```
439699.00   3765370.00        5.45728  (12011417)
        439704.00   3765370.00        5.44217  (12011417)
439709.00   3765370.00        5.42264  (12011417)
        439714.00   3765370.00        5.40367  (12011417)
439719.00   3765370.00        5.39224  (13121718)
        439729.00   3765370.00        5.39377  (13121718)
439734.00   3765370.00        5.39486  (13121718)
        439739.00   3765370.00        5.39378  (13121718)
439744.00   3765370.00        5.39489  (13121718)
        439749.00   3765370.00        5.39053  (13121718)
439774.00   3765370.00        5.36546  (13121718)
        439779.00   3765370.00        5.37776  (15010717)
439784.00   3765370.00        5.39305  (15010717)
        439789.00   3765370.00        5.40736  (15010717)
439794.00   3765370.00        5.42154  (15010717)
        439799.00   3765370.00        5.43404  (15010717)
439804.00   3765370.00        5.44658  (15010717)
        439809.00   3765370.00        5.45652  (15010717)
439814.00   3765370.00        5.46844  (15010717)
        439839.00   3765370.00        5.51175  (15010717)
439844.00   3765370.00        5.51960  (15010717)
        439849.00   3765370.00        5.52549  (15010717)
439854.00   3765370.00        5.53239  (15010717)
        439859.00   3765370.00        5.53871  (15010717)
439864.00   3765370.00        5.54365  (15010717)
        439869.00   3765370.00        5.54931  (15010717)
439874.00   3765370.00        5.55377  (15010717)
        439879.00   3765370.00        5.55903  (15010717)
439884.00   3765370.00        5.56206  (15010717)
        439674.00   3765375.00        5.61757  (12011417)
439679.00   3765375.00        5.60613  (12011417)
        439684.00   3765375.00        5.59447  (12011417)
439689.00   3765375.00        5.58212  (12011417)
        439694.00   3765375.00        5.56715  (12011417)
439699.00   3765375.00        5.55218  (12011417)
        439704.00   3765375.00        5.53612  (12011417)
439709.00   3765375.00        5.52089  (12011417)
        439714.00   3765375.00        5.50271  (12011417)
439719.00   3765375.00        5.48447  (12011417)
        439729.00   3765375.00        5.45843  (13121718)
439734.00   3765375.00        5.45736  (13121718)
        439739.00   3765375.00        5.45895  (13121718)
439744.00   3765375.00        5.45641  (13121718)
        439749.00   3765375.00        5.45877  (13121718)
439754.00   3765375.00        5.45501  (13121718)
        439774.00   3765375.00        5.43743  (13121718)
439779.00   3765375.00        5.44502  (15010717)
        439784.00   3765375.00        5.45778  (15010717)
439789.00   3765375.00        5.47380  (15010717)
        439794.00   3765375.00        5.48536  (15010717)
439799.00   3765375.00        5.49953  (15010717)
        439804.00   3765375.00        5.50913  (15010717)
```

```
439809.00   3765375.00        5.52140  (15010717)
        439814.00   3765375.00        5.53054  (15010717)
439839.00   3765375.00        5.57340  (15010717)
        439844.00   3765375.00        5.58020  (15010717)
439849.00   3765375.00        5.58669  (15010717)
        439854.00   3765375.00        5.59302  (15010717)
439859.00   3765375.00        5.59833  (15010717)
        439864.00   3765375.00        5.60393  (15010717)
439869.00   3765375.00        5.60834  (15010717)
        439874.00   3765375.00        5.61336  (15010717)
439879.00   3765375.00        5.61762  (15010717)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: EXH ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439884.00	3765375.00	5.62143	(15010717)	439774.00	3765380.00	5.50932	(13121718)
439779.00	3765380.00	5.51090	(15010717)	439784.00	3765380.00	5.52701	(15010717)
439789.00	3765380.00	5.53798	(15010717)	439794.00	3765380.00	5.55308	(15010717)
439799.00	3765380.00	5.56306	(15010717)	439804.00	3765380.00	5.57511	(15010717)
439809.00	3765380.00	5.58508	(15010717)	439814.00	3765380.00	5.59547	(15010717)
439769.00	3765385.00	5.58677	(13121718)	439819.00	3765385.00	5.66851	(15010717)
439769.00	3765400.00	5.81101	(12011417)	439844.00	3765400.00	5.90403	(15010717)
439849.00	3765400.00	5.90818	(15010717)	439674.00	3765405.00	6.14460	(12011417)
439714.00	3765405.00	6.09757	(12011417)				

439719.00 3765405.00 6.08786 (12011417)
439734.00 3765405.00 6.05022 (12011417)
439749.00 3765405.00 6.00486 (12011417)
439754.00 3765405.00 5.98650 (12011417)
439774.00 3765405.00 5.90468 (12011417)
439779.00 3765405.00 5.88021 (12011417)
439784.00 3765405.00 5.87970 (15010717)
439789.00 3765405.00 5.89034 (15010717)
439794.00 3765405.00 5.90112 (15010717)
439799.00 3765405.00 5.91050 (15010717)
439804.00 3765405.00 5.91864 (15010717)
439809.00 3765405.00 5.92784 (15010717)
439814.00 3765405.00 5.93456 (15010717)
439819.00 3765405.00 5.94402 (15010717)
439824.00 3765405.00 5.94848 (15010717)
439829.00 3765405.00 5.95649 (15010717)
439834.00 3765405.00 5.96027 (15010717)
439839.00 3765405.00 5.96884 (15010717)
439844.00 3765405.00 5.97177 (15010717)
439849.00 3765405.00 5.97863 (15010717)
439854.00 3765405.00 5.98121 (15010717)
439859.00 3765405.00 5.98816 (15010717)
439674.00 3765410.00 6.23092 (12011417)
439679.00 3765410.00 6.22950 (12011417)
439684.00 3765410.00 6.22873 (12011417)
439689.00 3765410.00 6.22494 (12011417)
439694.00 3765410.00 6.22138 (12011417)
439699.00 3765410.00 6.21571 (12011417)
439704.00 3765410.00 6.21171 (12011417)
439709.00 3765410.00 6.20509 (12011417)
439714.00 3765410.00 6.19748 (12011417)
439719.00 3765410.00 6.18798 (12011417)
439729.00 3765410.00 6.16940 (12011417)
439734.00 3765410.00 6.15796 (12011417)
439739.00 3765410.00 6.14370 (12011417)
439744.00 3765410.00 6.12923 (12011417)
439749.00 3765410.00 6.11459 (12011417)
439774.00 3765410.00 6.02213 (12011417)
439779.00 3765410.00 6.00027 (12011417)
439784.00 3765410.00 5.97619 (12011417)
439789.00 3765410.00 5.96450 (15010717)
439794.00 3765410.00 5.97625 (15010717)
439799.00 3765410.00 5.98347 (15010717)
439804.00 3765410.00 5.99380 (15010717)
439809.00 3765410.00 5.99889 (15010717)
439814.00 3765410.00 6.00914 (15010717)
439819.00 3765410.00 6.01345 (15010717)
439824.00 3765410.00 6.02266 (15010717)
439829.00 3765410.00 6.02601 (15010717)
439834.00 3765410.00 6.03430 (15010717)
439839.00 3765410.00 6.03672 (15010717)
439844.00 3765410.00 6.04460 (15010717)

```
439849.00   3765410.00        6.04693  (15010717)
        439854.00   3765410.00        6.05372  (15010717)
439859.00   3765410.00        6.05638  (15010717)
        439674.00   3765415.00        6.31834  (12011417)
439679.00   3765415.00        6.31813  (12011417)
        439684.00   3765415.00        6.31661  (12011417)
439689.00   3765415.00        6.31672  (12011417)
        439694.00   3765415.00        6.31429  (12011417)
439699.00   3765415.00        6.31171  (12011417)
        439704.00   3765415.00        6.30649  (12011417)
439709.00   3765415.00        6.30220  (12011417)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: EXH ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439714.00	3765415.00	6.29665	(12011417)	439719.00	3765415.00	6.29028	(12011417)
439729.00	3765415.00	6.27248	(12011417)	439734.00	3765415.00	6.26267	(12011417)
439739.00	3765415.00	6.25205	(12011417)	439744.00	3765415.00	6.23986	(12011417)
439749.00	3765415.00	6.22617	(12011417)	439774.00	3765415.00	6.13941	(12011417)
439779.00	3765415.00	6.11892	(12011417)	439784.00	3765415.00	6.09798	(12011417)
439789.00	3765415.00	6.07491	(12011417)	439794.00	3765415.00	6.04996	(12011417)
439799.00	3765415.00	6.06049	(15010717)	439804.00	3765415.00	6.06579	(15010717)
439809.00	3765415.00	6.07651	(15010717)	439814.00	3765415.00	6.08004	(15010717)
439819.00	3765415.00	6.08903	(15010717)				

439824.00 3765415.00 6.09291 (15010717)
439829.00 3765415.00 6.10121 (15010717)
439834.00 3765415.00 6.10498 (15010717)
439839.00 3765415.00 6.11137 (15010717)
439844.00 3765415.00 6.11472 (15010717)
439849.00 3765415.00 6.12053 (15010717)
439854.00 3765415.00 6.12473 (15010717)
439859.00 3765415.00 6.12908 (15010717)
439674.00 3765420.00 6.40360 (12011417)
439679.00 3765420.00 6.40630 (12011417)
439684.00 3765420.00 6.40704 (12011417)
439689.00 3765420.00 6.40671 (12011417)
439694.00 3765420.00 6.40558 (12011417)
439699.00 3765420.00 6.40522 (12011417)
439704.00 3765420.00 6.40338 (12011417)
439709.00 3765420.00 6.40001 (12011417)
439714.00 3765420.00 6.39576 (12011417)
439719.00 3765420.00 6.39004 (12011417)
439729.00 3765420.00 6.37827 (12011417)
439734.00 3765420.00 6.36957 (12011417)
439739.00 3765420.00 6.35857 (12011417)
439744.00 3765420.00 6.34822 (12011417)
439749.00 3765420.00 6.33777 (12011417)
439774.00 3765420.00 6.25975 (12011417)
439779.00 3765420.00 6.24000 (12011417)
439784.00 3765420.00 6.21832 (12011417)
439789.00 3765420.00 6.19764 (12011417)
439794.00 3765420.00 6.17583 (12011417)
439799.00 3765420.00 6.15117 (12011417)
439804.00 3765420.00 6.14414 (15010717)
439809.00 3765420.00 6.15013 (15010717)
439814.00 3765420.00 6.15823 (15010717)
439819.00 3765420.00 6.16292 (15010717)
439824.00 3765420.00 6.16931 (15010717)
439829.00 3765420.00 6.17509 (15010717)
439834.00 3765420.00 6.18011 (15010717)
439839.00 3765420.00 6.18520 (15010717)
439844.00 3765420.00 6.18983 (15010717)
439849.00 3765420.00 6.19474 (15010717)
439854.00 3765420.00 6.19846 (15010717)
439859.00 3765420.00 6.20386 (15010717)
439674.00 3765425.00 6.49080 (12011417)
439679.00 3765425.00 6.49246 (12011417)
439684.00 3765425.00 6.49584 (12011417)
439689.00 3765425.00 6.49831 (12011417)
439694.00 3765425.00 6.49916 (12011417)
439699.00 3765425.00 6.49855 (12011417)
439704.00 3765425.00 6.49749 (12011417)
439709.00 3765425.00 6.49730 (12011417)
439714.00 3765425.00 6.49520 (12011417)
439719.00 3765425.00 6.49195 (12011417)
439729.00 3765425.00 6.48145 (12011417)

```
439734.00   3765425.00        6.47546  (12011417)
        439739.00   3765425.00        6.46881  (12011417)
439744.00   3765425.00        6.45858  (12011417)
        439749.00   3765425.00        6.44816  (12011417)
439774.00   3765425.00        6.37867  (12011417)
        439779.00   3765425.00        6.36177  (12011417)
439784.00   3765425.00        6.34259  (12011417)
        439789.00   3765425.00        6.32205  (12011417)
439794.00   3765425.00        6.29951  (12011417)
        439799.00   3765425.00        6.27808  (12011417)
439804.00   3765425.00        6.25437  (12011417)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: EXH ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439809.00	3765425.00	6.22939	(12011417)	439814.00	3765425.00	6.23534	(15010717)
439819.00	3765425.00	6.24064	(15010717)	439824.00	3765425.00	6.24735	(15010717)
439829.00	3765425.00	6.25107	(15010717)	439834.00	3765425.00	6.25782	(15010717)
439839.00	3765425.00	6.26035	(15010717)	439844.00	3765425.00	6.26730	(15010717)
439849.00	3765425.00	6.26981	(15010717)	439854.00	3765425.00	6.27599	(15010717)
439859.00	3765425.00	6.27784	(15010717)	439674.00	3765430.00	6.57625	(12011417)
439679.00	3765430.00	6.58147	(12011417)	439684.00	3765430.00	6.58408	(12011417)
439689.00	3765430.00	6.58727	(12011417)	439694.00	3765430.00	6.59009	(12011417)
439699.00	3765430.00	6.59307	(12011417)				

439704.00 3765430.00 6.59401 (12011417)
439709.00 3765430.00 6.59378 (12011417)
439714.00 3765430.00 6.59284 (12011417)
439719.00 3765430.00 6.59225 (12011417)
439729.00 3765430.00 6.58658 (12011417)
439734.00 3765430.00 6.58122 (12011417)
439739.00 3765430.00 6.57493 (12011417)
439744.00 3765430.00 6.56913 (12011417)
439749.00 3765430.00 6.56167 (12011417)
439774.00 3765430.00 6.50073 (12011417)
439779.00 3765430.00 6.48349 (12011417)
439784.00 3765430.00 6.46604 (12011417)
439789.00 3765430.00 6.44764 (12011417)
439794.00 3765430.00 6.42851 (12011417)
439799.00 3765430.00 6.40583 (12011417)
439804.00 3765430.00 6.38289 (12011417)
439809.00 3765430.00 6.36009 (12011417)
439814.00 3765430.00 6.33531 (12011417)
439819.00 3765430.00 6.32120 (15010717)
439824.00 3765430.00 6.32419 (15010717)
439829.00 3765430.00 6.33159 (15010717)
439834.00 3765430.00 6.33392 (15010717)
439839.00 3765430.00 6.34162 (15010717)
439844.00 3765430.00 6.34234 (15010717)
439849.00 3765430.00 6.34992 (15010717)
439854.00 3765430.00 6.35133 (15010717)
439859.00 3765430.00 6.35829 (15010717)
439674.00 3765435.00 6.66228 (12011417)
439679.00 3765435.00 6.66723 (12011417)
439684.00 3765435.00 6.67384 (12011417)
439689.00 3765435.00 6.67883 (12011417)
439694.00 3765435.00 6.68258 (12011417)
439699.00 3765435.00 6.68507 (12011417)
439704.00 3765435.00 6.68849 (12011417)
439709.00 3765435.00 6.69137 (12011417)
439714.00 3765435.00 6.69275 (12011417)
439719.00 3765435.00 6.69216 (12011417)
439729.00 3765435.00 6.69046 (12011417)
439734.00 3765435.00 6.68862 (12011417)
439739.00 3765435.00 6.68422 (12011417)
439744.00 3765435.00 6.67817 (12011417)
439749.00 3765435.00 6.67283 (12011417)
439774.00 3765435.00 6.62163 (12011417)
439779.00 3765435.00 6.60812 (12011417)
439784.00 3765435.00 6.59220 (12011417)
439789.00 3765435.00 6.57370 (12011417)
439794.00 3765435.00 6.55525 (12011417)
439799.00 3765435.00 6.53637 (12011417)
439804.00 3765435.00 6.51518 (12011417)
439809.00 3765435.00 6.49160 (12011417)
439814.00 3765435.00 6.46758 (12011417)
439819.00 3765435.00 6.44365 (12011417)

```
439824.00   3765435.00        6.41879  (12011417)
        439829.00   3765435.00        6.40929  (15010717)
439834.00   3765435.00        6.41688  (15010717)
        439839.00   3765435.00        6.41875  (15010717)
439844.00   3765435.00        6.42605  (15010717)
        439849.00   3765435.00        6.42710  (15010717)
439854.00   3765435.00        6.43413  (15010717)
        439859.00   3765435.00        6.43616  (15010717)
439674.00   3765440.00        6.74892  (12011417)
        439679.00   3765440.00        6.75625  (12011417)
439684.00   3765440.00        6.76115  (12011417)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: EXH ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439689.00	3765440.00	6.76730	(12011417)
439694.00	3765440.00	6.77402	(12011417)
439699.00	3765440.00	6.77963	(12011417)
439704.00	3765440.00	6.78377	(12011417)
439709.00	3765440.00	6.78642	(12011417)
439714.00	3765440.00	6.79054	(12011417)
439719.00	3765440.00	6.79298	(12011417)
439729.00	3765440.00	6.79439	(12011417)
439734.00	3765440.00	6.79359	(12011417)
439739.00	3765440.00	6.79194	(12011417)
439744.00	3765440.00	6.78975	(12011417)
439749.00	3765440.00	6.78566	(12011417)
439774.00	3765440.00	6.74417	(12011417)
439779.00	3765440.00	6.73102	(12011417)
439784.00	3765440.00	6.71758	(12011417)
439789.00	3765440.00	6.70300	(12011417)
439794.00	3765440.00	6.68590	(12011417)

439799.00 3765440.00 6.66619 (12011417)
439804.00 3765440.00 6.64708 (12011417)
439809.00 3765440.00 6.62688 (12011417)
439814.00 3765440.00 6.60437 (12011417)
439819.00 3765440.00 6.57960 (12011417)
439824.00 3765440.00 6.55446 (12011417)
439829.00 3765440.00 6.53009 (12011417)
439834.00 3765440.00 6.50369 (12011417)
439839.00 3765440.00 6.50375 (15010717)
439844.00 3765440.00 6.50635 (15010717)
439849.00 3765440.00 6.51193 (15010717)
439854.00 3765440.00 6.51552 (15010717)
439859.00 3765440.00 6.52029 (15010717)
439674.00 3765445.00 6.83390 (12011417)
439679.00 3765445.00 6.84328 (12011417)
439684.00 3765445.00 6.85139 (12011417)
439689.00 3765445.00 6.85920 (12011417)
439694.00 3765445.00 6.86420 (12011417)
439699.00 3765445.00 6.87147 (12011417)
439704.00 3765445.00 6.87863 (12011417)
439709.00 3765445.00 6.88495 (12011417)
439714.00 3765445.00 6.88835 (12011417)
439719.00 3765445.00 6.89201 (12011417)
439729.00 3765445.00 6.89867 (12011417)
439734.00 3765445.00 6.90115 (12011417)
439739.00 3765445.00 6.89962 (12011417)
439744.00 3765445.00 6.89931 (12011417)
439749.00 3765445.00 6.89731 (12011417)
439774.00 3765445.00 6.86760 (12011417)
439779.00 3765445.00 6.85745 (12011417)
439784.00 3765445.00 6.84499 (12011417)
439789.00 3765445.00 6.83024 (12011417)
439794.00 3765445.00 6.81661 (12011417)
439799.00 3765445.00 6.80000 (12011417)
439804.00 3765445.00 6.78183 (12011417)
439809.00 3765445.00 6.76092 (12011417)
439814.00 3765445.00 6.74113 (12011417)
439819.00 3765445.00 6.71921 (12011417)
439824.00 3765445.00 6.69633 (12011417)
439829.00 3765445.00 6.66946 (12011417)
439834.00 3765445.00 6.64389 (12011417)
439839.00 3765445.00 6.61852 (12011417)
439844.00 3765445.00 6.59247 (15010717)
439849.00 3765445.00 6.59669 (15010717)
439854.00 3765445.00 6.60119 (15010717)
439859.00 3765445.00 6.60545 (15010717)
439674.00 3765450.00 6.92216 (12011417)
439679.00 3765450.00 6.93016 (12011417)
439684.00 3765450.00 6.93884 (12011417)
439689.00 3765450.00 6.94834 (12011417)
439694.00 3765450.00 6.95762 (12011417)
439699.00 3765450.00 6.96523 (12011417)

```
439704.00   3765450.00        6.97227  (12011417)
        439709.00   3765450.00        6.97907  (12011417)
439714.00   3765450.00        6.98754  (12011417)
        439719.00   3765450.00        6.99276  (12011417)
439729.00   3765450.00        7.00146  (12011417)
        439734.00   3765450.00        7.00595  (12011417)
439739.00   3765450.00        7.00880  (12011417)
        439744.00   3765450.00        7.01041  (12011417)
439749.00   3765450.00        7.01003  (12011417)
        439774.00   3765450.00        6.99008  (12011417)
439844.00   3765450.00        6.73600  (12011417)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: EXH ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439849.00	3765450.00	6.70820	(12011417)	439854.00	3765450.00	6.68941	(15010717)
439859.00	3765450.00	6.69138	(15010717)	439674.00	3765455.00	7.00704	(12011417)
439679.00	3765455.00	7.01906	(12011417)	439684.00	3765455.00	7.02899	(12011417)
439689.00	3765455.00	7.03913	(12011417)	439694.00	3765455.00	7.04727	(12011417)
439699.00	3765455.00	7.05830	(12011417)	439704.00	3765455.00	7.06787	(12011417)
439709.00	3765455.00	7.07701	(12011417)	439714.00	3765455.00	7.08421	(12011417)
439719.00	3765455.00	7.09183	(12011417)	439729.00	3765455.00	7.10633	(12011417)
439734.00	3765455.00	7.11201	(12011417)	439739.00	3765455.00	7.11507	(12011417)
439744.00	3765455.00	7.12035	(12011417)				

439749.00 3765455.00 7.12245 (12011417)
439844.00 3765455.00 6.88554 (12011417)
439849.00 3765455.00 6.85741 (12011417)
439854.00 3765455.00 6.82910 (12011417)
439859.00 3765455.00 6.80196 (12011417)
439674.00 3765460.00 7.09678 (12011417)
439679.00 3765460.00 7.10569 (12011417)
439684.00 3765460.00 7.11790 (12011417)
439689.00 3765460.00 7.12893 (12011417)
439694.00 3765460.00 7.14162 (12011417)
439699.00 3765460.00 7.15096 (12011417)
439704.00 3765460.00 7.16099 (12011417)
439709.00 3765460.00 7.17247 (12011417)
439714.00 3765460.00 7.18331 (12011417)
439719.00 3765460.00 7.19314 (12011417)
439729.00 3765460.00 7.20872 (12011417)
439734.00 3765460.00 7.21721 (12011417)
439739.00 3765460.00 7.22458 (12011417)
439744.00 3765460.00 7.22983 (12011417)
439749.00 3765460.00 7.23440 (12011417)
439789.00 3765460.00 7.22474 (12011417)
439794.00 3765460.00 7.21538 (12011417)
439799.00 3765460.00 7.20505 (12011417)
439804.00 3765460.00 7.19341 (12011417)
439809.00 3765460.00 7.17972 (12011417)
439814.00 3765460.00 7.16330 (12011417)
439819.00 3765460.00 7.14505 (12011417)
439824.00 3765460.00 7.12749 (12011417)
439829.00 3765460.00 7.10695 (12011417)
439844.00 3765460.00 7.03641 (12011417)
439849.00 3765460.00 7.01063 (12011417)
439854.00 3765460.00 6.98501 (12011417)
439859.00 3765460.00 6.95384 (12011417)
439674.00 3765465.00 7.18306 (12011417)
439679.00 3765465.00 7.19686 (12011417)
439684.00 3765465.00 7.20832 (12011417)
439689.00 3765465.00 7.22047 (12011417)
439694.00 3765465.00 7.23177 (12011417)
439699.00 3765465.00 7.24607 (12011417)
439704.00 3765465.00 7.25777 (12011417)
439709.00 3765465.00 7.26888 (12011417)
439714.00 3765465.00 7.27932 (12011417)
439719.00 3765465.00 7.29183 (12011417)
439729.00 3765465.00 7.31355 (12011417)
439734.00 3765465.00 7.32204 (12011417)
439739.00 3765465.00 7.33024 (12011417)
439744.00 3765465.00 7.34044 (12011417)
439749.00 3765465.00 7.34673 (12011417)
439789.00 3765465.00 7.35675 (12011417)
439794.00 3765465.00 7.35138 (12011417)
439799.00 3765465.00 7.34321 (12011417)
439804.00 3765465.00 7.33247 (12011417)

439809.00   3765465.00   7.32088 (12011417)
        439814.00   3765465.00   7.30807 (12011417)
439819.00   3765465.00   7.29300 (12011417)
        439824.00   3765465.00   7.27532 (12011417)
439829.00   3765465.00   7.25501 (12011417)
        439844.00   3765465.00   7.19085 (12011417)
439849.00   3765465.00   7.16399 (12011417)
        439854.00   3765465.00   7.13949 (12011417)
439859.00   3765465.00   7.11335 (12011417)
        439674.00   3765470.00   7.27547 (12011417)
439679.00   3765470.00   7.28567 (12011417)

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: EXH ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439684.00	3765470.00	7.29965	(12011417)
439689.00	3765470.00	7.31276	(12011417)
439694.00	3765470.00	7.32699	(12011417)
439699.00	3765470.00	7.33847	(12011417)
439704.00	3765470.00	7.35199	(12011417)
439709.00	3765470.00	7.36583	(12011417)
439714.00	3765470.00	7.37924	(12011417)
439719.00	3765470.00	7.39130	(12011417)
439729.00	3765470.00	7.41558	(12011417)
439734.00	3765470.00	7.42855	(12011417)
439739.00	3765470.00	7.43892	(12011417)
439744.00	3765470.00	7.44937	(12011417)
439749.00	3765470.00	7.45779	(12011417)
439789.00	3765470.00	7.48991	(12011417)
439794.00	3765470.00	7.48687	(12011417)
439799.00	3765470.00	7.48153	(12011417)
439804.00	3765470.00	7.47488	(12011417)

```
439809.00   3765470.00        7.46599  (12011417)
        439814.00   3765470.00        7.45289  (12011417)
439819.00   3765470.00        7.44105  (12011417)
        439824.00   3765470.00        7.42564  (12011417)
439829.00   3765470.00        7.41016  (12011417)
        439844.00   3765470.00        7.34728  (12011417)
439849.00   3765470.00        7.32520  (12011417)
        439854.00   3765470.00        7.29919  (12011417)
439859.00   3765470.00        7.27173  (12011417)
        439674.00   3765475.00        7.36588  (12011417)
439679.00   3765475.00        7.37894  (12011417)
        439684.00   3765475.00        7.39379  (12011417)
439689.00   3765475.00        7.40499  (12011417)
        439694.00   3765475.00        7.42040  (12011417)
439699.00   3765475.00        7.43450  (12011417)
        439704.00   3765475.00        7.44969  (12011417)
439709.00   3765475.00        7.46235  (12011417)
        439714.00   3765475.00        7.47638  (12011417)
439719.00   3765475.00        7.49174  (12011417)
        439729.00   3765475.00        7.52011  (12011417)
439734.00   3765475.00        7.53115  (12011417)
        439739.00   3765475.00        7.54691  (12011417)
439744.00   3765475.00        7.55783  (12011417)
        439749.00   3765475.00        7.57207  (12011417)
439754.00   3765475.00        7.58080  (12011417)
        439789.00   3765475.00        7.62507  (12011417)
439794.00   3765475.00        7.62430  (12011417)
        439799.00   3765475.00        7.62225  (12011417)
439804.00   3765475.00        7.61713  (12011417)
        439809.00   3765475.00        7.61095  (12011417)
439814.00   3765475.00        7.60333  (12011417)
        439819.00   3765475.00        7.59158  (12011417)
439824.00   3765475.00        7.57872  (12011417)
        439829.00   3765475.00        7.56238  (12011417)
439269.00   3764900.00        2.97087  (12010217)
        439369.00   3764900.00        3.07668  (12010217)
439469.00   3764900.00        3.04623  (12010217)
        439569.00   3764900.00        2.95377  (12010217)
439669.00   3764900.00        2.88814  (12010217)
        439769.00   3764900.00        2.88485  (12010217)
439869.00   3764900.00        2.88747  (12010217)
        439969.00   3764900.00        2.81715  (12010217)
440069.00   3764900.00        2.89558  (15010717)
        440169.00   3764900.00        2.99345  (15010717)
440269.00   3764900.00        3.00251  (15010717)
        439269.00   3765000.00        3.25836  (13120808)
439369.00   3765000.00        3.36620  (12010217)
        439469.00   3765000.00        3.36719  (12010217)
439569.00   3765000.00        3.26121  (12010217)
        439669.00   3765000.00        3.15697  (12010217)
439769.00   3765000.00        3.14168  (12010217)
        439869.00   3765000.00        3.17226  (12010217)
```

```
439969.00   3765000.00        3.14178  (12010217)
        440069.00   3765000.00        3.26769  (15010717)
440169.00   3765000.00        3.30441  (15010717)
        440269.00   3765000.00        3.26504  (15010717)
439269.00   3765100.00        3.67937  (13120808)
        439369.00   3765100.00        3.71144  (12010217)
439469.00   3765100.00        3.76894  (12010217)
        439569.00   3765100.00        3.66393  (12010217)
439669.00   3765100.00        3.51008  (12010217)
        439769.00   3765100.00        3.48842  (13120808)
439869.00   3765100.00        3.51503  (12010217)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: EXH ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439969.00	3765100.00	3.59595	(15010717)
440069.00	3765100.00	3.68584	(15010717)
440169.00	3765100.00	3.64905	(15010717)
440269.00	3765100.00	3.59995	(13121617)
439269.00	3765200.00	4.17879	(13120808)
439369.00	3765200.00	4.13881	(13120808)
439469.00	3765200.00	4.28020	(12010217)
439569.00	3765200.00	4.20085	(12010217)
439669.00	3765200.00	4.00256	(12010217)
439769.00	3765200.00	3.97139	(13120808)
439869.00	3765200.00	3.99629	(15010717)
439969.00	3765200.00	4.17378	(15010717)
440069.00	3765200.00	4.16495	(15010717)
440169.00	3765200.00	4.09008	(13121617)
440269.00	3765200.00	4.00315	(13121617)
439269.00	3765300.00	5.02021	(12011417)
439369.00	3765300.00	4.93067	(12011417)

439469.00 3765300.00 4.96615 (12010217)
439569.00 3765300.00 4.93597 (12010217)
439669.00 3765300.00 4.73012 (12010217)
439769.00 3765300.00 4.53191 (13120808)
439869.00 3765300.00 4.81818 (15010717)
439969.00 3765300.00 4.88794 (15010717)
440069.00 3765300.00 4.78366 (13121617)
440169.00 3765300.00 4.65320 (13121617)
440269.00 3765300.00 4.74019 (15113017)
439269.00 3765400.00 6.28944 (12011417)
439369.00 3765400.00 6.11194 (12011417)
439469.00 3765400.00 6.01219 (12011417)
439569.00 3765400.00 6.03626 (12011417)
439669.00 3765400.00 6.06112 (12011417)
439769.00 3765400.00 5.81101 (12011417)
439869.00 3765400.00 5.92634 (15010717)
439969.00 3765400.00 5.86005 (15010717)
440069.00 3765400.00 5.74292 (15113017)
440169.00 3765400.00 5.80414 (15113017)
440269.00 3765400.00 5.77875 (15113017)
439269.00 3765500.00 8.37509 (12011417)
439369.00 3765500.00 8.28211 (12011417)
439469.00 3765500.00 7.98044 (12011417)
439569.00 3765500.00 7.80175 (12010217)
439669.00 3765500.00 7.84573 (12011417)
439769.00 3765500.00 8.21963 (12011417)
439869.00 3765500.00 8.27613 (12011417)
439969.00 3765500.00 7.70639 (15113017)
440069.00 3765500.00 7.56986 (15113017)
440169.00 3765500.00 7.68656 (12011608)
440269.00 3765500.00 7.69585 (12011608)
439269.00 3765600.00 11.93099 (12101307)
439369.00 3765600.00 12.78097 (12011417)
439469.00 3765600.00 12.90728 (12011417)
439569.00 3765600.00 12.48171 (12011417)
439669.00 3765600.00 12.08891 (12010217)
439769.00 3765600.00 12.14326 (12111318)
439869.00 3765600.00 13.07918 (12111318)
439969.00 3765600.00 14.34372 (12011417)
440069.00 3765600.00 13.45690 (14101107)
440169.00 3765600.00 13.61672 (14101107)
440269.00 3765600.00 13.49207 (15112218)
439269.00 3765700.00 38.72172 (14012908)
439369.00 3765700.00 41.71967 (14012908)
439469.00 3765700.00 64.80176 (14012908)
439569.00 3765700.00 45.37790 (14120118)
439669.00 3765700.00 43.65966 (14101107)
439769.00 3765700.00 43.36961 (14101107)
439869.00 3765700.00 43.00590 (14101107)
439969.00 3765700.00 42.99646 (14101107)
440069.00 3765700.00 42.79688 (12101207)
440169.00 3765700.00 43.88667 (12101207)

```
440269.00   3765700.00       47.73044  (12101207)
        439269.00   3765800.00       18.24251  (12111317)
439369.00   3765800.00       19.16371  (12111317)
        439469.00   3765800.00       19.00569  (15120818)
439569.00   3765800.00       18.86644  (15120818)
        439669.00   3765800.00       19.46034  (13111217)
439769.00   3765800.00       21.82387  (13111217)
        439869.00   3765800.00       27.48026  (13111217)
439969.00   3765800.00       19.36738  (15120418)
        440069.00   3765800.00       17.00581  (15120418)
440169.00   3765800.00       16.25707  (15120418)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: EXH ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
440269.00	3765800.00	16.24944	(15120418)
439269.00	3765900.00	10.25288	(15120818)
439369.00	3765900.00	10.15744	(15120818)
439469.00	3765900.00	9.93477	(15120818)
439569.00	3765900.00	9.68519	(15120818)
439669.00	3765900.00	9.46283	(15112217)
439769.00	3765900.00	9.81099	(13111217)
439869.00	3765900.00	10.50865	(13111217)
439969.00	3765900.00	10.64239	(13111217)
440069.00	3765900.00	10.28217	(12011717)
440169.00	3765900.00	9.80618	(12011717)
440269.00	3765900.00	9.41116	(12011717)
439649.00	3765310.00	4.87629	(12010217)
439679.00	3765310.00	4.79062	(12010217)
439709.00	3765310.00	4.69850	(13121718)
439739.00	3765310.00	4.63862	(13121718)
439769.00	3765310.00	4.62296	(15010717)

```
439799.00   3765310.00        4.73988  (15010717)
        439829.00   3765310.00        4.83014  (15010717)
439859.00   3765310.00        4.89602  (15010717)
        439889.00   3765310.00        4.94112  (15010717)
439649.00   3765340.00        5.17460  (12010217)
        439679.00   3765340.00        5.08731  (12010217)
439709.00   3765340.00        5.04222  (13121718)
        439739.00   3765340.00        5.01535  (13121718)
439769.00   3765340.00        4.96480  (15010717)
        439799.00   3765340.00        5.07010  (15010717)
439829.00   3765340.00        5.14669  (15010717)
        439859.00   3765340.00        5.20046  (15010717)
439889.00   3765340.00        5.23656  (15010717)
        439649.00   3765370.00        5.57992  (12011417)
439679.00   3765370.00        5.51709  (12011417)
        439709.00   3765370.00        5.42264  (12011417)
439739.00   3765370.00        5.39378  (13121718)
        439769.00   3765370.00        5.37300  (13121718)
439799.00   3765370.00        5.43404  (15010717)
        439829.00   3765370.00        5.49535  (15010717)
439859.00   3765370.00        5.53871  (15010717)
        439889.00   3765370.00        5.56558  (15010717)
439649.00   3765400.00        6.06862  (12011417)
        439679.00   3765400.00        6.05206  (12011417)
439709.00   3765400.00        6.00934  (12011417)
        439739.00   3765400.00        5.92967  (12011417)
439769.00   3765400.00        5.81101  (12011417)
        439799.00   3765400.00        5.83919  (15010717)
439829.00   3765400.00        5.88509  (15010717)
        439859.00   3765400.00        5.91806  (15010717)
439889.00   3765400.00        5.93992  (15010717)
        439649.00   3765430.00        6.54926  (12011417)
439679.00   3765430.00        6.58147  (12011417)
        439709.00   3765430.00        6.59378  (12011417)
439739.00   3765430.00        6.57493  (12011417)
        439769.00   3765430.00        6.51528  (12011417)
439799.00   3765430.00        6.40583  (12011417)
        439829.00   3765430.00        6.33159  (15010717)
439859.00   3765430.00        6.35829  (15010717)
        439889.00   3765430.00        6.37641  (15010717)
439649.00   3765460.00        7.04202  (12011417)
        439679.00   3765460.00        7.10569  (12011417)
439709.00   3765460.00        7.17247  (12011417)
        439739.00   3765460.00        7.22458  (12011417)
439769.00   3765460.00        7.24141  (12011417)
        439799.00   3765460.00        7.20505  (12011417)
439829.00   3765460.00        7.10695  (12011417)
        439859.00   3765460.00        6.95384  (12011417)
439889.00   3765460.00        6.89519  (15010717)
        439649.00   3765490.00        7.59356  (12011417)
439679.00   3765490.00        7.66667  (12011417)
        439709.00   3765490.00        7.76249  (12011417)
```

```
439739.00   3765490.00        7.87108  (12011417)
        439769.00   3765490.00        7.97472  (12011417)
439799.00   3765490.00        8.04495  (12011417)
        439829.00   3765490.00        8.04340  (12011417)
439859.00   3765490.00        7.94983  (12011417)
        439889.00   3765490.00        7.79856  (12011417)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: EVAP ***
INCLUDING SOURCE(S):
A0000067 , A0000068 , A0000069 , A0000070 , A0000071 ,
A0000072 , A0000073 , A0000074 , A0000075 , A0000076 , A0000077 , A0000078 , A0000079 ,
A0000080 , A0000081 , A0000082 , A0000083 , A0000084 , A0000085 , A0000086 , A0000087 ,
A0000088 , A0000089 , A0000090 , A0000091 , A0000092 , A0000093 ,
A0000094 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439674.00	3765310.00	4.20365	(13121718)	439679.00	3765310.00	4.20586	(13121718)
439684.00	3765310.00	4.20572	(13121718)	439689.00	3765310.00	4.20698	(13121718)
439694.00	3765310.00	4.20522	(13121718)	439699.00	3765310.00	4.20166	(13121718)
439704.00	3765310.00	4.19804	(13121718)	439709.00	3765310.00	4.19288	(13121718)
439714.00	3765310.00	4.18822	(13121718)	439719.00	3765310.00	4.17941	(13121718)
439729.00	3765310.00	4.16201	(13121718)	439734.00	3765310.00	4.15263	(13121718)
439739.00	3765310.00	4.14087	(13121718)	439744.00	3765310.00	4.12844	(13121718)
439749.00	3765310.00	4.11495	(13121718)	439764.00	3765310.00	4.11098	(15111218)
439769.00	3765310.00	4.11152	(15111218)				

```
439774.00   3765310.00        4.11402  (15111218)
        439779.00   3765310.00        4.11315  (15111218)
439784.00   3765310.00        4.11225  (15111218)
        439789.00   3765310.00        4.10945  (15111218)
439794.00   3765310.00        4.10622  (15111218)
        439799.00   3765310.00        4.10787  (13121618)
439804.00   3765310.00        4.11639  (13121618)
        439809.00   3765310.00        4.12406  (13121618)
439814.00   3765310.00        4.13011  (13121618)
        439819.00   3765310.00        4.13515  (13121618)
439824.00   3765310.00        4.13952  (13120808)
        439829.00   3765310.00        4.15061  (13120808)
439839.00   3765310.00        4.16869  (13120808)
        439844.00   3765310.00        4.17567  (13120808)
439849.00   3765310.00        4.18052  (13120808)
        439854.00   3765310.00        4.18527  (13120808)
439859.00   3765310.00        4.18703  (13120808)
        439864.00   3765310.00        4.18872  (13120808)
439869.00   3765310.00        4.19015  (13120808)
        439874.00   3765310.00        4.18892  (13120808)
439879.00   3765310.00        4.18816  (13120808)
        439884.00   3765310.00        4.18626  (13120808)
439674.00   3765315.00        4.24842  (13121718)
        439679.00   3765315.00        4.25053  (13121718)
439684.00   3765315.00        4.25269  (13121718)
        439689.00   3765315.00        4.25226  (13121718)
439694.00   3765315.00        4.25381  (13121718)
        439699.00   3765315.00        4.25250  (13121718)
439704.00   3765315.00        4.24979  (13121718)
        439709.00   3765315.00        4.24515  (13121718)
439714.00   3765315.00        4.24066  (13121718)
        439719.00   3765315.00        4.23539  (13121718)
439729.00   3765315.00        4.21988  (13121718)
        439734.00   3765315.00        4.20994  (13121718)
439739.00   3765315.00        4.20046  (13121718)
        439744.00   3765315.00        4.18843  (13121718)
439749.00   3765315.00        4.17653  (13121718)
        439764.00   3765315.00        4.14808  (15111218)
439769.00   3765315.00        4.15324  (15111218)
        439774.00   3765315.00        4.15380  (15111218)
439779.00   3765315.00        4.15588  (15111218)
        439784.00   3765315.00        4.15460  (15111218)
439789.00   3765315.00        4.15398  (15111218)
        439794.00   3765315.00        4.15033  (15111218)
439799.00   3765315.00        4.14726  (15111218)
        439804.00   3765315.00        4.15119  (13121618)
439809.00   3765315.00        4.15929  (13121618)
        439814.00   3765315.00        4.16669  (13121618)
439819.00   3765315.00        4.17195  (13121618)
        439824.00   3765315.00        4.17623  (13121618)
439829.00   3765315.00        4.18442  (13120808)
        439839.00   3765315.00        4.20451  (13120808)
```

```
439844.00   3765315.00        4.21105  (13120808)
        439849.00   3765315.00        4.21905  (13120808)
439854.00   3765315.00        4.22200  (13120808)
        439859.00   3765315.00        4.22609  (13120808)
439864.00   3765315.00        4.22793  (13120808)
        439869.00   3765315.00        4.22910  (13120808)
439874.00   3765315.00        4.22902  (13120808)
        439879.00   3765315.00        4.22856  (13120808)
439884.00   3765315.00        4.22689  (13120808)
        439674.00   3765320.00        4.28852  (13121718)
439679.00   3765320.00        4.29466  (13121718)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: EVAP ***
INCLUDING SOURCE(S):
A0000067 , A0000068 , A0000069 , A0000070 , A0000071 ,
A0000072 , A0000073 , A0000074 , A0000075 , A0000076 , A0000077 , A0000078 , A0000079 ,
A0000080 , A0000081 , A0000082 , A0000083 , A0000084 , A0000085 , A0000086 , A0000087 ,
A0000088 , A0000089 , A0000090 , A0000091 , A0000092 , A0000093 ,
A0000094 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439684.00	3765320.00	4.29789	(13121718)	439689.00	3765320.00	4.30105	(13121718)
439694.00	3765320.00	4.30029	(13121718)	439699.00	3765320.00	4.30173	(13121718)
439704.00	3765320.00	4.30060	(13121718)	439709.00	3765320.00	4.29902	(13121718)
439714.00	3765320.00	4.29375	(13121718)	439719.00	3765320.00	4.28953	(13121718)
439729.00	3765320.00	4.27704	(13121718)	439734.00	3765320.00	4.26945	(13121718)
439739.00	3765320.00	4.25863	(13121718)	439744.00	3765320.00	4.24995	(13121718)
439749.00	3765320.00	4.23653	(13121718)	439764.00	3765320.00	4.19770	(13121718)
439769.00	3765320.00	4.19159	(15111218)	439774.00	3765320.00	4.19596	(15111218)
439779.00	3765320.00	4.19710	(15111218)				

```
439784.00   3765320.00        4.19811  (15111218)
        439789.00   3765320.00        4.19698  (15111218)
439794.00   3765320.00        4.19617  (15111218)
        439799.00   3765320.00        4.19252  (15111218)
439804.00   3765320.00        4.18845  (15111218)
        439809.00   3765320.00        4.19508  (13121618)
439814.00   3765320.00        4.20273  (13121618)
        439819.00   3765320.00        4.20914  (13121618)
439824.00   3765320.00        4.21536  (13121618)
        439829.00   3765320.00        4.21826  (13120808)
439839.00   3765320.00        4.23989  (13120808)
        439844.00   3765320.00        4.24933  (13120808)
439849.00   3765320.00        4.25501  (13120808)
        439854.00   3765320.00        4.26121  (13120808)
439859.00   3765320.00        4.26492  (13120808)
        439864.00   3765320.00        4.26813  (13120808)
439869.00   3765320.00        4.26860  (13120808)
        439874.00   3765320.00        4.27091  (13120808)
439879.00   3765320.00        4.26895  (13120808)
        439884.00   3765320.00        4.26775  (13120808)
439674.00   3765325.00        4.33186  (13121718)
        439679.00   3765325.00        4.33651  (13121718)
439684.00   3765325.00        4.34229  (13121718)
        439689.00   3765325.00        4.34565  (13121718)
439694.00   3765325.00        4.35020  (13121718)
        439699.00   3765325.00        4.34971  (13121718)
439704.00   3765325.00        4.35060  (13121718)
        439709.00   3765325.00        4.34934  (13121718)
439714.00   3765325.00        4.34862  (13121718)
        439719.00   3765325.00        4.34380  (13121718)
439729.00   3765325.00        4.33365  (13121718)
        439734.00   3765325.00        4.32672  (13121718)
439739.00   3765325.00        4.31955  (13121718)
        439744.00   3765325.00        4.30847  (13121718)
439749.00   3765325.00        4.30020  (13121718)
        439754.00   3765325.00        4.28605  (13121718)
439769.00   3765325.00        4.24767  (13121718)
        439774.00   3765325.00        4.23609  (15111218)
439779.00   3765325.00        4.23928  (15111218)
        439784.00   3765325.00        4.24094  (15111218)
439789.00   3765325.00        4.24165  (15111218)
        439794.00   3765325.00        4.24015  (15111218)
439799.00   3765325.00        4.23895  (15111218)
        439804.00   3765325.00        4.23533  (15111218)
439809.00   3765325.00        4.23104  (15111218)
        439814.00   3765325.00        4.23975  (13121618)
439819.00   3765325.00        4.24790  (13121618)
        439824.00   3765325.00        4.25349  (13121618)
439829.00   3765325.00        4.25857  (13121618)
        439839.00   3765325.00        4.27687  (13120808)
439844.00   3765325.00        4.28588  (13120808)
        439849.00   3765325.00        4.29341  (13120808)
```

```
439854.00   3765325.00        4.30012  (13120808)
        439859.00   3765325.00        4.30486  (13120808)
439864.00   3765325.00        4.30728  (13120808)
        439869.00   3765325.00        4.31079  (13120808)
439874.00   3765325.00        4.31041  (13120808)
        439879.00   3765325.00        4.31151  (13120808)
439884.00   3765325.00        4.30997  (13120808)
        439674.00   3765330.00        4.37197  (13121718)
439679.00   3765330.00        4.38039  (13121718)
        439684.00   3765330.00        4.38604  (13121718)
439689.00   3765330.00        4.39100  (13121718)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: EVAP ***
INCLUDING SOURCE(S):
A0000067 , A0000068 , A0000069 , A0000070 , A0000071 ,
A0000072 , A0000073 , A0000074 , A0000075 , A0000076 , A0000077 , A0000078 , A0000079 ,
A0000080 , A0000081 , A0000082 , A0000083 , A0000084 , A0000085 , A0000086 , A0000087 ,
A0000088 , A0000089 , A0000090 , A0000091 , A0000092 , A0000093 ,
A0000094 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439694.00	3765330.00	4.39476	(13121718)	439699.00	3765330.00	4.39971	(13121718)
439704.00	3765330.00	4.40046	(13121718)	439709.00	3765330.00	4.40107	(13121718)
439714.00	3765330.00	4.39931	(13121718)	439719.00	3765330.00	4.39900	(13121718)
439729.00	3765330.00	4.39069	(13121718)	439734.00	3765330.00	4.38416	(13121718)
439739.00	3765330.00	4.37783	(13121718)	439744.00	3765330.00	4.37024	(13121718)
439749.00	3765330.00	4.36005	(13121718)	439754.00	3765330.00	4.35080	(13121718)
439774.00	3765330.00	4.29822	(13121718)	439779.00	3765330.00	4.28179	(13121718)
439784.00	3765330.00	4.28396	(15111218)	439789.00	3765330.00	4.28577	(15111218)
439794.00	3765330.00	4.28616	(15111218)				

```
439799.00   3765330.00        4.28454  (15111218)
        439804.00   3765330.00        4.28291  (15111218)
439809.00   3765330.00        4.27889  (15111218)
        439814.00   3765330.00        4.27743  (13121618)
439819.00   3765330.00        4.28542  (13121618)
        439824.00   3765330.00        4.29262  (13121618)
439829.00   3765330.00        4.29860  (13121618)
        439839.00   3765330.00        4.31378  (13120808)
439844.00   3765330.00        4.32316  (13120808)
        439849.00   3765330.00        4.33314  (13120808)
439854.00   3765330.00        4.33895  (13120808)
        439859.00   3765330.00        4.34504  (13120808)
439864.00   3765330.00        4.34890  (13120808)
        439869.00   3765330.00        4.35080  (13120808)
439874.00   3765330.00        4.35338  (13120808)
        439879.00   3765330.00        4.35314  (13120808)
439884.00   3765330.00        4.35376  (13120808)
        439674.00   3765335.00        4.41245  (12011417)
439679.00   3765335.00        4.42082  (13121718)
        439684.00   3765335.00        4.42900  (13121718)
439689.00   3765335.00        4.43722  (13121718)
        439694.00   3765335.00        4.44109  (13121718)
439699.00   3765335.00        4.44538  (13121718)
        439704.00   3765335.00        4.44967  (13121718)
439709.00   3765335.00        4.45191  (13121718)
        439714.00   3765335.00        4.45287  (13121718)
439719.00   3765335.00        4.45061  (13121718)
        439729.00   3765335.00        4.44639  (13121718)
439734.00   3765335.00        4.44350  (13121718)
        439739.00   3765335.00        4.43593  (13121718)
439744.00   3765335.00        4.43019  (13121718)
        439749.00   3765335.00        4.42180  (13121718)
439774.00   3765335.00        4.36372  (13121718)
        439779.00   3765335.00        4.34994  (13121718)
439784.00   3765335.00        4.33365  (13121718)
        439789.00   3765335.00        4.33002  (15111218)
439794.00   3765335.00        4.33154  (15111218)
        439839.00   3765335.00        4.34994  (13120808)
439844.00   3765335.00        4.36253  (13120808)
        439849.00   3765335.00        4.37115  (13120808)
439854.00   3765335.00        4.38008  (13120808)
        439859.00   3765335.00        4.38507  (13120808)
439864.00   3765335.00        4.39133  (13120808)
        439869.00   3765335.00        4.39350  (13120808)
439874.00   3765335.00        4.39578  (13120808)
        439879.00   3765335.00        4.39710  (13120808)
439884.00   3765335.00        4.39628  (13120808)
        439674.00   3765340.00        4.49676  (12011417)
439679.00   3765340.00        4.47831  (12011417)
        439684.00   3765340.00        4.47132  (13121718)
439689.00   3765340.00        4.47865  (13121718)
        439694.00   3765340.00        4.48858  (13121718)
```

```
439699.00   3765340.00        4.49308  (13121718)
        439704.00   3765340.00        4.49748  (13121718)
439709.00   3765340.00        4.50141  (13121718)
        439714.00   3765340.00        4.50405  (13121718)
439719.00   3765340.00        4.50627  (13121718)
        439729.00   3765340.00        4.50348  (13121718)
439734.00   3765340.00        4.49905  (13121718)
        439739.00   3765340.00        4.49684  (13121718)
439744.00   3765340.00        4.48948  (13121718)
        439749.00   3765340.00        4.48372  (13121718)
439774.00   3765340.00        4.43115  (13121718)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: EVAP ***
INCLUDING SOURCE(S):
A0000067 , A0000068 , A0000069 , A0000070 , A0000071 ,
A0000072 , A0000073 , A0000074 , A0000075 , A0000076 , A0000077 , A0000078 , A0000079 ,
A0000080 , A0000081 , A0000082 , A0000083 , A0000084 , A0000085 , A0000086 , A0000087 ,
A0000088 , A0000089 , A0000090 , A0000091 , A0000092 , A0000093 ,
A0000094 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439779.00	3765340.00	4.41652	(13121718)	439784.00	3765340.00	4.40266	(13121718)
439789.00	3765340.00	4.38670	(13121718)	439794.00	3765340.00	4.37703	(15111218)
439839.00	3765340.00	4.39042	(13121618)	439844.00	3765340.00	4.40037	(13120808)
439849.00	3765340.00	4.41192	(13120808)	439854.00	3765340.00	4.41960	(13120808)
439859.00	3765340.00	4.42823	(13120808)	439864.00	3765340.00	4.43218	(13120808)
439869.00	3765340.00	4.43770	(13120808)	439874.00	3765340.00	4.43881	(13120808)
439879.00	3765340.00	4.44123	(13120808)	439884.00	3765340.00	4.44059	(13120808)
439674.00	3765345.00	4.57888	(12011417)	439679.00	3765345.00	4.56386	(12011417)
439684.00	3765345.00	4.54591	(12011417)				

439689.00 3765345.00 4.52790 (12011417)
439694.00 3765345.00 4.53033 (13121718)
439699.00 3765345.00 4.53986 (13121718)
439704.00 3765345.00 4.54668 (13121718)
439709.00 3765345.00 4.55080 (13121718)
439714.00 3765345.00 4.55462 (13121718)
439719.00 3765345.00 4.55691 (13121718)
439729.00 3765345.00 4.55795 (13121718)
439734.00 3765345.00 4.55740 (13121718)
439739.00 3765345.00 4.55327 (13121718)
439744.00 3765345.00 4.55110 (13121718)
439749.00 3765345.00 4.54417 (13121718)
439774.00 3765345.00 4.49795 (13121718)
439779.00 3765345.00 4.48554 (13121718)
439784.00 3765345.00 4.47103 (13121718)
439789.00 3765345.00 4.45613 (13121718)
439794.00 3765345.00 4.44092 (13121718)
439839.00 3765345.00 4.43409 (13121618)
439844.00 3765345.00 4.43996 (13120808)
439849.00 3765345.00 4.45131 (13120808)
439854.00 3765345.00 4.46221 (13120808)
439859.00 3765345.00 4.46905 (13120808)
439864.00 3765345.00 4.47620 (13120808)
439869.00 3765345.00 4.47970 (13120808)
439874.00 3765345.00 4.48512 (13120808)
439879.00 3765345.00 4.48475 (13120808)
439884.00 3765345.00 4.48751 (13120808)
439674.00 3765350.00 4.66167 (12011417)
439679.00 3765350.00 4.64671 (12011417)
439684.00 3765350.00 4.63217 (12011417)
439689.00 3765350.00 4.61460 (12011417)
439694.00 3765350.00 4.59709 (12011417)
439699.00 3765350.00 4.58362 (13121718)
439704.00 3765350.00 4.59228 (13121718)
439709.00 3765350.00 4.60057 (13121718)
439714.00 3765350.00 4.60565 (13121718)
439719.00 3765350.00 4.60943 (13121718)
439729.00 3765350.00 4.61469 (13121718)
439734.00 3765350.00 4.61353 (13121718)
439739.00 3765350.00 4.61315 (13121718)
439744.00 3765350.00 4.60875 (13121718)
439749.00 3765350.00 4.60703 (13121718)
439774.00 3765350.00 4.56482 (13121718)
439779.00 3765350.00 4.55378 (13121718)
439784.00 3765350.00 4.54094 (13121718)
439789.00 3765350.00 4.52703 (13121718)
439794.00 3765350.00 4.51134 (13121718)
439839.00 3765350.00 4.47714 (13121618)
439844.00 3765350.00 4.48285 (13121618)
439849.00 3765350.00 4.49223 (13120808)
439854.00 3765350.00 4.50344 (13120808)
439859.00 3765350.00 4.51249 (13120808)

```
439864.00   3765350.00        4.51924  (13120808)
        439869.00   3765350.00        4.52572  (13120808)
439874.00   3765350.00        4.52836  (13120808)
        439879.00   3765350.00        4.53258  (13120808)
439884.00   3765350.00        4.53227  (13120808)
        439674.00   3765355.00        4.74435  (12011417)
439679.00   3765355.00        4.73131  (12011417)
        439684.00   3765355.00        4.71616  (12011417)
439689.00   3765355.00        4.70164  (12011417)
        439694.00   3765355.00        4.68465  (12011417)
439699.00   3765355.00        4.66771  (12011417)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: EVAP ***
INCLUDING SOURCE(S):
A0000067 , A0000068 , A0000069 , A0000070 , A0000071 ,
A0000072 , A0000073 , A0000074 , A0000075 , A0000076 , A0000077 , A0000078 , A0000079 ,
A0000080 , A0000081 , A0000082 , A0000083 , A0000084 , A0000085 , A0000086 , A0000087 ,
A0000088 , A0000089 , A0000090 , A0000091 , A0000092 , A0000093 ,
A0000094 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439704.00	3765355.00	4.64772	(12011417)	439709.00	3765355.00	4.64661	(13121718)
439714.00	3765355.00	4.65504	(13121718)	439719.00	3765355.00	4.66174	(13121718)
439729.00	3765355.00	4.66779	(13121718)	439734.00	3765355.00	4.67054	(13121718)
439739.00	3765355.00	4.67011	(13121718)	439744.00	3765355.00	4.67038	(13121718)
439749.00	3765355.00	4.66522	(13121718)	439774.00	3765355.00	4.63379	(13121718)
439779.00	3765355.00	4.62200	(13121718)	439784.00	3765355.00	4.61041	(13121718)
439789.00	3765355.00	4.59784	(13121718)	439794.00	3765355.00	4.58365	(13121718)
439839.00	3765355.00	4.52190	(13121618)	439844.00	3765355.00	4.52740	(13121618)
439849.00	3765355.00	4.53398	(13120808)				

439854.00 3765355.00 4.54559 (13120808)
439859.00 3765355.00 4.55639 (13120808)
439864.00 3765355.00 4.56438 (13120808)
439869.00 3765355.00 4.57047 (13120808)
439874.00 3765355.00 4.57496 (13120808)
439879.00 3765355.00 4.57807 (13120808)
439884.00 3765355.00 4.58032 (13120808)
439674.00 3765360.00 4.82576 (12011417)
439679.00 3765360.00 4.81431 (12011417)
439684.00 3765360.00 4.80254 (12011417)
439689.00 3765360.00 4.78762 (12011417)
439694.00 3765360.00 4.77308 (12011417)
439699.00 3765360.00 4.75572 (12011417)
439704.00 3765360.00 4.73954 (12011417)
439709.00 3765360.00 4.71990 (12011417)
439714.00 3765360.00 4.70317 (13121718)
439719.00 3765360.00 4.71088 (13121718)
439729.00 3765360.00 4.72343 (13121718)
439734.00 3765360.00 4.72595 (13121718)
439739.00 3765360.00 4.72779 (13121718)
439744.00 3765360.00 4.72789 (13121718)
439749.00 3765360.00 4.72838 (13121718)
439774.00 3765360.00 4.70075 (13121718)
439779.00 3765360.00 4.69158 (13121718)
439784.00 3765360.00 4.68090 (13121718)
439789.00 3765360.00 4.66811 (13121718)
439794.00 3765360.00 4.65584 (13121718)
439799.00 3765360.00 4.64166 (13121718)
439804.00 3765360.00 4.62628 (13121718)
439809.00 3765360.00 4.60930 (13121718)
439814.00 3765360.00 4.59241 (13121718)
439839.00 3765360.00 4.56650 (13121618)
439844.00 3765360.00 4.57345 (13121618)
439849.00 3765360.00 4.57964 (13121618)
439854.00 3765360.00 4.58945 (13120808)
439859.00 3765360.00 4.59965 (13120808)
439864.00 3765360.00 4.60976 (13120808)
439869.00 3765360.00 4.61615 (13120808)
439874.00 3765360.00 4.62258 (13120808)
439879.00 3765360.00 4.62560 (13120808)
439884.00 3765360.00 4.62881 (13120808)
439674.00 3765365.00 4.90670 (12011417)
439679.00 3765365.00 4.89686 (12011417)
439684.00 3765365.00 4.88603 (12011417)
439689.00 3765365.00 4.87434 (12011417)
439694.00 3765365.00 4.86074 (12011417)
439699.00 3765365.00 4.84646 (12011417)
439704.00 3765365.00 4.82923 (12011417)
439709.00 3765365.00 4.81254 (12011417)
439714.00 3765365.00 4.79372 (12011417)
439719.00 3765365.00 4.77469 (12011417)
439729.00 3765365.00 4.77631 (13121718)

439734.00   3765365.00   4.78195 (13121718)
        439739.00   3765365.00   4.78603 (13121718)
439744.00   3765365.00   4.78681 (13121718)
        439749.00   3765365.00   4.78754 (13121718)
439774.00   3765365.00   4.76930 (13121718)
        439779.00   3765365.00   4.76076 (13121718)
439784.00   3765365.00   4.75122 (13121718)
        439789.00   3765365.00   4.74054 (13121718)
439794.00   3765365.00   4.72800 (13121718)
        439799.00   3765365.00   4.71506 (13121718)
439804.00   3765365.00   4.70075 (13121718)

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: EVAP ***
INCLUDING SOURCE(S):
A0000067 , A0000068 , A0000069 , A0000070 , A0000071 ,
A0000072 , A0000073 , A0000074 , A0000075 , A0000076 , A0000077 , A0000078 , A0000079 ,
A0000080 , A0000081 , A0000082 , A0000083 , A0000084 , A0000085 , A0000086 , A0000087 ,
A0000088 , A0000089 , A0000090 , A0000091 , A0000092 , A0000093 ,
A0000094 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439809.00	3765365.00	4.68558	(13121718)	439814.00	3765365.00	4.66883	(13121718)
439839.00	3765365.00	4.61652	(15111218)	439844.00	3765365.00	4.62075	(13121618)
439849.00	3765365.00	4.62586	(13121618)	439854.00	3765365.00	4.63204	(13121618)
439859.00	3765365.00	4.64585	(13120808)	439864.00	3765365.00	4.65486	(13120808)
439869.00	3765365.00	4.66468	(13120808)	439874.00	3765365.00	4.66944	(13120808)
439879.00	3765365.00	4.67552	(13120808)	439884.00	3765365.00	4.67710	(13120808)
439674.00	3765370.00	4.98691	(12011417)	439679.00	3765370.00	4.97953	(12011417)
439684.00	3765370.00	4.97011	(12011417)	439689.00	3765370.00	4.95927	(12011417)
439694.00	3765370.00	4.94812	(12011417)				

```
439699.00   3765370.00        4.93460  (12011417)
        439704.00   3765370.00        4.92175  (12011417)
439709.00   3765370.00        4.90464  (12011417)
        439714.00   3765370.00        4.88761  (12011417)
439719.00   3765370.00        4.86861  (12011417)
        439729.00   3765370.00        4.82862  (12011417)
439734.00   3765370.00        4.83620  (13121718)
        439739.00   3765370.00        4.84129  (13121718)
439744.00   3765370.00        4.84711  (13121718)
        439749.00   3765370.00        4.84784  (13121718)
439774.00   3765370.00        4.83619  (13121718)
        439779.00   3765370.00        4.83061  (13121718)
439784.00   3765370.00        4.82175  (13121718)
        439789.00   3765370.00        4.81210  (13121718)
439794.00   3765370.00        4.80155  (13121718)
        439799.00   3765370.00        4.78935  (13121718)
439804.00   3765370.00        4.77552  (13121718)
        439809.00   3765370.00        4.76132  (13121718)
439814.00   3765370.00        4.74609  (13121718)
        439839.00   3765370.00        4.67537  (15111218)
439844.00   3765370.00        4.66911  (15111218)
        439849.00   3765370.00        4.67516  (13121618)
439854.00   3765370.00        4.68020  (13121618)
        439859.00   3765370.00        4.68980  (13120808)
439864.00   3765370.00        4.70336  (13120808)
        439869.00   3765370.00        4.71011  (13120808)
439874.00   3765370.00        4.72014  (13120808)
        439879.00   3765370.00        4.72325  (13120808)
439884.00   3765370.00        4.72855  (13120808)
        439674.00   3765375.00        5.06589  (12011417)
439679.00   3765375.00        5.06013  (12011417)
        439684.00   3765375.00        5.05351  (12011417)
439689.00   3765375.00        5.04554  (12011417)
        439694.00   3765375.00        5.03482  (12011417)
439699.00   3765375.00        5.02345  (12011417)
        439704.00   3765375.00        5.01043  (12011417)
439709.00   3765375.00        4.99754  (12011417)
        439714.00   3765375.00        4.98148  (12011417)
439719.00   3765375.00        4.96512  (12011417)
        439729.00   3765375.00        4.92723  (12011417)
439734.00   3765375.00        4.90627  (12011417)
        439739.00   3765375.00        4.89818  (13121718)
439744.00   3765375.00        4.90231  (13121718)
        439749.00   3765375.00        4.90931  (13121718)
439754.00   3765375.00        4.91050  (13121718)
        439774.00   3765375.00        4.90516  (13121718)
439779.00   3765375.00        4.89931  (13121718)
        439784.00   3765375.00        4.89313  (13121718)
439789.00   3765375.00        4.88463  (13121718)
        439794.00   3765375.00        4.87467  (13121718)
439799.00   3765375.00        4.86375  (13121718)
        439804.00   3765375.00        4.85198  (13121718)
```

```
439809.00   3765375.00        4.83828  (13121718)
        439814.00   3765375.00        4.82338  (13121718)
439839.00   3765375.00        4.73454  (13121718)
        439844.00   3765375.00        4.72832  (15111218)
439849.00   3765375.00        4.72343  (13121618)
        439854.00   3765375.00        4.73084  (13121618)
439859.00   3765375.00        4.73680  (13120808)
        439864.00   3765375.00        4.74857  (13120808)
439869.00   3765375.00        4.76177  (13120808)
        439874.00   3765375.00        4.76760  (13120808)
439879.00   3765375.00        4.77595  (13120808)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: EVAP ***
INCLUDING SOURCE(S):
A0000067 , A0000068 , A0000069 , A0000070 , A0000071 ,
A0000072 , A0000073 , A0000074 , A0000075 , A0000076 , A0000077 , A0000078 , A0000079 ,
A0000080 , A0000081 , A0000082 , A0000083 , A0000084 , A0000085 , A0000086 , A0000087 ,
A0000088 , A0000089 , A0000090 , A0000091 , A0000092 , A0000093 ,
A0000094 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439884.00	3765375.00	4.77871	(13120808)	439774.00	3765380.00	4.97278	(13121718)
439779.00	3765380.00	4.96938	(13121718)	439784.00	3765380.00	4.96396	(13121718)
439789.00	3765380.00	4.95725	(13121718)	439794.00	3765380.00	4.94868	(13121718)
439799.00	3765380.00	4.93889	(13121718)	439804.00	3765380.00	4.92754	(13121718)
439809.00	3765380.00	4.91614	(13121718)	439814.00	3765380.00	4.90186	(13121718)
439769.00	3765385.00	5.04212	(13121718)	439819.00	3765385.00	4.96693	(13121718)
439769.00	3765400.00	5.27891	(12011417)	439844.00	3765400.00	5.14042	(13121718)
439849.00	3765400.00	5.12475	(13121718)	439674.00	3765405.00	5.51188	(12011417)
439714.00	3765405.00	5.53580	(12011417)				

439719.00 3765405.00 5.53136 (12011417)
439734.00 3765405.00 5.50662 (12011417)
439749.00 3765405.00 5.46756 (12011417)
439754.00 3765405.00 5.45097 (12011417)
439774.00 3765405.00 5.36931 (12011417)
439779.00 3765405.00 5.34440 (12011417)
439784.00 3765405.00 5.32228 (13121718)
439789.00 3765405.00 5.32320 (13121718)
439794.00 3765405.00 5.32453 (13121718)
439799.00 3765405.00 5.32123 (13121718)
439804.00 3765405.00 5.31863 (13121718)
439809.00 3765405.00 5.31180 (13121718)
439814.00 3765405.00 5.30572 (13121718)
439819.00 3765405.00 5.29540 (13121718)
439824.00 3765405.00 5.28573 (13121718)
439829.00 3765405.00 5.27295 (13121718)
439834.00 3765405.00 5.26097 (13121718)
439839.00 3765405.00 5.24505 (13121718)
439844.00 3765405.00 5.22960 (13121718)
439849.00 3765405.00 5.21202 (13121718)
439854.00 3765405.00 5.19645 (13121718)
439859.00 3765405.00 5.17528 (13121718)
439674.00 3765410.00 5.57975 (12011417)
439679.00 3765410.00 5.59097 (12011417)
439684.00 3765410.00 5.60162 (12011417)
439689.00 3765410.00 5.60897 (12011417)
439694.00 3765410.00 5.61617 (12011417)
439699.00 3765410.00 5.62040 (12011417)
439704.00 3765410.00 5.62486 (12011417)
439709.00 3765410.00 5.62605 (12011417)
439714.00 3765410.00 5.62588 (12011417)
439719.00 3765410.00 5.62317 (12011417)
439729.00 3765410.00 5.61455 (12011417)
439734.00 3765410.00 5.60721 (12011417)
439739.00 3765410.00 5.59738 (12011417)
439744.00 3765410.00 5.58556 (12011417)
439749.00 3765410.00 5.57312 (12011417)
439774.00 3765410.00 5.48415 (12011417)
439779.00 3765410.00 5.46159 (12011417)
439784.00 3765410.00 5.43734 (12011417)
439789.00 3765410.00 5.41182 (12011417)
439794.00 3765410.00 5.39887 (13121718)
439799.00 3765410.00 5.40049 (13121718)
439804.00 3765410.00 5.39710 (13121718)
439809.00 3765410.00 5.39407 (13121718)
439814.00 3765410.00 5.38716 (13121718)
439819.00 3765410.00 5.38098 (13121718)
439824.00 3765410.00 5.37070 (13121718)
439829.00 3765410.00 5.36057 (13121718)
439834.00 3765410.00 5.34783 (13121718)
439839.00 3765410.00 5.33509 (13121718)
439844.00 3765410.00 5.31940 (13121718)

```
439849.00   3765410.00        5.30376  (13121718)
        439854.00   3765410.00        5.28555  (13121718)
439859.00   3765410.00        5.26956  (13121718)
        439674.00   3765415.00        5.64534  (12011417)
439679.00   3765415.00        5.65959  (12011417)
        439684.00   3765415.00        5.67187  (12011417)
439689.00   3765415.00        5.68404  (12011417)
        439694.00   3765415.00        5.69318  (12011417)
439699.00   3765415.00        5.70115  (12011417)
        439704.00   3765415.00        5.70654  (12011417)
439709.00   3765415.00        5.71143  (12011417)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: EVAP ***
INCLUDING SOURCE(S):
A0000067 , A0000068 , A0000069 , A0000070 , A0000071 ,
A0000072 , A0000073 , A0000074 , A0000075 , A0000076 , A0000077 , A0000078 , A0000079 ,
A0000080 , A0000081 , A0000082 , A0000083 , A0000084 , A0000085 , A0000086 , A0000087 ,
A0000088 , A0000089 , A0000090 , A0000091 , A0000092 , A0000093 ,
A0000094 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439714.00	3765415.00	5.71389	(12011417)	439719.00	3765415.00	5.71505	(12011417)
439729.00	3765415.00	5.71038	(12011417)	439734.00	3765415.00	5.70524	(12011417)
439739.00	3765415.00	5.69860	(12011417)	439744.00	3765415.00	5.69039	(12011417)
439749.00	3765415.00	5.67986	(12011417)	439774.00	3765415.00	5.59919	(12011417)
439779.00	3765415.00	5.57827	(12011417)	439784.00	3765415.00	5.55650	(12011417)
439789.00	3765415.00	5.53247	(12011417)	439794.00	3765415.00	5.50674	(12011417)
439799.00	3765415.00	5.47984	(12011417)	439804.00	3765415.00	5.47803	(13121718)
439809.00	3765415.00	5.47477	(13121718)	439814.00	3765415.00	5.47178	(13121718)
439819.00	3765415.00	5.46530	(13121718)				

439824.00 3765415.00 5.45754 (13121718)
439829.00 3765415.00 5.44853 (13121718)
439834.00 3765415.00 5.43780 (13121718)
439839.00 3765415.00 5.42450 (13121718)
439844.00 3765415.00 5.41126 (13121718)
439849.00 3765415.00 5.39576 (13121718)
439854.00 3765415.00 5.38019 (13121718)
439859.00 3765415.00 5.36136 (13121718)
439674.00 3765420.00 5.70825 (12011417)
439679.00 3765420.00 5.72605 (12011417)
439684.00 3765420.00 5.74101 (12011417)
439689.00 3765420.00 5.75515 (12011417)
439694.00 3765420.00 5.76730 (12011417)
439699.00 3765420.00 5.77908 (12011417)
439704.00 3765420.00 5.78794 (12011417)
439709.00 3765420.00 5.79525 (12011417)
439714.00 3765420.00 5.80077 (12011417)
439719.00 3765420.00 5.80393 (12011417)
439729.00 3765420.00 5.80631 (12011417)
439734.00 3765420.00 5.80415 (12011417)
439739.00 3765420.00 5.79899 (12011417)
439744.00 3765420.00 5.79233 (12011417)
439749.00 3765420.00 5.78555 (12011417)
439774.00 3765420.00 5.71632 (12011417)
439779.00 3765420.00 5.69707 (12011417)
439784.00 3765420.00 5.67538 (12011417)
439789.00 3765420.00 5.65355 (12011417)
439794.00 3765420.00 5.63026 (12011417)
439799.00 3765420.00 5.60450 (12011417)
439804.00 3765420.00 5.57737 (12011417)
439809.00 3765420.00 5.55807 (13121718)
439814.00 3765420.00 5.55497 (13121718)
439819.00 3765420.00 5.55194 (13121718)
439824.00 3765420.00 5.54540 (13121718)
439829.00 3765420.00 5.53747 (13121718)
439834.00 3765420.00 5.52796 (13121718)
439839.00 3765420.00 5.51670 (13121718)
439844.00 3765420.00 5.50406 (13121718)
439849.00 3765420.00 5.48939 (13121718)
439854.00 3765420.00 5.47398 (13121718)
439859.00 3765420.00 5.45867 (13121718)
439674.00 3765425.00 5.76923 (12011417)
439679.00 3765425.00 5.78832 (12011417)
439684.00 3765425.00 5.80799 (12011417)
439689.00 3765425.00 5.82518 (12011417)
439694.00 3765425.00 5.84050 (12011417)
439699.00 3765425.00 5.85384 (12011417)
439704.00 3765425.00 5.86605 (12011417)
439709.00 3765425.00 5.87704 (12011417)
439714.00 3765425.00 5.88589 (12011417)
439719.00 3765425.00 5.89266 (12011417)
439729.00 3765425.00 5.89972 (12011417)

```
439734.00   3765425.00        5.90029  (12011417)
        439739.00   3765425.00        5.90010  (12011417)
439744.00   3765425.00        5.89587  (12011417)
        439749.00   3765425.00        5.89018  (12011417)
439774.00   3765425.00        5.83252  (12011417)
        439779.00   3765425.00        5.81583  (12011417)
439784.00   3765425.00        5.79670  (12011417)
        439789.00   3765425.00        5.77633  (12011417)
439794.00   3765425.00        5.75305  (12011417)
        439799.00   3765425.00        5.72996  (12011417)
439804.00   3765425.00        5.70466  (12011417)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: EVAP ***
INCLUDING SOURCE(S):
A0000067 , A0000068 , A0000069 , A0000070 , A0000071 ,
A0000072 , A0000073 , A0000074 , A0000075 , A0000076 , A0000077 , A0000078 , A0000079 ,
A0000080 , A0000081 , A0000082 , A0000083 , A0000084 , A0000085 , A0000086 , A0000087 ,
A0000088 , A0000089 , A0000090 , A0000091 , A0000092 , A0000093 ,
A0000094 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439809.00	3765425.00	5.67801	(12011417)	439814.00	3765425.00	5.64927	(12011417)
439819.00	3765425.00	5.63779	(13121718)	439824.00	3765425.00	5.63373	(13121718)
439829.00	3765425.00	5.62789	(13121718)	439834.00	3765425.00	5.61966	(13121718)
439839.00	3765425.00	5.60988	(13121718)	439844.00	3765425.00	5.59843	(13121718)
439849.00	3765425.00	5.58539	(13121718)	439854.00	3765425.00	5.57030	(13121718)
439859.00	3765425.00	5.55429	(13121718)	439674.00	3765430.00	5.82689	(12011417)
439679.00	3765430.00	5.85031	(12011417)	439684.00	3765430.00	5.87056	(12011417)
439689.00	3765430.00	5.89136	(12011417)	439694.00	3765430.00	5.91011	(12011417)
439699.00	3765430.00	5.92800	(12011417)				

439704.00 3765430.00 5.94270 (12011417)
439709.00 3765430.00 5.95652 (12011417)
439714.00 3765430.00 5.96790 (12011417)
439719.00 3765430.00 5.97860 (12011417)
439729.00 3765430.00 5.99284 (12011417)
439734.00 3765430.00 5.99631 (12011417)
439739.00 3765430.00 5.99728 (12011417)
439744.00 3765430.00 5.99768 (12011417)
439749.00 3765430.00 5.99563 (12011417)
439774.00 3765430.00 5.95108 (12011417)
439779.00 3765430.00 5.93540 (12011417)
439784.00 3765430.00 5.91801 (12011417)
439789.00 3765430.00 5.89958 (12011417)
439794.00 3765430.00 5.87959 (12011417)
439799.00 3765430.00 5.85677 (12011417)
439804.00 3765430.00 5.83244 (12011417)
439809.00 3765430.00 5.80773 (12011417)
439814.00 3765430.00 5.78087 (12011417)
439819.00 3765430.00 5.75285 (12011417)
439824.00 3765430.00 5.72353 (13121718)
439829.00 3765430.00 5.71872 (13121718)
439834.00 3765430.00 5.71277 (13121718)
439839.00 3765430.00 5.70393 (13121718)
439844.00 3765430.00 5.69409 (13121718)
439849.00 3765430.00 5.68189 (13121718)
439854.00 3765430.00 5.66891 (13121718)
439859.00 3765430.00 5.65392 (13121718)
439674.00 3765435.00 5.88193 (12011417)
439679.00 3765435.00 5.90738 (12011417)
439684.00 3765435.00 5.93280 (12011417)
439689.00 3765435.00 5.95600 (12011417)
439694.00 3765435.00 5.97762 (12011417)
439699.00 3765435.00 5.99752 (12011417)
439704.00 3765435.00 6.01669 (12011417)
439709.00 3765435.00 6.03417 (12011417)
439714.00 3765435.00 6.04928 (12011417)
439719.00 3765435.00 6.06209 (12011417)
439729.00 3765435.00 6.08311 (12011417)
439734.00 3765435.00 6.09082 (12011417)
439739.00 3765435.00 6.09584 (12011417)
439744.00 3765435.00 6.09787 (12011417)
439749.00 3765435.00 6.09895 (12011417)
439774.00 3765435.00 6.06816 (12011417)
439779.00 3765435.00 6.05600 (12011417)
439784.00 3765435.00 6.04163 (12011417)
439789.00 3765435.00 6.02379 (12011417)
439794.00 3765435.00 6.00507 (12011417)
439799.00 3765435.00 5.98516 (12011417)
439804.00 3765435.00 5.96305 (12011417)
439809.00 3765435.00 5.93834 (12011417)
439814.00 3765435.00 5.91304 (12011417)
439819.00 3765435.00 5.88653 (12011417)

```
439824.00   3765435.00        5.85894  (12011417)
        439829.00   3765435.00        5.82893  (12011417)
439834.00   3765435.00        5.80691  (13121718)
        439839.00   3765435.00        5.79993  (13121718)
439844.00   3765435.00        5.79121  (13121718)
        439849.00   3765435.00        5.78096  (13121718)
439854.00   3765435.00        5.76791  (13121718)
        439859.00   3765435.00        5.75447  (13121718)
439674.00   3765440.00        5.93455  (12011417)
        439679.00   3765440.00        5.96319  (12011417)
439684.00   3765440.00        5.98984  (12011417)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: EVAP ***
INCLUDING SOURCE(S):
A0000067 , A0000068 , A0000069 , A0000070 , A0000071 ,
A0000072 , A0000073 , A0000074 , A0000075 , A0000076 , A0000077 , A0000078 , A0000079 ,
A0000080 , A0000081 , A0000082 , A0000083 , A0000084 , A0000085 , A0000086 , A0000087 ,
A0000088 , A0000089 , A0000090 , A0000091 , A0000092 , A0000093 ,
A0000094 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439689.00	3765440.00	6.01639	(12011417)	439694.00	3765440.00	6.04240	(12011417)
439699.00	3765440.00	6.06591	(12011417)	439704.00	3765440.00	6.08795	(12011417)
439709.00	3765440.00	6.10771	(12011417)	439714.00	3765440.00	6.12741	(12011417)
439719.00	3765440.00	6.14397	(12011417)	439729.00	3765440.00	6.17181	(12011417)
439734.00	3765440.00	6.18255	(12011417)	439739.00	3765440.00	6.19094	(12011417)
439744.00	3765440.00	6.19777	(12011417)	439749.00	3765440.00	6.20203	(12011417)
439774.00	3765440.00	6.18665	(12011417)	439779.00	3765440.00	6.17613	(12011417)
439784.00	3765440.00	6.16382	(12011417)	439789.00	3765440.00	6.15018	(12011417)
439794.00	3765440.00	6.13342	(12011417)				

439799.00 3765440.00 6.11412 (12011417)
439804.00 3765440.00 6.09394 (12011417)
439809.00 3765440.00 6.07235 (12011417)
439814.00 3765440.00 6.04822 (12011417)
439819.00 3765440.00 6.02225 (12011417)
439824.00 3765440.00 5.99506 (12011417)
439829.00 3765440.00 5.96771 (12011417)
439834.00 3765440.00 5.93846 (12011417)
439839.00 3765440.00 5.90717 (12011417)
439844.00 3765440.00 5.89046 (13121718)
439849.00 3765440.00 5.88102 (13121718)
439854.00 3765440.00 5.87085 (13121718)
439859.00 3765440.00 5.85697 (13121718)
439674.00 3765445.00 5.98289 (12011417)
439679.00 3765445.00 6.01541 (12011417)
439684.00 3765445.00 6.04569 (12011417)
439689.00 3765445.00 6.07544 (12011417)
439694.00 3765445.00 6.10216 (12011417)
439699.00 3765445.00 6.13026 (12011417)
439704.00 3765445.00 6.15624 (12011417)
439709.00 3765445.00 6.18089 (12011417)
439714.00 3765445.00 6.20193 (12011417)
439719.00 3765445.00 6.22269 (12011417)
439729.00 3765445.00 6.25831 (12011417)
439734.00 3765445.00 6.27352 (12011417)
439739.00 3765445.00 6.28479 (12011417)
439744.00 3765445.00 6.29520 (12011417)
439749.00 3765445.00 6.30226 (12011417)
439774.00 3765445.00 6.30431 (12011417)
439779.00 3765445.00 6.29724 (12011417)
439784.00 3765445.00 6.28820 (12011417)
439789.00 3765445.00 6.27505 (12011417)
439794.00 3765445.00 6.26212 (12011417)
439799.00 3765445.00 6.24551 (12011417)
439804.00 3765445.00 6.22745 (12011417)
439809.00 3765445.00 6.20598 (12011417)
439814.00 3765445.00 6.18473 (12011417)
439819.00 3765445.00 6.16068 (12011417)
439824.00 3765445.00 6.13569 (12011417)
439829.00 3765445.00 6.10710 (12011417)
439834.00 3765445.00 6.07916 (12011417)
439839.00 3765445.00 6.05053 (12011417)
439844.00 3765445.00 6.01950 (12011417)
439849.00 3765445.00 5.98718 (12011417)
439854.00 3765445.00 5.97249 (13121718)
439859.00 3765445.00 5.96290 (13121718)
439674.00 3765450.00 6.02985 (12011417)
439679.00 3765450.00 6.06333 (12011417)
439684.00 3765450.00 6.09684 (12011417)
439689.00 3765450.00 6.12991 (12011417)
439694.00 3765450.00 6.16185 (12011417)
439699.00 3765450.00 6.19147 (12011417)

```
439704.00   3765450.00        6.22056  (12011417)
        439709.00   3765450.00        6.24778  (12011417)
439714.00   3765450.00        6.27552  (12011417)
        439719.00   3765450.00        6.29886  (12011417)
439729.00   3765450.00        6.34148  (12011417)
        439734.00   3765450.00        6.36066  (12011417)
439739.00   3765450.00        6.37694  (12011417)
        439744.00   3765450.00        6.39110  (12011417)
439749.00   3765450.00        6.40238  (12011417)
        439774.00   3765450.00        6.42159  (12011417)
439844.00   3765450.00        6.16562  (12011417)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: EVAP ***
INCLUDING SOURCE(S):
A0000067 , A0000068 , A0000069 , A0000070 , A0000071 ,
A0000072 , A0000073 , A0000074 , A0000075 , A0000076 , A0000077 , A0000078 , A0000079 ,
A0000080 , A0000081 , A0000082 , A0000083 , A0000084 , A0000085 , A0000086 , A0000087 ,
A0000088 , A0000089 , A0000090 , A0000091 , A0000092 , A0000093 ,
A0000094 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439849.00	3765450.00	6.13443	(12011417)	439854.00	3765450.00	6.10321	(12011417)
439859.00	3765450.00	6.06899	(13121718)	439674.00	3765455.00	6.07155	(12011417)
439679.00	3765455.00	6.10951	(12011417)	439684.00	3765455.00	6.14564	(12011417)
439689.00	3765455.00	6.18133	(12011417)	439694.00	3765455.00	6.21529	(12011417)
439699.00	3765455.00	6.24991	(12011417)	439704.00	3765455.00	6.28283	(12011417)
439709.00	3765455.00	6.31394	(12011417)	439714.00	3765455.00	6.34332	(12011417)
439719.00	3765455.00	6.37158	(12011417)	439729.00	3765455.00	6.42289	(12011417)
439734.00	3765455.00	6.44573	(12011417)	439739.00	3765455.00	6.46503	(12011417)
439744.00	3765455.00	6.48428	(12011417)				

439749.00 3765455.00 6.49911 (12011417)
439844.00 3765455.00 6.31450 (12011417)
439849.00 3765455.00 6.28403 (12011417)
439854.00 3765455.00 6.25275 (12011417)
439859.00 3765455.00 6.22182 (12011417)
439674.00 3765460.00 6.11230 (12011417)
439679.00 3765460.00 6.15062 (12011417)
439684.00 3765460.00 6.19059 (12011417)
439689.00 3765460.00 6.22896 (12011417)
439694.00 3765460.00 6.26800 (12011417)
439699.00 3765460.00 6.30396 (12011417)
439704.00 3765460.00 6.33972 (12011417)
439709.00 3765460.00 6.37573 (12011417)
439714.00 3765460.00 6.40968 (12011417)
439719.00 3765460.00 6.44186 (12011417)
439729.00 3765460.00 6.50021 (12011417)
439734.00 3765460.00 6.52701 (12011417)
439739.00 3765460.00 6.55221 (12011417)
439744.00 3765460.00 6.57399 (12011417)
439749.00 3765460.00 6.59433 (12011417)
439789.00 3765460.00 6.65676 (12011417)
439794.00 3765460.00 6.65209 (12011417)
439799.00 3765460.00 6.64348 (12011417)
439804.00 3765460.00 6.63370 (12011417)
439809.00 3765460.00 6.62028 (12011417)
439814.00 3765460.00 6.60497 (12011417)
439819.00 3765460.00 6.58581 (12011417)
439824.00 3765460.00 6.56700 (12011417)
439829.00 3765460.00 6.54414 (12011417)
439844.00 3765460.00 6.46677 (12011417)
439849.00 3765460.00 6.43723 (12011417)
439854.00 3765460.00 6.40850 (12011417)
439859.00 3765460.00 6.37422 (12011417)
439674.00 3765465.00 6.14745 (12011417)
439679.00 3765465.00 6.19088 (12011417)
439684.00 3765465.00 6.23202 (12011417)
439689.00 3765465.00 6.27394 (12011417)
439694.00 3765465.00 6.31448 (12011417)
439699.00 3765465.00 6.35606 (12011417)
439704.00 3765465.00 6.39560 (12011417)
439709.00 3765465.00 6.43301 (12011417)
439714.00 3765465.00 6.47033 (12011417)
439719.00 3765465.00 6.50685 (12011417)
439729.00 3765465.00 6.57450 (12011417)
439734.00 3765465.00 6.60550 (12011417)
439739.00 3765465.00 6.63332 (12011417)
439744.00 3765465.00 6.66236 (12011417)
439749.00 3765465.00 6.68532 (12011417)
439789.00 3765465.00 6.78330 (12011417)
439794.00 3765465.00 6.78211 (12011417)
439799.00 3765465.00 6.77822 (12011417)
439804.00 3765465.00 6.77034 (12011417)

```
439809.00   3765465.00        6.76046  (12011417)
        439814.00   3765465.00        6.74782  (12011417)
439819.00   3765465.00        6.73289  (12011417)
        439824.00   3765465.00        6.71469  (12011417)
439829.00   3765465.00        6.69350  (12011417)
        439844.00   3765465.00        6.62156  (12011417)
439849.00   3765465.00        6.59270  (12011417)
        439854.00   3765465.00        6.56412  (12011417)
439859.00   3765465.00        6.53488  (12011417)
        439674.00   3765470.00        6.18344  (12011417)
439679.00   3765470.00        6.22594  (12011417)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: EVAP ***
INCLUDING SOURCE(S):
A0000067 , A0000068 , A0000069 , A0000070 , A0000071 ,
A0000072 , A0000073 , A0000074 , A0000075 , A0000076 , A0000077 , A0000078 , A0000079 ,
A0000080 , A0000081 , A0000082 , A0000083 , A0000084 , A0000085 , A0000086 , A0000087 ,
A0000088 , A0000089 , A0000090 , A0000091 , A0000092 , A0000093 ,
A0000094 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439684.00	3765470.00	6.27100	(12011417)
439689.00	3765470.00	6.31497	(12011417)
439694.00	3765470.00	6.35972	(12011417)
439699.00	3765470.00	6.40214	(12011417)
439704.00	3765470.00	6.44515	(12011417)
439709.00	3765470.00	6.48792	(12011417)
439714.00	3765470.00	6.52880	(12011417)
439719.00	3765470.00	6.56849	(12011417)
439729.00	3765470.00	6.64430	(12011417)
439734.00	3765470.00	6.68049	(12011417)
439739.00	3765470.00	6.71372	(12011417)
439744.00	3765470.00	6.74517	(12011417)
439749.00	3765470.00	6.77412	(12011417)
439789.00	3765470.00	6.90898	(12011417)
439794.00	3765470.00	6.91302	(12011417)
439799.00	3765470.00	6.91166	(12011417)
439804.00	3765470.00	6.90910	(12011417)

```
439809.00   3765470.00        6.90219  (12011417)
        439814.00   3765470.00        6.89236  (12011417)
439819.00   3765470.00        6.87999  (12011417)
        439824.00   3765470.00        6.86497  (12011417)
439829.00   3765470.00        6.84786  (12011417)
        439844.00   3765470.00        6.77988  (12011417)
439849.00   3765470.00        6.75415  (12011417)
        439854.00   3765470.00        6.72548  (12011417)
439859.00   3765470.00        6.69459  (12011417)
        439674.00   3765475.00        6.21367  (12011417)
439679.00   3765475.00        6.25976  (12011417)
        439684.00   3765475.00        6.30738  (12011417)
439689.00   3765475.00        6.35218  (12011417)
        439694.00   3765475.00        6.40003  (12011417)
439699.00   3765475.00        6.44595  (12011417)
        439704.00   3765475.00        6.49305  (12011417)
439709.00   3765475.00        6.53664  (12011417)
        439714.00   3765475.00        6.58222  (12011417)
439719.00   3765475.00        6.62606  (12011417)
        439729.00   3765475.00        6.71051  (12011417)
439734.00   3765475.00        6.74929  (12011417)
        439739.00   3765475.00        6.78948  (12011417)
439744.00   3765475.00        6.82461  (12011417)
        439749.00   3765475.00        6.86026  (12011417)
439754.00   3765475.00        6.89081  (12011417)
        439789.00   3765475.00        7.03478  (12011417)
439794.00   3765475.00        7.04195  (12011417)
        439799.00   3765475.00        7.04709  (12011417)
439804.00   3765475.00        7.04751  (12011417)
        439809.00   3765475.00        7.04451  (12011417)
439814.00   3765475.00        7.03934  (12011417)
        439819.00   3765475.00        7.02957  (12011417)
439824.00   3765475.00        7.01748  (12011417)
        439829.00   3765475.00        7.00120  (12011417)
439269.00   3764900.00        2.26883  (12010217)
        439369.00   3764900.00        2.32826  (12010217)
439469.00   3764900.00        2.33864  (13121618)
        439569.00   3764900.00        2.40492  (13120808)
439669.00   3764900.00        2.39228  (13120808)
        439769.00   3764900.00        2.49239  (12010217)
439869.00   3764900.00        2.56135  (12010217)
        439969.00   3764900.00        2.49107  (12010217)
440069.00   3764900.00        2.26374  (12010217)
        440169.00   3764900.00        2.29152  (12121717)
440269.00   3764900.00        2.33441  (15010717)
        439269.00   3765000.00        2.52866  (13121718)
439369.00   3765000.00        2.55194  (12010217)
        439469.00   3765000.00        2.55029  (15111218)
439569.00   3765000.00        2.61294  (13121618)
        439669.00   3765000.00        2.69018  (13120808)
439769.00   3765000.00        2.68031  (12010217)
        439869.00   3765000.00        2.81692  (12010217)
```

```
439969.00   3765000.00        2.80057  (12010217)
        440069.00   3765000.00        2.62153  (12010217)
440169.00   3765000.00        2.51545  (12121717)
        440269.00   3765000.00        2.60696  (15010717)
439269.00   3765100.00        2.83308  (13121718)
        439369.00   3765100.00        2.88636  (13121718)
439469.00   3765100.00        2.84538  (13121718)
        439569.00   3765100.00        2.90121  (15111218)
439669.00   3765100.00        2.96718  (13121618)
        439769.00   3765100.00        3.03215  (13120808)
439869.00   3765100.00        3.11662  (12010217)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: EVAP ***
INCLUDING SOURCE(S):
A0000067 , A0000068 , A0000069 , A0000070 , A0000071 ,
A0000072 , A0000073 , A0000074 , A0000075 , A0000076 , A0000077 , A0000078 , A0000079 ,
A0000080 , A0000081 , A0000082 , A0000083 , A0000084 , A0000085 , A0000086 , A0000087 ,
A0000088 , A0000089 , A0000090 , A0000091 , A0000092 , A0000093 ,
A0000094 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439969.00	3765100.00	3.16265	(12010217)	440069.00	3765100.00	3.03647	(12010217)
440169.00	3765100.00	2.83242	(15010717)	440269.00	3765100.00	2.95842	(15010717)
439269.00	3765200.00	3.43205	(12011417)	439369.00	3765200.00	3.42292	(12011417)
439469.00	3765200.00	3.33629	(13121718)	439569.00	3765200.00	3.37807	(13121718)
439669.00	3765200.00	3.37210	(15111218)	439769.00	3765200.00	3.45650	(13120808)
439869.00	3765200.00	3.48320	(12010217)	439969.00	3765200.00	3.61328	(12010217)
440069.00	3765200.00	3.53502	(12010217)	440169.00	3765200.00	3.27704	(12010217)
440269.00	3765200.00	3.42852	(15010717)	439269.00	3765300.00	3.91214	(12011417)
439369.00	3765300.00	4.01072	(12011417)				

```
439469.00   3765300.00        4.16100  (12011417)
        439569.00   3765300.00        4.17043  (12011417)
439669.00   3765300.00        4.11482  (13121718)
        439769.00   3765300.00        4.03333  (15111218)
439869.00   3765300.00        4.11281  (13120808)
        439969.00   3765300.00        4.22900  (12010217)
440069.00   3765300.00        4.18335  (12010217)
        440169.00   3765300.00        4.00050  (12010217)
440269.00   3765300.00        4.05902  (15010717)
        439269.00   3765400.00        4.70222  (12011417)
439369.00   3765400.00        4.59715  (12011417)
        439469.00   3765400.00        4.70698  (12011417)
439569.00   3765400.00        5.08080  (12011417)
        439669.00   3765400.00        5.43417  (12011417)
439769.00   3765400.00        5.27891  (12011417)
        439869.00   3765400.00        5.04605  (13121718)
439969.00   3765400.00        5.18170  (12010217)
        440069.00   3765400.00        5.13807  (12010217)
440169.00   3765400.00        5.00741  (12010217)
        440269.00   3765400.00        4.93714  (15010717)
439269.00   3765500.00        6.38059  (12011417)
        439369.00   3765500.00        6.12426  (12011417)
439469.00   3765500.00        5.80236  (12010217)
        439569.00   3765500.00        5.92510  (12111318)
439669.00   3765500.00        6.31511  (12111318)
        439769.00   3765500.00        7.44022  (12011417)
439869.00   3765500.00        7.70848  (12011417)
        439969.00   3765500.00        6.97693  (12010217)
440069.00   3765500.00        6.86275  (12010217)
        440169.00   3765500.00        6.69653  (12010217)
440269.00   3765500.00        6.65742  (15113017)
        439269.00   3765600.00        9.25759  (12011417)
439369.00   3765600.00        9.82959  (12011417)
        439469.00   3765600.00        9.53965  (12011417)
439569.00   3765600.00        8.82329  (12010217)
        439669.00   3765600.00        8.71555  (12010217)
439769.00   3765600.00        9.47435  (12111318)
        439869.00   3765600.00       12.63496  (12111318)
439969.00   3765600.00       14.10435  (12011417)
        440069.00   3765600.00       12.64241  (12011417)
440169.00   3765600.00       11.41122  (15112218)
        440269.00   3765600.00       11.69157  (15112218)
439269.00   3765700.00       33.25245  (14120118)
        439369.00   3765700.00       35.95023  (16121918)
439469.00   3765700.00       41.11105  (12011417)
        439569.00   3765700.00       39.29646  (12011417)
439669.00   3765700.00       37.94666  (12011417)
        439769.00   3765700.00       37.72060  (15112218)
439869.00   3765700.00       37.94103  (14012117)
        439969.00   3765700.00       38.40239  (14120118)
440069.00   3765700.00       39.34749  (14120118)
        440169.00   3765700.00       40.99246  (14120118)
```

```
440269.00   3765700.00       44.95572  (14120118)
        439269.00   3765800.00       13.93840  (12111317)
439369.00   3765800.00       15.43680  (12111317)
        439469.00   3765800.00       15.51166  (12111317)
439569.00   3765800.00       15.97378  (12111317)
        439669.00   3765800.00       17.00163  (15120818)
439769.00   3765800.00       19.58230  (15120818)
        439869.00   3765800.00       26.80093  (13111217)
439969.00   3765800.00       16.09687  (14121418)
        440069.00   3765800.00       12.99105  (14121418)
440169.00   3765800.00       12.55724  (15112217)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: EVAP ***
INCLUDING SOURCE(S):
A0000067 , A0000068 , A0000069 , A0000070 , A0000071 ,
A0000072 , A0000073 , A0000074 , A0000075 , A0000076 , A0000077 , A0000078 , A0000079 ,
A0000080 , A0000081 , A0000082 , A0000083 , A0000084 , A0000085 , A0000086 , A0000087 ,
A0000088 , A0000089 , A0000090 , A0000091 , A0000092 , A0000093 ,
A0000094 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
440269.00	3765800.00	13.45956	(13111217)	439269.00	3765900.00	7.94782	(15120818)
439369.00	3765900.00	8.14089	(15120818)	439469.00	3765900.00	8.27114	(15120818)
439569.00	3765900.00	8.32374	(15120818)	439669.00	3765900.00	8.38585	(15112217)
439769.00	3765900.00	7.86510	(13111218)	439869.00	3765900.00	8.50095	(13111217)
439969.00	3765900.00	8.60629	(13111217)	440069.00	3765900.00	8.29356	(12011717)
440169.00	3765900.00	7.52624	(12011717)	440269.00	3765900.00	7.02371	(12011717)
439649.00	3765310.00	4.18052	(13121718)	439679.00	3765310.00	4.20586	(13121718)
439709.00	3765310.00	4.19288	(13121718)	439739.00	3765310.00	4.14087	(13121718)
439769.00	3765310.00	4.11152	(15111218)				

```
439799.00   3765310.00        4.10787  (13121618)
        439829.00   3765310.00        4.15061  (13120808)
439859.00   3765310.00        4.18703  (13120808)
        439889.00   3765310.00        4.18375  (13120808)
439649.00   3765340.00        4.56653  (12011417)
        439679.00   3765340.00        4.47831  (12011417)
439709.00   3765340.00        4.50141  (13121718)
        439739.00   3765340.00        4.49684  (13121718)
439769.00   3765340.00        4.44349  (13121718)
        439799.00   3765340.00        4.37801  (15111218)
439829.00   3765340.00        4.37974  (13121618)
        439859.00   3765340.00        4.42823  (13120808)
439889.00   3765340.00        4.44093  (13120808)
        439649.00   3765370.00        5.00516  (12011417)
439679.00   3765370.00        4.97953  (12011417)
        439709.00   3765370.00        4.90464  (12011417)
439739.00   3765370.00        4.84129  (13121718)
        439769.00   3765370.00        4.84257  (13121718)
439799.00   3765370.00        4.78935  (13121718)
        439829.00   3765370.00        4.69322  (13121718)
439859.00   3765370.00        4.68980  (13120808)
        439889.00   3765370.00        4.72982  (13120808)
439649.00   3765400.00        5.39114  (12011417)
        439679.00   3765400.00        5.44715  (12011417)
439709.00   3765400.00        5.45072  (12011417)
        439739.00   3765400.00        5.39379  (12011417)
439769.00   3765400.00        5.27891  (12011417)
        439799.00   3765400.00        5.24472  (13121718)
439829.00   3765400.00        5.18857  (13121718)
        439859.00   3765400.00        5.08655  (13121718)
439889.00   3765400.00        5.06190  (13120808)
        439649.00   3765430.00        5.69806  (12011417)
439679.00   3765430.00        5.85031  (12011417)
        439709.00   3765430.00        5.95652  (12011417)
439739.00   3765430.00        5.99728  (12011417)
        439769.00   3765430.00        5.96373  (12011417)
439799.00   3765430.00        5.85677  (12011417)
        439829.00   3765430.00        5.71872  (13121718)
439859.00   3765430.00        5.65392  (13121718)
        439889.00   3765430.00        5.54429  (13121718)
439649.00   3765460.00        5.91281  (12011417)
        439679.00   3765460.00        6.15062  (12011417)
439709.00   3765460.00        6.37573  (12011417)
        439739.00   3765460.00        6.55221  (12011417)
439769.00   3765460.00        6.64799  (12011417)
        439799.00   3765460.00        6.64348  (12011417)
439829.00   3765460.00        6.54414  (12011417)
        439859.00   3765460.00        6.37422  (12011417)
439889.00   3765460.00        6.20978  (13121718)
        439649.00   3765490.00        6.06152  (12011417)
439679.00   3765490.00        6.34426  (12011417)
        439709.00   3765490.00        6.66442  (12011417)
```

```
439739.00   3765490.00        6.98809  (12011417)
        439769.00   3765490.00        7.26624  (12011417)
439799.00   3765490.00        7.44319  (12011417)
        439829.00   3765490.00        7.48076  (12011417)
439859.00   3765490.00        7.38232  (12011417)
        439889.00   3765490.00        7.20575  (12011417)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: FREEEXH ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439674.00	3765310.00	3.46749	(13121718)	439679.00	3765310.00	3.46458	(13121718)
439684.00	3765310.00	3.45958	(13121718)	439689.00	3765310.00	3.45775	(13121718)
439694.00	3765310.00	3.45340	(13121718)	439699.00	3765310.00	3.44869	(13121718)
439704.00	3765310.00	3.44389	(13121718)	439709.00	3765310.00	3.43971	(13121718)
439714.00	3765310.00	3.43637	(13121718)	439719.00	3765310.00	3.43602	(12010217)
439729.00	3765310.00	3.43629	(12010217)	439734.00	3765310.00	3.43584	(12010217)
439739.00	3765310.00	3.43657	(12010217)	439744.00	3765310.00	3.43589	(12010217)
439749.00	3765310.00	3.43669	(12010217)	439764.00	3765310.00	3.43602	(12010217)
439769.00	3765310.00	3.43692	(12010217)	439774.00	3765310.00	3.43643	(12010217)
439779.00	3765310.00	3.43712	(12010217)				

439784.00 3765310.00 3.43633 (12010217)
439789.00 3765310.00 3.43722 (12010217)
439794.00 3765310.00 3.43677 (12010217)
439799.00 3765310.00 3.43708 (12010217)
439804.00 3765310.00 3.43673 (12010217)
439809.00 3765310.00 3.43731 (12010217)
439814.00 3765310.00 3.43663 (12010217)
439819.00 3765310.00 3.43714 (12010217)
439824.00 3765310.00 3.43673 (12010217)
439829.00 3765310.00 3.43700 (12010217)
439839.00 3765310.00 3.43697 (12010217)
439844.00 3765310.00 3.43694 (12010217)
439849.00 3765310.00 3.43686 (12010217)
439854.00 3765310.00 3.43732 (12010217)
439859.00 3765310.00 3.43676 (12010217)
439864.00 3765310.00 3.43713 (12010217)
439869.00 3765310.00 3.43664 (12010217)
439874.00 3765310.00 3.43744 (12010217)
439879.00 3765310.00 3.43647 (12010217)
439884.00 3765310.00 3.43762 (12010217)
439674.00 3765315.00 3.50435 (13121718)
439679.00 3765315.00 3.50016 (13121718)
439684.00 3765315.00 3.49690 (13121718)
439689.00 3765315.00 3.49139 (13121718)
439694.00 3765315.00 3.48954 (13121718)
439699.00 3765315.00 3.48560 (13121718)
439704.00 3765315.00 3.48162 (13121718)
439709.00 3765315.00 3.47608 (13121718)
439714.00 3765315.00 3.47224 (13121718)
439719.00 3765315.00 3.46818 (13121718)
439729.00 3765315.00 3.46481 (12010217)
439734.00 3765315.00 3.46520 (12010217)
439739.00 3765315.00 3.46490 (12010217)
439744.00 3765315.00 3.46529 (12010217)
439749.00 3765315.00 3.46474 (12010217)
439764.00 3765315.00 3.46515 (12010217)
439769.00 3765315.00 3.46514 (12010217)
439774.00 3765315.00 3.46519 (12010217)
439779.00 3765315.00 3.46545 (12010217)
439784.00 3765315.00 3.46479 (12010217)
439789.00 3765315.00 3.46551 (12010217)
439794.00 3765315.00 3.46514 (12010217)
439799.00 3765315.00 3.46564 (12010217)
439804.00 3765315.00 3.46511 (12010217)
439809.00 3765315.00 3.46592 (12010217)
439814.00 3765315.00 3.46514 (12010217)
439819.00 3765315.00 3.46604 (12010217)
439824.00 3765315.00 3.46537 (12010217)
439829.00 3765315.00 3.46581 (12010217)
439839.00 3765315.00 3.46588 (12010217)
439844.00 3765315.00 3.46553 (12010217)
439849.00 3765315.00 3.46574 (12010217)

```
439854.00   3765315.00        3.46586  (12010217)
        439859.00   3765315.00        3.46581  (12010217)
439864.00   3765315.00        3.46568  (12010217)
        439869.00   3765315.00        3.46576  (12010217)
439874.00   3765315.00        3.46597  (12010217)
        439879.00   3765315.00        3.46543  (12010217)
439884.00   3765315.00        3.46565  (12010217)
        439674.00   3765320.00        3.53780  (13121718)
439679.00   3765320.00        3.53604  (13121718)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: FREEEXH ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439684.00	3765320.00	3.53257	(13121718)	439689.00	3765320.00	3.53026	(13121718)
439694.00	3765320.00	3.52435	(13121718)	439699.00	3765320.00	3.52216	(13121718)
439704.00	3765320.00	3.51812	(13121718)	439709.00	3765320.00	3.51525	(13121718)
439714.00	3765320.00	3.50938	(13121718)	439719.00	3765320.00	3.50548	(13121718)
439729.00	3765320.00	3.49693	(13121718)	439734.00	3765320.00	3.49436	(12010217)
439739.00	3765320.00	3.49378	(12010217)	439744.00	3765320.00	3.49457	(12010217)
439749.00	3765320.00	3.49382	(12010217)	439764.00	3765320.00	3.49463	(12010217)
439769.00	3765320.00	3.49414	(12010217)	439774.00	3765320.00	3.49492	(12010217)
439779.00	3765320.00	3.49452	(12010217)	439784.00	3765320.00	3.49499	(12010217)
439789.00	3765320.00	3.49447	(12010217)				

439794.00 3765320.00 3.49512 (12010217)
439799.00 3765320.00 3.49445 (12010217)
439804.00 3765320.00 3.49502 (12010217)
439809.00 3765320.00 3.49453 (12010217)
439814.00 3765320.00 3.49491 (12010217)
439819.00 3765320.00 3.49475 (12010217)
439824.00 3765320.00 3.49482 (12010217)
439829.00 3765320.00 3.49462 (12010217)
439839.00 3765320.00 3.49510 (12010217)
439844.00 3765320.00 3.49458 (12010217)
439849.00 3765320.00 3.49512 (12010217)
439854.00 3765320.00 3.49456 (12010217)
439859.00 3765320.00 3.49532 (12010217)
439864.00 3765320.00 3.49448 (12010217)
439869.00 3765320.00 3.49538 (12010217)
439874.00 3765320.00 3.49479 (12010217)
439879.00 3765320.00 3.49528 (12010217)
439884.00 3765320.00 3.49476 (12010217)
439674.00 3765325.00 3.57611 (13121718)
439679.00 3765325.00 3.57135 (13121718)
439684.00 3765325.00 3.56884 (13121718)
439689.00 3765325.00 3.56501 (13121718)
439694.00 3765325.00 3.56375 (13121718)
439699.00 3765325.00 3.55844 (13121718)
439704.00 3765325.00 3.55501 (13121718)
439709.00 3765325.00 3.55109 (13121718)
439714.00 3765325.00 3.54852 (13121718)
439719.00 3765325.00 3.54358 (13121718)
439729.00 3765325.00 3.53489 (13121718)
439734.00 3765325.00 3.53002 (13121718)
439739.00 3765325.00 3.52704 (13121718)
439744.00 3765325.00 3.52393 (12010217)
439749.00 3765325.00 3.52444 (12010217)
439754.00 3765325.00 3.52406 (12010217)
439769.00 3765325.00 3.52412 (12010217)
439774.00 3765325.00 3.52445 (12010217)
439779.00 3765325.00 3.52405 (12010217)
439784.00 3765325.00 3.52471 (12010217)
439789.00 3765325.00 3.52420 (12010217)
439794.00 3765325.00 3.52471 (12010217)
439799.00 3765325.00 3.52449 (12010217)
439804.00 3765325.00 3.52493 (12010217)
439809.00 3765325.00 3.52439 (12010217)
439814.00 3765325.00 3.52490 (12010217)
439819.00 3765325.00 3.52483 (12010217)
439824.00 3765325.00 3.52472 (12010217)
439829.00 3765325.00 3.52466 (12010217)
439839.00 3765325.00 3.52505 (12010217)
439844.00 3765325.00 3.52464 (12010217)
439849.00 3765325.00 3.52516 (12010217)
439854.00 3765325.00 3.52493 (12010217)
439859.00 3765325.00 3.52512 (12010217)

```
439864.00   3765325.00        3.52481  (12010217)
        439869.00   3765325.00        3.52485  (12010217)
439874.00   3765325.00        3.52471  (12010217)
        439879.00   3765325.00        3.52492  (12010217)
439884.00   3765325.00        3.52467  (12010217)
        439674.00   3765330.00        3.61112  (13121718)
439679.00   3765330.00        3.60972  (13121718)
        439684.00   3765330.00        3.60588  (13121718)
439689.00   3765330.00        3.60204  (13121718)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: FREEEXH ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439694.00	3765330.00	3.59857	(13121718)
439699.00	3765330.00	3.59696	(13121718)
439704.00	3765330.00	3.59337	(13121718)
439709.00	3765330.00	3.58897	(13121718)
439714.00	3765330.00	3.58504	(13121718)
439719.00	3765330.00	3.58184	(13121718)
439729.00	3765330.00	3.57364	(13121718)
439734.00	3765330.00	3.56915	(13121718)
439739.00	3765330.00	3.56443	(13121718)
439744.00	3765330.00	3.56118	(13121718)
439749.00	3765330.00	3.55540	(13121718)
439754.00	3765330.00	3.55452	(12010217)
439774.00	3765330.00	3.55470	(12010217)
439779.00	3765330.00	3.55502	(12010217)
439784.00	3765330.00	3.55499	(12010217)
439789.00	3765330.00	3.55526	(12010217)
439794.00	3765330.00	3.55461	(12010217)
439799.00	3765330.00	3.55558	(12010217)
439804.00	3765330.00	3.55505	(12010217)

439809.00 3765330.00 3.55514 (12010217)
439814.00 3765330.00 3.55517 (12010217)
439819.00 3765330.00 3.55551 (12010217)
439824.00 3765330.00 3.55519 (12010217)
439829.00 3765330.00 3.55490 (12010217)
439839.00 3765330.00 3.55502 (12010217)
439844.00 3765330.00 3.55543 (12010217)
439849.00 3765330.00 3.55506 (12010217)
439854.00 3765330.00 3.55571 (12010217)
439859.00 3765330.00 3.55477 (12010217)
439864.00 3765330.00 3.55597 (12010217)
439869.00 3765330.00 3.55506 (12010217)
439874.00 3765330.00 3.55568 (12010217)
439879.00 3765330.00 3.55524 (12010217)
439884.00 3765330.00 3.55561 (12010217)
439674.00 3765335.00 3.64863 (12011417)
439679.00 3765335.00 3.64535 (13121718)
439684.00 3765335.00 3.64268 (13121718)
439689.00 3765335.00 3.64161 (13121718)
439694.00 3765335.00 3.63612 (13121718)
439699.00 3765335.00 3.63333 (13121718)
439704.00 3765335.00 3.63018 (13121718)
439709.00 3765335.00 3.62851 (13121718)
439714.00 3765335.00 3.62395 (13121718)
439719.00 3765335.00 3.61949 (13121718)
439729.00 3765335.00 3.61274 (13121718)
439734.00 3765335.00 3.60960 (13121718)
439739.00 3765335.00 3.60388 (13121718)
439744.00 3765335.00 3.60015 (13121718)
439749.00 3765335.00 3.59530 (13121718)
439774.00 3765335.00 3.58583 (12010217)
439779.00 3765335.00 3.58617 (12010217)
439784.00 3765335.00 3.58620 (12010217)
439789.00 3765335.00 3.58632 (12010217)
439794.00 3765335.00 3.58599 (12010217)
439839.00 3765335.00 3.58640 (12010217)
439844.00 3765335.00 3.58682 (12010217)
439849.00 3765335.00 3.58663 (12010217)
439854.00 3765335.00 3.58671 (12010217)
439859.00 3765335.00 3.58651 (12010217)
439864.00 3765335.00 3.58693 (12010217)
439869.00 3765335.00 3.58660 (12010217)
439874.00 3765335.00 3.58664 (12010217)
439879.00 3765335.00 3.58659 (12010217)
439884.00 3765335.00 3.58687 (12010217)
439674.00 3765340.00 3.70633 (12011417)
439679.00 3765340.00 3.69462 (12011417)
439684.00 3765340.00 3.68393 (12011417)
439689.00 3765340.00 3.67629 (13121718)
439694.00 3765340.00 3.67692 (13121718)
439699.00 3765340.00 3.67169 (13121718)
439704.00 3765340.00 3.66878 (13121718)

```
439709.00   3765340.00        3.66523  (13121718)
        439714.00   3765340.00        3.66316  (13121718)
439719.00   3765340.00        3.66059  (13121718)
        439729.00   3765340.00        3.65202  (13121718)
439734.00   3765340.00        3.64745  (13121718)
        439739.00   3765340.00        3.64574  (13121718)
439744.00   3765340.00        3.63965  (13121718)
        439749.00   3765340.00        3.63630  (13121718)
439774.00   3765340.00        3.61780  (12010217)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: FREEEXH ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439779.00	3765340.00	3.61795	(12010217)	439784.00	3765340.00	3.61822	(12010217)
439789.00	3765340.00	3.61798	(12010217)	439794.00	3765340.00	3.61808	(12010217)
439839.00	3765340.00	3.61861	(12010217)	439844.00	3765340.00	3.61821	(12010217)
439849.00	3765340.00	3.61898	(12010217)	439854.00	3765340.00	3.61811	(12010217)
439859.00	3765340.00	3.61889	(12010217)	439864.00	3765340.00	3.61840	(12010217)
439869.00	3765340.00	3.61873	(12010217)	439874.00	3765340.00	3.61824	(12010217)
439879.00	3765340.00	3.61880	(12010217)	439884.00	3765340.00	3.61843	(12010217)
439674.00	3765345.00	3.76232	(12011417)	439679.00	3765345.00	3.75266	(12011417)
439684.00	3765345.00	3.74124	(12011417)	439689.00	3765345.00	3.73053	(12011417)
439694.00	3765345.00	3.71845	(12011417)				

439699.00 3765345.00 3.71125 (13121718)
439704.00 3765345.00 3.70875 (13121718)
439709.00 3765345.00 3.70453 (13121718)
439714.00 3765345.00 3.70128 (13121718)
439719.00 3765345.00 3.69786 (13121718)
439729.00 3765345.00 3.69150 (13121718)
439734.00 3765345.00 3.68833 (13121718)
439739.00 3765345.00 3.68343 (13121718)
439744.00 3765345.00 3.68183 (13121718)
439749.00 3765345.00 3.67651 (13121718)
439774.00 3765345.00 3.65465 (13121718)
439779.00 3765345.00 3.65070 (12010217)
439784.00 3765345.00 3.65060 (12010217)
439789.00 3765345.00 3.65058 (12010217)
439794.00 3765345.00 3.65052 (12010217)
439839.00 3765345.00 3.65071 (12010217)
439844.00 3765345.00 3.65131 (12010217)
439849.00 3765345.00 3.65101 (12010217)
439854.00 3765345.00 3.65089 (12010217)
439859.00 3765345.00 3.65114 (12010217)
439864.00 3765345.00 3.65134 (12010217)
439869.00 3765345.00 3.65097 (12010217)
439874.00 3765345.00 3.65125 (12010217)
439879.00 3765345.00 3.65140 (12010217)
439884.00 3765345.00 3.65097 (12010217)
439674.00 3765350.00 3.81948 (12011417)
439679.00 3765350.00 3.80907 (12011417)
439684.00 3765350.00 3.79950 (12011417)
439689.00 3765350.00 3.78852 (12011417)
439694.00 3765350.00 3.77826 (12011417)
439699.00 3765350.00 3.76640 (12011417)
439704.00 3765350.00 3.75538 (12011417)
439709.00 3765350.00 3.74522 (13121718)
439714.00 3765350.00 3.74171 (13121718)
439719.00 3765350.00 3.73828 (13121718)
439729.00 3765350.00 3.73278 (13121718)
439734.00 3765350.00 3.72866 (13121718)
439739.00 3765350.00 3.72574 (13121718)
439744.00 3765350.00 3.72010 (13121718)
439749.00 3765350.00 3.71891 (13121718)
439774.00 3765350.00 3.69593 (13121718)
439779.00 3765350.00 3.69286 (13121718)
439784.00 3765350.00 3.68674 (13121718)
439789.00 3765350.00 3.68398 (12010217)
439794.00 3765350.00 3.68428 (12010217)
439839.00 3765350.00 3.68413 (12010217)
439844.00 3765350.00 3.68489 (12010217)
439849.00 3765350.00 3.68434 (12010217)
439854.00 3765350.00 3.68461 (12010217)
439859.00 3765350.00 3.68452 (12010217)
439864.00 3765350.00 3.68474 (12010217)
439869.00 3765350.00 3.68434 (12010217)

```
439874.00   3765350.00        3.68485  (12010217)
        439879.00   3765350.00        3.68468  (12010217)
439884.00   3765350.00        3.68465  (12010217)
        439674.00   3765355.00        3.87713  (12011417)
439679.00   3765355.00        3.86760  (12011417)
        439684.00   3765355.00        3.85682  (12011417)
439689.00   3765355.00        3.84729  (12011417)
        439694.00   3765355.00        3.83664  (12011417)
439699.00   3765355.00        3.82688  (12011417)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: FREEEXH ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439704.00	3765355.00	3.81490	(12011417)	439709.00	3765355.00	3.80391	(12011417)
439714.00	3765355.00	3.79186	(12011417)	439719.00	3765355.00	3.78075	(12011417)
439729.00	3765355.00	3.77150	(13121718)	439734.00	3765355.00	3.76971	(13121718)
439739.00	3765355.00	3.76574	(13121718)	439744.00	3765355.00	3.76455	(13121718)
439749.00	3765355.00	3.75743	(13121718)	439774.00	3765355.00	3.73969	(13121718)
439779.00	3765355.00	3.73434	(13121718)	439784.00	3765355.00	3.73056	(13121718)
439789.00	3765355.00	3.72624	(13121718)	439794.00	3765355.00	3.72044	(13121718)
439839.00	3765355.00	3.71889	(12010217)	439844.00	3765355.00	3.71854	(12010217)
439849.00	3765355.00	3.71868	(12010217)	439854.00	3765355.00	3.71851	(12010217)
439859.00	3765355.00	3.71888	(12010217)				

439864.00 3765355.00 3.71841 (12010217)
439869.00 3765355.00 3.71872 (12010217)
439874.00 3765355.00 3.71869 (12010217)
439879.00 3765355.00 3.71863 (12010217)
439884.00 3765355.00 3.71863 (12010217)
439674.00 3765360.00 3.93439 (12011417)
439679.00 3765360.00 3.92489 (12011417)
439684.00 3765360.00 3.91642 (12011417)
439689.00 3765360.00 3.90569 (12011417)
439694.00 3765360.00 3.89602 (12011417)
439699.00 3765360.00 3.88508 (12011417)
439704.00 3765360.00 3.87564 (12011417)
439709.00 3765360.00 3.86419 (12011417)
439714.00 3765360.00 3.85355 (12011417)
439719.00 3765360.00 3.84164 (12011417)
439729.00 3765360.00 3.81800 (12011417)
439734.00 3765360.00 3.81005 (13121718)
439739.00 3765360.00 3.80783 (13121718)
439744.00 3765360.00 3.80320 (13121718)
439749.00 3765360.00 3.80268 (13121718)
439774.00 3765360.00 3.78316 (13121718)
439779.00 3765360.00 3.77811 (13121718)
439784.00 3765360.00 3.77443 (13121718)
439789.00 3765360.00 3.76855 (13121718)
439794.00 3765360.00 3.76581 (13121718)
439799.00 3765360.00 3.75991 (13121718)
439804.00 3765360.00 3.75492 (13121718)
439809.00 3765360.00 3.75359 (12010217)
439814.00 3765360.00 3.75288 (12010217)
439839.00 3765360.00 3.75355 (12010217)
439844.00 3765360.00 3.75333 (12010217)
439849.00 3765360.00 3.75340 (12010217)
439854.00 3765360.00 3.75374 (12010217)
439859.00 3765360.00 3.75351 (12010217)
439864.00 3765360.00 3.75364 (12010217)
439869.00 3765360.00 3.75372 (12010217)
439874.00 3765360.00 3.75380 (12010217)
439879.00 3765360.00 3.75347 (12010217)
439884.00 3765360.00 3.75375 (12010217)
439674.00 3765365.00 3.99249 (12011417)
439679.00 3765365.00 3.98312 (12011417)
439684.00 3765365.00 3.97393 (12011417)
439689.00 3765365.00 3.96501 (12011417)
439694.00 3765365.00 3.95544 (12011417)
439699.00 3765365.00 3.94614 (12011417)
439704.00 3765365.00 3.93502 (12011417)
439709.00 3765365.00 3.92514 (12011417)
439714.00 3765365.00 3.91435 (12011417)
439719.00 3765365.00 3.90436 (12011417)
439729.00 3765365.00 3.88087 (12011417)
439734.00 3765365.00 3.86858 (12011417)
439739.00 3765365.00 3.85716 (12011417)

```
439744.00   3765365.00        3.84648  (13121718)
        439749.00   3765365.00        3.84290  (13121718)
439774.00   3765365.00        3.82600  (13121718)
        439779.00   3765365.00        3.82308  (13121718)
439784.00   3765365.00        3.81807  (13121718)
        439789.00   3765365.00        3.81452  (13121718)
439794.00   3765365.00        3.80865  (13121718)
        439799.00   3765365.00        3.80536  (13121718)
439804.00   3765365.00        3.80046  (13121718)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: FREEEXH ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439809.00	3765365.00	3.79540	(13121718)	439814.00	3765365.00	3.78954	(13121718)
439839.00	3765365.00	3.78951	(12010217)	439844.00	3765365.00	3.78911	(12010217)
439849.00	3765365.00	3.78953	(12010217)	439854.00	3765365.00	3.78946	(12010217)
439859.00	3765365.00	3.78925	(12010217)	439864.00	3765365.00	3.78937	(12010217)
439869.00	3765365.00	3.78975	(12010217)	439874.00	3765365.00	3.78940	(12010217)
439879.00	3765365.00	3.78928	(12010217)	439884.00	3765365.00	3.78972	(12010217)
439674.00	3765370.00	4.05045	(12011417)	439679.00	3765370.00	4.04228	(12011417)
439684.00	3765370.00	4.03326	(12011417)	439689.00	3765370.00	4.02383	(12011417)
439694.00	3765370.00	4.01522	(12011417)	439699.00	3765370.00	4.00543	(12011417)
439704.00	3765370.00	3.99736	(12011417)				

439709.00 3765370.00 3.98616 (12011417)
439714.00 3765370.00 3.97582 (12011417)
439719.00 3765370.00 3.96506 (12011417)
439729.00 3765370.00 3.94364 (12011417)
439734.00 3765370.00 3.93241 (12011417)
439739.00 3765370.00 3.92025 (12011417)
439744.00 3765370.00 3.90882 (12011417)
439749.00 3765370.00 3.89740 (12011417)
439774.00 3765370.00 3.87018 (13121718)
439779.00 3765370.00 3.86659 (13121718)
439784.00 3765370.00 3.86319 (13121718)
439789.00 3765370.00 3.85890 (13121718)
439794.00 3765370.00 3.85532 (13121718)
439799.00 3765370.00 3.84980 (13121718)
439804.00 3765370.00 3.84571 (13121718)
439809.00 3765370.00 3.84128 (13121718)
439814.00 3765370.00 3.83694 (13121718)
439839.00 3765370.00 3.82568 (12010217)
439844.00 3765370.00 3.82587 (12010217)
439849.00 3765370.00 3.82616 (12010217)
439854.00 3765370.00 3.82589 (12010217)
439859.00 3765370.00 3.82593 (12010217)
439864.00 3765370.00 3.82599 (12010217)
439869.00 3765370.00 3.82632 (12010217)
439874.00 3765370.00 3.82596 (12010217)
439879.00 3765370.00 3.82622 (12010217)
439884.00 3765370.00 3.82609 (12010217)
439674.00 3765375.00 4.10891 (12011417)
439679.00 3765375.00 4.10083 (12011417)
439684.00 3765375.00 4.09250 (12011417)
439689.00 3765375.00 4.08480 (12011417)
439694.00 3765375.00 4.07495 (12011417)
439699.00 3765375.00 4.06620 (12011417)
439704.00 3765375.00 4.05651 (12011417)
439709.00 3765375.00 4.04820 (12011417)
439714.00 3765375.00 4.03786 (12011417)
439719.00 3765375.00 4.02819 (12011417)
439729.00 3765375.00 4.00736 (12011417)
439734.00 3765375.00 3.99642 (12011417)
439739.00 3765375.00 3.98513 (12011417)
439744.00 3765375.00 3.97311 (12011417)
439749.00 3765375.00 3.96120 (12011417)
439754.00 3765375.00 3.95050 (12011417)
439774.00 3765375.00 3.91518 (13121718)
439779.00 3765375.00 3.91192 (13121718)
439784.00 3765375.00 3.90757 (13121718)
439789.00 3765375.00 3.90456 (13121718)
439794.00 3765375.00 3.90019 (13121718)
439799.00 3765375.00 3.89720 (13121718)
439804.00 3765375.00 3.89185 (13121718)
439809.00 3765375.00 3.88770 (13121718)
439814.00 3765375.00 3.88275 (13121718)

```
439839.00   3765375.00        3.86311  (12010217)
        439844.00   3765375.00        3.86369  (12010217)
439849.00   3765375.00        3.86344  (12010217)
        439854.00   3765375.00        3.86356  (12010217)
439859.00   3765375.00        3.86328  (12010217)
        439864.00   3765375.00        3.86396  (12010217)
439869.00   3765375.00        3.86338  (12010217)
        439874.00   3765375.00        3.86380  (12010217)
439879.00   3765375.00        3.86366  (12010217)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: FREEEXH ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439884.00	3765375.00	3.86372	(12010217)	439774.00	3765380.00	3.96557	(12011417)
439779.00	3765380.00	3.95687	(13121718)	439784.00	3765380.00	3.95439	(13121718)
439789.00	3765380.00	3.94996	(13121718)	439794.00	3765380.00	3.94659	(13121718)
439799.00	3765380.00	3.94231	(13121718)	439804.00	3765380.00	3.93917	(13121718)
439809.00	3765380.00	3.93550	(13121718)	439814.00	3765380.00	3.92999	(13121718)
439769.00	3765385.00	4.04686	(12011417)	439819.00	3765385.00	3.97372	(13121718)
439769.00	3765400.00	4.25268	(12011417)	439844.00	3765400.00	4.10194	(13121718)
439849.00	3765400.00	4.10007	(13121718)	439674.00	3765405.00	4.47068	(12011417)
439714.00	3765405.00	4.41767	(12011417)	439719.00	3765405.00	4.41040	(12011417)
439734.00	3765405.00	4.38591	(12011417)				

439749.00 3765405.00 4.36110 (12011417)
439754.00 3765405.00 4.35120 (12011417)
439774.00 3765405.00 4.31270 (12011417)
439779.00 3765405.00 4.30086 (12011417)
439784.00 3765405.00 4.29126 (12011417)
439789.00 3765405.00 4.28090 (12011417)
439794.00 3765405.00 4.26839 (12011417)
439799.00 3765405.00 4.25583 (12011417)
439804.00 3765405.00 4.24422 (12011417)
439809.00 3765405.00 4.23257 (12011417)
439814.00 3765405.00 4.21960 (12011417)
439819.00 3765405.00 4.20536 (12011417)
439824.00 3765405.00 4.19170 (12011417)
439829.00 3765405.00 4.17756 (12011417)
439834.00 3765405.00 4.16486 (12011417)
439839.00 3765405.00 4.15774 (13121718)
439844.00 3765405.00 4.15543 (13121718)
439849.00 3765405.00 4.15024 (13121718)
439854.00 3765405.00 4.14860 (13121718)
439859.00 3765405.00 4.14010 (13121718)
439674.00 3765410.00 4.53241 (12011417)
439679.00 3765410.00 4.52694 (12011417)
439684.00 3765410.00 4.52232 (12011417)
439689.00 3765410.00 4.51578 (12011417)
439694.00 3765410.00 4.50966 (12011417)
439699.00 3765410.00 4.50255 (12011417)
439704.00 3765410.00 4.49708 (12011417)
439709.00 3765410.00 4.49043 (12011417)
439714.00 3765410.00 4.48330 (12011417)
439719.00 3765410.00 4.47540 (12011417)
439729.00 3765410.00 4.46193 (12011417)
439734.00 3765410.00 4.45454 (12011417)
439739.00 3765410.00 4.44515 (12011417)
439744.00 3765410.00 4.43670 (12011417)
439749.00 3765410.00 4.42891 (12011417)
439774.00 3765410.00 4.38354 (12011417)
439779.00 3765410.00 4.37382 (12011417)
439784.00 3765410.00 4.36198 (12011417)
439789.00 3765410.00 4.35153 (12011417)
439794.00 3765410.00 4.34143 (12011417)
439799.00 3765410.00 4.33066 (12011417)
439804.00 3765410.00 4.31846 (12011417)
439809.00 3765410.00 4.30592 (12011417)
439814.00 3765410.00 4.29353 (12011417)
439819.00 3765410.00 4.28216 (12011417)
439824.00 3765410.00 4.26842 (12011417)
439829.00 3765410.00 4.25493 (12011417)
439834.00 3765410.00 4.24030 (12011417)
439839.00 3765410.00 4.22802 (12011417)
439844.00 3765410.00 4.21243 (12011417)
439849.00 3765410.00 4.20443 (13121718)
439854.00 3765410.00 4.19921 (13121718)

```
439859.00   3765410.00        4.19816  (13121718)
        439674.00   3765415.00        4.59692  (12011417)
439679.00   3765415.00        4.59117  (12011417)
        439684.00   3765415.00        4.58482  (12011417)
439689.00   3765415.00        4.58045  (12011417)
        439694.00   3765415.00        4.57432  (12011417)
439699.00   3765415.00        4.56882  (12011417)
        439704.00   3765415.00        4.56164  (12011417)
439709.00   3765415.00        4.55565  (12011417)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: FREEEXH ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439714.00	3765415.00	4.54940	(12011417)
439719.00	3765415.00	4.54282	(12011417)
439729.00	3765415.00	4.52779	(12011417)
439734.00	3765415.00	4.52099	(12011417)
439739.00	3765415.00	4.51406	(12011417)
439744.00	3765415.00	4.50617	(12011417)
439749.00	3765415.00	4.49795	(12011417)
439774.00	3765415.00	4.45347	(12011417)
439779.00	3765415.00	4.44451	(12011417)
439784.00	3765415.00	4.43545	(12011417)
439789.00	3765415.00	4.42542	(12011417)
439794.00	3765415.00	4.41376	(12011417)
439799.00	3765415.00	4.40288	(12011417)
439804.00	3765415.00	4.39276	(12011417)
439809.00	3765415.00	4.38245	(12011417)
439814.00	3765415.00	4.36961	(12011417)
439819.00	3765415.00	4.35627	(12011417)
439824.00	3765415.00	4.34517	(12011417)
439829.00	3765415.00	4.33234	(12011417)

439834.00 3765415.00 4.31981 (12011417)
439839.00 3765415.00 4.30495 (12011417)
439844.00 3765415.00 4.29202 (12011417)
439849.00 3765415.00 4.27722 (12011417)
439854.00 3765415.00 4.26404 (12011417)
439859.00 3765415.00 4.24939 (13121718)
439674.00 3765420.00 4.65963 (12011417)
439679.00 3765420.00 4.65592 (12011417)
439684.00 3765420.00 4.65092 (12011417)
439689.00 3765420.00 4.64490 (12011417)
439694.00 3765420.00 4.63897 (12011417)
439699.00 3765420.00 4.63383 (12011417)
439704.00 3765420.00 4.62852 (12011417)
439709.00 3765420.00 4.62240 (12011417)
439714.00 3765420.00 4.61594 (12011417)
439719.00 3765420.00 4.60921 (12011417)
439729.00 3765420.00 4.59718 (12011417)
439734.00 3765420.00 4.58965 (12011417)
439739.00 3765420.00 4.58128 (12011417)
439744.00 3765420.00 4.57466 (12011417)
439749.00 3765420.00 4.56800 (12011417)
439774.00 3765420.00 4.52677 (12011417)
439779.00 3765420.00 4.51696 (12011417)
439784.00 3765420.00 4.50658 (12011417)
439789.00 3765420.00 4.49805 (12011417)
439794.00 3765420.00 4.48946 (12011417)
439799.00 3765420.00 4.47849 (12011417)
439804.00 3765420.00 4.46679 (12011417)
439809.00 3765420.00 4.45627 (12011417)
439814.00 3765420.00 4.44583 (12011417)
439819.00 3765420.00 4.43518 (12011417)
439824.00 3765420.00 4.42177 (12011417)
439829.00 3765420.00 4.40954 (12011417)
439834.00 3765420.00 4.39720 (12011417)
439839.00 3765420.00 4.38603 (12011417)
439844.00 3765420.00 4.37130 (12011417)
439849.00 3765420.00 4.35810 (12011417)
439854.00 3765420.00 4.34336 (12011417)
439859.00 3765420.00 4.32975 (12011417)
439674.00 3765425.00 4.72592 (12011417)
439679.00 3765425.00 4.72012 (12011417)
439684.00 3765425.00 4.71587 (12011417)
439689.00 3765425.00 4.71192 (12011417)
439694.00 3765425.00 4.70651 (12011417)
439699.00 3765425.00 4.70060 (12011417)
439704.00 3765425.00 4.69429 (12011417)
439709.00 3765425.00 4.68993 (12011417)
439714.00 3765425.00 4.68400 (12011417)
439719.00 3765425.00 4.67801 (12011417)
439729.00 3765425.00 4.66492 (12011417)
439734.00 3765425.00 4.65877 (12011417)
439739.00 3765425.00 4.65261 (12011417)

```
439744.00   3765425.00        4.64457  (12011417)
        439749.00   3765425.00        4.63724  (12011417)
439774.00   3765425.00        4.59799  (12011417)
        439779.00   3765425.00        4.59047  (12011417)
439784.00   3765425.00        4.58171  (12011417)
        439789.00   3765425.00        4.57192  (12011417)
439794.00   3765425.00        4.56159  (12011417)
        439799.00   3765425.00        4.55326  (12011417)
439804.00   3765425.00        4.54376  (12011417)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: FREEEXH ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439809.00	3765425.00	4.53335	(12011417)	439814.00	3765425.00	4.52137	(12011417)
439819.00	3765425.00	4.51064	(12011417)	439824.00	3765425.00	4.50096	(12011417)
439829.00	3765425.00	4.48895	(12011417)	439834.00	3765425.00	4.47668	(12011417)
439839.00	3765425.00	4.46313	(12011417)	439844.00	3765425.00	4.45232	(12011417)
439849.00	3765425.00	4.43872	(12011417)	439854.00	3765425.00	4.42598	(12011417)
439859.00	3765425.00	4.41078	(12011417)	439674.00	3765430.00	4.79161	(12011417)
439679.00	3765430.00	4.78807	(12011417)	439684.00	3765430.00	4.78254	(12011417)
439689.00	3765430.00	4.77745	(12011417)	439694.00	3765430.00	4.77279	(12011417)
439699.00	3765430.00	4.76859	(12011417)	439704.00	3765430.00	4.76360	(12011417)
439709.00	3765430.00	4.75751	(12011417)				

439714.00 3765430.00 4.75191 (12011417)
439719.00 3765430.00 4.74688 (12011417)
439729.00 3765430.00 4.73497 (12011417)
439734.00 3765430.00 4.72823 (12011417)
439739.00 3765430.00 4.72159 (12011417)
439744.00 3765430.00 4.71585 (12011417)
439749.00 3765430.00 4.70982 (12011417)
439774.00 3765430.00 4.67246 (12011417)
439779.00 3765430.00 4.66304 (12011417)
439784.00 3765430.00 4.65516 (12011417)
439789.00 3765430.00 4.64705 (12011417)
439794.00 3765430.00 4.63917 (12011417)
439799.00 3765430.00 4.62830 (12011417)
439804.00 3765430.00 4.61856 (12011417)
439809.00 3765430.00 4.60991 (12011417)
439814.00 3765430.00 4.60034 (12011417)
439819.00 3765430.00 4.58970 (12011417)
439824.00 3765430.00 4.57758 (12011417)
439829.00 3765430.00 4.56752 (12011417)
439834.00 3765430.00 4.55659 (12011417)
439839.00 3765430.00 4.54600 (12011417)
439844.00 3765430.00 4.53199 (12011417)
439849.00 3765430.00 4.52000 (12011417)
439854.00 3765430.00 4.50747 (12011417)
439859.00 3765430.00 4.49464 (12011417)
439674.00 3765435.00 4.85856 (12011417)
439679.00 3765435.00 4.85383 (12011417)
439684.00 3765435.00 4.85108 (12011417)
439689.00 3765435.00 4.84705 (12011417)
439694.00 3765435.00 4.84204 (12011417)
439699.00 3765435.00 4.83624 (12011417)
439704.00 3765435.00 4.83194 (12011417)
439709.00 3765435.00 4.82759 (12011417)
439714.00 3765435.00 4.82233 (12011417)
439719.00 3765435.00 4.81636 (12011417)
439729.00 3765435.00 4.80567 (12011417)
439734.00 3765435.00 4.80016 (12011417)
439739.00 3765435.00 4.79365 (12011417)
439744.00 3765435.00 4.78645 (12011417)
439749.00 3765435.00 4.78105 (12011417)
439774.00 3765435.00 4.74599 (12011417)
439779.00 3765435.00 4.73924 (12011417)
439784.00 3765435.00 4.73103 (12011417)
439789.00 3765435.00 4.72156 (12011417)
439794.00 3765435.00 4.71361 (12011417)
439799.00 3765435.00 4.70590 (12011417)
439804.00 3765435.00 4.69723 (12011417)
439809.00 3765435.00 4.68666 (12011417)
439814.00 3765435.00 4.67671 (12011417)
439819.00 3765435.00 4.66777 (12011417)
439824.00 3765435.00 4.65914 (12011417)
439829.00 3765435.00 4.64746 (12011417)

```
439834.00   3765435.00        4.63603  (12011417)
        439839.00   3765435.00        4.62504  (12011417)
439844.00   3765435.00        4.61516  (12011417)
        439849.00   3765435.00        4.60267  (12011417)
439854.00   3765435.00        4.59007  (12011417)
        439859.00   3765435.00        4.57671  (12011417)
439674.00   3765440.00        4.92779  (12011417)
        439679.00   3765440.00        4.92453  (12011417)
439684.00   3765440.00        4.91867  (12011417)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: FREEEXH ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439689.00	3765440.00	4.91463	(12011417)
439694.00	3765440.00	4.91114	(12011417)
439699.00	3765440.00	4.90752	(12011417)
439704.00	3765440.00	4.90234	(12011417)
439709.00	3765440.00	4.89676	(12011417)
439714.00	3765440.00	4.89269	(12011417)
439719.00	3765440.00	4.88783	(12011417)
439729.00	3765440.00	4.87687	(12011417)
439734.00	3765440.00	4.87148	(12011417)
439739.00	3765440.00	4.86578	(12011417)
439744.00	3765440.00	4.86068	(12011417)
439749.00	3765440.00	4.85455	(12011417)
439774.00	3765440.00	4.82099	(12011417)
439779.00	3765440.00	4.81320	(12011417)
439784.00	3765440.00	4.80639	(12011417)
439789.00	3765440.00	4.79967	(12011417)
439794.00	3765440.00	4.79157	(12011417)
439799.00	3765440.00	4.78202	(12011417)
439804.00	3765440.00	4.77401	(12011417)

439809.00 3765440.00 4.76639 (12011417)
439814.00 3765440.00 4.75749 (12011417)
439819.00 3765440.00 4.74676 (12011417)
439824.00 3765440.00 4.73680 (12011417)
439829.00 3765440.00 4.72839 (12011417)
439834.00 3765440.00 4.71899 (12011417)
439839.00 3765440.00 4.70791 (12011417)
439844.00 3765440.00 4.69581 (12011417)
439849.00 3765440.00 4.68529 (12011417)
439854.00 3765440.00 4.67442 (12011417)
439859.00 3765440.00 4.66249 (12011417)
439674.00 3765445.00 4.99632 (12011417)
439679.00 3765445.00 4.99375 (12011417)
439684.00 3765445.00 4.99076 (12011417)
439689.00 3765445.00 4.98702 (12011417)
439694.00 3765445.00 4.98108 (12011417)
439699.00 3765445.00 4.97718 (12011417)
439704.00 3765445.00 4.97402 (12011417)
439709.00 3765445.00 4.97018 (12011417)
439714.00 3765445.00 4.96449 (12011417)
439719.00 3765445.00 4.95917 (12011417)
439729.00 3765445.00 4.95019 (12011417)
439734.00 3765445.00 4.94600 (12011417)
439739.00 3765445.00 4.93893 (12011417)
439744.00 3765445.00 4.93382 (12011417)
439749.00 3765445.00 4.92846 (12011417)
439774.00 3765445.00 4.89785 (12011417)
439779.00 3765445.00 4.89145 (12011417)
439784.00 3765445.00 4.88364 (12011417)
439789.00 3765445.00 4.87521 (12011417)
439794.00 3765445.00 4.86923 (12011417)
439799.00 3765445.00 4.86191 (12011417)
439804.00 3765445.00 4.85382 (12011417)
439809.00 3765445.00 4.84401 (12011417)
439814.00 3765445.00 4.83652 (12011417)
439819.00 3765445.00 4.82852 (12011417)
439824.00 3765445.00 4.82011 (12011417)
439829.00 3765445.00 4.80879 (12011417)
439834.00 3765445.00 4.79914 (12011417)
439839.00 3765445.00 4.79070 (12011417)
439844.00 3765445.00 4.78059 (12011417)
439849.00 3765445.00 4.76942 (12011417)
439854.00 3765445.00 4.75747 (12011417)
439859.00 3765445.00 4.74708 (12011417)
439674.00 3765450.00 5.06948 (12011417)
439679.00 3765450.00 5.06490 (12011417)
439684.00 3765450.00 5.06072 (12011417)
439689.00 3765450.00 5.05763 (12011417)
439694.00 3765450.00 5.05497 (12011417)
439699.00 3765450.00 5.05061 (12011417)
439704.00 3765450.00 5.04585 (12011417)
439709.00 3765450.00 5.04124 (12011417)

```
439714.00   3765450.00        5.03858  (12011417)
        439719.00   3765450.00        5.03366  (12011417)
439729.00   3765450.00        5.02369  (12011417)
        439734.00   3765450.00        5.01955  (12011417)
439739.00   3765450.00        5.01512  (12011417)
        439744.00   3765450.00        5.00983  (12011417)
439749.00   3765450.00        5.00389  (12011417)
        439774.00   3765450.00        4.97372  (12011417)
439844.00   3765450.00        4.86383  (12011417)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: FREEEXH ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439849.00	3765450.00	4.85385	(12011417)
439854.00	3765450.00	4.84515	(12011417)
439859.00	3765450.00	4.83289	(12011417)
439674.00	3765455.00	5.14003	(12011417)
439679.00	3765455.00	5.13870	(12011417)
439684.00	3765455.00	5.13521	(12011417)
439689.00	3765455.00	5.13184	(12011417)
439694.00	3765455.00	5.12641	(12011417)
439699.00	3765455.00	5.12436	(12011417)
439704.00	3765455.00	5.12083	(12011417)
439709.00	3765455.00	5.11766	(12011417)
439714.00	3765455.00	5.11215	(12011417)
439719.00	3765455.00	5.10800	(12011417)
439729.00	3765455.00	5.10023	(12011417)
439734.00	3765455.00	5.09595	(12011417)
439739.00	3765455.00	5.08954	(12011417)
439744.00	3765455.00	5.08665	(12011417)
439749.00	3765455.00	5.08107	(12011417)
439844.00	3765455.00	4.95026	(12011417)

```
439849.00   3765455.00        4.93959  (12011417)
        439854.00   3765455.00        4.92910  (12011417)
439859.00   3765455.00        4.92069  (12011417)
        439674.00   3765460.00        5.21695  (12011417)
439679.00   3765460.00        5.21105  (12011417)
        439684.00   3765460.00        5.20908  (12011417)
439689.00   3765460.00        5.20579  (12011417)
        439694.00   3765460.00        5.20438  (12011417)
439699.00   3765460.00        5.19930  (12011417)
        439704.00   3765460.00        5.19523  (12011417)
439709.00   3765460.00        5.19244  (12011417)
        439714.00   3765460.00        5.18974  (12011417)
439719.00   3765460.00        5.18603  (12011417)
        439729.00   3765460.00        5.17631  (12011417)
439734.00   3765460.00        5.17300  (12011417)
        439739.00   3765460.00        5.16897  (12011417)
439744.00   3765460.00        5.16373  (12011417)
        439749.00   3765460.00        5.15916  (12011417)
439789.00   3765460.00        5.11672  (12011417)
        439794.00   3765460.00        5.10927  (12011417)
439799.00   3765460.00        5.10319  (12011417)
        439804.00   3765460.00        5.09721  (12011417)
439809.00   3765460.00        5.09083  (12011417)
        439814.00   3765460.00        5.08307  (12011417)
439819.00   3765460.00        5.07474  (12011417)
        439824.00   3765460.00        5.06845  (12011417)
439829.00   3765460.00        5.06112  (12011417)
        439844.00   3765460.00        5.03578  (12011417)
439849.00   3765460.00        5.02720  (12011417)
        439854.00   3765460.00        5.01924  (12011417)
439859.00   3765460.00        5.00692  (12011417)
        439674.00   3765465.00        5.29064  (12011417)
439679.00   3765465.00        5.28967  (12011417)
        439684.00   3765465.00        5.28612  (12011417)
439689.00   3765465.00        5.28282  (12011417)
        439694.00   3765465.00        5.27878  (12011417)
439699.00   3765465.00        5.27773  (12011417)
        439704.00   3765465.00        5.27452  (12011417)
439709.00   3765465.00        5.27040  (12011417)
        439714.00   3765465.00        5.26587  (12011417)
439719.00   3765465.00        5.26336  (12011417)
        439729.00   3765465.00        5.25645  (12011417)
439734.00   3765465.00        5.25124  (12011417)
        439739.00   3765465.00        5.24677  (12011417)
439744.00   3765465.00        5.24417  (12011417)
        439749.00   3765465.00        5.23915  (12011417)
439789.00   3765465.00        5.19866  (12011417)
        439794.00   3765465.00        5.19357  (12011417)
439799.00   3765465.00        5.18715  (12011417)
        439804.00   3765465.00        5.17996  (12011417)
439809.00   3765465.00        5.17368  (12011417)
        439814.00   3765465.00        5.16786  (12011417)
```

```
439819.00   3765465.00        5.16180  (12011417)
        439824.00   3765465.00        5.15404  (12011417)
439829.00   3765465.00        5.14542  (12011417)
        439844.00   3765465.00        5.12396  (12011417)
439849.00   3765465.00        5.11366  (12011417)
        439854.00   3765465.00        5.10620  (12011417)
439859.00   3765465.00        5.09791  (12011417)
        439674.00   3765470.00        5.37111  (12011417)
439679.00   3765470.00        5.36597  (12011417)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: FREEEXH ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439684.00	3765470.00	5.36446	(12011417)
439689.00	3765470.00	5.36185	(12011417)
439694.00	3765470.00	5.35989	(12011417)
439699.00	3765470.00	5.35526	(12011417)
439704.00	3765470.00	5.35212	(12011417)
439709.00	3765470.00	5.34999	(12011417)
439714.00	3765470.00	5.34702	(12011417)
439719.00	3765470.00	5.34338	(12011417)
439729.00	3765470.00	5.33586	(12011417)
439734.00	3765470.00	5.33312	(12011417)
439739.00	3765470.00	5.32878	(12011417)
439744.00	3765470.00	5.32500	(12011417)
439749.00	3765470.00	5.31977	(12011417)
439789.00	3765470.00	5.28253	(12011417)
439794.00	3765470.00	5.27720	(12011417)
439799.00	3765470.00	5.27173	(12011417)
439804.00	3765470.00	5.26648	(12011417)
439809.00	3765470.00	5.26108	(12011417)
439814.00	3765470.00	5.25264	(12011417)

```
439819.00   3765470.00        5.24762  (12011417)
        439824.00   3765470.00        5.24093  (12011417)
439829.00   3765470.00        5.23575  (12011417)
        439844.00   3765470.00        5.21201  (12011417)
439849.00   3765470.00        5.20579  (12011417)
        439854.00   3765470.00        5.19673  (12011417)
439859.00   3765470.00        5.18724  (12011417)
        439674.00   3765475.00        5.45064  (12011417)
439679.00   3765475.00        5.44786  (12011417)
        439684.00   3765475.00        5.44655  (12011417)
439689.00   3765475.00        5.44130  (12011417)
        439694.00   3765475.00        5.43989  (12011417)
439699.00   3765475.00        5.43724  (12011417)
        439704.00   3765475.00        5.43519  (12011417)
439709.00   3765475.00        5.43074  (12011417)
        439714.00   3765475.00        5.42722  (12011417)
439719.00   3765475.00        5.42501  (12011417)
        439729.00   3765475.00        5.41919  (12011417)
439734.00   3765475.00        5.41353  (12011417)
        439739.00   3765475.00        5.41234  (12011417)
439744.00   3765475.00        5.40733  (12011417)
        439749.00   3765475.00        5.40562  (12011417)
439754.00   3765475.00        5.39941  (12011417)
        439789.00   3765475.00        5.36996  (12011417)
439794.00   3765475.00        5.36454  (12011417)
        439799.00   3765475.00        5.35925  (12011417)
439804.00   3765475.00        5.35307  (12011417)
        439809.00   3765475.00        5.34778  (12011417)
439814.00   3765475.00        5.34319  (12011417)
        439819.00   3765475.00        5.33635  (12011417)
439824.00   3765475.00        5.33002  (12011417)
        439829.00   3765475.00        5.32215  (12011417)
439269.00   3764900.00        2.15231  (12010217)
        439369.00   3764900.00        2.15300  (12010217)
439469.00   3764900.00        2.15364  (12010217)
        439569.00   3764900.00        2.15398  (12010217)
439669.00   3764900.00        2.15410  (12010217)
        439769.00   3764900.00        2.15347  (12010217)
439869.00   3764900.00        2.15052  (12010217)
        439969.00   3764900.00        2.13639  (12010217)
440069.00   3764900.00        2.12087  (15010717)
        440169.00   3764900.00        2.12224  (15010717)
440269.00   3764900.00        2.12246  (15010717)
        439269.00   3765000.00        2.34808  (12010217)
439369.00   3765000.00        2.34910  (12010217)
        439469.00   3765000.00        2.34998  (12010217)
439569.00   3765000.00        2.35070  (12010217)
        439669.00   3765000.00        2.35090  (12010217)
439769.00   3765000.00        2.35074  (12010217)
        439869.00   3765000.00        2.34998  (12010217)
439969.00   3765000.00        2.34513  (12010217)
        440069.00   3765000.00        2.31890  (12010217)
```

```
440169.00   3765000.00        2.31558  (15010717)
        440269.00   3765000.00        2.31588  (15010717)
439269.00   3765100.00        2.63341  (13121718)
        439369.00   3765100.00        2.59688  (12010217)
439469.00   3765100.00        2.59857  (12010217)
        439569.00   3765100.00        2.59962  (12010217)
439669.00   3765100.00        2.59938  (12010217)
        439769.00   3765100.00        2.59945  (12010217)
439869.00   3765100.00        2.59977  (12010217)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: FREEEXH ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439969.00	3765100.00	2.59907	(12010217)	440069.00	3765100.00	2.59135	(12010217)
440169.00	3765100.00	2.55959	(15010717)	440269.00	3765100.00	2.55989	(15010717)
439269.00	3765200.00	3.12490	(12011417)	439369.00	3765200.00	3.00073	(12011417)
439469.00	3765200.00	2.95491	(13121718)	439569.00	3765200.00	2.92538	(12010217)
439669.00	3765200.00	2.92617	(12010217)	439769.00	3765200.00	2.92787	(12010217)
439869.00	3765200.00	2.92611	(12010217)	439969.00	3765200.00	2.92742	(12010217)
440069.00	3765200.00	2.92601	(12010217)	440169.00	3765200.00	2.91069	(12010217)
440269.00	3765200.00	2.88117	(15010717)	439269.00	3765300.00	3.77719	(12011417)
439369.00	3765300.00	3.72511	(12011417)	439469.00	3765300.00	3.63748	(12011417)
439569.00	3765300.00	3.49597	(12011417)				

439669.00 3765300.00 3.40116 (13121718)
439769.00 3765300.00 3.38076 (12010217)
439869.00 3765300.00 3.38158 (12010217)
439969.00 3765300.00 3.38142 (12010217)
440069.00 3765300.00 3.38264 (12010217)
440169.00 3765300.00 3.38272 (12010217)
440269.00 3765300.00 3.34725 (12010217)
439269.00 3765400.00 4.59771 (12011417)
439369.00 3765400.00 4.58475 (12011417)
439469.00 3765400.00 4.55645 (12011417)
439569.00 3765400.00 4.50564 (12011417)
439669.00 3765400.00 4.41529 (12011417)
439769.00 3765400.00 4.25268 (12011417)
439869.00 3765400.00 4.08148 (13121718)
439969.00 3765400.00 4.06617 (12010217)
440069.00 3765400.00 4.06804 (12010217)
440169.00 3765400.00 4.07220 (12010217)
440269.00 3765400.00 4.07227 (12010217)
439269.00 3765500.00 5.91526 (12011417)
439369.00 3765500.00 5.91931 (12011417)
439469.00 3765500.00 5.91925 (12011417)
439569.00 3765500.00 5.91062 (12011417)
439669.00 3765500.00 5.88816 (12011417)
439769.00 3765500.00 5.84489 (12011417)
439869.00 3765500.00 5.75777 (12011417)
439969.00 3765500.00 5.58220 (12011417)
440069.00 3765500.00 5.26401 (13121718)
440169.00 3765500.00 5.28732 (15011517)
440269.00 3765500.00 5.32218 (14101107)
439269.00 3765600.00 8.84043 (12011417)
439369.00 3765600.00 8.86101 (12011417)
439469.00 3765600.00 8.88224 (12011417)
439569.00 3765600.00 8.89574 (12011417)
439669.00 3765600.00 8.90653 (12011417)
439769.00 3765600.00 8.90775 (12011417)
439869.00 3765600.00 8.89479 (12011417)
439969.00 3765600.00 8.86778 (12011417)
440069.00 3765600.00 8.86536 (14101107)
440169.00 3765600.00 9.05202 (15112218)
440269.00 3765600.00 9.21264 (15112218)
439269.00 3765700.00 33.98259 (14012908)
439369.00 3765700.00 34.81738 (14012908)
439469.00 3765700.00 35.90648 (14101107)
439569.00 3765700.00 37.60073 (14101107)
439669.00 3765700.00 38.56289 (14101107)
439769.00 3765700.00 39.30767 (14101107)
439869.00 3765700.00 39.63476 (14101107)
439969.00 3765700.00 40.12018 (14101107)
440069.00 3765700.00 40.48740 (14101107)
440169.00 3765700.00 40.70908 (14101107)
440269.00 3765700.00 41.07030 (14101107)
439269.00 3765800.00 13.84038 (12111317)

```
439369.00   3765800.00       13.66514  (12111317)
        439469.00   3765800.00       13.46774  (12111317)
439569.00   3765800.00       13.36472  (12011717)
        439669.00   3765800.00       13.43111  (12011717)
439769.00   3765800.00       13.46468  (12011717)
        439869.00   3765800.00       13.47434  (12011717)
439969.00   3765800.00       13.47719  (12011717)
        440069.00   3765800.00       13.47122  (12011717)
440169.00   3765800.00       13.47424  (15120418)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: FREEEXH ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
440269.00	3765800.00	13.44919	(15120418)	439269.00	3765900.00	7.22045	(15120818)
439369.00	3765900.00	7.18030	(15120818)	439469.00	3765900.00	7.12899	(15120818)
439569.00	3765900.00	7.08221	(13111217)	439669.00	3765900.00	7.09373	(13111217)
439769.00	3765900.00	7.09283	(13111217)	439869.00	3765900.00	7.18720	(12011717)
439969.00	3765900.00	7.29639	(12011717)	440069.00	3765900.00	7.36866	(12011717)
440169.00	3765900.00	7.41706	(12011717)	440269.00	3765900.00	7.44916	(12011717)
439649.00	3765310.00	3.48563	(13121718)	439679.00	3765310.00	3.46458	(13121718)
439709.00	3765310.00	3.43971	(13121718)	439739.00	3765310.00	3.43657	(12010217)
439769.00	3765310.00	3.43692	(12010217)	439799.00	3765310.00	3.43708	(12010217)
439829.00	3765310.00	3.43700	(12010217)				

439859.00 3765310.00 3.43676 (12010217)
439889.00 3765310.00 3.43678 (12010217)
439649.00 3765340.00 3.75698 (12011417)
439679.00 3765340.00 3.69462 (12011417)
439709.00 3765340.00 3.66523 (13121718)
439739.00 3765340.00 3.64574 (13121718)
439769.00 3765340.00 3.61781 (12010217)
439799.00 3765340.00 3.61835 (12010217)
439829.00 3765340.00 3.61883 (12010217)
439859.00 3765340.00 3.61889 (12010217)
439889.00 3765340.00 3.61855 (12010217)
439649.00 3765370.00 4.08946 (12011417)
439679.00 3765370.00 4.04228 (12011417)
439709.00 3765370.00 3.98616 (12011417)
439739.00 3765370.00 3.92025 (12011417)
439769.00 3765370.00 3.87421 (13121718)
439799.00 3765370.00 3.84980 (13121718)
439829.00 3765370.00 3.82572 (12010217)
439859.00 3765370.00 3.82593 (12010217)
439889.00 3765370.00 3.82612 (12010217)
439649.00 3765400.00 4.43766 (12011417)
439679.00 3765400.00 4.40164 (12011417)
439709.00 3765400.00 4.36092 (12011417)
439739.00 3765400.00 4.31153 (12011417)
439769.00 3765400.00 4.25268 (12011417)
439799.00 3765400.00 4.18431 (12011417)
439829.00 3765400.00 4.11597 (13121718)
439859.00 3765400.00 4.09133 (13121718)
439889.00 3765400.00 4.06641 (12010217)
439649.00 3765430.00 4.81186 (12011417)
439679.00 3765430.00 4.78807 (12011417)
439709.00 3765430.00 4.75751 (12011417)
439739.00 3765430.00 4.72159 (12011417)
439769.00 3765430.00 4.68035 (12011417)
439799.00 3765430.00 4.62830 (12011417)
439829.00 3765430.00 4.56752 (12011417)
439859.00 3765430.00 4.49464 (12011417)
439889.00 3765430.00 4.40587 (12011417)
439649.00 3765460.00 5.22976 (12011417)
439679.00 3765460.00 5.21105 (12011417)
439709.00 3765460.00 5.19244 (12011417)
439739.00 3765460.00 5.16897 (12011417)
439769.00 3765460.00 5.13881 (12011417)
439799.00 3765460.00 5.10319 (12011417)
439829.00 3765460.00 5.06112 (12011417)
439859.00 3765460.00 5.00692 (12011417)
439889.00 3765460.00 4.94433 (12011417)
439649.00 3765490.00 5.71423 (12011417)
439679.00 3765490.00 5.70253 (12011417)
439709.00 3765490.00 5.69011 (12011417)
439739.00 3765490.00 5.67478 (12011417)
439769.00 3765490.00 5.65410 (12011417)

```
439799.00   3765490.00        5.63025  (12011417)
        439829.00   3765490.00        5.60234  (12011417)
439859.00   3765490.00        5.56590  (12011417)
        439889.00   3765490.00        5.52525  (12011417)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONOFFEXH ***
INCLUDING SOURCE(S):
A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , A0000029 , A0000030 , A0000031 , A0000032 , A0000033 , A0000034 , A0000035 ,
A0000036 , A0000037 , A0000038 , A0000039 , A0000040 , A0000041 , A0000042 , A0000043 ,
A0000044 , A0000045 , A0000046 , A0000047 , A0000048 , A0000049 , A0000050 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439674.00	3765310.00	1.46381	(12121717)
439679.00	3765310.00	1.46388	(12121717)
439684.00	3765310.00	1.46385	(12121717)
439689.00	3765310.00	1.46361	(12121717)
439694.00	3765310.00	1.46320	(12121717)
439699.00	3765310.00	1.46264	(12121717)
439704.00	3765310.00	1.46196	(12121717)
439709.00	3765310.00	1.46133	(12121717)
439714.00	3765310.00	1.46030	(12121717)
439719.00	3765310.00	1.45907	(12121717)
439729.00	3765310.00	1.45596	(12121717)
439734.00	3765310.00	1.45400	(12121717)
439739.00	3765310.00	1.45176	(12121717)
439744.00	3765310.00	1.44926	(12121717)
439749.00	3765310.00	1.44630	(12121717)
439764.00	3765310.00	1.43407	(12121717)
439769.00	3765310.00	1.42892	(12121717)

439774.00 3765310.00 1.42311 (12121717)
439779.00 3765310.00 1.42053 (13012419)
439784.00 3765310.00 1.42234 (13012419)
439789.00 3765310.00 1.42386 (13012419)
439794.00 3765310.00 1.42580 (13012419)
439799.00 3765310.00 1.42664 (13012419)
439804.00 3765310.00 1.42766 (13012419)
439809.00 3765310.00 1.42913 (13012419)
439814.00 3765310.00 1.42955 (13012419)
439819.00 3765310.00 1.43017 (13012419)
439824.00 3765310.00 1.43711 (15010717)
439829.00 3765310.00 1.45069 (15010717)
439839.00 3765310.00 1.47457 (15010717)
439844.00 3765310.00 1.48615 (15010717)
439849.00 3765310.00 1.49651 (15010717)
439854.00 3765310.00 1.50620 (15010717)
439859.00 3765310.00 1.51626 (15010717)
439864.00 3765310.00 1.52513 (15010717)
439869.00 3765310.00 1.53317 (15010717)
439874.00 3765310.00 1.54125 (15010717)
439879.00 3765310.00 1.54881 (15010717)
439884.00 3765310.00 1.55543 (15010717)
439674.00 3765315.00 1.47659 (12121717)
439679.00 3765315.00 1.47664 (12121717)
439684.00 3765315.00 1.47657 (12121717)
439689.00 3765315.00 1.47633 (12121717)
439694.00 3765315.00 1.47597 (12121717)
439699.00 3765315.00 1.47538 (12121717)
439704.00 3765315.00 1.47479 (12121717)
439709.00 3765315.00 1.47408 (12121717)
439714.00 3765315.00 1.47317 (12121717)
439719.00 3765315.00 1.47195 (12121717)
439729.00 3765315.00 1.46897 (12121717)
439734.00 3765315.00 1.46709 (12121717)
439739.00 3765315.00 1.46483 (12121717)
439744.00 3765315.00 1.46243 (12121717)
439749.00 3765315.00 1.45945 (12121717)
439764.00 3765315.00 1.44748 (12121717)
439769.00 3765315.00 1.44236 (12121717)
439774.00 3765315.00 1.43659 (12121717)
439779.00 3765315.00 1.43370 (13012419)
439784.00 3765315.00 1.43591 (13012419)
439789.00 3765315.00 1.43729 (13012419)
439794.00 3765315.00 1.43876 (13012419)
439799.00 3765315.00 1.44024 (13012419)
439804.00 3765315.00 1.44067 (13012419)
439809.00 3765315.00 1.44192 (13012419)
439814.00 3765315.00 1.44278 (13012419)
439819.00 3765315.00 1.44707 (15010717)
439824.00 3765315.00 1.46041 (15010717)
439829.00 3765315.00 1.47338 (15010717)
439839.00 3765315.00 1.49666 (15010717)

```
439844.00   3765315.00        1.50755  (15010717)
        439849.00   3765315.00        1.51810  (15010717)
439854.00   3765315.00        1.52754  (15010717)
        439859.00   3765315.00        1.53645  (15010717)
439864.00   3765315.00        1.54586  (15010717)
        439869.00   3765315.00        1.55343  (15010717)
439874.00   3765315.00        1.56046  (15010717)
        439879.00   3765315.00        1.56862  (15010717)
439884.00   3765315.00        1.57489  (15010717)
        439674.00   3765320.00        1.48960  (12121717)
439679.00   3765320.00        1.48965  (12121717)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONOFFEXH ***
INCLUDING SOURCE(S):
A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , A0000029 , A0000030 , A0000031 , A0000032 , A0000033 , A0000034 , A0000035 ,
A0000036 , A0000037 , A0000038 , A0000039 , A0000040 , A0000041 , A0000042 , A0000043 ,
A0000044 , A0000045 , A0000046 , A0000047 , A0000048 , A0000049 , A0000050 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439684.00	3765320.00	1.48955	(12121717)	439689.00	3765320.00	1.48934	(12121717)
439694.00	3765320.00	1.48894	(12121717)	439699.00	3765320.00	1.48841	(12121717)
439704.00	3765320.00	1.48789	(12121717)	439709.00	3765320.00	1.48709	(12121717)
439714.00	3765320.00	1.48625	(12121717)	439719.00	3765320.00	1.48514	(12121717)
439729.00	3765320.00	1.48228	(12121717)	439734.00	3765320.00	1.48033	(12121717)
439739.00	3765320.00	1.47820	(12121717)	439744.00	3765320.00	1.47588	(12121717)
439749.00	3765320.00	1.47289	(12121717)	439764.00	3765320.00	1.46116	(12121717)
439769.00	3765320.00	1.45611	(12121717)	439774.00	3765320.00	1.45042	(12121717)
439779.00	3765320.00	1.44749	(13012419)				

439784.00 3765320.00 1.44915 (13012419)
439789.00 3765320.00 1.45103 (13012419)
439794.00 3765320.00 1.45195 (13012419)
439799.00 3765320.00 1.45343 (13012419)
439804.00 3765320.00 1.45434 (13012419)
439809.00 3765320.00 1.45480 (13012419)
439814.00 3765320.00 1.45706 (15010717)
439819.00 3765320.00 1.47091 (15010717)
439824.00 3765320.00 1.48407 (15010717)
439829.00 3765320.00 1.49633 (15010717)
439839.00 3765320.00 1.51918 (15010717)
439844.00 3765320.00 1.52961 (15010717)
439849.00 3765320.00 1.53983 (15010717)
439854.00 3765320.00 1.54932 (15010717)
439859.00 3765320.00 1.55785 (15010717)
439864.00 3765320.00 1.56624 (15010717)
439869.00 3765320.00 1.57435 (15010717)
439874.00 3765320.00 1.58135 (15010717)
439879.00 3765320.00 1.58810 (15010717)
439884.00 3765320.00 1.59493 (15010717)
439674.00 3765325.00 1.50293 (12121717)
439679.00 3765325.00 1.50291 (12121717)
439684.00 3765325.00 1.50279 (12121717)
439689.00 3765325.00 1.50264 (12121717)
439694.00 3765325.00 1.50223 (12121717)
439699.00 3765325.00 1.50172 (12121717)
439704.00 3765325.00 1.50122 (12121717)
439709.00 3765325.00 1.50042 (12121717)
439714.00 3765325.00 1.49957 (12121717)
439719.00 3765325.00 1.49856 (12121717)
439729.00 3765325.00 1.49583 (12121717)
439734.00 3765325.00 1.49388 (12121717)
439739.00 3765325.00 1.49186 (12121717)
439744.00 3765325.00 1.48956 (12121717)
439749.00 3765325.00 1.48673 (12121717)
439754.00 3765325.00 1.48343 (12121717)
439769.00 3765325.00 1.47028 (12121717)
439774.00 3765325.00 1.46453 (12121717)
439779.00 3765325.00 1.46182 (13012419)
439784.00 3765325.00 1.46287 (13012419)
439789.00 3765325.00 1.46453 (13012419)
439794.00 3765325.00 1.46596 (13012419)
439799.00 3765325.00 1.46674 (13012419)
439804.00 3765325.00 1.46803 (13012419)
439809.00 3765325.00 1.46846 (13012419)
439814.00 3765325.00 1.48128 (15010717)
439819.00 3765325.00 1.49476 (15010717)
439824.00 3765325.00 1.50758 (15010717)
439829.00 3765325.00 1.51969 (15010717)
439839.00 3765325.00 1.54162 (15010717)
439844.00 3765325.00 1.55189 (15010717)
439849.00 3765325.00 1.56125 (15010717)

```
439854.00   3765325.00        1.57064  (15010717)
        439859.00   3765325.00        1.57915  (15010717)
439864.00   3765325.00        1.58661  (15010717)
        439869.00   3765325.00        1.59473  (15010717)
439874.00   3765325.00        1.60174  (15010717)
        439879.00   3765325.00        1.60779  (15010717)
439884.00   3765325.00        1.61431  (15010717)
        439674.00   3765330.00        1.51649  (12121717)
439679.00   3765330.00        1.51648  (12121717)
        439684.00   3765330.00        1.51633  (12121717)
439689.00   3765330.00        1.51615  (12121717)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONOFFEXH ***
INCLUDING SOURCE(S):
A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , A0000029 , A0000030 , A0000031 , A0000032 , A0000033 , A0000034 , A0000035 ,
A0000036 , A0000037 , A0000038 , A0000039 , A0000040 , A0000041 , A0000042 , A0000043 ,
A0000044 , A0000045 , A0000046 , A0000047 , A0000048 , A0000049 , A0000050 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439694.00	3765330.00	1.51580	(12121717)	439699.00	3765330.00	1.51537	(12121717)
439704.00	3765330.00	1.51481	(12121717)	439709.00	3765330.00	1.51408	(12121717)
439714.00	3765330.00	1.51319	(12121717)	439719.00	3765330.00	1.51227	(12121717)
439729.00	3765330.00	1.50962	(12121717)	439734.00	3765330.00	1.50786	(12121717)
439739.00	3765330.00	1.50582	(12121717)	439744.00	3765330.00	1.50351	(12121717)
439749.00	3765330.00	1.50081	(12121717)	439754.00	3765330.00	1.49765	(12121717)
439774.00	3765330.00	1.47897	(12121717)	439779.00	3765330.00	1.47570	(13012419)
439784.00	3765330.00	1.47739	(13012419)	439789.00	3765330.00	1.47810	(13012419)
439794.00	3765330.00	1.47991	(13012419)				

```
439799.00   3765330.00        1.48087  (13012419)
        439804.00   3765330.00        1.48155  (13012419)
439809.00   3765330.00        1.49209  (15010717)
        439814.00   3765330.00        1.50577  (15010717)
439819.00   3765330.00        1.51886  (15010717)
        439824.00   3765330.00        1.53135  (15010717)
439829.00   3765330.00        1.54321  (15010717)
        439839.00   3765330.00        1.56434  (15010717)
439844.00   3765330.00        1.57446  (15010717)
        439849.00   3765330.00        1.58341  (15010717)
439854.00   3765330.00        1.59208  (15010717)
        439859.00   3765330.00        1.60073  (15010717)
439864.00   3765330.00        1.60826  (15010717)
        439869.00   3765330.00        1.61504  (15010717)
439874.00   3765330.00        1.62236  (15010717)
        439879.00   3765330.00        1.62865  (15010717)
439884.00   3765330.00        1.63374  (15010717)
        439674.00   3765335.00        1.53036  (12121717)
439679.00   3765335.00        1.53031  (12121717)
        439684.00   3765335.00        1.53021  (12121717)
439689.00   3765335.00        1.52994  (12121717)
        439694.00   3765335.00        1.52968  (12121717)
439699.00   3765335.00        1.52930  (12121717)
        439704.00   3765335.00        1.52867  (12121717)
439709.00   3765335.00        1.52801  (12121717)
        439714.00   3765335.00        1.52714  (12121717)
439719.00   3765335.00        1.52626  (12121717)
        439729.00   3765335.00        1.52367  (12121717)
439734.00   3765335.00        1.52208  (12121717)
        439739.00   3765335.00        1.52008  (12121717)
439744.00   3765335.00        1.51772  (12121717)
        439749.00   3765335.00        1.51518  (12121717)
439774.00   3765335.00        1.49373  (12121717)
        439779.00   3765335.00        1.48962  (13012419)
439784.00   3765335.00        1.49170  (13012419)
        439789.00   3765335.00        1.49281  (13012419)
439794.00   3765335.00        1.49361  (13012419)
        439839.00   3765335.00        1.58692  (15010717)
439844.00   3765335.00        1.59671  (15010717)
        439849.00   3765335.00        1.60582  (15010717)
439854.00   3765335.00        1.61368  (15010717)
        439859.00   3765335.00        1.62194  (15010717)
439864.00   3765335.00        1.62977  (15010717)
        439869.00   3765335.00        1.63597  (15010717)
439874.00   3765335.00        1.64242  (15010717)
        439879.00   3765335.00        1.64911  (15010717)
439884.00   3765335.00        1.65424  (15010717)
        439674.00   3765340.00        1.54455  (12121717)
439679.00   3765340.00        1.54445  (12121717)
        439684.00   3765340.00        1.54435  (12121717)
439689.00   3765340.00        1.54408  (12121717)
        439694.00   3765340.00        1.54385  (12121717)
```

```
439699.00   3765340.00        1.54346  (12121717)
        439704.00   3765340.00        1.54288  (12121717)
439709.00   3765340.00        1.54225  (12121717)
        439714.00   3765340.00        1.54142  (12121717)
439719.00   3765340.00        1.54053  (12121717)
        439729.00   3765340.00        1.53808  (12121717)
439734.00   3765340.00        1.53659  (12121717)
        439739.00   3765340.00        1.53463  (12121717)
439744.00   3765340.00        1.53238  (12121717)
        439749.00   3765340.00        1.52987  (12121717)
439774.00   3765340.00        1.50885  (12121717)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONOFFEXH ***
INCLUDING SOURCE(S):
A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , A0000029 , A0000030 , A0000031 , A0000032 , A0000033 , A0000034 , A0000035 ,
A0000036 , A0000037 , A0000038 , A0000039 , A0000040 , A0000041 , A0000042 , A0000043 ,
A0000044 , A0000045 , A0000046 , A0000047 , A0000048 , A0000049 , A0000050 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439779.00	3765340.00	1.50467	(13012419)	439784.00	3765340.00	1.50571	(13012419)
439789.00	3765340.00	1.50760	(13012419)	439794.00	3765340.00	1.50819	(13012419)
439839.00	3765340.00	1.61007	(15010717)	439844.00	3765340.00	1.61927	(15010717)
439849.00	3765340.00	1.62791	(15010717)	439854.00	3765340.00	1.63609	(15010717)
439859.00	3765340.00	1.64353	(15010717)	439864.00	3765340.00	1.65076	(15010717)
439869.00	3765340.00	1.65772	(15010717)	439874.00	3765340.00	1.66330	(15010717)
439879.00	3765340.00	1.66910	(15010717)	439884.00	3765340.00	1.67536	(15010717)
439674.00	3765345.00	1.55906	(12121717)	439679.00	3765345.00	1.55896	(12121717)
439684.00	3765345.00	1.55878	(12121717)				

```
439689.00   3765345.00        1.55857  (12121717)
        439694.00   3765345.00        1.55832  (12121717)
439699.00   3765345.00        1.55793  (12121717)
        439704.00   3765345.00        1.55741  (12121717)
439709.00   3765345.00        1.55676  (12121717)
        439714.00   3765345.00        1.55606  (12121717)
439719.00   3765345.00        1.55513  (12121717)
        439729.00   3765345.00        1.55288  (12121717)
439734.00   3765345.00        1.55137  (12121717)
        439739.00   3765345.00        1.54952  (12121717)
439744.00   3765345.00        1.54738  (12121717)
        439749.00   3765345.00        1.54493  (12121717)
439774.00   3765345.00        1.52437  (12121717)
        439779.00   3765345.00        1.51967  (13012419)
439784.00   3765345.00        1.52075  (13012419)
        439789.00   3765345.00        1.52203  (13012419)
439794.00   3765345.00        1.52541  (15010717)
        439839.00   3765345.00        1.63360  (15010717)
439844.00   3765345.00        1.64204  (15010717)
        439849.00   3765345.00        1.65026  (15010717)
439854.00   3765345.00        1.65843  (15010717)
        439859.00   3765345.00        1.66546  (15010717)
439864.00   3765345.00        1.67214  (15010717)
        439869.00   3765345.00        1.67876  (15010717)
439874.00   3765345.00        1.68476  (15010717)
        439879.00   3765345.00        1.68998  (15010717)
439884.00   3765345.00        1.69518  (15010717)
        439674.00   3765350.00        1.57385  (12121717)
439679.00   3765350.00        1.57377  (12121717)
        439684.00   3765350.00        1.57356  (12121717)
439689.00   3765350.00        1.57340  (12121717)
        439694.00   3765350.00        1.57313  (12121717)
439699.00   3765350.00        1.57276  (12121717)
        439704.00   3765350.00        1.57227  (12121717)
439709.00   3765350.00        1.57165  (12121717)
        439714.00   3765350.00        1.57099  (12121717)
439719.00   3765350.00        1.57011  (12121717)
        439729.00   3765350.00        1.56805  (12121717)
439734.00   3765350.00        1.56642  (12121717)
        439739.00   3765350.00        1.56472  (12121717)
439744.00   3765350.00        1.56267  (12121717)
        439749.00   3765350.00        1.56030  (12121717)
439774.00   3765350.00        1.54032  (12121717)
        439779.00   3765350.00        1.53449  (13012419)
439784.00   3765350.00        1.53616  (13012419)
        439789.00   3765350.00        1.53699  (13012419)
439794.00   3765350.00        1.55230  (15010717)
        439839.00   3765350.00        1.65660  (15010717)
439844.00   3765350.00        1.66533  (15010717)
        439849.00   3765350.00        1.67302  (15010717)
439854.00   3765350.00        1.68039  (15010717)
        439859.00   3765350.00        1.68801  (15010717)
```

439864.00   3765350.00   1.69400 (15010717)
        439869.00   3765350.00   1.69993 (15010717)
439874.00   3765350.00   1.70644 (15010717)
        439879.00   3765350.00   1.71131 (15010717)
439884.00   3765350.00   1.71575 (15010717)
        439674.00   3765355.00   1.58896 (12121717)
439679.00   3765355.00   1.58893 (12121717)
        439684.00   3765355.00   1.58871 (12121717)
439689.00   3765355.00   1.58858 (12121717)
        439694.00   3765355.00   1.58827 (12121717)
439699.00   3765355.00   1.58793 (12121717)

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONOFFEXH ***
INCLUDING SOURCE(S):
A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , A0000029 , A0000030 , A0000031 , A0000032 , A0000033 , A0000034 , A0000035 ,
A0000036 , A0000037 , A0000038 , A0000039 , A0000040 , A0000041 , A0000042 , A0000043 ,
A0000044 , A0000045 , A0000046 , A0000047 , A0000048 , A0000049 , A0000050 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439704.00	3765355.00	1.58745	(12121717)	439709.00	3765355.00	1.58692	(12121717)
439714.00	3765355.00	1.58626	(12121717)	439719.00	3765355.00	1.58546	(12121717)
439729.00	3765355.00	1.58344	(12121717)	439734.00	3765355.00	1.58193	(12121717)
439739.00	3765355.00	1.58024	(12121717)	439744.00	3765355.00	1.57836	(12121717)
439749.00	3765355.00	1.57598	(12121717)	439774.00	3765355.00	1.55657	(12121717)
439779.00	3765355.00	1.55044	(12121717)	439784.00	3765355.00	1.55130	(13012419)
439789.00	3765355.00	1.56458	(15010717)	439794.00	3765355.00	1.57914	(15010717)
439839.00	3765355.00	1.67998	(15010717)	439844.00	3765355.00	1.68844	(15010717)
439849.00	3765355.00	1.69598	(15010717)				

439854.00 3765355.00 1.70317 (15010717)
439859.00 3765355.00 1.70976 (15010717)
439864.00 3765355.00 1.71637 (15010717)
439869.00 3765355.00 1.72195 (15010717)
439874.00 3765355.00 1.72705 (15010717)
439879.00 3765355.00 1.73286 (15010717)
439884.00 3765355.00 1.73727 (15010717)
439674.00 3765360.00 1.60448 (12121717)
439679.00 3765360.00 1.60442 (12121717)
439684.00 3765360.00 1.60427 (12121717)
439689.00 3765360.00 1.60406 (12121717)
439694.00 3765360.00 1.60382 (12121717)
439699.00 3765360.00 1.60339 (12121717)
439704.00 3765360.00 1.60303 (12121717)
439709.00 3765360.00 1.60253 (12121717)
439714.00 3765360.00 1.60187 (12121717)
439719.00 3765360.00 1.60113 (12121717)
439729.00 3765360.00 1.59910 (12121717)
439734.00 3765360.00 1.59780 (12121717)
439739.00 3765360.00 1.59615 (12121717)
439744.00 3765360.00 1.59433 (12121717)
439749.00 3765360.00 1.59208 (12121717)
439774.00 3765360.00 1.57319 (12121717)
439779.00 3765360.00 1.56707 (12121717)
439784.00 3765360.00 1.57667 (15010717)
439789.00 3765360.00 1.59246 (15010717)
439794.00 3765360.00 1.60675 (15010717)
439799.00 3765360.00 1.62017 (15010717)
439804.00 3765360.00 1.63322 (15010717)
439809.00 3765360.00 1.64516 (15010717)
439814.00 3765360.00 1.65672 (15010717)
439839.00 3765360.00 1.70396 (15010717)
439844.00 3765360.00 1.71150 (15010717)
439849.00 3765360.00 1.71923 (15010717)
439854.00 3765360.00 1.72622 (15010717)
439859.00 3765360.00 1.73234 (15010717)
439864.00 3765360.00 1.73862 (15010717)
439869.00 3765360.00 1.74445 (15010717)
439874.00 3765360.00 1.74923 (15010717)
439879.00 3765360.00 1.75380 (15010717)
439884.00 3765360.00 1.75907 (15010717)
439674.00 3765365.00 1.62032 (12121717)
439679.00 3765365.00 1.62030 (12121717)
439684.00 3765365.00 1.62017 (12121717)
439689.00 3765365.00 1.61993 (12121717)
439694.00 3765365.00 1.61967 (12121717)
439699.00 3765365.00 1.61931 (12121717)
439704.00 3765365.00 1.61895 (12121717)
439709.00 3765365.00 1.61849 (12121717)
439714.00 3765365.00 1.61787 (12121717)
439719.00 3765365.00 1.61715 (12121717)
439729.00 3765365.00 1.61521 (12121717)

```
439734.00   3765365.00        1.61405  (12121717)
        439739.00   3765365.00        1.61252  (12121717)
439744.00   3765365.00        1.61065  (12121717)
        439749.00   3765365.00        1.60855  (12121717)
439774.00   3765365.00        1.59018  (12121717)
        439779.00   3765365.00        1.58958  (15010717)
439784.00   3765365.00        1.60539  (15010717)
        439789.00   3765365.00        1.62009  (15010717)
439794.00   3765365.00        1.63461  (15010717)
        439799.00   3765365.00        1.64755  (15010717)
439804.00   3765365.00        1.65972  (15010717)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONOFFEXH ***
INCLUDING SOURCE(S):
A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , A0000029 , A0000030 , A0000031 , A0000032 , A0000033 , A0000034 , A0000035 ,
A0000036 , A0000037 , A0000038 , A0000039 , A0000040 , A0000041 , A0000042 , A0000043 ,
A0000044 , A0000045 , A0000046 , A0000047 , A0000048 , A0000049 , A0000050 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439809.00	3765365.00	1.67163	(15010717)	439814.00	3765365.00	1.68240	(15010717)
439839.00	3765365.00	1.72796	(15010717)	439844.00	3765365.00	1.73535	(15010717)
439849.00	3765365.00	1.74226	(15010717)	439854.00	3765365.00	1.74911	(15010717)
439859.00	3765365.00	1.75550	(15010717)	439864.00	3765365.00	1.76087	(15010717)
439869.00	3765365.00	1.76635	(15010717)	439874.00	3765365.00	1.77182	(15010717)
439879.00	3765365.00	1.77566	(15010717)	439884.00	3765365.00	1.77987	(15010717)
439674.00	3765370.00	1.63654	(12121717)	439679.00	3765370.00	1.63653	(12121717)
439684.00	3765370.00	1.63648	(12121717)	439689.00	3765370.00	1.63623	(12121717)
439694.00	3765370.00	1.63592	(12121717)				

439699.00 3765370.00 1.63562 (12121717)
439704.00 3765370.00 1.63525 (12121717)
439709.00 3765370.00 1.63483 (12121717)
439714.00 3765370.00 1.63431 (12121717)
439719.00 3765370.00 1.63359 (12121717)
439729.00 3765370.00 1.63176 (12121717)
439734.00 3765370.00 1.63061 (12121717)
439739.00 3765370.00 1.62926 (12121717)
439744.00 3765370.00 1.62739 (12121717)
439749.00 3765370.00 1.62542 (12121717)
439774.00 3765370.00 1.60761 (12121717)
439779.00 3765370.00 1.61859 (15010717)
439784.00 3765370.00 1.63426 (15010717)
439789.00 3765370.00 1.64858 (15010717)
439794.00 3765370.00 1.66195 (15010717)
439799.00 3765370.00 1.67500 (15010717)
439804.00 3765370.00 1.68681 (15010717)
439809.00 3765370.00 1.69784 (15010717)
439814.00 3765370.00 1.70854 (15010717)
439839.00 3765370.00 1.75208 (15010717)
439844.00 3765370.00 1.75952 (15010717)
439849.00 3765370.00 1.76597 (15010717)
439854.00 3765370.00 1.77239 (15010717)
439859.00 3765370.00 1.77845 (15010717)
439864.00 3765370.00 1.78390 (15010717)
439869.00 3765370.00 1.78890 (15010717)
439874.00 3765370.00 1.79382 (15010717)
439879.00 3765370.00 1.79859 (15010717)
439884.00 3765370.00 1.80195 (15010717)
439674.00 3765375.00 1.65315 (12121717)
439679.00 3765375.00 1.65323 (12121717)
439684.00 3765375.00 1.65318 (12121717)
439689.00 3765375.00 1.65292 (12121717)
439694.00 3765375.00 1.65262 (12121717)
439699.00 3765375.00 1.65234 (12121717)
439704.00 3765375.00 1.65194 (12121717)
439709.00 3765375.00 1.65153 (12121717)
439714.00 3765375.00 1.65107 (12121717)
439719.00 3765375.00 1.65047 (12121717)
439729.00 3765375.00 1.64877 (12121717)
439734.00 3765375.00 1.64763 (12121717)
439739.00 3765375.00 1.64632 (12121717)
439744.00 3765375.00 1.64463 (12121717)
439749.00 3765375.00 1.64270 (12121717)
439754.00 3765375.00 1.64037 (12121717)
439774.00 3765375.00 1.63281 (15010717)
439779.00 3765375.00 1.64851 (15010717)
439784.00 3765375.00 1.66285 (15010717)
439789.00 3765375.00 1.67735 (15010717)
439794.00 3765375.00 1.69000 (15010717)
439799.00 3765375.00 1.70242 (15010717)
439804.00 3765375.00 1.71415 (15010717)

```
439809.00   3765375.00        1.72478  (15010717)
        439814.00   3765375.00        1.73490  (15010717)
439839.00   3765375.00        1.77646  (15010717)
        439844.00   3765375.00        1.78354  (15010717)
439849.00   3765375.00        1.79038  (15010717)
        439854.00   3765375.00        1.79605  (15010717)
439859.00   3765375.00        1.80152  (15010717)
        439864.00   3765375.00        1.80720  (15010717)
439869.00   3765375.00        1.81180  (15010717)
        439874.00   3765375.00        1.81642  (15010717)
439879.00   3765375.00        1.82069  (15010717)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONOFFEXH ***
INCLUDING SOURCE(S):
A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , A0000029 , A0000030 , A0000031 , A0000032 , A0000033 , A0000034 , A0000035 ,
A0000036 , A0000037 , A0000038 , A0000039 , A0000040 , A0000041 , A0000042 , A0000043 ,
A0000044 , A0000045 , A0000046 , A0000047 , A0000048 , A0000049 , A0000050 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439884.00	3765375.00	1.82469	(15010717)
439774.00	3765380.00	1.66270	(15010717)
439779.00	3765380.00	1.67845	(15010717)
439784.00	3765380.00	1.69276	(15010717)
439789.00	3765380.00	1.70562	(15010717)
439794.00	3765380.00	1.71876	(15010717)
439799.00	3765380.00	1.73016	(15010717)
439804.00	3765380.00	1.74129	(15010717)
439809.00	3765380.00	1.75204	(15010717)
439814.00	3765380.00	1.76141	(15010717)
439769.00	3765385.00	1.67782	(15010717)
439819.00	3765385.00	1.79701	(15010717)
439769.00	3765400.00	1.77325	(15010717)
439844.00	3765400.00	1.90922	(15010717)
439849.00	3765400.00	1.91438	(15010717)
439674.00	3765405.00	1.80270	(12010217)
439714.00	3765405.00	1.76137	(12121717)

439719.00 3765405.00 1.76098 (12121717)
439734.00 3765405.00 1.75934 (12121717)
439749.00 3765405.00 1.75613 (12121717)
439754.00 3765405.00 1.75862 (15010717)
439774.00 3765405.00 1.81911 (15010717)
439779.00 3765405.00 1.83170 (15010717)
439784.00 3765405.00 1.84343 (15010717)
439789.00 3765405.00 1.85453 (15010717)
439794.00 3765405.00 1.86451 (15010717)
439799.00 3765405.00 1.87369 (15010717)
439804.00 3765405.00 1.88254 (15010717)
439809.00 3765405.00 1.89085 (15010717)
439814.00 3765405.00 1.89849 (15010717)
439819.00 3765405.00 1.90606 (15010717)
439824.00 3765405.00 1.91246 (15010717)
439829.00 3765405.00 1.91866 (15010717)
439834.00 3765405.00 1.92469 (15010717)
439839.00 3765405.00 1.93017 (15010717)
439844.00 3765405.00 1.93568 (15010717)
439849.00 3765405.00 1.94039 (15010717)
439854.00 3765405.00 1.94500 (15010717)
439859.00 3765405.00 1.94963 (15010717)
439674.00 3765410.00 1.83099 (12010217)
439679.00 3765410.00 1.81595 (12010217)
439684.00 3765410.00 1.80023 (12010217)
439689.00 3765410.00 1.78383 (12010217)
439694.00 3765410.00 1.78239 (12121717)
439699.00 3765410.00 1.78223 (12121717)
439704.00 3765410.00 1.78201 (12121717)
439709.00 3765410.00 1.78182 (12121717)
439714.00 3765410.00 1.78148 (12121717)
439719.00 3765410.00 1.78117 (12121717)
439729.00 3765410.00 1.78039 (12121717)
439734.00 3765410.00 1.77975 (12121717)
439739.00 3765410.00 1.77896 (12121717)
439744.00 3765410.00 1.77806 (12121717)
439749.00 3765410.00 1.77679 (12121717)
439774.00 3765410.00 1.85092 (15010717)
439779.00 3765410.00 1.86345 (15010717)
439784.00 3765410.00 1.87465 (15010717)
439789.00 3765410.00 1.88507 (15010717)
439794.00 3765410.00 1.89496 (15010717)
439799.00 3765410.00 1.90376 (15010717)
439804.00 3765410.00 1.91208 (15010717)
439809.00 3765410.00 1.91964 (15010717)
439814.00 3765410.00 1.92716 (15010717)
439819.00 3765410.00 1.93385 (15010717)
439824.00 3765410.00 1.94044 (15010717)
439829.00 3765410.00 1.94655 (15010717)
439834.00 3765410.00 1.95172 (15010717)
439839.00 3765410.00 1.95715 (15010717)
439844.00 3765410.00 1.96225 (15010717)

```
439849.00   3765410.00        1.96693  (15010717)
        439854.00   3765410.00        1.97165  (15010717)
439859.00   3765410.00        1.97577  (15010717)
        439674.00   3765415.00        1.86016  (12010217)
439679.00   3765415.00        1.84541  (12010217)
        439684.00   3765415.00        1.82976  (12010217)
439689.00   3765415.00        1.81343  (12010217)
        439694.00   3765415.00        1.80306  (12121717)
439699.00   3765415.00        1.80292  (12121717)
        439704.00   3765415.00        1.80272  (12121717)
439709.00   3765415.00        1.80253  (12121717)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONOFFEXH ***
INCLUDING SOURCE(S):
A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , A0000029 , A0000030 , A0000031 , A0000032 , A0000033 , A0000034 , A0000035 ,
A0000036 , A0000037 , A0000038 , A0000039 , A0000040 , A0000041 , A0000042 , A0000043 ,
A0000044 , A0000045 , A0000046 , A0000047 , A0000048 , A0000049 , A0000050 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439714.00	3765415.00	1.80229	(12121717)
439719.00	3765415.00	1.80205	(12121717)
439729.00	3765415.00	1.80132	(12121717)
439734.00	3765415.00	1.80087	(12121717)
439739.00	3765415.00	1.80018	(12121717)
439744.00	3765415.00	1.79928	(12121717)
439749.00	3765415.00	1.81164	(15010717)
439774.00	3765415.00	1.88399	(15010717)
439779.00	3765415.00	1.89506	(15010717)
439784.00	3765415.00	1.90585	(15010717)
439789.00	3765415.00	1.91576	(15010717)
439794.00	3765415.00	1.92493	(15010717)
439799.00	3765415.00	1.93378	(15010717)
439804.00	3765415.00	1.94173	(15010717)
439809.00	3765415.00	1.94928	(15010717)
439814.00	3765415.00	1.95582	(15010717)
439819.00	3765415.00	1.96226	(15010717)

439824.00 3765415.00 1.96838 (15010717)
439829.00 3765415.00 1.97415 (15010717)
439834.00 3765415.00 1.97986 (15010717)
439839.00 3765415.00 1.98461 (15010717)
439844.00 3765415.00 1.98941 (15010717)
439849.00 3765415.00 1.99399 (15010717)
439854.00 3765415.00 1.99875 (15010717)
439859.00 3765415.00 2.00295 (15010717)
439674.00 3765420.00 1.88978 (12010217)
439679.00 3765420.00 1.87567 (12010217)
439684.00 3765420.00 1.86027 (12010217)
439689.00 3765420.00 1.84391 (12010217)
439694.00 3765420.00 1.82654 (12010217)
439699.00 3765420.00 1.82424 (12121717)
439704.00 3765420.00 1.82405 (12121717)
439709.00 3765420.00 1.82385 (12121717)
439714.00 3765420.00 1.82368 (12121717)
439719.00 3765420.00 1.82344 (12121717)
439729.00 3765420.00 1.82284 (12121717)
439734.00 3765420.00 1.82250 (12121717)
439739.00 3765420.00 1.82191 (12121717)
439744.00 3765420.00 1.83035 (15010717)
439749.00 3765420.00 1.84745 (15010717)
439774.00 3765420.00 1.91694 (15010717)
439779.00 3765420.00 1.92797 (15010717)
439784.00 3765420.00 1.93785 (15010717)
439789.00 3765420.00 1.94701 (15010717)
439794.00 3765420.00 1.95593 (15010717)
439799.00 3765420.00 1.96385 (15010717)
439804.00 3765420.00 1.97154 (15010717)
439809.00 3765420.00 1.97882 (15010717)
439814.00 3765420.00 1.98541 (15010717)
439819.00 3765420.00 1.99148 (15010717)
439824.00 3765420.00 1.99702 (15010717)
439829.00 3765420.00 2.00259 (15010717)
439834.00 3765420.00 2.00769 (15010717)
439839.00 3765420.00 2.01279 (15010717)
439844.00 3765420.00 2.01747 (15010717)
439849.00 3765420.00 2.02188 (15010717)
439854.00 3765420.00 2.02633 (15010717)
439859.00 3765420.00 2.03040 (15010717)
439674.00 3765425.00 1.92057 (12010217)
439679.00 3765425.00 1.90603 (12010217)
439684.00 3765425.00 1.89124 (12010217)
439689.00 3765425.00 1.87503 (12010217)
439694.00 3765425.00 1.85810 (12010217)
439699.00 3765425.00 1.84612 (12121717)
439704.00 3765425.00 1.84601 (12121717)
439709.00 3765425.00 1.84585 (12121717)
439714.00 3765425.00 1.84571 (12121717)
439719.00 3765425.00 1.84549 (12121717)
439729.00 3765425.00 1.84499 (12121717)

```
439734.00   3765425.00        1.84469  (12121717)
        439739.00   3765425.00        1.85048  (15010717)
439744.00   3765425.00        1.86829  (15010717)
        439749.00   3765425.00        1.88426  (15010717)
439774.00   3765425.00        1.95003  (15010717)
        439779.00   3765425.00        1.96091  (15010717)
439784.00   3765425.00        1.97051  (15010717)
        439789.00   3765425.00        1.97950  (15010717)
439794.00   3765425.00        1.98749  (15010717)
        439799.00   3765425.00        1.99515  (15010717)
439804.00   3765425.00        2.00216  (15010717)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONOFFEXH ***
INCLUDING SOURCE(S):
A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , A0000029 , A0000030 , A0000031 , A0000032 , A0000033 , A0000034 , A0000035 ,
A0000036 , A0000037 , A0000038 , A0000039 , A0000040 , A0000041 , A0000042 , A0000043 ,
A0000044 , A0000045 , A0000046 , A0000047 , A0000048 , A0000049 , A0000050 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439809.00	3765425.00	2.00863	(15010717)	439814.00	3765425.00	2.01514	(15010717)
439819.00	3765425.00	2.02110	(15010717)	439824.00	3765425.00	2.02671	(15010717)
439829.00	3765425.00	2.03182	(15010717)	439834.00	3765425.00	2.03661	(15010717)
439839.00	3765425.00	2.04121	(15010717)	439844.00	3765425.00	2.04592	(15010717)
439849.00	3765425.00	2.05040	(15010717)	439854.00	3765425.00	2.05458	(15010717)
439859.00	3765425.00	2.05855	(15010717)	439674.00	3765430.00	1.95171	(12010217)
439679.00	3765430.00	1.93770	(12010217)	439684.00	3765430.00	1.92268	(12010217)
439689.00	3765430.00	1.90686	(12010217)	439694.00	3765430.00	1.89027	(12010217)
439699.00	3765430.00	1.87247	(12010217)				

```
439704.00   3765430.00        1.86864  (12121717)
        439709.00   3765430.00        1.86851  (12121717)
439714.00   3765430.00        1.86839  (12121717)
        439719.00   3765430.00        1.86828  (12121717)
439729.00   3765430.00        1.86788  (12121717)
        439734.00   3765430.00        1.86967  (15010717)
439739.00   3765430.00        1.88829  (15010717)
        439744.00   3765430.00        1.90544  (15010717)
439749.00   3765430.00        1.92154  (15010717)
        439774.00   3765430.00        1.98398  (15010717)
439779.00   3765430.00        1.99357  (15010717)
        439784.00   3765430.00        2.00310  (15010717)
439789.00   3765430.00        2.01144  (15010717)
        439794.00   3765430.00        2.01959  (15010717)
439799.00   3765430.00        2.02687  (15010717)
        439804.00   3765430.00        2.03326  (15010717)
439809.00   3765430.00        2.03963  (15010717)
        439814.00   3765430.00        2.04524  (15010717)
439819.00   3765430.00        2.05088  (15010717)
        439824.00   3765430.00        2.05618  (15010717)
439829.00   3765430.00        2.06116  (15010717)
        439834.00   3765430.00        2.06617  (15010717)
439839.00   3765430.00        2.07060  (15010717)
        439844.00   3765430.00        2.07460  (15010717)
439849.00   3765430.00        2.07894  (15010717)
        439854.00   3765430.00        2.08326  (15010717)
439859.00   3765430.00        2.08725  (15010717)
        439674.00   3765435.00        1.98353  (12010217)
439679.00   3765435.00        1.96996  (12010217)
        439684.00   3765435.00        1.95529  (12010217)
439689.00   3765435.00        1.94008  (12010217)
        439694.00   3765435.00        1.92325  (12010217)
439699.00   3765435.00        1.90579  (12010217)
        439704.00   3765435.00        1.89195  (12121717)
439709.00   3765435.00        1.89186  (12121717)
        439714.00   3765435.00        1.89179  (12121717)
439719.00   3765435.00        1.89169  (12121717)
        439729.00   3765435.00        1.89140  (12121717)
439734.00   3765435.00        1.90960  (15010717)
        439739.00   3765435.00        1.92665  (15010717)
439744.00   3765435.00        1.94286  (15010717)
        439749.00   3765435.00        1.95800  (15010717)
439774.00   3765435.00        2.01828  (15010717)
        439779.00   3765435.00        2.02750  (15010717)
439784.00   3765435.00        2.03596  (15010717)
        439789.00   3765435.00        2.04408  (15010717)
439794.00   3765435.00        2.05102  (15010717)
        439799.00   3765435.00        2.05823  (15010717)
439804.00   3765435.00        2.06503  (15010717)
        439809.00   3765435.00        2.07071  (15010717)
439814.00   3765435.00        2.07653  (15010717)
        439819.00   3765435.00        2.08153  (15010717)
```

```
439824.00   3765435.00        2.08618  (15010717)
        439829.00   3765435.00        2.09115  (15010717)
439834.00   3765435.00        2.09564  (15010717)
        439839.00   3765435.00        2.10031  (15010717)
439844.00   3765435.00        2.10461  (15010717)
        439849.00   3765435.00        2.10860  (15010717)
439854.00   3765435.00        2.11283  (15010717)
        439859.00   3765435.00        2.11667  (15010717)
439674.00   3765440.00        2.01662  (12010217)
        439679.00   3765440.00        2.00298  (12010217)
439684.00   3765440.00        1.98865  (12010217)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONOFFEXH ***
INCLUDING SOURCE(S):
A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , A0000029 , A0000030 , A0000031 , A0000032 , A0000033 , A0000034 , A0000035 ,
A0000036 , A0000037 , A0000038 , A0000039 , A0000040 , A0000041 , A0000042 , A0000043 ,
A0000044 , A0000045 , A0000046 , A0000047 , A0000048 , A0000049 , A0000050 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439689.00	3765440.00	1.97335	(12010217)	439694.00	3765440.00	1.95727	(12010217)
439699.00	3765440.00	1.94012	(12010217)	439704.00	3765440.00	1.92159	(12010217)
439709.00	3765440.00	1.91596	(12121717)	439714.00	3765440.00	1.91593	(12121717)
439719.00	3765440.00	1.91591	(12121717)	439729.00	3765440.00	1.93114	(15010717)
439734.00	3765440.00	1.94959	(15010717)	439739.00	3765440.00	1.96646	(15010717)
439744.00	3765440.00	1.98160	(15010717)	439749.00	3765440.00	1.99588	(15010717)
439774.00	3765440.00	2.05295	(15010717)	439779.00	3765440.00	2.06174	(15010717)
439784.00	3765440.00	2.07011	(15010717)	439789.00	3765440.00	2.07726	(15010717)
439794.00	3765440.00	2.08407	(15010717)				

439799.00 3765440.00 2.09038 (15010717)
439804.00 3765440.00 2.09651 (15010717)
439809.00 3765440.00 2.10225 (15010717)
439814.00 3765440.00 2.10739 (15010717)
439819.00 3765440.00 2.11276 (15010717)
439824.00 3765440.00 2.11772 (15010717)
439829.00 3765440.00 2.12191 (15010717)
439834.00 3765440.00 2.12647 (15010717)
439839.00 3765440.00 2.13078 (15010717)
439844.00 3765440.00 2.13505 (15010717)
439849.00 3765440.00 2.13944 (15010717)
439854.00 3765440.00 2.14355 (15010717)
439859.00 3765440.00 2.14744 (15010717)
439674.00 3765445.00 2.04990 (12010217)
439679.00 3765445.00 2.03696 (12010217)
439684.00 3765445.00 2.02318 (12010217)
439689.00 3765445.00 2.00793 (12010217)
439694.00 3765445.00 1.99206 (12010217)
439699.00 3765445.00 1.97485 (12010217)
439704.00 3765445.00 1.95689 (12010217)
439709.00 3765445.00 1.94089 (12121717)
439714.00 3765445.00 1.94085 (12121717)
439719.00 3765445.00 1.94084 (12121717)
439729.00 3765445.00 1.97234 (15010717)
439734.00 3765445.00 1.98953 (15010717)
439739.00 3765445.00 2.00598 (15010717)
439744.00 3765445.00 2.02124 (15010717)
439749.00 3765445.00 2.03495 (15010717)
439774.00 3765445.00 2.08804 (15010717)
439779.00 3765445.00 2.09630 (15010717)
439784.00 3765445.00 2.10423 (15010717)
439789.00 3765445.00 2.11176 (15010717)
439794.00 3765445.00 2.11810 (15010717)
439799.00 3765445.00 2.12421 (15010717)
439804.00 3765445.00 2.12969 (15010717)
439809.00 3765445.00 2.13476 (15010717)
439814.00 3765445.00 2.13986 (15010717)
439819.00 3765445.00 2.14448 (15010717)
439824.00 3765445.00 2.14919 (15010717)
439829.00 3765445.00 2.15420 (15010717)
439834.00 3765445.00 2.15842 (15010717)
439839.00 3765445.00 2.16264 (15010717)
439844.00 3765445.00 2.16673 (15010717)
439849.00 3765445.00 2.17081 (15010717)
439854.00 3765445.00 2.17511 (15010717)
439859.00 3765445.00 2.17900 (15010717)
439674.00 3765450.00 2.08450 (12010217)
439679.00 3765450.00 2.07181 (12010217)
439684.00 3765450.00 2.05785 (12010217)
439689.00 3765450.00 2.04334 (12010217)
439694.00 3765450.00 2.02772 (12010217)
439699.00 3765450.00 2.01108 (12010217)

```
439704.00   3765450.00        1.99349  (12010217)
        439709.00   3765450.00        1.97430  (12010217)
439714.00   3765450.00        1.96664  (12121717)
        439719.00   3765450.00        1.97695  (15010717)
439729.00   3765450.00        2.01410  (15010717)
        439734.00   3765450.00        2.03105  (15010717)
439739.00   3765450.00        2.04630  (15010717)
        439744.00   3765450.00        2.06024  (15010717)
439749.00   3765450.00        2.07331  (15010717)
        439774.00   3765450.00        2.12438  (15010717)
439844.00   3765450.00        2.19929  (15010717)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONOFFEXH ***
INCLUDING SOURCE(S):
A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , A0000029 , A0000030 , A0000031 , A0000032 , A0000033 , A0000034 , A0000035 ,
A0000036 , A0000037 , A0000038 , A0000039 , A0000040 , A0000041 , A0000042 , A0000043 ,
A0000044 , A0000045 , A0000046 , A0000047 , A0000048 , A0000049 , A0000050 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439849.00	3765450.00	2.20326	(15010717)	439854.00	3765450.00	2.20708	(15010717)
439859.00	3765450.00	2.21084	(15010717)	439674.00	3765455.00	2.12004	(12010217)
439679.00	3765455.00	2.10741	(12010217)	439684.00	3765455.00	2.09402	(12010217)
439689.00	3765455.00	2.07988	(12010217)	439694.00	3765455.00	2.06436	(12010217)
439699.00	3765455.00	2.04809	(12010217)	439704.00	3765455.00	2.03049	(12010217)
439709.00	3765455.00	2.01218	(12010217)	439714.00	3765455.00	2.00078	(15010717)
439719.00	3765455.00	2.02061	(15010717)	439729.00	3765455.00	2.05721	(15010717)
439734.00	3765455.00	2.07256	(15010717)	439739.00	3765455.00	2.08762	(15010717)
439744.00	3765455.00	2.10101	(15010717)				

439749.00 3765455.00 2.11303 (15010717)
439844.00 3765455.00 2.23210 (15010717)
439849.00 3765455.00 2.23629 (15010717)
439854.00 3765455.00 2.24078 (15010717)
439859.00 3765455.00 2.24449 (15010717)
439674.00 3765460.00 2.15644 (12010217)
439679.00 3765460.00 2.14415 (12010217)
439684.00 3765460.00 2.13125 (12010217)
439689.00 3765460.00 2.11698 (12010217)
439694.00 3765460.00 2.10214 (12010217)
439699.00 3765460.00 2.08618 (12010217)
439704.00 3765460.00 2.06900 (12010217)
439709.00 3765460.00 2.05078 (12010217)
439714.00 3765460.00 2.04608 (15010717)
439719.00 3765460.00 2.06548 (15010717)
439729.00 3765460.00 2.09955 (15010717)
439734.00 3765460.00 2.11517 (15010717)
439739.00 3765460.00 2.12868 (15010717)
439744.00 3765460.00 2.14208 (15010717)
439749.00 3765460.00 2.15373 (15010717)
439789.00 3765460.00 2.21735 (15010717)
439794.00 3765460.00 2.22308 (15010717)
439799.00 3765460.00 2.22754 (15010717)
439804.00 3765460.00 2.23228 (15010717)
439809.00 3765460.00 2.23691 (15010717)
439814.00 3765460.00 2.24121 (15010717)
439819.00 3765460.00 2.24560 (15010717)
439824.00 3765460.00 2.24962 (15010717)
439829.00 3765460.00 2.25393 (15010717)
439844.00 3765460.00 2.26654 (15010717)
439849.00 3765460.00 2.27084 (15010717)
439854.00 3765460.00 2.27502 (15010717)
439859.00 3765460.00 2.27919 (15010717)
439674.00 3765465.00 2.19366 (12010217)
439679.00 3765465.00 2.18208 (12010217)
439684.00 3765465.00 2.16924 (12010217)
439689.00 3765465.00 2.15553 (12010217)
439694.00 3765465.00 2.14089 (12010217)
439699.00 3765465.00 2.12508 (12010217)
439704.00 3765465.00 2.10842 (12010217)
439709.00 3765465.00 2.09054 (12010217)
439714.00 3765465.00 2.09263 (15010717)
439719.00 3765465.00 2.11080 (15010717)
439729.00 3765465.00 2.14402 (15010717)
439734.00 3765465.00 2.15775 (15010717)
439739.00 3765465.00 2.17123 (15010717)
439744.00 3765465.00 2.18291 (15010717)
439749.00 3765465.00 2.19363 (15010717)
439789.00 3765465.00 2.25288 (15010717)
439794.00 3765465.00 2.25842 (15010717)
439799.00 3765465.00 2.26327 (15010717)
439804.00 3765465.00 2.26767 (15010717)

```
439809.00   3765465.00        2.27285  (15010717)
        439814.00   3765465.00        2.27739  (15010717)
439819.00   3765465.00        2.28075  (15010717)
        439824.00   3765465.00        2.28501  (15010717)
439829.00   3765465.00        2.28931  (15010717)
        439844.00   3765465.00        2.30182  (15010717)
439849.00   3765465.00        2.30630  (15010717)
        439854.00   3765465.00        2.31091  (15010717)
439859.00   3765465.00        2.31488  (15010717)
        439674.00   3765470.00        2.23241  (12010217)
439679.00   3765470.00        2.22087  (12010217)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONOFFEXH ***
INCLUDING SOURCE(S):
A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , A0000029 , A0000030 , A0000031 , A0000032 , A0000033 , A0000034 , A0000035 ,
A0000036 , A0000037 , A0000038 , A0000039 , A0000040 , A0000041 , A0000042 , A0000043 ,
A0000044 , A0000045 , A0000046 , A0000047 , A0000048 , A0000049 , A0000050 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439684.00	3765470.00	2.20841	(12010217)	439689.00	3765470.00	2.19514	(12010217)
439694.00	3765470.00	2.18048	(12010217)	439699.00	3765470.00	2.16552	(12010217)
439704.00	3765470.00	2.14915	(12010217)	439709.00	3765470.00	2.13157	(12010217)
439714.00	3765470.00	2.13961	(15010717)	439719.00	3765470.00	2.15728	(15010717)
439729.00	3765470.00	2.18840	(15010717)	439734.00	3765470.00	2.20224	(15010717)
439739.00	3765470.00	2.21387	(15010717)	439744.00	3765470.00	2.22548	(15010717)
439749.00	3765470.00	2.23584	(15010717)	439789.00	3765470.00	2.29137	(15010717)
439794.00	3765470.00	2.29602	(15010717)	439799.00	3765470.00	2.30032	(15010717)
439804.00	3765470.00	2.30492	(15010717)				

```
439809.00   3765470.00        2.30913  (15010717)
        439814.00   3765470.00        2.31314  (15010717)
439819.00   3765470.00        2.31736  (15010717)
        439824.00   3765470.00        2.32170  (15010717)
439829.00   3765470.00        2.32625  (15010717)
        439844.00   3765470.00        2.33875  (15010717)
439849.00   3765470.00        2.34303  (15010717)
        439854.00   3765470.00        2.34756  (15010717)
439859.00   3765470.00        2.35210  (15010717)
        439674.00   3765475.00        2.27189  (12010217)
439679.00   3765475.00        2.26072  (12010217)
        439684.00   3765475.00        2.24885  (12010217)
439689.00   3765475.00        2.23574  (12010217)
        439694.00   3765475.00        2.22200  (12010217)
439699.00   3765475.00        2.20698  (12010217)
        439704.00   3765475.00        2.19071  (12010217)
439709.00   3765475.00        2.17383  (12010217)
        439714.00   3765475.00        2.18744  (15010717)
439719.00   3765475.00        2.20418  (15010717)
        439729.00   3765475.00        2.23383  (15010717)
439734.00   3765475.00        2.24604  (15010717)
        439739.00   3765475.00        2.25803  (15010717)
439744.00   3765475.00        2.26867  (15010717)
        439749.00   3765475.00        2.27853  (15010717)
439754.00   3765475.00        2.28724  (15010717)
        439789.00   3765475.00        2.32951  (15010717)
439794.00   3765475.00        2.33461  (15010717)
        439799.00   3765475.00        2.33932  (15010717)
439804.00   3765475.00        2.34321  (15010717)
        439809.00   3765475.00        2.34714  (15010717)
439814.00   3765475.00        2.35137  (15010717)
        439819.00   3765475.00        2.35515  (15010717)
439824.00   3765475.00        2.35946  (15010717)
        439829.00   3765475.00        2.36379  (15010717)
439269.00   3764900.00        0.82108  (12120908)
        439369.00   3764900.00        0.92368  (12010217)
439469.00   3764900.00        0.89259  (12010217)
        439569.00   3764900.00        0.85298  (15010918)
439669.00   3764900.00        0.86385  (12121717)
        439769.00   3764900.00        0.83973  (12121717)
439869.00   3764900.00        0.79156  (13012419)
        439969.00   3764900.00        0.82699  (13012419)
440069.00   3764900.00        0.77552  (14011819)
        440169.00   3764900.00        0.87121  (15010717)
440269.00   3764900.00        0.88005  (15010717)
        439269.00   3765000.00        0.95963  (13120808)
439369.00   3765000.00        1.01711  (12010217)
        439469.00   3765000.00        1.01721  (12010217)
439569.00   3765000.00        0.94562  (15010918)
        439669.00   3765000.00        0.96153  (12121717)
439769.00   3765000.00        0.92777  (12121717)
        439869.00   3765000.00        0.91149  (13012419)
```

```
439969.00   3765000.00        0.90597  (13012419)
        440069.00   3765000.00        0.95267  (15010717)
440169.00   3765000.00        0.98883  (15010717)
        440269.00   3765000.00        0.97136  (13121617)
439269.00   3765100.00        1.13847  (13120808)
        439369.00   3765100.00        1.11456  (12010217)
439469.00   3765100.00        1.17037  (12010217)
        439569.00   3765100.00        1.06431  (12010217)
439669.00   3765100.00        1.08143  (12121717)
        439769.00   3765100.00        1.04012  (12121717)
439869.00   3765100.00        1.04310  (13012419)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONOFFEXH ***
INCLUDING SOURCE(S):
A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , A0000029 , A0000030 , A0000031 , A0000032 , A0000033 , A0000034 , A0000035 ,
A0000036 , A0000037 , A0000038 , A0000039 , A0000040 , A0000041 , A0000042 , A0000043 ,
A0000044 , A0000045 , A0000046 , A0000047 , A0000048 , A0000049 , A0000050 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439969.00	3765100.00	1.03653	(15010717)	440069.00	3765100.00	1.12612	(15010717)
440169.00	3765100.00	1.10214	(13121617)	440269.00	3765100.00	1.08389	(13121617)
439269.00	3765200.00	1.32083	(13120808)	439369.00	3765200.00	1.27914	(13120808)
439469.00	3765200.00	1.35637	(12010217)	439569.00	3765200.00	1.27547	(12010217)
439669.00	3765200.00	1.23382	(12121717)	439769.00	3765200.00	1.19031	(12121717)
439869.00	3765200.00	1.19553	(13012419)	439969.00	3765200.00	1.29392	(15010717)
440069.00	3765200.00	1.28370	(15010717)	440169.00	3765200.00	1.25916	(13121617)
440269.00	3765200.00	1.19003	(16010608)	439269.00	3765300.00	1.46905	(14100607)
439369.00	3765300.00	1.58113	(13120808)				

```
439469.00   3765300.00        1.58924  (12010217)
        439569.00   3765300.00        1.55771  (12010217)
439669.00   3765300.00        1.43882  (12121717)
        439769.00   3765300.00        1.40265  (12121717)
439869.00   3765300.00        1.49334  (15010717)
        439969.00   3765300.00        1.56245  (15010717)
440069.00   3765300.00        1.51568  (13121617)
        440169.00   3765300.00        1.41047  (16010608)
440269.00   3765300.00        1.39578  (15113017)
        439269.00   3765400.00        1.79798  (13121718)
439369.00   3765400.00        1.91687  (13120808)
        439469.00   3765400.00        1.91840  (13120808)
439569.00   3765400.00        1.94457  (12010217)
        439669.00   3765400.00        1.78937  (12010217)
439769.00   3765400.00        1.77325  (15010717)
        439869.00   3765400.00        1.93205  (15010717)
439969.00   3765400.00        1.92177  (13121617)
        440069.00   3765400.00        1.75260  (16010608)
440169.00   3765400.00        1.78863  (15113017)
        440269.00   3765400.00        1.75926  (15113017)
439269.00   3765500.00        2.45983  (12011417)
        439369.00   3765500.00        2.46736  (13121718)
439469.00   3765500.00        2.57652  (13120808)
        439569.00   3765500.00        2.56457  (12010217)
439669.00   3765500.00        2.49889  (12010217)
        439769.00   3765500.00        2.52588  (15010717)
439869.00   3765500.00        2.62439  (15010717)
        439969.00   3765500.00        2.54522  (15113017)
440069.00   3765500.00        2.40790  (15113017)
        440169.00   3765500.00        2.44253  (12011608)
440269.00   3765500.00        2.43780  (12011608)
        439269.00   3765600.00        3.13308  (12111318)
439369.00   3765600.00        3.91996  (12011417)
        439469.00   3765600.00        4.02504  (12011417)
439569.00   3765600.00        4.08047  (13120808)
        439669.00   3765600.00        4.12557  (12010217)
439769.00   3765600.00        4.21553  (15010717)
        439869.00   3765600.00        4.92488  (15010717)
439969.00   3765600.00        5.47594  (12011417)
        440069.00   3765600.00        4.72130  (12011608)
440169.00   3765600.00        4.57951  (14101107)
        440269.00   3765600.00        4.27960  (14101107)
439269.00   3765700.00        4.73913  (14012908)
        439369.00   3765700.00        6.90229  (14012908)
439469.00   3765700.00       29.56830  (14101007)
        439569.00   3765700.00       13.65650  (13111217)
439669.00   3765700.00        7.83900  (12011908)
        439769.00   3765700.00        5.68142  (14121418)
439869.00   3765700.00        4.39712  (14121418)
        439969.00   3765700.00        4.88116  (12111317)
440069.00   3765700.00        6.04430  (15120818)
        440169.00   3765700.00        8.87945  (13111217)
```

```
440269.00   3765700.00       15.27275  (13111217)
        439269.00   3765800.00        4.40214  (12111317)
439369.00   3765800.00        5.75688  (12100707)
        439469.00   3765800.00        5.91963  (15120818)
439569.00   3765800.00        5.82962  (15120818)
        439669.00   3765800.00        6.46856  (13111218)
439769.00   3765800.00        8.85238  (13111217)
        439869.00   3765800.00       14.53752  (13111217)
439969.00   3765800.00        6.40108  (14121418)
        440069.00   3765800.00        4.02892  (14121418)
440169.00   3765800.00        3.25499  (13111218)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONOFFEXH ***
INCLUDING SOURCE(S):
A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , A0000029 , A0000030 , A0000031 , A0000032 , A0000033 , A0000034 , A0000035 ,
A0000036 , A0000037 , A0000038 , A0000039 , A0000040 , A0000041 , A0000042 , A0000043 ,
A0000044 , A0000045 , A0000046 , A0000047 , A0000048 , A0000049 , A0000050 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
440269.00	3765800.00	3.46389	(13111217)
439269.00	3765900.00	3.03243	(15120818)
439369.00	3765900.00	3.08651	(15112217)
439469.00	3765900.00	3.04673	(13111218)
439569.00	3765900.00	2.99123	(13111218)
439669.00	3765900.00	2.88461	(13111218)
439769.00	3765900.00	2.98339	(12122117)
439869.00	3765900.00	3.41569	(13111217)
439969.00	3765900.00	3.55475	(13111217)
440069.00	3765900.00	2.91351	(12011717)
440169.00	3765900.00	2.38912	(12011717)
440269.00	3765900.00	1.99784	(15120418)
439649.00	3765310.00	1.46115	(12121717)
439679.00	3765310.00	1.46388	(12121717)
439709.00	3765310.00	1.46133	(12121717)
439739.00	3765310.00	1.45176	(12121717)
439769.00	3765310.00	1.42892	(12121717)

```
439799.00   3765310.00        1.42664  (13012419)
        439829.00   3765310.00        1.45069  (15010717)
439859.00   3765310.00        1.51626  (15010717)
        439889.00   3765310.00        1.56188  (15010717)
439649.00   3765340.00        1.55820  (12010217)
        439679.00   3765340.00        1.54445  (12121717)
439709.00   3765340.00        1.54225  (12121717)
        439739.00   3765340.00        1.53463  (12121717)
439769.00   3765340.00        1.51436  (12121717)
        439799.00   3765340.00        1.51408  (15010717)
439829.00   3765340.00        1.59019  (15010717)
        439859.00   3765340.00        1.64353  (15010717)
439889.00   3765340.00        1.67951  (15010717)
        439649.00   3765370.00        1.69022  (12010217)
439679.00   3765370.00        1.63653  (12121717)
        439709.00   3765370.00        1.63483  (12121717)
439739.00   3765370.00        1.62926  (12121717)
        439769.00   3765370.00        1.61264  (12121717)
439799.00   3765370.00        1.67500  (15010717)
        439829.00   3765370.00        1.73644  (15010717)
439859.00   3765370.00        1.77845  (15010717)
        439889.00   3765370.00        1.80529  (15010717)
439649.00   3765400.00        1.83953  (12010217)
        439679.00   3765400.00        1.75959  (12010217)
439709.00   3765400.00        1.74205  (12121717)
        439739.00   3765400.00        1.73844  (12121717)
439769.00   3765400.00        1.77325  (15010717)
        439799.00   3765400.00        1.84462  (15010717)
439829.00   3765400.00        1.89163  (15010717)
        439859.00   3765400.00        1.92416  (15010717)
439889.00   3765400.00        1.94508  (15010717)
        439649.00   3765430.00        2.00947  (12010217)
439679.00   3765430.00        1.93770  (12010217)
        439709.00   3765430.00        1.86851  (12121717)
439739.00   3765430.00        1.88829  (15010717)
        439769.00   3765430.00        1.97352  (15010717)
439799.00   3765430.00        2.02687  (15010717)
        439829.00   3765430.00        2.06116  (15010717)
439859.00   3765430.00        2.08725  (15010717)
        439889.00   3765430.00        2.10542  (15010717)
439649.00   3765460.00        2.20549  (12010217)
        439679.00   3765460.00        2.14415  (12010217)
439709.00   3765460.00        2.05078  (12010217)
        439739.00   3765460.00        2.12868  (15010717)
439769.00   3765460.00        2.19003  (15010717)
        439799.00   3765460.00        2.22754  (15010717)
439829.00   3765460.00        2.25393  (15010717)
        439859.00   3765460.00        2.27919  (15010717)
439889.00   3765460.00        2.29761  (15010717)
        439649.00   3765490.00        2.43819  (12010217)
439679.00   3765490.00        2.38844  (12010217)
        439709.00   3765490.00        2.32058  (15010717)
```

```
439739.00   3765490.00        2.39457  (15010717)
        439769.00   3765490.00        2.43487  (15010717)
439799.00   3765490.00        2.46051  (15010717)
        439829.00   3765490.00        2.48616  (15010717)
439859.00   3765490.00        2.51765  (15010717)
        439889.00   3765490.00        2.54095  (15010717)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: FREEEVAP ***
INCLUDING SOURCE(S):
A0000067 , A0000068 , A0000069 , A0000070 , A0000071 ,
A0000072 , A0000073 , A0000074 , A0000075 , A0000076 , A0000077 , A0000078 , A0000079 ,
A0000080 , A0000081 , A0000082 , A0000083 , A0000084 , A0000085 , A0000086 , A0000087 ,
A0000088 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439674.00	3765310.00	2.55455	(12010217)
439679.00	3765310.00	2.55416	(12010217)
439684.00	3765310.00	2.55472	(12010217)
439689.00	3765310.00	2.55433	(12010217)
439694.00	3765310.00	2.55483	(12010217)
439699.00	3765310.00	2.55430	(12010217)
439704.00	3765310.00	2.55489	(12010217)
439709.00	3765310.00	2.55462	(12010217)
439714.00	3765310.00	2.55471	(12010217)
439719.00	3765310.00	2.55462	(12010217)
439729.00	3765310.00	2.55487	(12010217)
439734.00	3765310.00	2.55454	(12010217)
439739.00	3765310.00	2.55498	(12010217)
439744.00	3765310.00	2.55460	(12010217)
439749.00	3765310.00	2.55513	(12010217)
439764.00	3765310.00	2.55469	(12010217)
439769.00	3765310.00	2.55530	(12010217)
439774.00	3765310.00	2.55498	(12010217)
439779.00	3765310.00	2.55543	(12010217)

439784.00 3765310.00 2.55488 (12010217)
439789.00 3765310.00 2.55555 (12010217)
439794.00 3765310.00 2.55523 (12010217)
439799.00 3765310.00 2.55536 (12010217)
439804.00 3765310.00 2.55520 (12010217)
439809.00 3765310.00 2.55559 (12010217)
439814.00 3765310.00 2.55514 (12010217)
439819.00 3765310.00 2.55557 (12010217)
439824.00 3765310.00 2.55527 (12010217)
439829.00 3765310.00 2.55546 (12010217)
439839.00 3765310.00 2.55552 (12010217)
439844.00 3765310.00 2.55543 (12010217)
439849.00 3765310.00 2.55539 (12010217)
439854.00 3765310.00 2.55568 (12010217)
439859.00 3765310.00 2.55547 (12010217)
439864.00 3765310.00 2.55550 (12010217)
439869.00 3765310.00 2.55538 (12010217)
439874.00 3765310.00 2.55576 (12010217)
439879.00 3765310.00 2.55530 (12010217)
439884.00 3765310.00 2.55592 (12010217)
439674.00 3765315.00 2.57599 (12010217)
439679.00 3765315.00 2.57572 (12010217)
439684.00 3765315.00 2.57581 (12010217)
439689.00 3765315.00 2.57592 (12010217)
439694.00 3765315.00 2.57607 (12010217)
439699.00 3765315.00 2.57588 (12010217)
439704.00 3765315.00 2.57622 (12010217)
439709.00 3765315.00 2.57622 (12010217)
439714.00 3765315.00 2.57618 (12010217)
439719.00 3765315.00 2.57617 (12010217)
439729.00 3765315.00 2.57644 (12010217)
439734.00 3765315.00 2.57650 (12010217)
439739.00 3765315.00 2.57648 (12010217)
439744.00 3765315.00 2.57657 (12010217)
439749.00 3765315.00 2.57630 (12010217)
439764.00 3765315.00 2.57651 (12010217)
439769.00 3765315.00 2.57659 (12010217)
439774.00 3765315.00 2.57667 (12010217)
439779.00 3765315.00 2.57674 (12010217)
439784.00 3765315.00 2.57641 (12010217)
439789.00 3765315.00 2.57677 (12010217)
439794.00 3765315.00 2.57670 (12010217)
439799.00 3765315.00 2.57682 (12010217)
439804.00 3765315.00 2.57673 (12010217)
439809.00 3765315.00 2.57705 (12010217)
439814.00 3765315.00 2.57665 (12010217)
439819.00 3765315.00 2.57715 (12010217)
439824.00 3765315.00 2.57688 (12010217)
439829.00 3765315.00 2.57697 (12010217)
439839.00 3765315.00 2.57713 (12010217)
439844.00 3765315.00 2.57701 (12010217)
439849.00 3765315.00 2.57701 (12010217)

```
439854.00   3765315.00        2.57719  (12010217)
        439859.00   3765315.00        2.57713  (12010217)
439864.00   3765315.00        2.57707  (12010217)
        439869.00   3765315.00        2.57715  (12010217)
439874.00   3765315.00        2.57734  (12010217)
        439879.00   3765315.00        2.57691  (12010217)
439884.00   3765315.00        2.57720  (12010217)
        439674.00   3765320.00        2.60987  (12011417)
439679.00   3765320.00        2.60012  (12011417)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: FREEEVAP ***
INCLUDING SOURCE(S):
A0000067 , A0000068 , A0000069 , A0000070 , A0000071 ,
A0000072 , A0000073 , A0000074 , A0000075 , A0000076 , A0000077 , A0000078 , A0000079 ,
A0000080 , A0000081 , A0000082 , A0000083 , A0000084 , A0000085 , A0000086 , A0000087 ,
A0000088 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439684.00	3765320.00	2.59762	(12010217)	439689.00	3765320.00	2.59843	(12010217)
439694.00	3765320.00	2.59800	(12010217)	439699.00	3765320.00	2.59804	(12010217)
439704.00	3765320.00	2.59813	(12010217)	439709.00	3765320.00	2.59817	(12010217)
439714.00	3765320.00	2.59820	(12010217)	439719.00	3765320.00	2.59812	(12010217)
439729.00	3765320.00	2.59807	(12010217)	439734.00	3765320.00	2.59857	(12010217)
439739.00	3765320.00	2.59820	(12010217)	439744.00	3765320.00	2.59869	(12010217)
439749.00	3765320.00	2.59816	(12010217)	439764.00	3765320.00	2.59868	(12010217)
439769.00	3765320.00	2.59846	(12010217)	439774.00	3765320.00	2.59898	(12010217)
439779.00	3765320.00	2.59863	(12010217)	439784.00	3765320.00	2.59901	(12010217)
439789.00	3765320.00	2.59868	(12010217)				

439794.00 3765320.00 2.59907 (12010217)
439799.00 3765320.00 2.59869 (12010217)
439804.00 3765320.00 2.59905 (12010217)
439809.00 3765320.00 2.59874 (12010217)
439814.00 3765320.00 2.59890 (12010217)
439819.00 3765320.00 2.59896 (12010217)
439824.00 3765320.00 2.59900 (12010217)
439829.00 3765320.00 2.59875 (12010217)
439839.00 3765320.00 2.59917 (12010217)
439844.00 3765320.00 2.59885 (12010217)
439849.00 3765320.00 2.59917 (12010217)
439854.00 3765320.00 2.59892 (12010217)
439859.00 3765320.00 2.59931 (12010217)
439864.00 3765320.00 2.59891 (12010217)
439869.00 3765320.00 2.59938 (12010217)
439874.00 3765320.00 2.59914 (12010217)
439879.00 3765320.00 2.59923 (12010217)
439884.00 3765320.00 2.59922 (12010217)
439674.00 3765325.00 2.65071 (12011417)
439679.00 3765325.00 2.64245 (12011417)
439684.00 3765325.00 2.63310 (12011417)
439689.00 3765325.00 2.62415 (12011417)
439694.00 3765325.00 2.62047 (12010217)
439699.00 3765325.00 2.62048 (12010217)
439704.00 3765325.00 2.62069 (12010217)
439709.00 3765325.00 2.62073 (12010217)
439714.00 3765325.00 2.62065 (12010217)
439719.00 3765325.00 2.62097 (12010217)
439729.00 3765325.00 2.62084 (12010217)
439734.00 3765325.00 2.62082 (12010217)
439739.00 3765325.00 2.62115 (12010217)
439744.00 3765325.00 2.62083 (12010217)
439749.00 3765325.00 2.62115 (12010217)
439754.00 3765325.00 2.62097 (12010217)
439769.00 3765325.00 2.62109 (12010217)
439774.00 3765325.00 2.62120 (12010217)
439779.00 3765325.00 2.62100 (12010217)
439784.00 3765325.00 2.62139 (12010217)
439789.00 3765325.00 2.62119 (12010217)
439794.00 3765325.00 2.62126 (12010217)
439799.00 3765325.00 2.62141 (12010217)
439804.00 3765325.00 2.62151 (12010217)
439809.00 3765325.00 2.62132 (12010217)
439814.00 3765325.00 2.62146 (12010217)
439819.00 3765325.00 2.62166 (12010217)
439824.00 3765325.00 2.62144 (12010217)
439829.00 3765325.00 2.62142 (12010217)
439839.00 3765325.00 2.62180 (12010217)
439844.00 3765325.00 2.62135 (12010217)
439849.00 3765325.00 2.62189 (12010217)
439854.00 3765325.00 2.62162 (12010217)
439859.00 3765325.00 2.62180 (12010217)

```
439864.00   3765325.00        2.62158  (12010217)
        439869.00   3765325.00        2.62177  (12010217)
439874.00   3765325.00        2.62153  (12010217)
        439879.00   3765325.00        2.62174  (12010217)
439884.00   3765325.00        2.62161  (12010217)
        439674.00   3765330.00        2.69296  (12011417)
439679.00   3765330.00        2.68398  (12011417)
        439684.00   3765330.00        2.67601  (12011417)
439689.00   3765330.00        2.66654  (12011417)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: FREEEVAP ***
INCLUDING SOURCE(S):
A0000067 , A0000068 , A0000069 , A0000070 , A0000071 ,
A0000072 , A0000073 , A0000074 , A0000075 , A0000076 , A0000077 , A0000078 , A0000079 ,
A0000080 , A0000081 , A0000082 , A0000083 , A0000084 , A0000085 , A0000086 , A0000087 ,
A0000088 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439694.00	3765330.00	2.65803	(12011417)	439699.00	3765330.00	2.64814	(12011417)
439704.00	3765330.00	2.64366	(12010217)	439709.00	3765330.00	2.64359	(12010217)
439714.00	3765330.00	2.64350	(12010217)	439719.00	3765330.00	2.64398	(12010217)
439729.00	3765330.00	2.64383	(12010217)	439734.00	3765330.00	2.64376	(12010217)
439739.00	3765330.00	2.64409	(12010217)	439744.00	3765330.00	2.64365	(12010217)
439749.00	3765330.00	2.64415	(12010217)	439754.00	3765330.00	2.64393	(12010217)
439774.00	3765330.00	2.64403	(12010217)	439779.00	3765330.00	2.64414	(12010217)
439784.00	3765330.00	2.64434	(12010217)	439789.00	3765330.00	2.64438	(12010217)
439794.00	3765330.00	2.64397	(12010217)	439799.00	3765330.00	2.64461	(12010217)
439804.00	3765330.00	2.64439	(12010217)				

```
439809.00   3765330.00        2.64422  (12010217)
        439814.00   3765330.00        2.64442  (12010217)
439819.00   3765330.00        2.64457  (12010217)
        439824.00   3765330.00        2.64446  (12010217)
439829.00   3765330.00        2.64422  (12010217)
        439839.00   3765330.00        2.64433  (12010217)
439844.00   3765330.00        2.64454  (12010217)
        439849.00   3765330.00        2.64446  (12010217)
439854.00   3765330.00        2.64481  (12010217)
        439859.00   3765330.00        2.64415  (12010217)
439864.00   3765330.00        2.64504  (12010217)
        439869.00   3765330.00        2.64449  (12010217)
439874.00   3765330.00        2.64475  (12010217)
        439879.00   3765330.00        2.64453  (12010217)
439884.00   3765330.00        2.64487  (12010217)
        439674.00   3765335.00        2.73436  (12011417)
439679.00   3765335.00        2.72701  (12011417)
        439684.00   3765335.00        2.71792  (12011417)
439689.00   3765335.00        2.70995  (12011417)
        439694.00   3765335.00        2.70098  (12011417)
439699.00   3765335.00        2.69242  (12011417)
        439704.00   3765335.00        2.68261  (12011417)
439709.00   3765335.00        2.67352  (12011417)
        439714.00   3765335.00        2.66729  (12010217)
439719.00   3765335.00        2.66719  (12010217)
        439729.00   3765335.00        2.66708  (12010217)
439734.00   3765335.00        2.66750  (12010217)
        439739.00   3765335.00        2.66729  (12010217)
439744.00   3765335.00        2.66753  (12010217)
        439749.00   3765335.00        2.66752  (12010217)
439774.00   3765335.00        2.66754  (12010217)
        439779.00   3765335.00        2.66767  (12010217)
439784.00   3765335.00        2.66791  (12010217)
        439789.00   3765335.00        2.66777  (12010217)
439794.00   3765335.00        2.66762  (12010217)
        439839.00   3765335.00        2.66793  (12010217)
439844.00   3765335.00        2.66832  (12010217)
        439849.00   3765335.00        2.66819  (12010217)
439854.00   3765335.00        2.66830  (12010217)
        439859.00   3765335.00        2.66793  (12010217)
439864.00   3765335.00        2.66857  (12010217)
        439869.00   3765335.00        2.66817  (12010217)
439874.00   3765335.00        2.66825  (12010217)
        439879.00   3765335.00        2.66820  (12010217)
439884.00   3765335.00        2.66853  (12010217)
        439674.00   3765340.00        2.77716  (12011417)
439679.00   3765340.00        2.76870  (12011417)
        439684.00   3765340.00        2.76128  (12011417)
439689.00   3765340.00        2.75253  (12011417)
        439694.00   3765340.00        2.74466  (12011417)
439699.00   3765340.00        2.73537  (12011417)
        439704.00   3765340.00        2.72727  (12011417)
```

```
439709.00   3765340.00        2.71759  (12011417)
        439714.00   3765340.00        2.70860  (12011417)
439719.00   3765340.00        2.69869  (12011417)
        439729.00   3765340.00        2.69132  (12010217)
439734.00   3765340.00        2.69138  (12010217)
        439739.00   3765340.00        2.69121  (12010217)
439744.00   3765340.00        2.69142  (12010217)
        439749.00   3765340.00        2.69161  (12010217)
439774.00   3765340.00        2.69143  (12010217)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: FREEEVAP ***
INCLUDING SOURCE(S):
A0000067 , A0000068 , A0000069 , A0000070 , A0000071 ,
A0000072 , A0000073 , A0000074 , A0000075 , A0000076 , A0000077 , A0000078 , A0000079 ,
A0000080 , A0000081 , A0000082 , A0000083 , A0000084 , A0000085 , A0000086 , A0000087 ,
A0000088 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439779.00	3765340.00	2.69181	(12010217)	439784.00	3765340.00	2.69184	(12010217)
439789.00	3765340.00	2.69174	(12010217)	439794.00	3765340.00	2.69174	(12010217)
439839.00	3765340.00	2.69214	(12010217)	439844.00	3765340.00	2.69195	(12010217)
439849.00	3765340.00	2.69257	(12010217)	439854.00	3765340.00	2.69183	(12010217)
439859.00	3765340.00	2.69245	(12010217)	439864.00	3765340.00	2.69214	(12010217)
439869.00	3765340.00	2.69242	(12010217)	439874.00	3765340.00	2.69191	(12010217)
439879.00	3765340.00	2.69255	(12010217)	439884.00	3765340.00	2.69213	(12010217)
439674.00	3765345.00	2.81877	(12011417)	439679.00	3765345.00	2.81189	(12011417)
439684.00	3765345.00	2.80366	(12011417)	439689.00	3765345.00	2.79621	(12011417)
439694.00	3765345.00	2.78741	(12011417)				

439699.00 3765345.00 2.77989 (12011417)
439704.00 3765345.00 2.77074 (12011417)
439709.00 3765345.00 2.76254 (12011417)
439714.00 3765345.00 2.75313 (12011417)
439719.00 3765345.00 2.74440 (12011417)
439729.00 3765345.00 2.72519 (12011417)
439734.00 3765345.00 2.71590 (12010217)
439739.00 3765345.00 2.71569 (12010217)
439744.00 3765345.00 2.71614 (12010217)
439749.00 3765345.00 2.71619 (12010217)
439774.00 3765345.00 2.71613 (12010217)
439779.00 3765345.00 2.71642 (12010217)
439784.00 3765345.00 2.71635 (12010217)
439789.00 3765345.00 2.71617 (12010217)
439794.00 3765345.00 2.71639 (12010217)
439839.00 3765345.00 2.71634 (12010217)
439844.00 3765345.00 2.71696 (12010217)
439849.00 3765345.00 2.71666 (12010217)
439854.00 3765345.00 2.71653 (12010217)
439859.00 3765345.00 2.71679 (12010217)
439864.00 3765345.00 2.71697 (12010217)
439869.00 3765345.00 2.71661 (12010217)
439874.00 3765345.00 2.71692 (12010217)
439879.00 3765345.00 2.71709 (12010217)
439884.00 3765345.00 2.71668 (12010217)
439674.00 3765350.00 2.86130 (12011417)
439679.00 3765350.00 2.85390 (12011417)
439684.00 3765350.00 2.84718 (12011417)
439689.00 3765350.00 2.83903 (12011417)
439694.00 3765350.00 2.83187 (12011417)
439699.00 3765350.00 2.82335 (12011417)
439704.00 3765350.00 2.81569 (12011417)
439709.00 3765350.00 2.80669 (12011417)
439714.00 3765350.00 2.79893 (12011417)
439719.00 3765350.00 2.78907 (12011417)
439729.00 3765350.00 2.77095 (12011417)
439734.00 3765350.00 2.76158 (12011417)
439739.00 3765350.00 2.75179 (12011417)
439744.00 3765350.00 2.74146 (12011417)
439749.00 3765350.00 2.74117 (12010217)
439774.00 3765350.00 2.74150 (12010217)
439779.00 3765350.00 2.74152 (12010217)
439784.00 3765350.00 2.74148 (12010217)
439789.00 3765350.00 2.74144 (12010217)
439794.00 3765350.00 2.74179 (12010217)
439839.00 3765350.00 2.74164 (12010217)
439844.00 3765350.00 2.74232 (12010217)
439849.00 3765350.00 2.74173 (12010217)
439854.00 3765350.00 2.74207 (12010217)
439859.00 3765350.00 2.74200 (12010217)
439864.00 3765350.00 2.74224 (12010217)
439869.00 3765350.00 2.74170 (12010217)

```
439874.00   3765350.00        2.74244  (12010217)
        439879.00   3765350.00        2.74209  (12010217)
439884.00   3765350.00        2.74211  (12010217)
        439674.00   3765355.00        2.90411  (12011417)
439679.00   3765355.00        2.89737  (12011417)
        439684.00   3765355.00        2.88961  (12011417)
439689.00   3765355.00        2.88306  (12011417)
        439694.00   3765355.00        2.87522  (12011417)
439699.00   3765355.00        2.86821  (12011417)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: FREEEVAP ***
INCLUDING SOURCE(S):
A0000067 , A0000068 , A0000069 , A0000070 , A0000071 ,
A0000072 , A0000073 , A0000074 , A0000075 , A0000076 , A0000077 , A0000078 , A0000079 ,
A0000080 , A0000081 , A0000082 , A0000083 , A0000084 , A0000085 , A0000086 , A0000087 ,
A0000088 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439704.00	3765355.00	2.85965	(12011417)
439709.00	3765355.00	2.85219	(12011417)
439714.00	3765355.00	2.84321	(12011417)
439719.00	3765355.00	2.83539	(12011417)
439729.00	3765355.00	2.81736	(12011417)
439734.00	3765355.00	2.80797	(12011417)
439739.00	3765355.00	2.79881	(12011417)
439744.00	3765355.00	2.78946	(12011417)
439749.00	3765355.00	2.77891	(12011417)
439774.00	3765355.00	2.76724	(12010217)
439779.00	3765355.00	2.76731	(12010217)
439784.00	3765355.00	2.76689	(12010217)
439789.00	3765355.00	2.76743	(12010217)
439794.00	3765355.00	2.76751	(12010217)
439839.00	3765355.00	2.76799	(12010217)
439844.00	3765355.00	2.76758	(12010217)
439849.00	3765355.00	2.76767	(12010217)
439854.00	3765355.00	2.76751	(12010217)
439859.00	3765355.00	2.76804	(12010217)

439864.00 3765355.00 2.76738 (12010217)
439869.00 3765355.00 2.76785 (12010217)
439874.00 3765355.00 2.76777 (12010217)
439879.00 3765355.00 2.76784 (12010217)
439884.00 3765355.00 2.76761 (12010217)
439674.00 3765360.00 2.94687 (12011417)
439679.00 3765360.00 2.93991 (12011417)
439684.00 3765360.00 2.93395 (12011417)
439689.00 3765360.00 2.92633 (12011417)
439694.00 3765360.00 2.91952 (12011417)
439699.00 3765360.00 2.91167 (12011417)
439704.00 3765360.00 2.90505 (12011417)
439709.00 3765360.00 2.89651 (12011417)
439714.00 3765360.00 2.88923 (12011417)
439719.00 3765360.00 2.88063 (12011417)
439729.00 3765360.00 2.86369 (12011417)
439734.00 3765360.00 2.85513 (12011417)
439739.00 3765360.00 2.84566 (12011417)
439744.00 3765360.00 2.83629 (12011417)
439749.00 3765360.00 2.82756 (12011417)
439774.00 3765360.00 2.79365 (12010217)
439779.00 3765360.00 2.79359 (12010217)
439784.00 3765360.00 2.79326 (12010217)
439789.00 3765360.00 2.79389 (12010217)
439794.00 3765360.00 2.79356 (12010217)
439799.00 3765360.00 2.79351 (12010217)
439804.00 3765360.00 2.79365 (12010217)
439809.00 3765360.00 2.79394 (12010217)
439814.00 3765360.00 2.79351 (12010217)
439839.00 3765360.00 2.79404 (12010217)
439844.00 3765360.00 2.79392 (12010217)
439849.00 3765360.00 2.79377 (12010217)
439854.00 3765360.00 2.79428 (12010217)
439859.00 3765360.00 2.79403 (12010217)
439864.00 3765360.00 2.79403 (12010217)
439869.00 3765360.00 2.79418 (12010217)
439874.00 3765360.00 2.79432 (12010217)
439879.00 3765360.00 2.79395 (12010217)
439884.00 3765360.00 2.79426 (12010217)
439674.00 3765365.00 2.98980 (12011417)
439679.00 3765365.00 2.98344 (12011417)
439684.00 3765365.00 2.97685 (12011417)
439689.00 3765365.00 2.97053 (12011417)
439694.00 3765365.00 2.96352 (12011417)
439699.00 3765365.00 2.95713 (12011417)
439704.00 3765365.00 2.94907 (12011417)
439709.00 3765365.00 2.94232 (12011417)
439714.00 3765365.00 2.93426 (12011417)
439719.00 3765365.00 2.92716 (12011417)
439729.00 3765365.00 2.91061 (12011417)
439734.00 3765365.00 2.90165 (12011417)
439739.00 3765365.00 2.89333 (12011417)

```
439744.00   3765365.00        2.88452  (12011417)
        439749.00   3765365.00        2.87483  (12011417)
439774.00   3765365.00        2.82584  (12011417)
        439779.00   3765365.00        2.82019  (12010217)
439784.00   3765365.00        2.82055  (12010217)
        439789.00   3765365.00        2.82054  (12010217)
439794.00   3765365.00        2.82053  (12010217)
        439799.00   3765365.00        2.82045  (12010217)
439804.00   3765365.00        2.82101  (12010217)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: FREEEVAP ***
INCLUDING SOURCE(S):
A0000067 , A0000068 , A0000069 , A0000070 , A0000071 ,
A0000072 , A0000073 , A0000074 , A0000075 , A0000076 , A0000077 , A0000078 , A0000079 ,
A0000080 , A0000081 , A0000082 , A0000083 , A0000084 , A0000085 , A0000086 , A0000087 ,
A0000088 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439809.00	3765365.00	2.82050	(12010217)	439814.00	3765365.00	2.82072	(12010217)
439839.00	3765365.00	2.82113	(12010217)	439844.00	3765365.00	2.82088	(12010217)
439849.00	3765365.00	2.82107	(12010217)	439854.00	3765365.00	2.82127	(12010217)
439859.00	3765365.00	2.82089	(12010217)	439864.00	3765365.00	2.82119	(12010217)
439869.00	3765365.00	2.82136	(12010217)	439874.00	3765365.00	2.82120	(12010217)
439879.00	3765365.00	2.82094	(12010217)	439884.00	3765365.00	2.82160	(12010217)
439674.00	3765370.00	3.03323	(12011417)	439679.00	3765370.00	3.02721	(12011417)
439684.00	3765370.00	3.02097	(12011417)	439689.00	3765370.00	3.01435	(12011417)
439694.00	3765370.00	3.00837	(12011417)	439699.00	3765370.00	3.00105	(12011417)
439704.00	3765370.00	2.99544	(12011417)				

```
439709.00   3765370.00        2.98752  (12011417)
        439714.00   3765370.00        2.98036  (12011417)
439719.00   3765370.00        2.97238  (12011417)
        439729.00   3765370.00        2.95720  (12011417)
439734.00   3765370.00        2.94911  (12011417)
        439739.00   3765370.00        2.94050  (12011417)
439744.00   3765370.00        2.93215  (12011417)
        439749.00   3765370.00        2.92416  (12011417)
439774.00   3765370.00        2.87601  (12011417)
        439779.00   3765370.00        2.86587  (12011417)
439784.00   3765370.00        2.85473  (12011417)
        439789.00   3765370.00        2.84815  (12010217)
439794.00   3765370.00        2.84836  (12010217)
        439799.00   3765370.00        2.84835  (12010217)
439804.00   3765370.00        2.84863  (12010217)
        439809.00   3765370.00        2.84824  (12010217)
439814.00   3765370.00        2.84857  (12010217)
        439839.00   3765370.00        2.84854  (12010217)
439844.00   3765370.00        2.84850  (12010217)
        439849.00   3765370.00        2.84906  (12010217)
439854.00   3765370.00        2.84856  (12010217)
        439859.00   3765370.00        2.84876  (12010217)
439864.00   3765370.00        2.84870  (12010217)
        439869.00   3765370.00        2.84914  (12010217)
439874.00   3765370.00        2.84857  (12010217)
        439879.00   3765370.00        2.84906  (12010217)
439884.00   3765370.00        2.84894  (12010217)
        439674.00   3765375.00        3.07668  (12011417)
439679.00   3765375.00        3.07107  (12011417)
        439684.00   3765375.00        3.06495  (12011417)
439689.00   3765375.00        3.05966  (12011417)
        439694.00   3765375.00        3.05260  (12011417)
439699.00   3765375.00        3.04664  (12011417)
        439704.00   3765375.00        3.03958  (12011417)
439709.00   3765375.00        3.03374  (12011417)
        439714.00   3765375.00        3.02623  (12011417)
439719.00   3765375.00        3.01960  (12011417)
        439729.00   3765375.00        3.00462  (12011417)
439734.00   3765375.00        2.99677  (12011417)
        439739.00   3765375.00        2.98859  (12011417)
439744.00   3765375.00        2.98013  (12011417)
        439749.00   3765375.00        2.97158  (12011417)
439754.00   3765375.00        2.96405  (12011417)
        439774.00   3765375.00        2.92703  (12011417)
439779.00   3765375.00        2.91692  (12011417)
        439784.00   3765375.00        2.90703  (12011417)
439789.00   3765375.00        2.89578  (12011417)
        439794.00   3765375.00        2.88540  (12011417)
439799.00   3765375.00        2.87693  (12010217)
        439804.00   3765375.00        2.87647  (12010217)
439809.00   3765375.00        2.87664  (12010217)
        439814.00   3765375.00        2.87689  (12010217)
```

```
439839.00   3765375.00        2.87665  (12010217)
        439844.00   3765375.00        2.87722  (12010217)
439849.00   3765375.00        2.87703  (12010217)
        439854.00   3765375.00        2.87706  (12010217)
439859.00   3765375.00        2.87684  (12010217)
        439864.00   3765375.00        2.87753  (12010217)
439869.00   3765375.00        2.87692  (12010217)
        439874.00   3765375.00        2.87728  (12010217)
439879.00   3765375.00        2.87727  (12010217)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: FREEEVAP ***
INCLUDING SOURCE(S):
A0000067 , A0000068 , A0000069 , A0000070 , A0000071 ,
A0000072 , A0000073 , A0000074 , A0000075 , A0000076 , A0000077 , A0000078 , A0000079 ,
A0000080 , A0000081 , A0000082 , A0000083 , A0000084 , A0000085 , A0000086 , A0000087 ,
A0000088 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439884.00	3765375.00	2.87731	(12010217)	439774.00	3765380.00	2.97671	(12011417)
439779.00	3765380.00	2.96778	(12011417)	439784.00	3765380.00	2.95814	(12011417)
439789.00	3765380.00	2.94872	(12011417)	439794.00	3765380.00	2.93782	(12011417)
439799.00	3765380.00	2.92710	(12011417)	439804.00	3765380.00	2.91632	(12011417)
439809.00	3765380.00	2.90585	(12010217)	439814.00	3765380.00	2.90578	(12010217)
439769.00	3765385.00	3.03681	(12011417)	439819.00	3765385.00	2.93719	(12011417)
439769.00	3765400.00	3.19028	(12011417)	439844.00	3765400.00	3.04926	(12011417)
439849.00	3765400.00	3.03821	(12011417)	439674.00	3765405.00	3.34671	(12011417)
439714.00	3765405.00	3.30965	(12011417)	439719.00	3765405.00	3.30431	(12011417)
439734.00	3765405.00	3.28734	(12011417)				

439749.00 3765405.00 3.26957 (12011417)
439754.00 3765405.00 3.26286 (12011417)
439774.00 3765405.00 3.23542 (12011417)
439779.00 3765405.00 3.22697 (12011417)
439784.00 3765405.00 3.22004 (12011417)
439789.00 3765405.00 3.21270 (12011417)
439794.00 3765405.00 3.20378 (12011417)
439799.00 3765405.00 3.19497 (12011417)
439804.00 3765405.00 3.18666 (12011417)
439809.00 3765405.00 3.17822 (12011417)
439814.00 3765405.00 3.16878 (12011417)
439819.00 3765405.00 3.15897 (12011417)
439824.00 3765405.00 3.14904 (12011417)
439829.00 3765405.00 3.13922 (12011417)
439834.00 3765405.00 3.12962 (12011417)
439839.00 3765405.00 3.11838 (12011417)
439844.00 3765405.00 3.10756 (12011417)
439849.00 3765405.00 3.09640 (12011417)
439854.00 3765405.00 3.08545 (12011417)
439859.00 3765405.00 3.07316 (12011417)
439674.00 3765410.00 3.39310 (12011417)
439679.00 3765410.00 3.38934 (12011417)
439684.00 3765410.00 3.38576 (12011417)
439689.00 3765410.00 3.38115 (12011417)
439694.00 3765410.00 3.37716 (12011417)
439699.00 3765410.00 3.37228 (12011417)
439704.00 3765410.00 3.36828 (12011417)
439709.00 3765410.00 3.36346 (12011417)
439714.00 3765410.00 3.35856 (12011417)
439719.00 3765410.00 3.35328 (12011417)
439729.00 3765410.00 3.34341 (12011417)
439734.00 3765410.00 3.33823 (12011417)
439739.00 3765410.00 3.33206 (12011417)
439744.00 3765410.00 3.32582 (12011417)
439749.00 3765410.00 3.32042 (12011417)
439774.00 3765410.00 3.28827 (12011417)
439779.00 3765410.00 3.28133 (12011417)
439784.00 3765410.00 3.27304 (12011417)
439789.00 3765410.00 3.26554 (12011417)
439794.00 3765410.00 3.25829 (12011417)
439799.00 3765410.00 3.25069 (12011417)
439804.00 3765410.00 3.24193 (12011417)
439809.00 3765410.00 3.23314 (12011417)
439814.00 3765410.00 3.22445 (12011417)
439819.00 3765410.00 3.21597 (12011417)
439824.00 3765410.00 3.20615 (12011417)
439829.00 3765410.00 3.19662 (12011417)
439834.00 3765410.00 3.18653 (12011417)
439839.00 3765410.00 3.17731 (12011417)
439844.00 3765410.00 3.16634 (12011417)
439849.00 3765410.00 3.15599 (12011417)
439854.00 3765410.00 3.14432 (12011417)

```
439859.00   3765410.00        3.13354  (12011417)
        439674.00   3765415.00        3.44104  (12011417)
439679.00   3765415.00        3.43719  (12011417)
        439684.00   3765415.00        3.43300  (12011417)
439689.00   3765415.00        3.42981  (12011417)
        439694.00   3765415.00        3.42542  (12011417)
439699.00   3765415.00        3.42143  (12011417)
        439704.00   3765415.00        3.41673  (12011417)
439709.00   3765415.00        3.41261  (12011417)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: FREEEVAP ***
INCLUDING SOURCE(S):
A0000067 , A0000068 , A0000069 , A0000070 , A0000071 ,
A0000072 , A0000073 , A0000074 , A0000075 , A0000076 , A0000077 , A0000078 , A0000079 ,
A0000080 , A0000081 , A0000082 , A0000083 , A0000084 , A0000085 , A0000086 , A0000087 ,
A0000088 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439714.00	3765415.00	3.40797	(12011417)	439719.00	3765415.00	3.40328	(12011417)
439729.00	3765415.00	3.39313	(12011417)	439734.00	3765415.00	3.38811	(12011417)
439739.00	3765415.00	3.38304	(12011417)	439744.00	3765415.00	3.37771	(12011417)
439749.00	3765415.00	3.37203	(12011417)	439774.00	3765415.00	3.34048	(12011417)
439779.00	3765415.00	3.33414	(12011417)	439784.00	3765415.00	3.32773	(12011417)
439789.00	3765415.00	3.32071	(12011417)	439794.00	3765415.00	3.31241	(12011417)
439799.00	3765415.00	3.30469	(12011417)	439804.00	3765415.00	3.29738	(12011417)
439809.00	3765415.00	3.29007	(12011417)	439814.00	3765415.00	3.28094	(12011417)
439819.00	3765415.00	3.27173	(12011417)	439824.00	3765415.00	3.26349	(12011417)
439829.00	3765415.00	3.25446	(12011417)				

439834.00 3765415.00 3.24511 (12011417)
439839.00 3765415.00 3.23506 (12011417)
439844.00 3765415.00 3.22558 (12011417)
439849.00 3765415.00 3.21521 (12011417)
439854.00 3765415.00 3.20527 (12011417)
439859.00 3765415.00 3.19373 (12011417)
439674.00 3765420.00 3.48846 (12011417)
439679.00 3765420.00 3.48581 (12011417)
439684.00 3765420.00 3.48200 (12011417)
439689.00 3765420.00 3.47808 (12011417)
439694.00 3765420.00 3.47408 (12011417)
439699.00 3765420.00 3.47055 (12011417)
439704.00 3765420.00 3.46639 (12011417)
439709.00 3765420.00 3.46232 (12011417)
439714.00 3765420.00 3.45794 (12011417)
439719.00 3765420.00 3.45341 (12011417)
439729.00 3765420.00 3.44467 (12011417)
439734.00 3765420.00 3.43958 (12011417)
439739.00 3765420.00 3.43396 (12011417)
439744.00 3765420.00 3.42882 (12011417)
439749.00 3765420.00 3.42424 (12011417)
439774.00 3765420.00 3.39530 (12011417)
439779.00 3765420.00 3.38841 (12011417)
439784.00 3765420.00 3.38100 (12011417)
439789.00 3765420.00 3.37493 (12011417)
439794.00 3765420.00 3.36890 (12011417)
439799.00 3765420.00 3.36111 (12011417)
439804.00 3765420.00 3.35281 (12011417)
439809.00 3765420.00 3.34541 (12011417)
439814.00 3765420.00 3.33793 (12011417)
439819.00 3765420.00 3.33025 (12011417)
439824.00 3765420.00 3.32085 (12011417)
439829.00 3765420.00 3.31217 (12011417)
439834.00 3765420.00 3.30345 (12011417)
439839.00 3765420.00 3.29509 (12011417)
439844.00 3765420.00 3.28463 (12011417)
439849.00 3765420.00 3.27533 (12011417)
439854.00 3765420.00 3.26509 (12011417)
439859.00 3765420.00 3.25508 (12011417)
439674.00 3765425.00 3.53769 (12011417)
439679.00 3765425.00 3.53401 (12011417)
439684.00 3765425.00 3.53114 (12011417)
439689.00 3765425.00 3.52821 (12011417)
439694.00 3765425.00 3.52428 (12011417)
439699.00 3765425.00 3.52038 (12011417)
439704.00 3765425.00 3.51625 (12011417)
439709.00 3765425.00 3.51300 (12011417)
439714.00 3765425.00 3.50871 (12011417)
439719.00 3765425.00 3.50461 (12011417)
439729.00 3765425.00 3.49573 (12011417)
439734.00 3765425.00 3.49100 (12011417)
439739.00 3765425.00 3.48686 (12011417)

```
439744.00   3765425.00        3.48148  (12011417)
        439749.00   3765425.00        3.47634  (12011417)
439774.00   3765425.00        3.44847  (12011417)
        439779.00   3765425.00        3.44318  (12011417)
439784.00   3765425.00        3.43705  (12011417)
        439789.00   3765425.00        3.43030  (12011417)
439794.00   3765425.00        3.42288  (12011417)
        439799.00   3765425.00        3.41690  (12011417)
439804.00   3765425.00        3.41027  (12011417)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: FREEEVAP ***
INCLUDING SOURCE(S):
A0000067 , A0000068 , A0000069 , A0000070 , A0000071 ,
A0000072 , A0000073 , A0000074 , A0000075 , A0000076 , A0000077 , A0000078 , A0000079 ,
A0000080 , A0000081 , A0000082 , A0000083 , A0000084 , A0000085 , A0000086 , A0000087 ,
A0000088 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439809.00	3765425.00	3.40287	(12011417)	439814.00	3765425.00	3.39449	(12011417)
439819.00	3765425.00	3.38688	(12011417)	439824.00	3765425.00	3.37978	(12011417)
439829.00	3765425.00	3.37131	(12011417)	439834.00	3765425.00	3.36258	(12011417)
439839.00	3765425.00	3.35313	(12011417)	439844.00	3765425.00	3.34526	(12011417)
439849.00	3765425.00	3.33553	(12011417)	439854.00	3765425.00	3.32624	(12011417)
439859.00	3765425.00	3.31580	(12011417)	439674.00	3765430.00	3.58727	(12011417)
439679.00	3765430.00	3.58484	(12011417)	439684.00	3765430.00	3.58076	(12011417)
439689.00	3765430.00	3.57767	(12011417)	439694.00	3765430.00	3.57444	(12011417)
439699.00	3765430.00	3.57140	(12011417)	439704.00	3765430.00	3.56760	(12011417)
439709.00	3765430.00	3.56380	(12011417)				

439714.00 3765430.00 3.55992 (12011417)
439719.00 3765430.00 3.55638 (12011417)
439729.00 3765430.00 3.54802 (12011417)
439734.00 3765430.00 3.54355 (12011417)
439739.00 3765430.00 3.53878 (12011417)
439744.00 3765430.00 3.53460 (12011417)
439749.00 3765430.00 3.53031 (12011417)
439774.00 3765430.00 3.50434 (12011417)
439779.00 3765430.00 3.49773 (12011417)
439784.00 3765430.00 3.49202 (12011417)
439789.00 3765430.00 3.48639 (12011417)
439794.00 3765430.00 3.48082 (12011417)
439799.00 3765430.00 3.47330 (12011417)
439804.00 3765430.00 3.46626 (12011417)
439809.00 3765430.00 3.46014 (12011417)
439814.00 3765430.00 3.45347 (12011417)
439819.00 3765430.00 3.44588 (12011417)
439824.00 3765430.00 3.43739 (12011417)
439829.00 3765430.00 3.43021 (12011417)
439834.00 3765430.00 3.42246 (12011417)
439839.00 3765430.00 3.41457 (12011417)
439844.00 3765430.00 3.40479 (12011417)
439849.00 3765430.00 3.39645 (12011417)
439854.00 3765430.00 3.38748 (12011417)
439859.00 3765430.00 3.37821 (12011417)
439674.00 3765435.00 3.63745 (12011417)
439679.00 3765435.00 3.63434 (12011417)
439684.00 3765435.00 3.63245 (12011417)
439689.00 3765435.00 3.62955 (12011417)
439694.00 3765435.00 3.62609 (12011417)
439699.00 3765435.00 3.62237 (12011417)
439704.00 3765435.00 3.61938 (12011417)
439709.00 3765435.00 3.61622 (12011417)
439714.00 3765435.00 3.61235 (12011417)
439719.00 3765435.00 3.60855 (12011417)
439729.00 3765435.00 3.60108 (12011417)
439734.00 3765435.00 3.59687 (12011417)
439739.00 3765435.00 3.59280 (12011417)
439744.00 3765435.00 3.58787 (12011417)
439749.00 3765435.00 3.58403 (12011417)
439774.00 3765435.00 3.55935 (12011417)
439779.00 3765435.00 3.55450 (12011417)
439784.00 3765435.00 3.54906 (12011417)
439789.00 3765435.00 3.54221 (12011417)
439794.00 3765435.00 3.53660 (12011417)
439799.00 3765435.00 3.53107 (12011417)
439804.00 3765435.00 3.52520 (12011417)
439809.00 3765435.00 3.51754 (12011417)
439814.00 3765435.00 3.51077 (12011417)
439819.00 3765435.00 3.50422 (12011417)
439824.00 3765435.00 3.49819 (12011417)
439829.00 3765435.00 3.48981 (12011417)

```
439834.00   3765435.00        3.48197  (12011417)
        439839.00   3765435.00        3.47407  (12011417)
439844.00   3765435.00        3.46703  (12011417)
        439849.00   3765435.00        3.45773  (12011417)
439854.00   3765435.00        3.44923  (12011417)
        439859.00   3765435.00        3.43971  (12011417)
439674.00   3765440.00        3.68953  (12011417)
        439679.00   3765440.00        3.68723  (12011417)
439684.00   3765440.00        3.68323  (12011417)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: FREEEVAP ***
INCLUDING SOURCE(S):
A0000067 , A0000068 , A0000069 , A0000070 , A0000071 ,
A0000072 , A0000073 , A0000074 , A0000075 , A0000076 , A0000077 , A0000078 , A0000079 ,
A0000080 , A0000081 , A0000082 , A0000083 , A0000084 , A0000085 , A0000086 , A0000087 ,
A0000088 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439689.00	3765440.00	3.68072	(12011417)	439694.00	3765440.00	3.67834	(12011417)
439699.00	3765440.00	3.67556	(12011417)	439704.00	3765440.00	3.67204	(12011417)
439709.00	3765440.00	3.66839	(12011417)	439714.00	3765440.00	3.66568	(12011417)
439719.00	3765440.00	3.66193	(12011417)	439729.00	3765440.00	3.65454	(12011417)
439734.00	3765440.00	3.65108	(12011417)	439739.00	3765440.00	3.64673	(12011417)
439744.00	3765440.00	3.64316	(12011417)	439749.00	3765440.00	3.63909	(12011417)
439774.00	3765440.00	3.61581	(12011417)	439779.00	3765440.00	3.61039	(12011417)
439784.00	3765440.00	3.60524	(12011417)	439789.00	3765440.00	3.60078	(12011417)
439794.00	3765440.00	3.59496	(12011417)	439799.00	3765440.00	3.58840	(12011417)
439804.00	3765440.00	3.58252	(12011417)				

439809.00 3765440.00 3.57730 (12011417)
439814.00 3765440.00 3.57100 (12011417)
439819.00 3765440.00 3.56359 (12011417)
439824.00 3765440.00 3.55663 (12011417)
439829.00 3765440.00 3.55052 (12011417)
439834.00 3765440.00 3.54385 (12011417)
439839.00 3765440.00 3.53590 (12011417)
439844.00 3765440.00 3.52761 (12011417)
439849.00 3765440.00 3.52017 (12011417)
439854.00 3765440.00 3.51216 (12011417)
439859.00 3765440.00 3.50363 (12011417)
439674.00 3765445.00 3.74128 (12011417)
439679.00 3765445.00 3.73952 (12011417)
439684.00 3765445.00 3.73741 (12011417)
439689.00 3765445.00 3.73475 (12011417)
439694.00 3765445.00 3.73077 (12011417)
439699.00 3765445.00 3.72842 (12011417)
439704.00 3765445.00 3.72597 (12011417)
439709.00 3765445.00 3.72331 (12011417)
439714.00 3765445.00 3.71923 (12011417)
439719.00 3765445.00 3.71605 (12011417)
439729.00 3765445.00 3.70953 (12011417)
439734.00 3765445.00 3.70653 (12011417)
439739.00 3765445.00 3.70208 (12011417)
439744.00 3765445.00 3.69859 (12011417)
439749.00 3765445.00 3.69448 (12011417)
439774.00 3765445.00 3.67321 (12011417)
439779.00 3765445.00 3.66858 (12011417)
439784.00 3765445.00 3.66368 (12011417)
439789.00 3765445.00 3.65732 (12011417)
439794.00 3765445.00 3.65331 (12011417)
439799.00 3765445.00 3.64804 (12011417)
439804.00 3765445.00 3.64274 (12011417)
439809.00 3765445.00 3.63555 (12011417)
439814.00 3765445.00 3.63033 (12011417)
439819.00 3765445.00 3.62456 (12011417)
439824.00 3765445.00 3.61881 (12011417)
439829.00 3765445.00 3.61087 (12011417)
439834.00 3765445.00 3.60413 (12011417)
439839.00 3765445.00 3.59805 (12011417)
439844.00 3765445.00 3.59091 (12011417)
439849.00 3765445.00 3.58292 (12011417)
439854.00 3765445.00 3.57473 (12011417)
439859.00 3765445.00 3.56718 (12011417)
439674.00 3765450.00 3.79622 (12011417)
439679.00 3765450.00 3.79297 (12011417)
439684.00 3765450.00 3.79030 (12011417)
439689.00 3765450.00 3.78810 (12011417)
439694.00 3765450.00 3.78638 (12011417)
439699.00 3765450.00 3.78306 (12011417)
439704.00 3765450.00 3.78020 (12011417)
439709.00 3765450.00 3.77691 (12011417)

```
439714.00   3765450.00        3.77533  (12011417)
        439719.00   3765450.00        3.77150  (12011417)
439729.00   3765450.00        3.76517  (12011417)
        439734.00   3765450.00        3.76220  (12011417)
439739.00   3765450.00        3.75905  (12011417)
        439744.00   3765450.00        3.75531  (12011417)
439749.00   3765450.00        3.75140  (12011417)
        439774.00   3765450.00        3.73066  (12011417)
439844.00   3765450.00        3.65362  (12011417)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: FREEEVAP ***
INCLUDING SOURCE(S):
A0000067 , A0000068 , A0000069 , A0000070 , A0000071 ,
A0000072 , A0000073 , A0000074 , A0000075 , A0000076 , A0000077 , A0000078 , A0000079 ,
A0000080 , A0000081 , A0000082 , A0000083 , A0000084 , A0000085 , A0000086 , A0000087 ,
A0000088 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439849.00	3765450.00	3.64628	(12011417)
439854.00	3765450.00	3.64026	(12011417)
439859.00	3765450.00	3.63131	(12011417)
439674.00	3765455.00	3.84959	(12011417)
439679.00	3765455.00	3.84873	(12011417)
439684.00	3765455.00	3.84618	(12011417)
439689.00	3765455.00	3.84392	(12011417)
439694.00	3765455.00	3.84021	(12011417)
439699.00	3765455.00	3.83889	(12011417)
439704.00	3765455.00	3.83642	(12011417)
439709.00	3765455.00	3.83416	(12011417)
439714.00	3765455.00	3.83058	(12011417)
439719.00	3765455.00	3.82805	(12011417)
439729.00	3765455.00	3.82223	(12011417)
439734.00	3765455.00	3.81967	(12011417)
439739.00	3765455.00	3.81525	(12011417)
439744.00	3765455.00	3.81351	(12011417)
439749.00	3765455.00	3.80910	(12011417)
439844.00	3765455.00	3.71788	(12011417)

439849.00 3765455.00 3.71076 (12011417)
439854.00 3765455.00 3.70331 (12011417)
439859.00 3765455.00 3.69745 (12011417)
439674.00 3765460.00 3.90743 (12011417)
439679.00 3765460.00 3.90330 (12011417)
439684.00 3765460.00 3.90226 (12011417)
439689.00 3765460.00 3.89977 (12011417)
439694.00 3765460.00 3.89900 (12011417)
439699.00 3765460.00 3.89529 (12011417)
439704.00 3765460.00 3.89276 (12011417)
439709.00 3765460.00 3.89102 (12011417)
439714.00 3765460.00 3.88903 (12011417)
439719.00 3765460.00 3.88634 (12011417)
439729.00 3765460.00 3.88020 (12011417)
439734.00 3765460.00 3.87757 (12011417)
439739.00 3765460.00 3.87481 (12011417)
439744.00 3765460.00 3.87097 (12011417)
439749.00 3765460.00 3.86857 (12011417)
439789.00 3765460.00 3.83886 (12011417)
439794.00 3765460.00 3.83423 (12011417)
439799.00 3765460.00 3.82928 (12011417)
439804.00 3765460.00 3.82554 (12011417)
439809.00 3765460.00 3.82063 (12011417)
439814.00 3765460.00 3.81607 (12011417)
439819.00 3765460.00 3.80955 (12011417)
439824.00 3765460.00 3.80533 (12011417)
439829.00 3765460.00 3.79982 (12011417)
439844.00 3765460.00 3.78251 (12011417)
439849.00 3765460.00 3.77597 (12011417)
439854.00 3765460.00 3.77087 (12011417)
439859.00 3765460.00 3.76181 (12011417)
439674.00 3765465.00 3.96311 (12011417)
439679.00 3765465.00 3.96275 (12011417)
439684.00 3765465.00 3.96013 (12011417)
439689.00 3765465.00 3.95812 (12011417)
439694.00 3765465.00 3.95557 (12011417)
439699.00 3765465.00 3.95459 (12011417)
439704.00 3765465.00 3.95275 (12011417)
439709.00 3765465.00 3.94934 (12011417)
439714.00 3765465.00 3.94700 (12011417)
439719.00 3765465.00 3.94474 (12011417)
439729.00 3765465.00 3.93983 (12011417)
439734.00 3765465.00 3.93698 (12011417)
439739.00 3765465.00 3.93349 (12011417)
439744.00 3765465.00 3.93222 (12011417)
439749.00 3765465.00 3.92791 (12011417)
439789.00 3765465.00 3.90085 (12011417)
439794.00 3765465.00 3.89689 (12011417)
439799.00 3765465.00 3.89289 (12011417)
439804.00 3765465.00 3.88779 (12011417)
439809.00 3765465.00 3.88349 (12011417)
439814.00 3765465.00 3.87897 (12011417)

```
439819.00   3765465.00        3.87536  (12011417)
        439824.00   3765465.00        3.86983  (12011417)
439829.00   3765465.00        3.86380  (12011417)
        439844.00   3765465.00        3.84851  (12011417)
439849.00   3765465.00        3.84172  (12011417)
        439854.00   3765465.00        3.83593  (12011417)
439859.00   3765465.00        3.83057  (12011417)
        439674.00   3765470.00        4.02408  (12011417)
439679.00   3765470.00        4.02056  (12011417)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: FREEEVAP ***
INCLUDING SOURCE(S):
A0000067 , A0000068 , A0000069 , A0000070 , A0000071 ,
A0000072 , A0000073 , A0000074 , A0000075 , A0000076 , A0000077 , A0000078 , A0000079 ,
A0000080 , A0000081 , A0000082 , A0000083 , A0000084 , A0000085 , A0000086 , A0000087 ,
A0000088 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439684.00	3765470.00	4.01960	(12011417)
439689.00	3765470.00	4.01786	(12011417)
439694.00	3765470.00	4.01647	(12011417)
439699.00	3765470.00	4.01362	(12011417)
439704.00	3765470.00	4.01120	(12011417)
439709.00	3765470.00	4.01016	(12011417)
439714.00	3765470.00	4.00755	(12011417)
439719.00	3765470.00	4.00550	(12011417)
439729.00	3765470.00	4.00055	(12011417)
439734.00	3765470.00	3.99827	(12011417)
439739.00	3765470.00	3.99548	(12011417)
439744.00	3765470.00	3.99280	(12011417)
439749.00	3765470.00	3.98970	(12011417)
439789.00	3765470.00	3.96370	(12011417)
439794.00	3765470.00	3.96081	(12011417)
439799.00	3765470.00	3.95618	(12011417)
439804.00	3765470.00	3.95301	(12011417)
439809.00	3765470.00	3.94889	(12011417)
439814.00	3765470.00	3.94380	(12011417)

```
439819.00   3765470.00        3.93943  (12011417)
        439824.00   3765470.00        3.93537  (12011417)
439829.00   3765470.00        3.93150  (12011417)
        439844.00   3765470.00        3.91518  (12011417)
439849.00   3765470.00        3.91051  (12011417)
        439854.00   3765470.00        3.90452  (12011417)
439859.00   3765470.00        3.89766  (12011417)
        439674.00   3765475.00        4.08422  (12011417)
439679.00   3765475.00        4.08232  (12011417)
        439684.00   3765475.00        4.08165  (12011417)
439689.00   3765475.00        4.07794  (12011417)
        439694.00   3765475.00        4.07728  (12011417)
439699.00   3765475.00        4.07515  (12011417)
        439704.00   3765475.00        4.07421  (12011417)
439709.00   3765475.00        4.07051  (12011417)
        439714.00   3765475.00        4.06907  (12011417)
439719.00   3765475.00        4.06672  (12011417)
        439729.00   3765475.00        4.06278  (12011417)
439734.00   3765475.00        4.05964  (12011417)
        439739.00   3765475.00        4.05881  (12011417)
439744.00   3765475.00        4.05545  (12011417)
        439749.00   3765475.00        4.05390  (12011417)
439754.00   3765475.00        4.04996  (12011417)
        439789.00   3765475.00        4.02966  (12011417)
439794.00   3765475.00        4.02583  (12011417)
        439799.00   3765475.00        4.02271  (12011417)
439804.00   3765475.00        4.01868  (12011417)
        439809.00   3765475.00        4.01443  (12011417)
439814.00   3765475.00        4.01147  (12011417)
        439819.00   3765475.00        4.00679  (12011417)
439824.00   3765475.00        4.00250  (12011417)
        439829.00   3765475.00        3.99685  (12011417)
439269.00   3764900.00        1.59313  (12010217)
        439369.00   3764900.00        1.59387  (12010217)
439469.00   3764900.00        1.59448  (12010217)
        439569.00   3764900.00        1.59485  (12010217)
439669.00   3764900.00        1.59504  (12010217)
        439769.00   3764900.00        1.59476  (12010217)
439869.00   3764900.00        1.59287  (12010217)
        439969.00   3764900.00        1.58293  (12010217)
440069.00   3764900.00        1.57060  (15010717)
        440169.00   3764900.00        1.57140  (15010717)
440269.00   3764900.00        1.57120  (15010717)
        439269.00   3765000.00        1.73893  (12010217)
439369.00   3765000.00        1.73990  (12010217)
        439469.00   3765000.00        1.74077  (12010217)
439569.00   3765000.00        1.74143  (12010217)
        439669.00   3765000.00        1.74173  (12010217)
439769.00   3765000.00        1.74174  (12010217)
        439869.00   3765000.00        1.74137  (12010217)
439969.00   3765000.00        1.73810  (12010217)
        440069.00   3765000.00        1.71952  (12010217)
```

```
440169.00   3765000.00        1.71545  (15010717)
        440269.00   3765000.00        1.71533  (15010717)
439269.00   3765100.00        1.92354  (12010217)
        439369.00   3765100.00        1.92497  (12010217)
439469.00   3765100.00        1.92653  (12010217)
        439569.00   3765100.00        1.92735  (12010217)
439669.00   3765100.00        1.92702  (12010217)
        439769.00   3765100.00        1.92728  (12010217)
439869.00   3765100.00        1.92793  (12010217)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: FREEEVAP ***
INCLUDING SOURCE(S):
A0000067 , A0000068 , A0000069 , A0000070 , A0000071 ,
A0000072 , A0000073 , A0000074 , A0000075 , A0000076 , A0000077 , A0000078 , A0000079 ,
A0000080 , A0000081 , A0000082 , A0000083 , A0000084 , A0000085 , A0000086 , A0000087 ,
A0000088 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439969.00	3765100.00	1.92757	(12010217)	440069.00	3765100.00	1.92202	(12010217)
440169.00	3765100.00	1.89733	(15010717)	440269.00	3765100.00	1.89746	(15010717)
439269.00	3765200.00	2.32933	(12011417)	439369.00	3765200.00	2.24074	(12011417)
439469.00	3765200.00	2.16966	(12010217)	439569.00	3765200.00	2.17095	(12010217)
439669.00	3765200.00	2.17185	(12010217)	439769.00	3765200.00	2.17304	(12010217)
439869.00	3765200.00	2.17210	(12010217)	439969.00	3765200.00	2.17298	(12010217)
440069.00	3765200.00	2.17234	(12010217)	440169.00	3765200.00	2.16174	(12010217)
440269.00	3765200.00	2.13750	(15010717)	439269.00	3765300.00	2.81323	(12011417)
439369.00	3765300.00	2.77726	(12011417)	439469.00	3765300.00	2.71621	(12011417)
439569.00	3765300.00	2.61553	(12011417)				

```
439669.00   3765300.00        2.51256  (12010217)
        439769.00   3765300.00        2.51309  (12010217)
439869.00   3765300.00        2.51373  (12010217)
        439969.00   3765300.00        2.51399  (12010217)
440069.00   3765300.00        2.51484  (12010217)
        440169.00   3765300.00        2.51482  (12010217)
440269.00   3765300.00        2.49002  (12010217)
        439269.00   3765400.00        3.42826  (12011417)
439369.00   3765400.00        3.42067  (12011417)
        439469.00   3765400.00        3.40193  (12011417)
439569.00   3765400.00        3.36749  (12011417)
        439669.00   3765400.00        3.30478  (12011417)
439769.00   3765400.00        3.19028  (12011417)
        439869.00   3765400.00        3.03036  (12010217)
439969.00   3765400.00        3.03077  (12010217)
        440069.00   3765400.00        3.03215  (12010217)
440169.00   3765400.00        3.03448  (12010217)
        440269.00   3765400.00        3.03462  (12010217)
439269.00   3765500.00        4.42698  (12011417)
        439369.00   3765500.00        4.43305  (12011417)
439469.00   3765500.00        4.43524  (12011417)
        439569.00   3765500.00        4.43017  (12011417)
439669.00   3765500.00        4.41633  (12011417)
        439769.00   3765500.00        4.38858  (12011417)
439869.00   3765500.00        4.32918  (12011417)
        439969.00   3765500.00        4.20654  (12011417)
440069.00   3765500.00        3.94868  (12011417)
        440169.00   3765500.00        3.96209  (15011517)
440269.00   3765500.00        3.97306  (15011517)
        439269.00   3765600.00        6.69317  (12011417)
439369.00   3765600.00        6.71505  (12011417)
        439469.00   3765600.00        6.73794  (12011417)
439569.00   3765600.00        6.75121  (12011417)
        439669.00   3765600.00        6.76146  (12011417)
439769.00   3765600.00        6.76414  (12011417)
        439869.00   3765600.00        6.75825  (12011417)
439969.00   3765600.00        6.74373  (12011417)
        440069.00   3765600.00        6.70982  (12011417)
440169.00   3765600.00        6.76288  (15112218)
        440269.00   3765600.00        6.87235  (15112218)
439269.00   3765700.00       29.73991  (12011417)
        439369.00   3765700.00       30.85846  (12011417)
439469.00   3765700.00       32.06369  (12011417)
        439569.00   3765700.00       33.12662  (12011417)
439669.00   3765700.00       33.58885  (12011417)
        439769.00   3765700.00       34.05400  (14012117)
439869.00   3765700.00       34.75595  (14012117)
        439969.00   3765700.00       35.10332  (14012117)
440069.00   3765700.00       35.72513  (14012117)
        440169.00   3765700.00       35.88035  (14012117)
440269.00   3765700.00       36.07950  (14012117)
        439269.00   3765800.00        9.75068  (12111317)
```

```
439369.00   3765800.00        9.61181  (12111317)
        439469.00   3765800.00        9.45847  (12111317)
439569.00   3765800.00        9.40731  (12011717)
        439669.00   3765800.00        9.46029  (12011717)
439769.00   3765800.00        9.49141  (12011717)
        439869.00   3765800.00        9.50597  (12011717)
439969.00   3765800.00        9.51648  (12011717)
        440069.00   3765800.00        9.51897  (12011717)
440169.00   3765800.00        9.51567  (12011717)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: FREEEVAP ***
INCLUDING SOURCE(S):
A0000067 , A0000068 , A0000069 , A0000070 , A0000071 ,
A0000072 , A0000073 , A0000074 , A0000075 , A0000076 , A0000077 , A0000078 , A0000079 ,
A0000080 , A0000081 , A0000082 , A0000083 , A0000084 , A0000085 , A0000086 , A0000087 ,
A0000088 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
440269.00	3765800.00	9.48893	(12011717)
439269.00	3765900.00	5.08837	(15120818)
439369.00	3765900.00	5.05555	(15120818)
439469.00	3765900.00	5.08184	(13111217)
439569.00	3765900.00	5.11793	(13111217)
439669.00	3765900.00	5.12750	(13111217)
439769.00	3765900.00	5.12785	(13111217)
439869.00	3765900.00	5.17412	(12011717)
439969.00	3765900.00	5.26036	(12011717)
440069.00	3765900.00	5.31836	(12011717)
440169.00	3765900.00	5.35788	(12011717)
440269.00	3765900.00	5.38569	(12011717)
439649.00	3765310.00	2.57118	(12011417)
439679.00	3765310.00	2.55416	(12010217)
439709.00	3765310.00	2.55462	(12010217)
439739.00	3765310.00	2.55498	(12010217)
439769.00	3765310.00	2.55530	(12010217)
439799.00	3765310.00	2.55536	(12010217)
439829.00	3765310.00	2.55546	(12010217)

439859.00 3765310.00 2.55547 (12010217)
439889.00 3765310.00 2.55553 (12010217)
439649.00 3765340.00 2.81345 (12011417)
439679.00 3765340.00 2.76870 (12011417)
439709.00 3765340.00 2.71759 (12011417)
439739.00 3765340.00 2.69121 (12010217)
439769.00 3765340.00 2.69169 (12010217)
439799.00 3765340.00 2.69212 (12010217)
439829.00 3765340.00 2.69251 (12010217)
439859.00 3765340.00 2.69245 (12010217)
439889.00 3765340.00 2.69234 (12010217)
439649.00 3765370.00 3.06101 (12011417)
439679.00 3765370.00 3.02721 (12011417)
439709.00 3765370.00 2.98752 (12011417)
439739.00 3765370.00 2.94050 (12011417)
439769.00 3765370.00 2.88690 (12011417)
439799.00 3765370.00 2.84835 (12010217)
439829.00 3765370.00 2.84859 (12010217)
439859.00 3765370.00 2.84876 (12010217)
439889.00 3765370.00 2.84885 (12010217)
439649.00 3765400.00 3.32055 (12011417)
439679.00 3765400.00 3.29552 (12011417)
439709.00 3765400.00 3.26663 (12011417)
439739.00 3765400.00 3.23210 (12011417)
439769.00 3765400.00 3.19028 (12011417)
439799.00 3765400.00 3.14150 (12011417)
439829.00 3765400.00 3.08253 (12011417)
439859.00 3765400.00 3.03012 (12010217)
439889.00 3765400.00 3.03055 (12010217)
439649.00 3765430.00 3.60122 (12011417)
439679.00 3765430.00 3.58484 (12011417)
439709.00 3765430.00 3.56380 (12011417)
439739.00 3765430.00 3.53878 (12011417)
439769.00 3765430.00 3.50979 (12011417)
439799.00 3765430.00 3.47330 (12011417)
439829.00 3765430.00 3.43021 (12011417)
439859.00 3765430.00 3.37821 (12011417)
439889.00 3765430.00 3.31501 (12011417)
439649.00 3765460.00 3.91586 (12011417)
439679.00 3765460.00 3.90330 (12011417)
439709.00 3765460.00 3.89102 (12011417)
439739.00 3765460.00 3.87481 (12011417)
439769.00 3765460.00 3.85440 (12011417)
439799.00 3765460.00 3.82928 (12011417)
439829.00 3765460.00 3.79982 (12011417)
439859.00 3765460.00 3.76181 (12011417)
439889.00 3765460.00 3.71779 (12011417)
439649.00 3765490.00 4.28335 (12011417)
439679.00 3765490.00 4.27579 (12011417)
439709.00 3765490.00 4.26721 (12011417)
439739.00 3765490.00 4.25700 (12011417)
439769.00 3765490.00 4.24412 (12011417)

```
439799.00   3765490.00        4.22790  (12011417)
        439829.00   3765490.00        4.20854  (12011417)
439859.00   3765490.00        4.18360  (12011417)
        439889.00   3765490.00        4.15516  (12011417)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONOFFEVA ***
INCLUDING SOURCE(S):
A0000089 , A0000090 , A0000091 , A0000092 , A0000093 ,
A0000094 , A0000095 , A0000096 , A0000097 , A0000098 , A0000099 , A0000100 , A0000101 ,
A0000102 , A0000103 , A0000104 , A0000105 , A0000106 , A0000107 , A0000108 , A0000109 ,
A0000110 , A0000111 , A0000112 , A0000113 , A0000114 , A0000115 ,
A0000116 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439674.00	3765310.00	1.67734	(13121718)
439679.00	3765310.00	1.68121	(13121718)
439684.00	3765310.00	1.68456	(13121718)
439689.00	3765310.00	1.68675	(13121718)
439694.00	3765310.00	1.68829	(13121718)
439699.00	3765310.00	1.68794	(13121718)
439704.00	3765310.00	1.68731	(13121718)
439709.00	3765310.00	1.68979	(12011808)
439714.00	3765310.00	1.69826	(12011808)
439719.00	3765310.00	1.70623	(12011808)
439729.00	3765310.00	1.71762	(12011808)
439734.00	3765310.00	1.72174	(12011808)
439739.00	3765310.00	1.72526	(12011808)
439744.00	3765310.00	1.72719	(12011808)
439749.00	3765310.00	1.72782	(12011808)
439764.00	3765310.00	1.72449	(12011808)
439769.00	3765310.00	1.72095	(12011808)

439774.00 3765310.00 1.71669 (12011808)
439779.00 3765310.00 1.71678 (15111218)
439784.00 3765310.00 1.71679 (14100607)
439789.00 3765310.00 1.72380 (14100607)
439794.00 3765310.00 1.72930 (14100607)
439799.00 3765310.00 1.73488 (13120808)
439804.00 3765310.00 1.75492 (13120808)
439809.00 3765310.00 1.77350 (13120808)
439814.00 3765310.00 1.78985 (13120808)
439819.00 3765310.00 1.80467 (13120808)
439824.00 3765310.00 1.81772 (13120808)
439829.00 3765310.00 1.82908 (13120808)
439839.00 3765310.00 1.84728 (13120808)
439844.00 3765310.00 1.85383 (13120808)
439849.00 3765310.00 1.85924 (13120808)
439854.00 3765310.00 1.86364 (13120808)
439859.00 3765310.00 1.86571 (13120808)
439864.00 3765310.00 1.86757 (13120808)
439869.00 3765310.00 1.86855 (13120808)
439874.00 3765310.00 1.86776 (13120808)
439879.00 3765310.00 1.86671 (13120808)
439884.00 3765310.00 1.86510 (13120808)
439674.00 3765315.00 1.69468 (13121718)
439679.00 3765315.00 1.70029 (13121718)
439684.00 3765315.00 1.70423 (13121718)
439689.00 3765315.00 1.70791 (13121718)
439694.00 3765315.00 1.71011 (13121718)
439699.00 3765315.00 1.71192 (13121718)
439704.00 3765315.00 1.71191 (13121718)
439709.00 3765315.00 1.71102 (13121718)
439714.00 3765315.00 1.71243 (12011808)
439719.00 3765315.00 1.72133 (12011808)
439729.00 3765315.00 1.73555 (12011808)
439734.00 3765315.00 1.74065 (12011808)
439739.00 3765315.00 1.74521 (12011808)
439744.00 3765315.00 1.74846 (12011808)
439749.00 3765315.00 1.75055 (12011808)
439764.00 3765315.00 1.74959 (12011808)
439769.00 3765315.00 1.74734 (12011808)
439774.00 3765315.00 1.74379 (12011808)
439779.00 3765315.00 1.73921 (12011808)
439784.00 3765315.00 1.73773 (15111218)
439789.00 3765315.00 1.73848 (14100607)
439794.00 3765315.00 1.74526 (14100607)
439799.00 3765315.00 1.75071 (14100607)
439804.00 3765315.00 1.76314 (13120808)
439809.00 3765315.00 1.78274 (13120808)
439814.00 3765315.00 1.80042 (13120808)
439819.00 3765315.00 1.81660 (13120808)
439824.00 3765315.00 1.83105 (13120808)
439829.00 3765315.00 1.84300 (13120808)
439839.00 3765315.00 1.86302 (13120808)

```
439844.00   3765315.00        1.87070  (13120808)
        439849.00   3765315.00        1.87733  (13120808)
439854.00   3765315.00        1.88135  (13120808)
        439859.00   3765315.00        1.88473  (13120808)
439864.00   3765315.00        1.88736  (13120808)
        439869.00   3765315.00        1.88806  (13120808)
439874.00   3765315.00        1.88816  (13120808)
        439879.00   3765315.00        1.88782  (13120808)
439884.00   3765315.00        1.88588  (13120808)
        439674.00   3765320.00        1.71092  (13121718)
439679.00   3765320.00        1.71765  (13121718)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONOFFEVA ***
INCLUDING SOURCE(S):
A0000089 , A0000090 , A0000091 , A0000092 , A0000093 ,
A0000094 , A0000095 , A0000096 , A0000097 , A0000098 , A0000099 , A0000100 , A0000101 ,
A0000102 , A0000103 , A0000104 , A0000105 , A0000106 , A0000107 , A0000108 , A0000109 ,
A0000110 , A0000111 , A0000112 , A0000113 , A0000114 , A0000115 ,
A0000116 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439684.00	3765320.00	1.72374	(13121718)
439689.00	3765320.00	1.72813	(13121718)
439694.00	3765320.00	1.73182	(13121718)
439699.00	3765320.00	1.73419	(13121718)
439704.00	3765320.00	1.73593	(13121718)
439709.00	3765320.00	1.73647	(13121718)
439714.00	3765320.00	1.73528	(13121718)
439719.00	3765320.00	1.73571	(12011808)
439729.00	3765320.00	1.75263	(12011808)
439734.00	3765320.00	1.75959	(12011808)
439739.00	3765320.00	1.76441	(12011808)
439744.00	3765320.00	1.76913	(12011808)
439749.00	3765320.00	1.77221	(12011808)
439764.00	3765320.00	1.77428	(12011808)
439769.00	3765320.00	1.77328	(12011808)
439774.00	3765320.00	1.77054	(12011808)
439779.00	3765320.00	1.76712	(12011808)

439784.00 3765320.00 1.76246 (12011808)
439789.00 3765320.00 1.75907 (15111218)
439794.00 3765320.00 1.76087 (14100607)
439799.00 3765320.00 1.76719 (14100607)
439804.00 3765320.00 1.77208 (14100607)
439809.00 3765320.00 1.79145 (13120808)
439814.00 3765320.00 1.81099 (13120808)
439819.00 3765320.00 1.82831 (13120808)
439824.00 3765320.00 1.84346 (13120808)
439829.00 3765320.00 1.85738 (13120808)
439839.00 3765320.00 1.87917 (13120808)
439844.00 3765320.00 1.88796 (13120808)
439849.00 3765320.00 1.89457 (13120808)
439854.00 3765320.00 1.89961 (13120808)
439859.00 3765320.00 1.90446 (13120808)
439864.00 3765320.00 1.90661 (13120808)
439869.00 3765320.00 1.90820 (13120808)
439874.00 3765320.00 1.90947 (13120808)
439879.00 3765320.00 1.90826 (13120808)
439884.00 3765320.00 1.90684 (13120808)
439674.00 3765325.00 1.72619 (13121718)
439679.00 3765325.00 1.73431 (13121718)
439684.00 3765325.00 1.74139 (13121718)
439689.00 3765325.00 1.74756 (13121718)
439694.00 3765325.00 1.75268 (13121718)
439699.00 3765325.00 1.75633 (13121718)
439704.00 3765325.00 1.75899 (13121718)
439709.00 3765325.00 1.76053 (13121718)
439714.00 3765325.00 1.76139 (13121718)
439719.00 3765325.00 1.76041 (13121718)
439729.00 3765325.00 1.76920 (12011808)
439734.00 3765325.00 1.77690 (12011808)
439739.00 3765325.00 1.78393 (12011808)
439744.00 3765325.00 1.78907 (12011808)
439749.00 3765325.00 1.79370 (12011808)
439754.00 3765325.00 1.79649 (12011808)
439769.00 3765325.00 1.79870 (12011808)
439774.00 3765325.00 1.79720 (12011808)
439779.00 3765325.00 1.79430 (12011808)
439784.00 3765325.00 1.79088 (12011808)
439789.00 3765325.00 1.78612 (12011808)
439794.00 3765325.00 1.78089 (15111218)
439799.00 3765325.00 1.78348 (14100607)
439804.00 3765325.00 1.78962 (14100607)
439809.00 3765325.00 1.80029 (13120808)
439814.00 3765325.00 1.82076 (13120808)
439819.00 3765325.00 1.83929 (13120808)
439824.00 3765325.00 1.85623 (13120808)
439829.00 3765325.00 1.87111 (13120808)
439839.00 3765325.00 1.89527 (13120808)
439844.00 3765325.00 1.90444 (13120808)
439849.00 3765325.00 1.91213 (13120808)

```
439854.00   3765325.00        1.91908  (13120808)
        439859.00   3765325.00        1.92315  (13120808)
439864.00   3765325.00        1.92647  (13120808)
        439869.00   3765325.00        1.92918  (13120808)
439874.00   3765325.00        1.92955  (13120808)
        439879.00   3765325.00        1.92968  (13120808)
439884.00   3765325.00        1.92918  (13120808)
        439674.00   3765330.00        1.74064  (13121718)
439679.00   3765330.00        1.75007  (13121718)
        439684.00   3765330.00        1.75845  (13121718)
439689.00   3765330.00        1.76584  (13121718)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONOFFEVA ***
INCLUDING SOURCE(S):
A0000089 , A0000090 , A0000091 , A0000092 , A0000093 ,
A0000094 , A0000095 , A0000096 , A0000097 , A0000098 , A0000099 , A0000100 , A0000101 ,
A0000102 , A0000103 , A0000104 , A0000105 , A0000106 , A0000107 , A0000108 , A0000109 ,
A0000110 , A0000111 , A0000112 , A0000113 , A0000114 , A0000115 ,
A0000116 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439694.00	3765330.00	1.77211	(13121718)
439699.00	3765330.00	1.77754	(13121718)
439704.00	3765330.00	1.78159	(13121718)
439709.00	3765330.00	1.78442	(13121718)
439714.00	3765330.00	1.78584	(13121718)
439719.00	3765330.00	1.78684	(13121718)
439729.00	3765330.00	1.78458	(13121718)
439734.00	3765330.00	1.79397	(12011808)
439739.00	3765330.00	1.80171	(12011808)
439744.00	3765330.00	1.80880	(12011808)
439749.00	3765330.00	1.81444	(12011808)
439754.00	3765330.00	1.81852	(12011808)
439774.00	3765330.00	1.82359	(12011808)
439779.00	3765330.00	1.82194	(12011808)
439784.00	3765330.00	1.81880	(12011808)
439789.00	3765330.00	1.81507	(12011808)
439794.00	3765330.00	1.81007	(12011808)

```
439799.00   3765330.00        1.80377  (12011808)
        439804.00   3765330.00        1.80648  (14100607)
439809.00   3765330.00        1.81228  (14100607)
        439814.00   3765330.00        1.83012  (13120808)
439819.00   3765330.00        1.85043  (13120808)
        439824.00   3765330.00        1.86870  (13120808)
439829.00   3765330.00        1.88463  (13120808)
        439839.00   3765330.00        1.91100  (13120808)
439844.00   3765330.00        1.92146  (13120808)
        439849.00   3765330.00        1.93052  (13120808)
439854.00   3765330.00        1.93714  (13120808)
        439859.00   3765330.00        1.94280  (13120808)
439864.00   3765330.00        1.94668  (13120808)
        439869.00   3765330.00        1.94916  (13120808)
439874.00   3765330.00        1.95124  (13120808)
        439879.00   3765330.00        1.95149  (13120808)
439884.00   3765330.00        1.95099  (13120808)
        439674.00   3765335.00        1.75329  (13121718)
439679.00   3765335.00        1.76438  (13121718)
        439684.00   3765335.00        1.77439  (13121718)
439689.00   3765335.00        1.78338  (13121718)
        439694.00   3765335.00        1.79089  (13121718)
439699.00   3765335.00        1.79741  (13121718)
        439704.00   3765335.00        1.80297  (13121718)
439709.00   3765335.00        1.80726  (13121718)
        439714.00   3765335.00        1.81057  (13121718)
439719.00   3765335.00        1.81205  (13121718)
        439729.00   3765335.00        1.81224  (13121718)
439734.00   3765335.00        1.81104  (13121718)
        439739.00   3765335.00        1.81945  (12011808)
439744.00   3765335.00        1.82740  (12011808)
        439749.00   3765335.00        1.83414  (12011808)
439774.00   3765335.00        1.84966  (12011808)
        439779.00   3765335.00        1.84932  (12011808)
439784.00   3765335.00        1.84689  (12011808)
        439789.00   3765335.00        1.84385  (12011808)
439794.00   3765335.00        1.84005  (12011808)
        439839.00   3765335.00        1.92723  (13120808)
439844.00   3765335.00        1.93812  (13120808)
        439849.00   3765335.00        1.94820  (13120808)
439854.00   3765335.00        1.95598  (13120808)
        439859.00   3765335.00        1.96214  (13120808)
439864.00   3765335.00        1.96747  (13120808)
        439869.00   3765335.00        1.97029  (13120808)
439874.00   3765335.00        1.97249  (13120808)
        439879.00   3765335.00        1.97378  (13120808)
439884.00   3765335.00        1.97318  (13120808)
        439674.00   3765340.00        1.76486  (13121718)
439679.00   3765340.00        1.77730  (13121718)
        439684.00   3765340.00        1.78884  (13121718)
439689.00   3765340.00        1.79927  (13121718)
        439694.00   3765340.00        1.80866  (13121718)
```

```
439699.00   3765340.00        1.81675  (13121718)
        439704.00   3765340.00        1.82339  (13121718)
439709.00   3765340.00        1.82922  (13121718)
        439714.00   3765340.00        1.83354  (13121718)
439719.00   3765340.00        1.83728  (13121718)
        439729.00   3765340.00        1.83995  (13121718)
439734.00   3765340.00        1.83899  (13121718)
        439739.00   3765340.00        1.83783  (13121718)
439744.00   3765340.00        1.84559  (12011808)
        439749.00   3765340.00        1.85390  (12011808)
439774.00   3765340.00        1.87549  (12011808)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONOFFEVA ***
INCLUDING SOURCE(S):
A0000089 , A0000090 , A0000091 , A0000092 , A0000093 ,
A0000094 , A0000095 , A0000096 , A0000097 , A0000098 , A0000099 , A0000100 , A0000101 ,
A0000102 , A0000103 , A0000104 , A0000105 , A0000106 , A0000107 , A0000108 , A0000109 ,
A0000110 , A0000111 , A0000112 , A0000113 , A0000114 , A0000115 ,
A0000116 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439779.00	3765340.00	1.87554	(12011808)	439784.00	3765340.00	1.87522	(12011808)
439789.00	3765340.00	1.87297	(12011808)	439794.00	3765340.00	1.86945	(12011808)
439839.00	3765340.00	1.94234	(13120808)	439844.00	3765340.00	1.95562	(13120808)
439849.00	3765340.00	1.96604	(13120808)	439854.00	3765340.00	1.97504	(13120808)
439859.00	3765340.00	1.98229	(13120808)	439864.00	3765340.00	1.98769	(13120808)
439869.00	3765340.00	1.99178	(13120808)	439874.00	3765340.00	1.99418	(13120808)
439879.00	3765340.00	1.99572	(13120808)	439884.00	3765340.00	1.99597	(13120808)
439674.00	3765345.00	1.77495	(13121718)	439679.00	3765345.00	1.78906	(13121718)
439684.00	3765345.00	1.80219	(13121718)				

439689.00 3765345.00 1.81395 (13121718)
439694.00 3765345.00 1.82480 (13121718)
439699.00 3765345.00 1.83444 (13121718)
439704.00 3765345.00 1.84330 (13121718)
439709.00 3765345.00 1.85025 (13121718)
439714.00 3765345.00 1.85624 (13121718)
439719.00 3765345.00 1.86062 (13121718)
439729.00 3765345.00 1.86649 (13121718)
439734.00 3765345.00 1.86747 (13121718)
439739.00 3765345.00 1.86676 (13121718)
439744.00 3765345.00 1.86531 (13121718)
439749.00 3765345.00 1.87239 (12011808)
439774.00 3765345.00 1.90078 (12011808)
439779.00 3765345.00 1.90230 (12011808)
439784.00 3765345.00 1.90249 (12011808)
439789.00 3765345.00 1.90158 (12011808)
439794.00 3765345.00 1.89948 (12011808)
439839.00 3765345.00 1.95808 (13120808)
439844.00 3765345.00 1.97250 (13120808)
439849.00 3765345.00 1.98401 (13120808)
439854.00 3765345.00 1.99416 (13120808)
439859.00 3765345.00 2.00239 (13120808)
439864.00 3765345.00 2.00807 (13120808)
439869.00 3765345.00 2.01301 (13120808)
439874.00 3765345.00 2.01672 (13120808)
439879.00 3765345.00 2.01830 (13120808)
439884.00 3765345.00 2.01942 (13120808)
439674.00 3765350.00 1.80037 (12011417)
439679.00 3765350.00 1.79910 (13121718)
439684.00 3765350.00 1.81384 (13121718)
439689.00 3765350.00 1.82772 (13121718)
439694.00 3765350.00 1.83977 (13121718)
439699.00 3765350.00 1.85117 (13121718)
439704.00 3765350.00 1.86107 (13121718)
439709.00 3765350.00 1.87029 (13121718)
439714.00 3765350.00 1.87775 (13121718)
439719.00 3765350.00 1.88396 (13121718)
439729.00 3765350.00 1.89236 (13121718)
439734.00 3765350.00 1.89468 (13121718)
439739.00 3765350.00 1.89586 (13121718)
439744.00 3765350.00 1.89538 (13121718)
439749.00 3765350.00 1.89373 (13121718)
439774.00 3765350.00 1.92581 (12011808)
439779.00 3765350.00 1.92852 (12011808)
439784.00 3765350.00 1.92983 (12011808)
439789.00 3765350.00 1.92999 (12011808)
439794.00 3765350.00 1.92879 (12011808)
439839.00 3765350.00 1.97384 (13120808)
439844.00 3765350.00 1.98873 (13120808)
439849.00 3765350.00 2.00203 (13120808)
439854.00 3765350.00 2.01327 (13120808)
439859.00 3765350.00 2.02202 (13120808)

```
439864.00   3765350.00        2.02963  (13120808)
        439869.00   3765350.00        2.03510  (13120808)
439874.00   3765350.00        2.03894  (13120808)
        439879.00   3765350.00        2.04157  (13120808)
439884.00   3765350.00        2.04291  (13120808)
        439674.00   3765355.00        1.84024  (12011417)
439679.00   3765355.00        1.83394  (12011417)
        439684.00   3765355.00        1.82655  (12011417)
439689.00   3765355.00        1.83926  (13121718)
        439694.00   3765355.00        1.85373  (13121718)
439699.00   3765355.00        1.86646  (13121718)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONOFFEVA ***
INCLUDING SOURCE(S):
A0000089 , A0000090 , A0000091 , A0000092 , A0000093 ,
A0000094 , A0000095 , A0000096 , A0000097 , A0000098 , A0000099 , A0000100 , A0000101 ,
A0000102 , A0000103 , A0000104 , A0000105 , A0000106 , A0000107 , A0000108 , A0000109 ,
A0000110 , A0000111 , A0000112 , A0000113 , A0000114 , A0000115 ,
A0000116 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439704.00	3765355.00	1.87832	(13121718)
439709.00	3765355.00	1.88846	(13121718)
439714.00	3765355.00	1.89803	(13121718)
439719.00	3765355.00	1.90591	(13121718)
439729.00	3765355.00	1.91741	(13121718)
439734.00	3765355.00	1.92119	(13121718)
439739.00	3765355.00	1.92359	(13121718)
439744.00	3765355.00	1.92481	(13121718)
439749.00	3765355.00	1.92458	(13121718)
439774.00	3765355.00	1.94996	(12011808)
439779.00	3765355.00	1.95415	(12011808)
439784.00	3765355.00	1.95700	(12011808)
439789.00	3765355.00	1.95822	(12011808)
439794.00	3765355.00	1.95816	(12011808)
439839.00	3765355.00	1.98853	(13120808)
439844.00	3765355.00	2.00519	(13120808)
439849.00	3765355.00	2.02010	(13120808)

```
439854.00   3765355.00        2.03240  (13120808)
        439859.00   3765355.00        2.04256  (13120808)
439864.00   3765355.00        2.05107  (13120808)
        439869.00   3765355.00        2.05731  (13120808)
439874.00   3765355.00        2.06128  (13120808)
        439879.00   3765355.00        2.06497  (13120808)
439884.00   3765355.00        2.06657  (13120808)
        439674.00   3765360.00        1.87889  (12011417)
439679.00   3765360.00        1.87440  (12011417)
        439684.00   3765360.00        1.86859  (12011417)
439689.00   3765360.00        1.86128  (12011417)
        439694.00   3765360.00        1.86537  (13121718)
439699.00   3765360.00        1.88044  (13121718)
        439704.00   3765360.00        1.89365  (13121718)
439709.00   3765360.00        1.90638  (13121718)
        439714.00   3765360.00        1.91680  (13121718)
439719.00   3765360.00        1.92660  (13121718)
        439729.00   3765360.00        1.94161  (13121718)
439734.00   3765360.00        1.94715  (13121718)
        439739.00   3765360.00        1.95068  (13121718)
439744.00   3765360.00        1.95349  (13121718)
        439749.00   3765360.00        1.95462  (13121718)
439774.00   3765360.00        1.97393  (12011808)
        439779.00   3765360.00        1.97945  (12011808)
439784.00   3765360.00        1.98325  (12011808)
        439789.00   3765360.00        1.98619  (12011808)
439794.00   3765360.00        1.98729  (12011808)
        439799.00   3765360.00        1.98713  (12011808)
439804.00   3765360.00        1.98526  (12011808)
        439809.00   3765360.00        1.98249  (12011808)
439814.00   3765360.00        1.97825  (12011808)
        439839.00   3765360.00        2.00371  (13120808)
439844.00   3765360.00        2.02206  (13120808)
        439849.00   3765360.00        2.03797  (13120808)
439854.00   3765360.00        2.05139  (13120808)
        439859.00   3765360.00        2.06296  (13120808)
439864.00   3765360.00        2.07184  (13120808)
        439869.00   3765360.00        2.07939  (13120808)
439874.00   3765360.00        2.08497  (13120808)
        439879.00   3765360.00        2.08875  (13120808)
439884.00   3765360.00        2.09131  (13120808)
        439674.00   3765365.00        1.91689  (12011417)
439679.00   3765365.00        1.91341  (12011417)
        439684.00   3765365.00        1.90918  (12011417)
439689.00   3765365.00        1.90381  (12011417)
        439694.00   3765365.00        1.89722  (12011417)
439699.00   3765365.00        1.89231  (13121718)
        439704.00   3765365.00        1.90802  (13121718)
439709.00   3765365.00        1.92168  (13121718)
        439714.00   3765365.00        1.93483  (13121718)
439719.00   3765365.00        1.94609  (13121718)
        439729.00   3765365.00        1.96433  (13121718)
```

```
439734.00   3765365.00        1.97143  (13121718)
        439739.00   3765365.00        1.97761  (13121718)
439744.00   3765365.00        1.98134  (13121718)
        439749.00   3765365.00        1.98414  (13121718)
439774.00   3765365.00        1.99688  (12011808)
        439779.00   3765365.00        2.00402  (12011808)
439784.00   3765365.00        2.00995  (12011808)
        439789.00   3765365.00        2.01326  (12011808)
439794.00   3765365.00        2.01594  (12011808)
        439799.00   3765365.00        2.01721  (12011808)
439804.00   3765365.00        2.01694  (12011808)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONOFFEVA ***
INCLUDING SOURCE(S):
A0000089 , A0000090 , A0000091 , A0000092 , A0000093 ,
A0000094 , A0000095 , A0000096 , A0000097 , A0000098 , A0000099 , A0000100 , A0000101 ,
A0000102 , A0000103 , A0000104 , A0000105 , A0000106 , A0000107 , A0000108 , A0000109 ,
A0000110 , A0000111 , A0000112 , A0000113 , A0000114 , A0000115 ,
A0000116 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439809.00	3765365.00	2.01457	(12011808)	439814.00	3765365.00	2.01137	(12011808)
439839.00	3765365.00	2.01810	(13120808)	439844.00	3765365.00	2.03832	(13120808)
439849.00	3765365.00	2.05573	(13120808)	439854.00	3765365.00	2.07031	(13120808)
439859.00	3765365.00	2.08324	(13120808)	439864.00	3765365.00	2.09391	(13120808)
439869.00	3765365.00	2.10205	(13120808)	439874.00	3765365.00	2.10887	(13120808)
439879.00	3765365.00	2.11297	(13120808)	439884.00	3765365.00	2.11591	(13120808)
439674.00	3765370.00	1.95368	(12011417)	439679.00	3765370.00	1.95232	(12011417)
439684.00	3765370.00	1.94914	(12011417)	439689.00	3765370.00	1.94492	(12011417)
439694.00	3765370.00	1.93975	(12011417)				

439699.00 3765370.00 1.93355 (12011417)
439704.00 3765370.00 1.92631 (12011417)
439709.00 3765370.00 1.93646 (13121718)
439714.00 3765370.00 1.95048 (13121718)
439719.00 3765370.00 1.96416 (13121718)
439729.00 3765370.00 1.98636 (13121718)
439734.00 3765370.00 1.99501 (13121718)
439739.00 3765370.00 2.00225 (13121718)
439744.00 3765370.00 2.00865 (13121718)
439749.00 3765370.00 2.01287 (13121718)
439774.00 3765370.00 2.01945 (12011808)
439779.00 3765370.00 2.02822 (12011808)
439784.00 3765370.00 2.03511 (12011808)
439789.00 3765370.00 2.04062 (12011808)
439794.00 3765370.00 2.04464 (12011808)
439799.00 3765370.00 2.04668 (12011808)
439804.00 3765370.00 2.04739 (12011808)
439809.00 3765370.00 2.04726 (12011808)
439814.00 3765370.00 2.04505 (12011808)
439839.00 3765370.00 2.03218 (13120808)
439844.00 3765370.00 2.05418 (13120808)
439849.00 3765370.00 2.07340 (13120808)
439854.00 3765370.00 2.08983 (13120808)
439859.00 3765370.00 2.10408 (13120808)
439864.00 3765370.00 2.11562 (13120808)
439869.00 3765370.00 2.12449 (13120808)
439874.00 3765370.00 2.13227 (13120808)
439879.00 3765370.00 2.13769 (13120808)
439884.00 3765370.00 2.14119 (13120808)
439674.00 3765375.00 1.98921 (12011417)
439679.00 3765375.00 1.98906 (12011417)
439684.00 3765375.00 1.98856 (12011417)
439689.00 3765375.00 1.98589 (12011417)
439694.00 3765375.00 1.98222 (12011417)
439699.00 3765375.00 1.97681 (12011417)
439704.00 3765375.00 1.97085 (12011417)
439709.00 3765375.00 1.96380 (12011417)
439714.00 3765375.00 1.96579 (13121718)
439719.00 3765375.00 1.98036 (13121718)
439729.00 3765375.00 2.00659 (13121718)
439734.00 3765375.00 2.01759 (13121718)
439739.00 3765375.00 2.02689 (13121718)
439744.00 3765375.00 2.03394 (13121718)
439749.00 3765375.00 2.04061 (13121718)
439754.00 3765375.00 2.04523 (13121718)
439774.00 3765375.00 2.04784 (13121718)
439779.00 3765375.00 2.05154 (12011808)
439784.00 3765375.00 2.06034 (12011808)
439789.00 3765375.00 2.06725 (12011808)
439794.00 3765375.00 2.07221 (12011808)
439799.00 3765375.00 2.07646 (12011808)
439804.00 3765375.00 2.07842 (12011808)

```
439809.00   3765375.00        2.07900  (12011808)
        439814.00   3765375.00        2.07803  (12011808)
439839.00   3765375.00        2.05283  (12011808)
        439844.00   3765375.00        2.06990  (13120808)
439849.00   3765375.00        2.09098  (13120808)
        439854.00   3765375.00        2.10935  (13120808)
439859.00   3765375.00        2.12404  (13120808)
        439864.00   3765375.00        2.13717  (13120808)
439869.00   3765375.00        2.14822  (13120808)
        439874.00   3765375.00        2.15626  (13120808)
439879.00   3765375.00        2.16277  (13120808)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONOFFEVA ***
INCLUDING SOURCE(S):
A0000089 , A0000090 , A0000091 , A0000092 , A0000093 ,
A0000094 , A0000095 , A0000096 , A0000097 , A0000098 , A0000099 , A0000100 , A0000101 ,
A0000102 , A0000103 , A0000104 , A0000105 , A0000106 , A0000107 , A0000108 , A0000109 ,
A0000110 , A0000111 , A0000112 , A0000113 , A0000114 , A0000115 ,
A0000116 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439884.00	3765375.00	2.16740	(13120808)	439774.00	3765380.00	2.08258	(13121718)
439779.00	3765380.00	2.08108	(13121718)	439784.00	3765380.00	2.08441	(12011808)
439789.00	3765380.00	2.09330	(12011808)	439794.00	3765380.00	2.10029	(12011808)
439799.00	3765380.00	2.10520	(12011808)	439804.00	3765380.00	2.10898	(12011808)
439809.00	3765380.00	2.11111	(12011808)	439814.00	3765380.00	2.11122	(12011808)
439769.00	3765385.00	2.11556	(13121718)	439819.00	3765385.00	2.14455	(12011808)
439769.00	3765400.00	2.20886	(13121718)	439844.00	3765400.00	2.24224	(12011808)
439849.00	3765400.00	2.23633	(12011808)	439674.00	3765405.00	2.16517	(12011417)
439714.00	3765405.00	2.22615	(12011417)				

439719.00 3765405.00 2.22705 (12011417)
439734.00 3765405.00 2.21927 (12011417)
439749.00 3765405.00 2.19799 (12011417)
439754.00 3765405.00 2.19751 (13121718)
439774.00 3765405.00 2.24730 (13121718)
439779.00 3765405.00 2.25485 (13121718)
439784.00 3765405.00 2.26040 (13121718)
439789.00 3765405.00 2.26444 (13121718)
439794.00 3765405.00 2.26586 (13121718)
439799.00 3765405.00 2.26537 (13121718)
439804.00 3765405.00 2.26350 (13121718)
439809.00 3765405.00 2.26547 (12011808)
439814.00 3765405.00 2.27397 (12011808)
439819.00 3765405.00 2.28036 (12011808)
439824.00 3765405.00 2.28480 (12011808)
439829.00 3765405.00 2.28725 (12011808)
439834.00 3765405.00 2.28735 (12011808)
439839.00 3765405.00 2.28575 (12011808)
439844.00 3765405.00 2.28290 (12011808)
439849.00 3765405.00 2.27843 (12011808)
439854.00 3765405.00 2.27206 (12011808)
439859.00 3765405.00 2.26446 (12011808)
439674.00 3765410.00 2.18665 (12011417)
439679.00 3765410.00 2.20164 (12011417)
439684.00 3765410.00 2.21586 (12011417)
439689.00 3765410.00 2.22782 (12011417)
439694.00 3765410.00 2.23901 (12011417)
439699.00 3765410.00 2.24812 (12011417)
439704.00 3765410.00 2.25658 (12011417)
439709.00 3765410.00 2.26259 (12011417)
439714.00 3765410.00 2.26732 (12011417)
439719.00 3765410.00 2.26989 (12011417)
439729.00 3765410.00 2.27113 (12011417)
439734.00 3765410.00 2.26898 (12011417)
439739.00 3765410.00 2.26532 (12011417)
439744.00 3765410.00 2.25975 (12011417)
439749.00 3765410.00 2.25270 (12011417)
439774.00 3765410.00 2.27725 (13121718)
439779.00 3765410.00 2.28715 (13121718)
439784.00 3765410.00 2.29481 (13121718)
439789.00 3765410.00 2.30038 (13121718)
439794.00 3765410.00 2.30414 (13121718)
439799.00 3765410.00 2.30629 (13121718)
439804.00 3765410.00 2.30563 (13121718)
439809.00 3765410.00 2.30332 (13121718)
439814.00 3765410.00 2.30569 (12011808)
439819.00 3765410.00 2.31361 (12011808)
439824.00 3765410.00 2.31959 (12011808)
439829.00 3765410.00 2.32388 (12011808)
439834.00 3765410.00 2.32605 (12011808)
439839.00 3765410.00 2.32591 (12011808)
439844.00 3765410.00 2.32391 (12011808)

439849.00 3765410.00 2.32025 (12011808)
439854.00 3765410.00 2.31517 (12011808)
439859.00 3765410.00 2.30889 (12011808)
439674.00 3765415.00 2.20430 (12011417)
439679.00 3765415.00 2.22240 (12011417)
439684.00 3765415.00 2.23887 (12011417)
439689.00 3765415.00 2.25422 (12011417)
439694.00 3765415.00 2.26776 (12011417)
439699.00 3765415.00 2.27973 (12011417)
439704.00 3765415.00 2.28981 (12011417)
439709.00 3765415.00 2.29882 (12011417)

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONOFFEVA ***
INCLUDING SOURCE(S):
A0000089 , A0000090 , A0000091 , A0000092 , A0000093 ,
A0000094 , A0000095 , A0000096 , A0000097 , A0000098 , A0000099 , A0000100 , A0000101 ,
A0000102 , A0000103 , A0000104 , A0000105 , A0000106 , A0000107 , A0000108 , A0000109 ,
A0000110 , A0000111 , A0000112 , A0000113 , A0000114 , A0000115 ,
A0000116 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439714.00	3765415.00	2.30592	(12011417)
439719.00	3765415.00	2.31177	(12011417)
439729.00	3765415.00	2.31725	(12011417)
439734.00	3765415.00	2.31713	(12011417)
439739.00	3765415.00	2.31556	(12011417)
439744.00	3765415.00	2.31268	(12011417)
439749.00	3765415.00	2.30783	(12011417)
439774.00	3765415.00	2.30576	(13121718)
439779.00	3765415.00	2.31786	(13121718)
439784.00	3765415.00	2.32826	(13121718)
439789.00	3765415.00	2.33635	(13121718)
439794.00	3765415.00	2.34173	(13121718)
439799.00	3765415.00	2.34548	(13121718)
439804.00	3765415.00	2.34745	(13121718)
439809.00	3765415.00	2.34690	(13121718)
439814.00	3765415.00	2.34468	(13121718)
439819.00	3765415.00	2.34661	(12011808)

439824.00 3765415.00 2.35482 (12011808)
439829.00 3765415.00 2.36064 (12011808)
439834.00 3765415.00 2.36394 (12011808)
439839.00 3765415.00 2.36569 (12011808)
439844.00 3765415.00 2.36552 (12011808)
439849.00 3765415.00 2.36298 (12011808)
439854.00 3765415.00 2.35872 (12011808)
439859.00 3765415.00 2.35333 (12011808)
439674.00 3765420.00 2.21979 (12011417)
439679.00 3765420.00 2.24024 (12011417)
439684.00 3765420.00 2.25901 (12011417)
439689.00 3765420.00 2.27706 (12011417)
439694.00 3765420.00 2.29322 (12011417)
439699.00 3765420.00 2.30853 (12011417)
439704.00 3765420.00 2.32155 (12011417)
439709.00 3765420.00 2.33293 (12011417)
439714.00 3765420.00 2.34283 (12011417)
439719.00 3765420.00 2.35053 (12011417)
439729.00 3765420.00 2.36164 (12011417)
439734.00 3765420.00 2.36457 (12011417)
439739.00 3765420.00 2.36503 (12011417)
439744.00 3765420.00 2.36351 (12011417)
439749.00 3765420.00 2.36131 (12011417)
439774.00 3765420.00 2.33279 (13121718)
439779.00 3765420.00 2.34792 (13121718)
439784.00 3765420.00 2.36005 (13121718)
439789.00 3765420.00 2.37067 (13121718)
439794.00 3765420.00 2.37886 (13121718)
439799.00 3765420.00 2.38486 (13121718)
439804.00 3765420.00 2.38826 (13121718)
439809.00 3765420.00 2.38988 (13121718)
439814.00 3765420.00 2.38955 (13121718)
439819.00 3765420.00 2.38734 (13121718)
439824.00 3765420.00 2.38913 (12011808)
439829.00 3765420.00 2.39688 (12011808)
439834.00 3765420.00 2.40287 (12011808)
439839.00 3765420.00 2.40580 (12011808)
439844.00 3765420.00 2.40682 (12011808)
439849.00 3765420.00 2.40578 (12011808)
439854.00 3765420.00 2.40315 (12011808)
439859.00 3765420.00 2.39877 (12011808)
439674.00 3765425.00 2.23154 (12011417)
439679.00 3765425.00 2.25431 (12011417)
439684.00 3765425.00 2.27685 (12011417)
439689.00 3765425.00 2.29696 (12011417)
439694.00 3765425.00 2.31622 (12011417)
439699.00 3765425.00 2.33346 (12011417)
439704.00 3765425.00 2.34980 (12011417)
439709.00 3765425.00 2.36404 (12011417)
439714.00 3765425.00 2.37719 (12011417)
439719.00 3765425.00 2.38805 (12011417)
439729.00 3765425.00 2.40399 (12011417)

```
439734.00   3765425.00        2.40929  (12011417)
        439739.00   3765425.00        2.41324  (12011417)
439744.00   3765425.00        2.41439  (12011417)
        439749.00   3765425.00        2.41384  (12011417)
439774.00   3765425.00        2.38405  (12011417)
        439779.00   3765425.00        2.37554  (13121718)
439784.00   3765425.00        2.39145  (13121718)
        439789.00   3765425.00        2.40414  (13121718)
439794.00   3765425.00        2.41443  (13121718)
        439799.00   3765425.00        2.42309  (13121718)
439804.00   3765425.00        2.42908  (13121718)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONOFFEVA ***
INCLUDING SOURCE(S):
A0000089 , A0000090 , A0000091 , A0000092 , A0000093 ,
A0000094 , A0000095 , A0000096 , A0000097 , A0000098 , A0000099 , A0000100 , A0000101 ,
A0000102 , A0000103 , A0000104 , A0000105 , A0000106 , A0000107 , A0000108 , A0000109 ,
A0000110 , A0000111 , A0000112 , A0000113 , A0000114 , A0000115 ,
A0000116 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439809.00	3765425.00	2.43295	(13121718)	439814.00	3765425.00	2.43411	(13121718)
439819.00	3765425.00	2.43349	(13121718)	439824.00	3765425.00	2.43067	(13121718)
439829.00	3765425.00	2.43296	(12011808)	439834.00	3765425.00	2.44062	(12011808)
439839.00	3765425.00	2.44596	(12011808)	439844.00	3765425.00	2.44866	(12011808)
439849.00	3765425.00	2.44923	(12011808)	439854.00	3765425.00	2.44770	(12011808)
439859.00	3765425.00	2.44461	(12011808)	439674.00	3765430.00	2.25440	(12112508)
439679.00	3765430.00	2.26547	(12011417)	439684.00	3765430.00	2.28980	(12011417)
439689.00	3765430.00	2.31370	(12011417)	439694.00	3765430.00	2.33567	(12011417)
439699.00	3765430.00	2.35660	(12011417)				

439704.00 3765430.00 2.37510 (12011417)
439709.00 3765430.00 2.39272 (12011417)
439714.00 3765430.00 2.40797 (12011417)
439719.00 3765430.00 2.42222 (12011417)
439729.00 3765430.00 2.44482 (12011417)
439734.00 3765430.00 2.45276 (12011417)
439739.00 3765430.00 2.45850 (12011417)
439744.00 3765430.00 2.46308 (12011417)
439749.00 3765430.00 2.46532 (12011417)
439774.00 3765430.00 2.44674 (12011417)
439779.00 3765430.00 2.43767 (12011417)
439784.00 3765430.00 2.42599 (12011417)
439789.00 3765430.00 2.43615 (13121718)
439794.00 3765430.00 2.44984 (13121718)
439799.00 3765430.00 2.46037 (13121718)
439804.00 3765430.00 2.46874 (13121718)
439809.00 3765430.00 2.47482 (13121718)
439814.00 3765430.00 2.47889 (13121718)
439819.00 3765430.00 2.48012 (13121718)
439824.00 3765430.00 2.47904 (13121718)
439829.00 3765430.00 2.47591 (13121718)
439834.00 3765430.00 2.47859 (12011808)
439839.00 3765430.00 2.48606 (12011808)
439844.00 3765430.00 2.49058 (12011808)
439849.00 3765430.00 2.49306 (12011808)
439854.00 3765430.00 2.49295 (12011808)
439859.00 3765430.00 2.49071 (12011808)
439674.00 3765435.00 2.29100 (12112508)
439679.00 3765435.00 2.30038 (12112508)
439684.00 3765435.00 2.30904 (12112508)
439689.00 3765435.00 2.32645 (12011417)
439694.00 3765435.00 2.35153 (12011417)
439699.00 3765435.00 2.37515 (12011417)
439704.00 3765435.00 2.39731 (12011417)
439709.00 3765435.00 2.41794 (12011417)
439714.00 3765435.00 2.43693 (12011417)
439719.00 3765435.00 2.45355 (12011417)
439729.00 3765435.00 2.48203 (12011417)
439734.00 3765435.00 2.49395 (12011417)
439739.00 3765435.00 2.50304 (12011417)
439744.00 3765435.00 2.51000 (12011417)
439749.00 3765435.00 2.51492 (12011417)
439774.00 3765435.00 2.50881 (12011417)
439779.00 3765435.00 2.50151 (12011417)
439784.00 3765435.00 2.49257 (12011417)
439789.00 3765435.00 2.48158 (12011417)
439794.00 3765435.00 2.48259 (13121718)
439799.00 3765435.00 2.49694 (13121718)
439804.00 3765435.00 2.50814 (13121718)
439809.00 3765435.00 2.51625 (13121718)
439814.00 3765435.00 2.52250 (13121718)
439819.00 3765435.00 2.52625 (13121718)

```
439824.00   3765435.00        2.52737  (13121718)
        439829.00   3765435.00        2.52646  (13121718)
439834.00   3765435.00        2.52307  (13121718)
        439839.00   3765435.00        2.52570  (12011808)
439844.00   3765435.00        2.53268  (12011808)
        439849.00   3765435.00        2.53687  (12011808)
439854.00   3765435.00        2.53865  (12011808)
        439859.00   3765435.00        2.53820  (12011808)
439674.00   3765440.00        2.32369  (12112508)
        439679.00   3765440.00        2.33716  (12112508)
439684.00   3765440.00        2.34803  (12112508)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONOFFEVA ***
INCLUDING SOURCE(S):
A0000089 , A0000090 , A0000091 , A0000092 , A0000093 ,
A0000094 , A0000095 , A0000096 , A0000097 , A0000098 , A0000099 , A0000100 , A0000101 ,
A0000102 , A0000103 , A0000104 , A0000105 , A0000106 , A0000107 , A0000108 , A0000109 ,
A0000110 , A0000111 , A0000112 , A0000113 , A0000114 , A0000115 ,
A0000116 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439689.00	3765440.00	2.35786	(12112508)
439694.00	3765440.00	2.36550	(12112508)
439699.00	3765440.00	2.39035	(12011417)
439704.00	3765440.00	2.41592	(12011417)
439709.00	3765440.00	2.43932	(12011417)
439714.00	3765440.00	2.46173	(12011417)
439719.00	3765440.00	2.48204	(12011417)
439729.00	3765440.00	2.51726	(12011417)
439734.00	3765440.00	2.53147	(12011417)
439739.00	3765440.00	2.54420	(12011417)
439744.00	3765440.00	2.55461	(12011417)
439749.00	3765440.00	2.56294	(12011417)
439774.00	3765440.00	2.57084	(12011417)
439779.00	3765440.00	2.56574	(12011417)
439784.00	3765440.00	2.55857	(12011417)
439789.00	3765440.00	2.54941	(12011417)
439794.00	3765440.00	2.53846	(12011417)

439799.00 3765440.00 2.53120 (13121718)
439804.00 3765440.00 2.54569 (13121718)
439809.00 3765440.00 2.55740 (13121718)
439814.00 3765440.00 2.56596 (13121718)
439819.00 3765440.00 2.57202 (13121718)
439824.00 3765440.00 2.57510 (13121718)
439829.00 3765440.00 2.57633 (13121718)
439834.00 3765440.00 2.57525 (13121718)
439839.00 3765440.00 2.57113 (13121718)
439844.00 3765440.00 2.57463 (12011808)
439849.00 3765440.00 2.58086 (12011808)
439854.00 3765440.00 2.58447 (12011808)
439859.00 3765440.00 2.58558 (12011808)
439674.00 3765445.00 2.35292 (12112508)
439679.00 3765445.00 2.36889 (12112508)
439684.00 3765445.00 2.38337 (12112508)
439689.00 3765445.00 2.39661 (12112508)
439694.00 3765445.00 2.40801 (12112508)
439699.00 3765445.00 2.41729 (12112508)
439704.00 3765445.00 2.43027 (12011417)
439709.00 3765445.00 2.45758 (12011417)
439714.00 3765445.00 2.48271 (12011417)
439719.00 3765445.00 2.50664 (12011417)
439729.00 3765445.00 2.54878 (12011417)
439734.00 3765445.00 2.56699 (12011417)
439739.00 3765445.00 2.58272 (12011417)
439744.00 3765445.00 2.59661 (12011417)
439749.00 3765445.00 2.60777 (12011417)
439774.00 3765445.00 2.63110 (12011417)
439779.00 3765445.00 2.62866 (12011417)
439784.00 3765445.00 2.62451 (12011417)
439789.00 3765445.00 2.61772 (12011417)
439794.00 3765445.00 2.60881 (12011417)
439799.00 3765445.00 2.59747 (12011417)
439804.00 3765445.00 2.58472 (12011417)
439809.00 3765445.00 2.59654 (13121718)
439814.00 3765445.00 2.60828 (13121718)
439819.00 3765445.00 2.61735 (13121718)
439824.00 3765445.00 2.62328 (13121718)
439829.00 3765445.00 2.62658 (13121718)
439834.00 3765445.00 2.62701 (13121718)
439839.00 3765445.00 2.62560 (13121718)
439844.00 3765445.00 2.62164 (13121718)
439849.00 3765445.00 2.62534 (12011808)
439854.00 3765445.00 2.63100 (12011808)
439859.00 3765445.00 2.63442 (12011808)
439674.00 3765450.00 2.37860 (12112508)
439679.00 3765450.00 2.39731 (12112508)
439684.00 3765450.00 2.41517 (12112508)
439689.00 3765450.00 2.43083 (12112508)
439694.00 3765450.00 2.44585 (12112508)
439699.00 3765450.00 2.45869 (12112508)

```
439704.00   3765450.00        2.47030  (12112508)
        439709.00   3765450.00        2.47940  (12112508)
439714.00   3765450.00        2.50018  (12011417)
        439719.00   3765450.00        2.52736  (12011417)
439729.00   3765450.00        2.57631  (12011417)
        439734.00   3765450.00        2.59846  (12011417)
439739.00   3765450.00        2.61789  (12011417)
        439744.00   3765450.00        2.63579  (12011417)
439749.00   3765450.00        2.65098  (12011417)
        439774.00   3765450.00        2.69093  (12011417)
439844.00   3765450.00        2.67765  (13121718)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONOFFEVA ***
INCLUDING SOURCE(S):
A0000089 , A0000090 , A0000091 , A0000092 , A0000093 ,
A0000094 , A0000095 , A0000096 , A0000097 , A0000098 , A0000099 , A0000100 , A0000101 ,
A0000102 , A0000103 , A0000104 , A0000105 , A0000106 , A0000107 , A0000108 , A0000109 ,
A0000110 , A0000111 , A0000112 , A0000113 , A0000114 , A0000115 ,
A0000116 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439849.00	3765450.00	2.67351	(13121718)	439854.00	3765450.00	2.67709	(12011808)
439859.00	3765450.00	2.68231	(12011808)	439674.00	3765455.00	2.39824	(12112508)
439679.00	3765455.00	2.42096	(12112508)	439684.00	3765455.00	2.44227	(12112508)
439689.00	3765455.00	2.46225	(12112508)	439694.00	3765455.00	2.48023	(12112508)
439699.00	3765455.00	2.49639	(12112508)	439704.00	3765455.00	2.51092	(12112508)
439709.00	3765455.00	2.52399	(12112508)	439714.00	3765455.00	2.53501	(12112508)
439719.00	3765455.00	2.54439	(12112508)	439729.00	3765455.00	2.60066	(12011417)
439734.00	3765455.00	2.62607	(12011417)	439739.00	3765455.00	2.64978	(12011417)
439744.00	3765455.00	2.67077	(12011417)				

439749.00 3765455.00 2.69001 (12011417)
439844.00 3765455.00 2.73500 (13121718)
439849.00 3765455.00 2.73207 (13121718)
439854.00 3765455.00 2.72737 (13121718)
439859.00 3765455.00 2.73189 (12011808)
439674.00 3765460.00 2.41408 (12112508)
439679.00 3765460.00 2.44027 (12112508)
439684.00 3765460.00 2.46420 (12112508)
439689.00 3765460.00 2.48771 (12112508)
439694.00 3765460.00 2.50932 (12112508)
439699.00 3765460.00 2.53013 (12112508)
439704.00 3765460.00 2.54836 (12112508)
439709.00 3765460.00 2.56499 (12112508)
439714.00 3765460.00 2.57913 (12112508)
439719.00 3765460.00 2.59204 (12112508)
439729.00 3765460.00 2.62001 (12011417)
439734.00 3765460.00 2.64944 (12011417)
439739.00 3765460.00 2.67740 (12011417)
439744.00 3765460.00 2.70302 (12011417)
439749.00 3765460.00 2.72576 (12011417)
439789.00 3765460.00 2.81790 (12011417)
439794.00 3765460.00 2.81786 (12011417)
439799.00 3765460.00 2.81420 (12011417)
439804.00 3765460.00 2.80816 (12011417)
439809.00 3765460.00 2.79965 (12011417)
439814.00 3765460.00 2.78891 (12011417)
439819.00 3765460.00 2.77626 (12011417)
439824.00 3765460.00 2.76273 (13121718)
439829.00 3765460.00 2.77481 (13121718)
439844.00 3765460.00 2.79202 (13121718)
439849.00 3765460.00 2.79178 (13121718)
439854.00 3765460.00 2.78818 (13121718)
439859.00 3765460.00 2.78324 (13121718)
439674.00 3765465.00 2.42425 (12112508)
439679.00 3765465.00 2.45354 (12112508)
439684.00 3765465.00 2.48220 (12112508)
439689.00 3765465.00 2.50900 (12112508)
439694.00 3765465.00 2.53418 (12112508)
439699.00 3765465.00 2.55792 (12112508)
439704.00 3765465.00 2.58019 (12112508)
439709.00 3765465.00 2.60098 (12112508)
439714.00 3765465.00 2.62005 (12112508)
439719.00 3765465.00 2.63651 (12112508)
439729.00 3765465.00 2.66308 (12112508)
439734.00 3765465.00 2.67385 (12112508)
439739.00 3765465.00 2.69983 (12011417)
439744.00 3765465.00 2.73013 (12011417)
439749.00 3765465.00 2.75741 (12011417)
439789.00 3765465.00 2.88245 (12011417)
439794.00 3765465.00 2.88522 (12011417)
439799.00 3765465.00 2.88533 (12011417)
439804.00 3765465.00 2.88254 (12011417)

439809.00   3765465.00   2.87698 (12011417)
        439814.00   3765465.00   2.86885 (12011417)
439819.00   3765465.00   2.85753 (12011417)
        439824.00   3765465.00   2.84485 (12011417)
439829.00   3765465.00   2.82970 (12011417)
        439844.00   3765465.00   2.84915 (13121718)
439849.00   3765465.00   2.85144 (13121718)
        439854.00   3765465.00   2.85084 (13121718)
439859.00   3765465.00   2.84700 (13121718)
        439674.00   3765470.00   2.42937 (12112508)
439679.00   3765470.00   2.46161 (12112508)

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONOFFEVA ***
INCLUDING SOURCE(S):
A0000089 , A0000090 , A0000091 , A0000092 , A0000093 ,
A0000094 , A0000095 , A0000096 , A0000097 , A0000098 , A0000099 , A0000100 , A0000101 ,
A0000102 , A0000103 , A0000104 , A0000105 , A0000106 , A0000107 , A0000108 , A0000109 ,
A0000110 , A0000111 , A0000112 , A0000113 , A0000114 , A0000115 ,
A0000116 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439684.00	3765470.00	2.49342	(12112508)
439689.00	3765470.00	2.52366	(12112508)
439694.00	3765470.00	2.55358	(12112508)
439699.00	3765470.00	2.58132	(12112508)
439704.00	3765470.00	2.60790	(12112508)
439709.00	3765470.00	2.63187	(12112508)
439714.00	3765470.00	2.65497	(12112508)
439719.00	3765470.00	2.67560	(12112508)
439729.00	3765470.00	2.71173	(12112508)
439734.00	3765470.00	2.72602	(12112508)
439739.00	3765470.00	2.73826	(12112508)
439744.00	3765470.00	2.75236	(12011417)
439749.00	3765470.00	2.78442	(12011417)
439789.00	3765470.00	2.94527	(12011417)
439794.00	3765470.00	2.95221	(12011417)
439799.00	3765470.00	2.95548	(12011417)
439804.00	3765470.00	2.95609	(12011417)

```
439809.00   3765470.00        2.95331  (12011417)
        439814.00   3765470.00        2.94856  (12011417)
439819.00   3765470.00        2.94056  (12011417)
        439824.00   3765470.00        2.92960  (12011417)
439829.00   3765470.00        2.91637  (12011417)
        439844.00   3765470.00        2.90682  (13121718)
439849.00   3765470.00        2.91174  (13121718)
        439854.00   3765470.00        2.91407  (13121718)
439859.00   3765470.00        2.91174  (13121718)
        439674.00   3765475.00        2.42774  (12112508)
439679.00   3765475.00        2.46445  (12112508)
        439684.00   3765475.00        2.49973  (12112508)
439689.00   3765475.00        2.53377  (12112508)
        439694.00   3765475.00        2.56661  (12112508)
439699.00   3765475.00        2.59821  (12112508)
        439704.00   3765475.00        2.62866  (12112508)
439709.00   3765475.00        2.65784  (12112508)
        439714.00   3765475.00        2.68536  (12112508)
439719.00   3765475.00        2.71036  (12112508)
        439729.00   3765475.00        2.75456  (12112508)
439734.00   3765475.00        2.77327  (12112508)
        439739.00   3765475.00        2.79063  (12112508)
439744.00   3765475.00        2.80488  (12112508)
        439749.00   3765475.00        2.81643  (12112508)
439754.00   3765475.00        2.84085  (12011417)
        439789.00   3765475.00        3.00512  (12011417)
439794.00   3765475.00        3.01611  (12011417)
        439799.00   3765475.00        3.02438  (12011417)
439804.00   3765475.00        3.02883  (12011417)
        439809.00   3765475.00        3.03008  (12011417)
439814.00   3765475.00        3.02787  (12011417)
        439819.00   3765475.00        3.02278  (12011417)
439824.00   3765475.00        3.01498  (12011417)
        439829.00   3765475.00        3.00436  (12011417)
439269.00   3764900.00        0.79417  (13020408)
        439369.00   3764900.00        0.82197  (15111218)
439469.00   3764900.00        0.87465  (14100607)
        439569.00   3764900.00        0.95929  (13120808)
439669.00   3764900.00        0.96176  (13120808)
        439769.00   3764900.00        0.89762  (12010217)
439869.00   3764900.00        0.96847  (12010217)
        439969.00   3764900.00        0.90814  (12010217)
440069.00   3764900.00        0.89198  (13123108)
        440169.00   3764900.00        0.87850  (12121717)
440269.00   3764900.00        0.84493  (12111319)
        439269.00   3765000.00        0.87515  (13121718)
439369.00   3765000.00        0.90742  (13020408)
        439469.00   3765000.00        0.94567  (15111218)
439569.00   3765000.00        1.00530  (14100607)
        439669.00   3765000.00        1.11113  (13120808)
439769.00   3765000.00        1.05361  (13120808)
        439869.00   3765000.00        1.07555  (12010217)
```

```
439969.00   3765000.00        1.06247  (12010217)
        440069.00   3765000.00        0.99046  (13123108)
440169.00   3765000.00        0.97236  (12121717)
        440269.00   3765000.00        0.94132  (13012419)
439269.00   3765100.00        0.95594  (12011417)
        439369.00   3765100.00        1.01369  (13121718)
439469.00   3765100.00        1.05630  (13020408)
        439569.00   3765100.00        1.11184  (15111218)
439669.00   3765100.00        1.19549  (13120808)
        439769.00   3765100.00        1.28400  (13120808)
439869.00   3765100.00        1.18869  (12010217)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONOFFEVA ***
INCLUDING SOURCE(S):
A0000089 , A0000090 , A0000091 , A0000092 , A0000093 ,
A0000094 , A0000095 , A0000096 , A0000097 , A0000098 , A0000099 , A0000100 , A0000101 ,
A0000102 , A0000103 , A0000104 , A0000105 , A0000106 , A0000107 , A0000108 , A0000109 ,
A0000110 , A0000111 , A0000112 , A0000113 , A0000114 , A0000115 ,
A0000116 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439969.00	3765100.00	1.23508	(12010217)	440069.00	3765100.00	1.11448	(13123108)
440169.00	3765100.00	1.09006	(12121717)	440269.00	3765100.00	1.07380	(13012419)
439269.00	3765200.00	1.10272	(12011417)	439369.00	3765200.00	1.18217	(12011417)
439469.00	3765200.00	1.19330	(14010708)	439569.00	3765200.00	1.28295	(13121718)
439669.00	3765200.00	1.34339	(15111218)	439769.00	3765200.00	1.48215	(13120808)
439869.00	3765200.00	1.47316	(13120808)	439969.00	3765200.00	1.44030	(12010217)
440069.00	3765200.00	1.36268	(12010217)	440169.00	3765200.00	1.25521	(13123108)
440269.00	3765200.00	1.29102	(15010717)	439269.00	3765300.00	1.18560	(13121618)
439369.00	3765300.00	1.31066	(12112508)				

```
439469.00   3765300.00        1.44479  (12011417)
        439569.00   3765300.00        1.55490  (12011417)
439669.00   3765300.00        1.63665  (13121718)
        439769.00   3765300.00        1.67592  (15111218)
439869.00   3765300.00        1.82906  (13120808)
        439969.00   3765300.00        1.71501  (12010217)
440069.00   3765300.00        1.66851  (12010217)
        440169.00   3765300.00        1.48568  (12010217)
440269.00   3765300.00        1.58569  (15010717)
        439269.00   3765400.00        1.43292  (15111218)
439369.00   3765400.00        1.49162  (13120808)
        439469.00   3765400.00        1.53169  (12111318)
439569.00   3765400.00        1.86199  (12112508)
        439669.00   3765400.00        2.12939  (12011417)
439769.00   3765400.00        2.20886  (13121718)
        439869.00   3765400.00        2.26703  (13120808)
439969.00   3765400.00        2.26317  (13120808)
        440069.00   3765400.00        2.10592  (12010217)
440169.00   3765400.00        1.98168  (15010717)
        440269.00   3765400.00        1.96814  (13121617)
439269.00   3765500.00        1.95361  (12011417)
        439369.00   3765500.00        1.90023  (15111218)
439469.00   3765500.00        1.92041  (13120808)
        439569.00   3765500.00        1.99726  (12010708)
439669.00   3765500.00        2.50914  (12111318)
        439769.00   3765500.00        3.17174  (12112508)
439869.00   3765500.00        3.37930  (12011417)
        439969.00   3765500.00        3.23930  (13120808)
440069.00   3765500.00        3.03135  (13120808)
        440169.00   3765500.00        2.77679  (16010608)
440269.00   3765500.00        2.78974  (15113017)
        439269.00   3765600.00        2.66387  (12111318)
439369.00   3765600.00        3.11454  (12011417)
        439469.00   3765600.00        2.91895  (13121718)
439569.00   3765600.00        2.78500  (12010217)
        439669.00   3765600.00        3.00827  (16121918)
439769.00   3765600.00        4.16378  (13121208)
        439869.00   3765600.00        6.41011  (12111318)
439969.00   3765600.00        7.36062  (12011417)
        440069.00   3765600.00        5.93789  (13120808)
440169.00   3765600.00        5.47126  (12011608)
        440269.00   3765600.00        4.88882  (14101107)
439269.00   3765700.00        4.44473  (14012908)
        439369.00   3765700.00        6.09058  (16121918)
439469.00   3765700.00        9.30488  (12101307)
        439569.00   3765700.00        6.16985  (12011417)
439669.00   3765700.00        4.70317  (12010217)
        439769.00   3765700.00        3.99213  (12010217)
439869.00   3765700.00        5.29710  (12111317)
        439969.00   3765700.00        6.62654  (15120818)
440069.00   3765700.00        8.23024  (15120818)
        440169.00   3765700.00       11.96012  (13111217)
```

```
440269.00   3765700.00       20.62437  (13111217)
        439269.00   3765800.00        4.18772  (12111317)
439369.00   3765800.00        5.82499  (12111317)
        439469.00   3765800.00        6.05319  (12111317)
439569.00   3765800.00        6.68819  (12111317)
        439669.00   3765800.00        8.09639  (15120818)
439769.00   3765800.00       10.72225  (15120818)
        439869.00   3765800.00       17.66955  (13111217)
439969.00   3765800.00        7.53330  (14121418)
        440069.00   3765800.00        4.37011  (13111218)
440169.00   3765800.00        4.30415  (13111218)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONOFFEVA ***
INCLUDING SOURCE(S):
A0000089 , A0000090 , A0000091 , A0000092 , A0000093 ,
A0000094 , A0000095 , A0000096 , A0000097 , A0000098 , A0000099 , A0000100 , A0000101 ,
A0000102 , A0000103 , A0000104 , A0000105 , A0000106 , A0000107 , A0000108 , A0000109 ,
A0000110 , A0000111 , A0000112 , A0000113 , A0000114 , A0000115 ,
A0000116 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
440269.00	3765800.00	4.42246	(13111217)	439269.00	3765900.00	2.93442	(12100707)
439369.00	3765900.00	3.08534	(15120818)	439469.00	3765900.00	3.25678	(15120818)
439569.00	3765900.00	3.36571	(15120818)	439669.00	3765900.00	3.48176	(15112217)
439769.00	3765900.00	3.31195	(13111218)	439869.00	3765900.00	3.37187	(13111217)
439969.00	3765900.00	3.47892	(13111217)	440069.00	3765900.00	2.97520	(12011717)
440169.00	3765900.00	2.29522	(12120419)	440269.00	3765900.00	2.45150	(12122117)
439649.00	3765310.00	1.64144	(13121718)	439679.00	3765310.00	1.68121	(13121718)
439709.00	3765310.00	1.68979	(12011808)	439739.00	3765310.00	1.72526	(12011808)
439769.00	3765310.00	1.72095	(12011808)				

```
439799.00   3765310.00        1.73488  (13120808)
        439829.00   3765310.00        1.82908  (13120808)
439859.00   3765310.00        1.86571  (13120808)
        439889.00   3765310.00        1.86191  (13120808)
439649.00   3765340.00        1.75309  (12011417)
        439679.00   3765340.00        1.77730  (13121718)
439709.00   3765340.00        1.82922  (13121718)
        439739.00   3765340.00        1.83783  (13121718)
439769.00   3765340.00        1.87378  (12011808)
        439799.00   3765340.00        1.86509  (12011808)
439829.00   3765340.00        1.91134  (13120808)
        439859.00   3765340.00        1.98229  (13120808)
439889.00   3765340.00        1.99557  (13120808)
        439649.00   3765370.00        1.94415  (12011417)
439679.00   3765370.00        1.95232  (12011417)
        439709.00   3765370.00        1.93646  (13121718)
439739.00   3765370.00        2.00225  (13121718)
        439769.00   3765370.00        2.01560  (13121718)
439799.00   3765370.00        2.04668  (12011808)
        439829.00   3765370.00        2.03042  (12011808)
439859.00   3765370.00        2.10408  (13120808)
        439889.00   3765370.00        2.14372  (13120808)
439649.00   3765400.00        2.07059  (12011417)
        439679.00   3765400.00        2.15163  (12011417)
439709.00   3765400.00        2.18409  (12011417)
        439739.00   3765400.00        2.16169  (12011417)
439769.00   3765400.00        2.20886  (13121718)
        439799.00   3765400.00        2.22476  (13121718)
439829.00   3765400.00        2.25007  (12011808)
        439859.00   3765400.00        2.22712  (13120808)
439889.00   3765400.00        2.31090  (13120808)
        439649.00   3765430.00        2.19840  (12112508)
439679.00   3765430.00        2.26547  (12011417)
        439709.00   3765430.00        2.39272  (12011417)
439739.00   3765430.00        2.45850  (12011417)
        439769.00   3765430.00        2.45393  (12011417)
439799.00   3765430.00        2.46037  (13121718)
        439829.00   3765430.00        2.47591  (13121718)
439859.00   3765430.00        2.49071  (12011808)
        439889.00   3765430.00        2.50140  (13120808)
439649.00   3765460.00        2.26860  (12112508)
        439679.00   3765460.00        2.44027  (12112508)
439709.00   3765460.00        2.56499  (12112508)
        439739.00   3765460.00        2.67740  (12011417)
439769.00   3765460.00        2.79359  (12011417)
        439799.00   3765460.00        2.81420  (12011417)
439829.00   3765460.00        2.77481  (13121718)
        439859.00   3765460.00        2.78324  (13121718)
439889.00   3765460.00        2.77983  (12011808)
        439649.00   3765490.00        2.36470  (12111318)
439679.00   3765490.00        2.47452  (12111318)
        439709.00   3765490.00        2.69628  (12112508)
```

```
439739.00   3765490.00        2.91465  (12112508)
        439769.00   3765490.00        3.05171  (12112508)
439799.00   3765490.00        3.21528  (12011417)
        439829.00   3765490.00        3.27223  (12011417)
439859.00   3765490.00        3.19872  (12011417)
        439889.00   3765490.00        3.17488  (12011808)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439674.00	3765310.00	8.94148	(13121718)	439679.00	3765310.00	8.94050	(13121718)
439684.00	3765310.00	8.93483	(13121718)	439689.00	3765310.00	8.93321	(13121718)
439694.00	3765310.00	8.92577	(13121718)	439699.00	3765310.00	8.91506	(13121718)
439704.00	3765310.00	8.90421	(13121718)	439709.00	3765310.00	8.89138	(13121718)
439714.00	3765310.00	8.88001	(13121718)	439719.00	3765310.00	8.86060	(13121718)
439729.00	3765310.00	8.82261	(13121718)	439734.00	3765310.00	8.80309	(13121718)
439739.00	3765310.00	8.77948	(13121718)	439744.00	3765310.00	8.75379	(13121718)
439749.00	3765310.00	8.72696	(13121718)	439764.00	3765310.00	8.68617	(15111218)
439769.00	3765310.00	8.68414	(15111218)				

439774.00 3765310.00 8.68817 (15111218)
439779.00 3765310.00 8.68386 (15111218)
439784.00 3765310.00 8.68202 (15111218)
439789.00 3765310.00 8.67523 (15111218)
439794.00 3765310.00 8.69225 (13120808)
439799.00 3765310.00 8.72730 (13120808)
439804.00 3765310.00 8.75566 (13120808)
439809.00 3765310.00 8.78535 (13120808)
439814.00 3765310.00 8.81014 (13120808)
439819.00 3765310.00 8.83316 (13120808)
439824.00 3765310.00 8.85418 (13120808)
439829.00 3765310.00 8.87117 (13120808)
439839.00 3765310.00 8.89955 (13120808)
439844.00 3765310.00 8.91113 (13120808)
439849.00 3765310.00 8.91809 (13120808)
439854.00 3765310.00 8.92588 (13120808)
439859.00 3765310.00 8.92811 (13120808)
439864.00 3765310.00 8.93035 (13120808)
439869.00 3765310.00 8.93298 (13120808)
439874.00 3765310.00 8.93005 (13120808)
439879.00 3765310.00 8.92897 (13120808)
439884.00 3765310.00 8.92496 (13120808)
439674.00 3765315.00 9.03918 (13121718)
439679.00 3765315.00 9.03763 (13121718)
439684.00 3765315.00 9.03629 (13121718)
439689.00 3765315.00 9.03005 (13121718)
439694.00 3765315.00 9.02871 (13121718)
439699.00 3765315.00 9.02239 (13121718)
439704.00 3765315.00 9.01347 (13121718)
439709.00 3765315.00 9.00067 (13121718)
439714.00 3765315.00 8.98900 (13121718)
439719.00 3765315.00 8.97613 (13121718)
439729.00 3765315.00 8.94189 (13121718)
439734.00 3765315.00 8.92086 (13121718)
439739.00 3765315.00 8.90087 (13121718)
439744.00 3765315.00 8.87702 (13121718)
439749.00 3765315.00 8.85274 (13121718)
439764.00 3765315.00 8.76627 (13121718)
439769.00 3765315.00 8.77182 (15111218)
439774.00 3765315.00 8.77024 (15111218)
439779.00 3765315.00 8.77321 (15111218)
439784.00 3765315.00 8.76870 (15111218)
439789.00 3765315.00 8.76695 (15111218)
439794.00 3765315.00 8.75913 (15111218)
439799.00 3765315.00 8.78610 (13120808)
439804.00 3765315.00 8.82141 (13120808)
439809.00 3765315.00 8.84930 (13120808)
439814.00 3765315.00 8.87809 (13120808)
439819.00 3765315.00 8.90272 (13120808)
439824.00 3765315.00 8.92427 (13120808)
439829.00 3765315.00 8.94451 (13120808)
439839.00 3765315.00 8.97649 (13120808)

```
439844.00   3765315.00        8.98545  (13120808)
        439849.00   3765315.00        8.99980  (13120808)
439854.00   3765315.00        9.00300  (13120808)
        439859.00   3765315.00        9.01028  (13120808)
439864.00   3765315.00        9.01213  (13120808)
        439869.00   3765315.00        9.01432  (13120808)
439874.00   3765315.00        9.01372  (13120808)
        439879.00   3765315.00        9.01239  (13120808)
439884.00   3765315.00        9.00964  (13120808)
        439674.00   3765320.00        9.12814  (13121718)
439679.00   3765320.00        9.13375  (13121718)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439684.00	3765320.00	9.13441	(13121718)	439689.00	3765320.00	9.13530	(13121718)
439694.00	3765320.00	9.12838	(13121718)	439699.00	3765320.00	9.12662	(13121718)
439704.00	3765320.00	9.12038	(13121718)	439709.00	3765320.00	9.11411	(13121718)
439714.00	3765320.00	9.10012	(13121718)	439719.00	3765320.00	9.08896	(13121718)
439729.00	3765320.00	9.06023	(13121718)	439734.00	3765320.00	9.04349	(13121718)
439739.00	3765320.00	9.02050	(13121718)	439744.00	3765320.00	9.00233	(13121718)
439749.00	3765320.00	8.97523	(13121718)	439764.00	3765320.00	8.89798	(13121718)
439769.00	3765320.00	8.86462	(13121718)	439774.00	3765320.00	8.85803	(15111218)
439779.00	3765320.00	8.85846	(15111218)				

439784.00 3765320.00 8.85890 (15111218)
439789.00 3765320.00 8.85536 (15111218)
439794.00 3765320.00 8.85261 (15111218)
439799.00 3765320.00 8.84882 (13120808)
439804.00 3765320.00 8.88285 (13120808)
439809.00 3765320.00 8.91604 (13120808)
439814.00 3765320.00 8.94572 (13120808)
439819.00 3765320.00 8.97322 (13120808)
439824.00 3765320.00 8.99619 (13120808)
439829.00 3765320.00 9.01769 (13120808)
439839.00 3765320.00 9.05156 (13120808)
439844.00 3765320.00 9.06728 (13120808)
439849.00 3765320.00 9.07511 (13120808)
439854.00 3765320.00 9.08633 (13120808)
439859.00 3765320.00 9.09094 (13120808)
439864.00 3765320.00 9.09705 (13120808)
439869.00 3765320.00 9.09624 (13120808)
439874.00 3765320.00 9.10102 (13120808)
439879.00 3765320.00 9.09664 (13120808)
439884.00 3765320.00 9.09433 (13120808)
439674.00 3765325.00 9.22503 (13121718)
439679.00 3765325.00 9.22667 (13121718)
439684.00 3765325.00 9.23134 (13121718)
439689.00 3765325.00 9.23183 (13121718)
439694.00 3765325.00 9.23563 (13121718)
439699.00 3765325.00 9.22961 (13121718)
439704.00 3765325.00 9.22628 (13121718)
439709.00 3765325.00 9.21988 (13121718)
439714.00 3765325.00 9.21506 (13121718)
439719.00 3765325.00 9.20257 (13121718)
439729.00 3765325.00 9.17693 (13121718)
439734.00 3765325.00 9.16115 (13121718)
439739.00 3765325.00 9.14638 (13121718)
439744.00 3765325.00 9.12249 (13121718)
439749.00 3765325.00 9.10536 (13121718)
439754.00 3765325.00 9.07640 (13121718)
439769.00 3765325.00 9.00063 (13121718)
439774.00 3765325.00 8.96717 (13121718)
439779.00 3765325.00 8.94547 (15111218)
439784.00 3765325.00 8.94763 (15111218)
439789.00 3765325.00 8.94701 (15111218)
439794.00 3765325.00 8.94362 (15111218)
439799.00 3765325.00 8.93987 (15111218)
439804.00 3765325.00 8.94678 (13120808)
439809.00 3765325.00 8.98170 (13120808)
439814.00 3765325.00 9.01410 (13120808)
439819.00 3765325.00 9.04218 (13120808)
439824.00 3765325.00 9.07029 (13120808)
439829.00 3765325.00 9.09175 (13120808)
439839.00 3765325.00 9.13084 (13120808)
439844.00 3765325.00 9.14522 (13120808)
439849.00 3765325.00 9.15687 (13120808)

```
439854.00   3765325.00        9.16734  (13120808)
        439859.00   3765325.00        9.17544  (13120808)
439864.00   3765325.00        9.17833  (13120808)
        439869.00   3765325.00        9.18468  (13120808)
439874.00   3765325.00        9.18299  (13120808)
        439879.00   3765325.00        9.18563  (13120808)
439884.00   3765325.00        9.18167  (13120808)
        439674.00   3765330.00        9.31499  (13121718)
439679.00   3765330.00        9.32449  (13121718)
        439684.00   3765330.00        9.32822  (13121718)
439689.00   3765330.00        9.33091  (13121718)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439694.00	3765330.00	9.33231	(13121718)
439699.00	3765330.00	9.33632	(13121718)
439704.00	3765330.00	9.33353	(13121718)
439709.00	3765330.00	9.32912	(13121718)
439714.00	3765330.00	9.32208	(13121718)
439719.00	3765330.00	9.31717	(13121718)
439729.00	3765330.00	9.29529	(13121718)
439734.00	3765330.00	9.28039	(13121718)
439739.00	3765330.00	9.26525	(13121718)
439744.00	3765330.00	9.24978	(13121718)
439749.00	3765330.00	9.22825	(13121718)
439754.00	3765330.00	9.20907	(13121718)
439774.00	3765330.00	9.10432	(13121718)
439779.00	3765330.00	9.07245	(13121718)
439784.00	3765330.00	9.03967	(13121718)
439789.00	3765330.00	9.03886	(15111218)
439794.00	3765330.00	9.03770	(15111218)

```
439799.00   3765330.00        9.03418  (15111218)
        439804.00   3765330.00        9.02999  (15111218)
439809.00   3765330.00        9.04740  (13120808)
        439814.00   3765330.00        9.08173  (13120808)
439819.00   3765330.00        9.11449  (13120808)
        439824.00   3765330.00        9.14141  (13120808)
439829.00   3765330.00        9.16849  (13120808)
        439839.00   3765330.00        9.21077  (13120808)
439844.00   3765330.00        9.22419  (13120808)
        439849.00   3765330.00        9.24141  (13120808)
439854.00   3765330.00        9.24939  (13120808)
        439859.00   3765330.00        9.25990  (13120808)
439864.00   3765330.00        9.26573  (13120808)
        439869.00   3765330.00        9.26808  (13120808)
439874.00   3765330.00        9.27277  (13120808)
        439879.00   3765330.00        9.27143  (13120808)
439884.00   3765330.00        9.27345  (13120808)
        439674.00   3765335.00        9.40376  (13121718)
439679.00   3765335.00        9.41535  (13121718)
        439684.00   3765335.00        9.42371  (13121718)
439689.00   3765335.00        9.43325  (13121718)
        439694.00   3765335.00        9.43314  (13121718)
439699.00   3765335.00        9.43594  (13121718)
        439704.00   3765335.00        9.43787  (13121718)
439709.00   3765335.00        9.43862  (13121718)
        439714.00   3765335.00        9.43484  (13121718)
439719.00   3765335.00        9.42677  (13121718)
        439729.00   3765335.00        9.41189  (13121718)
439734.00   3765335.00        9.40325  (13121718)
        439739.00   3765335.00        9.38614  (13121718)
439744.00   3765335.00        9.37245  (13121718)
        439749.00   3765335.00        9.35455  (13121718)
439774.00   3765335.00        9.23815  (13121718)
        439779.00   3765335.00        9.21063  (13121718)
439784.00   3765335.00        9.17927  (13121718)
        439789.00   3765335.00        9.14569  (13121718)
439794.00   3765335.00        9.13157  (15111218)
        439839.00   3765335.00        9.28750  (13120808)
439844.00   3765335.00        9.30943  (13120808)
        439849.00   3765335.00        9.32147  (13120808)
439854.00   3765335.00        9.33722  (13120808)
        439859.00   3765335.00        9.34372  (13120808)
439864.00   3765335.00        9.35493  (13120808)
        439869.00   3765335.00        9.35750  (13120808)
439874.00   3765335.00        9.36097  (13120808)
        439879.00   3765335.00        9.36323  (13120808)
439884.00   3765335.00        9.36096  (13120808)
        439674.00   3765340.00        9.50005  (13121718)
439679.00   3765340.00        9.50542  (13121718)
        439684.00   3765340.00        9.51906  (13121718)
439689.00   3765340.00        9.52495  (13121718)
        439694.00   3765340.00        9.53822  (13121718)
```

```
439699.00   3765340.00        9.53942  (13121718)
        439704.00   3765340.00        9.54226  (13121718)
439709.00   3765340.00        9.54363  (13121718)
        439714.00   3765340.00        9.54437  (13121718)
439719.00   3765340.00        9.54418  (13121718)
        439729.00   3765340.00        9.53022  (13121718)
439734.00   3765340.00        9.51864  (13121718)
        439739.00   3765340.00        9.51219  (13121718)
439744.00   3765340.00        9.49527  (13121718)
        439749.00   3765340.00        9.48192  (13121718)
439774.00   3765340.00        9.37430  (13121718)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439779.00	3765340.00	9.34613	(13121718)	439784.00	3765340.00	9.31887	(13121718)
439789.00	3765340.00	9.28847	(13121718)	439794.00	3765340.00	9.25488	(13121718)
439839.00	3765340.00	9.37021	(13120808)	439844.00	3765340.00	9.38947	(13120808)
439849.00	3765340.00	9.40906	(13120808)	439854.00	3765340.00	9.41998	(13120808)
439859.00	3765340.00	9.43525	(13120808)	439864.00	3765340.00	9.44020	(13120808)
439869.00	3765340.00	9.45032	(13120808)	439874.00	3765340.00	9.45071	(13120808)
439879.00	3765340.00	9.45519	(13120808)	439884.00	3765340.00	9.45354	(13120808)
439674.00	3765345.00	9.66384	(12011417)	439679.00	3765345.00	9.63153	(12011417)
439684.00	3765345.00	9.61150	(13121718)				

439689.00 3765345.00 9.62417 (13121718)
439694.00 3765345.00 9.63097 (13121718)
439699.00 3765345.00 9.64244 (13121718)
439704.00 3765345.00 9.64925 (13121718)
439709.00 3765345.00 9.65068 (13121718)
439714.00 3765345.00 9.65241 (13121718)
439719.00 3765345.00 9.65149 (13121718)
439729.00 3765345.00 9.64553 (13121718)
439734.00 3765345.00 9.64037 (13121718)
439739.00 3765345.00 9.62896 (13121718)
439744.00 3765345.00 9.62252 (13121718)
439749.00 3765345.00 9.60700 (13121718)
439774.00 3765345.00 9.51112 (13121718)
439779.00 3765345.00 9.48562 (13121718)
439784.00 3765345.00 9.45781 (13121718)
439789.00 3765345.00 9.42848 (13121718)
439794.00 3765345.00 9.40024 (13121718)
439839.00 3765345.00 9.45220 (13120808)
439844.00 3765345.00 9.47446 (13120808)
439849.00 3765345.00 9.49284 (13120808)
439854.00 3765345.00 9.51067 (13120808)
439859.00 3765345.00 9.52059 (13120808)
439864.00 3765345.00 9.53340 (13120808)
439869.00 3765345.00 9.53770 (13120808)
439874.00 3765345.00 9.54793 (13120808)
439879.00 3765345.00 9.54551 (13120808)
439884.00 3765345.00 9.55114 (13120808)
439674.00 3765350.00 9.83553 (12011417)
439679.00 3765350.00 9.80280 (12011417)
439684.00 3765350.00 9.77127 (12011417)
439689.00 3765350.00 9.73434 (12011417)
439694.00 3765350.00 9.73173 (13121718)
439699.00 3765350.00 9.74020 (13121718)
439704.00 3765350.00 9.74901 (13121718)
439709.00 3765350.00 9.75914 (13121718)
439714.00 3765350.00 9.76254 (13121718)
439719.00 3765350.00 9.76421 (13121718)
439729.00 3765350.00 9.76455 (13121718)
439734.00 3765350.00 9.75865 (13121718)
439739.00 3765350.00 9.75411 (13121718)
439744.00 3765350.00 9.74184 (13121718)
439749.00 3765350.00 9.73615 (13121718)
439774.00 3765350.00 9.64661 (13121718)
439779.00 3765350.00 9.62550 (13121718)
439784.00 3765350.00 9.59936 (13121718)
439789.00 3765350.00 9.57233 (13121718)
439794.00 3765350.00 9.54163 (13121718)
439839.00 3765350.00 9.53385 (13120808)
439844.00 3765350.00 9.55981 (13120808)
439849.00 3765350.00 9.57990 (13120808)
439854.00 3765350.00 9.59857 (13120808)
439859.00 3765350.00 9.61282 (13120808)

```
439864.00   3765350.00        9.62323  (13120808)
        439869.00   3765350.00        9.63467  (13120808)
439874.00   3765350.00        9.63762  (13120808)
        439879.00   3765350.00        9.64592  (13120808)
439884.00   3765350.00        9.64349  (13120808)
        439674.00   3765355.00       10.00764  (12011417)
439679.00   3765355.00        9.97835  (12011417)
        439684.00   3765355.00        9.94514  (12011417)
439689.00   3765355.00        9.91356  (12011417)
        439694.00   3765355.00        9.87769  (12011417)
439699.00   3765355.00        9.84372  (13121718)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439704.00	3765355.00	9.85223	(13121718)	439709.00	3765355.00	9.85977	(13121718)
439714.00	3765355.00	9.86990	(13121718)	439719.00	3765355.00	9.87662	(13121718)
439729.00	3765355.00	9.87707	(13121718)	439734.00	3765355.00	9.87816	(13121718)
439739.00	3765355.00	9.87317	(13121718)	439744.00	3765355.00	9.87112	(13121718)
439749.00	3765355.00	9.85683	(13121718)	439774.00	3765355.00	9.78689	(13121718)
439779.00	3765355.00	9.76337	(13121718)	439784.00	3765355.00	9.74077	(13121718)
439789.00	3765355.00	9.71653	(13121718)	439794.00	3765355.00	9.68821	(13121718)
439839.00	3765355.00	9.62016	(13120808)	439844.00	3765355.00	9.64352	(13120808)
439849.00	3765355.00	9.67010	(13120808)				

439854.00 3765355.00 9.68768 (13120808)
439859.00 3765355.00 9.70604 (13120808)
439864.00 3765355.00 9.71827 (13120808)
439869.00 3765355.00 9.72810 (13120808)
439874.00 3765355.00 9.73576 (13120808)
439879.00 3765355.00 9.73993 (13120808)
439884.00 3765355.00 9.74462 (13120808)
439674.00 3765360.00 10.17741 (12011417)
439679.00 3765360.00 10.15089 (12011417)
439684.00 3765360.00 10.12424 (12011417)
439689.00 3765360.00 10.09134 (12011417)
439694.00 3765360.00 10.05977 (12011417)
439699.00 3765360.00 10.02296 (12011417)
439704.00 3765360.00 9.98898 (12011417)
439709.00 3765360.00 9.96773 (13121718)
439714.00 3765360.00 9.97495 (13121718)
439719.00 3765360.00 9.98379 (13121718)
439729.00 3765360.00 9.99670 (13121718)
439734.00 3765360.00 9.99524 (13121718)
439739.00 3765360.00 9.99485 (13121718)
439744.00 3765360.00 9.99002 (13121718)
439749.00 3765360.00 9.98880 (13121718)
439774.00 3765360.00 9.92475 (13121718)
439779.00 3765360.00 9.90480 (13121718)
439784.00 3765360.00 9.88403 (13121718)
439789.00 3765360.00 9.85797 (13121718)
439794.00 3765360.00 9.83540 (13121718)
439799.00 3765360.00 9.80707 (13121718)
439804.00 3765360.00 9.77763 (13121718)
439809.00 3765360.00 9.74467 (13121718)
439814.00 3765360.00 9.71312 (13121718)
439839.00 3765360.00 9.70255 (13120808)
439844.00 3765360.00 9.73420 (13120808)
439849.00 3765360.00 9.75627 (13120808)
439854.00 3765360.00 9.78198 (13120808)
439859.00 3765360.00 9.79718 (13120808)
439864.00 3765360.00 9.81465 (13120808)
439869.00 3765360.00 9.82399 (13120808)
439874.00 3765360.00 9.83508 (13120808)
439879.00 3765360.00 9.83967 (13120808)
439884.00 3765360.00 9.84467 (13120808)
439674.00 3765365.00 10.34743 (12011417)
439679.00 3765365.00 10.32308 (12011417)
439684.00 3765365.00 10.29762 (12011417)
439689.00 3765365.00 10.27090 (12011417)
439694.00 3765365.00 10.24097 (12011417)
439699.00 3765365.00 10.20991 (12011417)
439704.00 3765365.00 10.17326 (12011417)
439709.00 3765365.00 10.13803 (12011417)
439714.00 3765365.00 10.09932 (12011417)
439719.00 3765365.00 10.09419 (13121718)
439729.00 3765365.00 10.10902 (13121718)

```
439734.00   3765365.00       10.11523  (13121718)
        439739.00   3765365.00       10.11771  (13121718)
439744.00   3765365.00       10.11468  (13121718)
        439749.00   3765365.00       10.11157  (13121718)
439774.00   3765365.00       10.06334  (13121718)
        439779.00   3765365.00       10.04699  (13121718)
439784.00   3765365.00       10.02666  (13121718)
        439789.00   3765365.00       10.00601  (13121718)
439794.00   3765365.00        9.98015  (13121718)
        439799.00   3765365.00        9.95621  (13121718)
439804.00   3765365.00        9.92842  (13121718)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439809.00	3765365.00	9.89927	(13121718)	439814.00	3765365.00	9.86673	(13121718)
439839.00	3765365.00	9.78870	(13120808)	439844.00	3765365.00	9.82029	(13120808)
439849.00	3765365.00	9.85078	(13120808)	439854.00	3765365.00	9.86985	(13120808)
439859.00	3765365.00	9.89598	(13120808)	439864.00	3765365.00	9.90910	(13120808)
439869.00	3765365.00	9.92654	(13120808)	439874.00	3765365.00	9.93269	(13120808)
439879.00	3765365.00	9.94394	(13120808)	439884.00	3765365.00	9.94562	(13120808)
439674.00	3765370.00	10.51604	(12011417)	439679.00	3765370.00	10.49661	(12011417)
439684.00	3765370.00	10.47321	(12011417)	439689.00	3765370.00	10.44746	(12011417)
439694.00	3765370.00	10.42170	(12011417)				

439699.00   3765370.00   10.39188 (12011417)
        439704.00   3765370.00   10.36392 (12011417)
439709.00   3765370.00   10.32728 (12011417)
        439714.00   3765370.00   10.29128 (12011417)
439719.00   3765370.00   10.25223 (12011417)
        439729.00   3765370.00   10.22173 (13121718)
439734.00   3765370.00   10.23106 (13121718)
        439739.00   3765370.00   10.23506 (13121718)
439744.00   3765370.00   10.24200 (13121718)
        439749.00   3765370.00   10.23837 (13121718)
439774.00   3765370.00   10.20165 (13121718)
        439779.00   3765370.00   10.18818 (13121718)
439784.00   3765370.00   10.17097 (13121718)
        439789.00   3765370.00   10.15102 (13121718)
439794.00   3765370.00   10.13070 (13121718)
        439799.00   3765370.00   10.10542 (13121718)
439804.00   3765370.00   10.07956 (13121718)
        439809.00   3765370.00   10.05217 (13121718)
439814.00   3765370.00   10.02353 (13121718)
        439839.00   3765370.00   9.87527 (13120808)
439844.00   3765370.00   9.91124 (13120808)
        439849.00   3765370.00   9.94014 (13120808)
439854.00   3765370.00   9.96941 (13120808)
        439859.00   3765370.00   9.98867 (13120808)
439864.00   3765370.00   10.01250 (13120808)
        439869.00   3765370.00   10.02154 (13120808)
439874.00   3765370.00   10.03980 (13120808)
        439879.00   3765370.00   10.04291 (13120808)
439884.00   3765370.00   10.05321 (13120808)
        439674.00   3765375.00   10.68346 (12011417)
439679.00   3765375.00   10.66625 (12011417)
        439684.00   3765375.00   10.64798 (12011417)
439689.00   3765375.00   10.62767 (12011417)
        439694.00   3765375.00   10.60197 (12011417)
439699.00   3765375.00   10.57563 (12011417)
        439704.00   3765375.00   10.54655 (12011417)
439709.00   3765375.00   10.51844 (12011417)
        439714.00   3765375.00   10.48419 (12011417)
439719.00   3765375.00   10.44960 (12011417)
        439729.00   3765375.00   10.37178 (12011417)
439734.00   3765375.00   10.34693 (13121718)
        439739.00   3765375.00   10.35714 (13121718)
439744.00   3765375.00   10.35872 (13121718)
        439749.00   3765375.00   10.36808 (13121718)
439754.00   3765375.00   10.36551 (13121718)
        439774.00   3765375.00   10.34259 (13121718)
439779.00   3765375.00   10.33022 (13121718)
        439784.00   3765375.00   10.31541 (13121718)
439789.00   3765375.00   10.29875 (13121718)
        439794.00   3765375.00   10.27827 (13121718)
439799.00   3765375.00   10.25799 (13121718)
        439804.00   3765375.00   10.23356 (13121718)

```
439809.00   3765375.00       10.20762  (13121718)
        439814.00   3765375.00       10.17881  (13121718)
439839.00   3765375.00       10.01055  (13121718)
        439844.00   3765375.00       10.00021  (13120808)
439849.00   3765375.00       10.03583  (13120808)
        439854.00   3765375.00       10.06391  (13120808)
439859.00   3765375.00       10.08934  (13120808)
        439864.00   3765375.00       10.10770  (13120808)
439869.00   3765375.00       10.13095  (13120808)
        439874.00   3765375.00       10.13859  (13120808)
439879.00   3765375.00       10.15390  (13120808)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439884.00	3765375.00	10.15667	(13120808)	439774.00	3765380.00	10.48209	(13121718)
439779.00	3765380.00	10.47275	(13121718)	439784.00	3765380.00	10.46168	(13121718)
439789.00	3765380.00	10.44625	(13121718)	439794.00	3765380.00	10.42911	(13121718)
439799.00	3765380.00	10.40881	(13121718)	439804.00	3765380.00	10.38769	(13121718)
439809.00	3765380.00	10.36521	(13121718)	439814.00	3765380.00	10.33736	(13121718)
439769.00	3765385.00	10.62889	(13121718)	439819.00	3765385.00	10.47046	(13121718)
439769.00	3765400.00	11.08992	(12011417)	439844.00	3765400.00	10.82953	(13121718)
439849.00	3765400.00	10.80113	(13121718)	439674.00	3765405.00	11.65648	(12011417)
439714.00	3765405.00	11.63336	(12011417)				

439719.00 3765405.00 11.61922 (12011417)
439734.00 3765405.00 11.55684 (12011417)
439749.00 3765405.00 11.47242 (12011417)
439754.00 3765405.00 11.43747 (12011417)
439774.00 3765405.00 11.27399 (12011417)
439779.00 3765405.00 11.22461 (12011417)
439784.00 3765405.00 11.19996 (13121718)
439789.00 3765405.00 11.19652 (13121718)
439794.00 3765405.00 11.19695 (13121718)
439799.00 3765405.00 11.18754 (13121718)
439804.00 3765405.00 11.18218 (13121718)
439809.00 3765405.00 11.16666 (13121718)
439814.00 3765405.00 11.15439 (13121718)
439819.00 3765405.00 11.13350 (13121718)
439824.00 3765405.00 11.11569 (13121718)
439829.00 3765405.00 11.09116 (13121718)
439834.00 3765405.00 11.06821 (13121718)
439839.00 3765405.00 11.03729 (13121718)
439844.00 3765405.00 11.00937 (13121718)
439849.00 3765405.00 10.97614 (13121718)
439854.00 3765405.00 10.94794 (13121718)
439859.00 3765405.00 10.90662 (13121718)
439674.00 3765410.00 11.81067 (12011417)
439679.00 3765410.00 11.82048 (12011417)
439684.00 3765410.00 11.83035 (12011417)
439689.00 3765410.00 11.83391 (12011417)
439694.00 3765410.00 11.83754 (12011417)
439699.00 3765410.00 11.83612 (12011417)
439704.00 3765410.00 11.83657 (12011417)
439709.00 3765410.00 11.83114 (12011417)
439714.00 3765410.00 11.82337 (12011417)
439719.00 3765410.00 11.81115 (12011417)
439729.00 3765410.00 11.78394 (12011417)
439734.00 3765410.00 11.76517 (12011417)
439739.00 3765410.00 11.74108 (12011417)
439744.00 3765410.00 11.71480 (12011417)
439749.00 3765410.00 11.68771 (12011417)
439774.00 3765410.00 11.50628 (12011417)
439779.00 3765410.00 11.46185 (12011417)
439784.00 3765410.00 11.41352 (12011417)
439789.00 3765410.00 11.36379 (12011417)
439794.00 3765410.00 11.34994 (13121718)
439799.00 3765410.00 11.35075 (13121718)
439804.00 3765410.00 11.34078 (13121718)
439809.00 3765410.00 11.33446 (13121718)
439814.00 3765410.00 11.31985 (13121718)
439819.00 3765410.00 11.30705 (13121718)
439824.00 3765410.00 11.28648 (13121718)
439829.00 3765410.00 11.26699 (13121718)
439834.00 3765410.00 11.24343 (13121718)
439839.00 3765410.00 11.21957 (13121718)
439844.00 3765410.00 11.18921 (13121718)

```
439849.00   3765410.00       11.16043  (13121718)
        439854.00   3765410.00       11.12626  (13121718)
439859.00   3765410.00       11.09775  (13121718)
        439674.00   3765415.00       11.96369  (12011417)
439679.00   3765415.00       11.97772  (12011417)
        439684.00   3765415.00       11.98848  (12011417)
439689.00   3765415.00       12.00076  (12011417)
        439694.00   3765415.00       12.00747  (12011417)
439699.00   3765415.00       12.01286  (12011417)
        439704.00   3765415.00       12.01303  (12011417)
439709.00   3765415.00       12.01363  (12011417)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439714.00	3765415.00	12.01053	(12011417)
439719.00	3765415.00	12.00534	(12011417)
439729.00	3765415.00	11.98286	(12011417)
439734.00	3765415.00	11.96791	(12011417)
439739.00	3765415.00	11.95066	(12011417)
439744.00	3765415.00	11.93025	(12011417)
439749.00	3765415.00	11.90603	(12011417)
439774.00	3765415.00	11.73861	(12011417)
439779.00	3765415.00	11.69719	(12011417)
439784.00	3765415.00	11.65448	(12011417)
439789.00	3765415.00	11.60738	(12011417)
439794.00	3765415.00	11.55669	(12011417)
439799.00	3765415.00	11.50820	(13121718)
439804.00	3765415.00	11.50779	(13121718)
439809.00	3765415.00	11.49801	(13121718)
439814.00	3765415.00	11.49110	(13121718)
439819.00	3765415.00	11.47787	(13121718)

439824.00   3765415.00   11.46277 (13121718)
        439829.00   3765415.00   11.44474 (13121718)
439834.00   3765415.00   11.42384 (13121718)
        439839.00   3765415.00   11.39922 (13121718)
439844.00   3765415.00   11.37468 (13121718)
        439849.00   3765415.00   11.34544 (13121718)
439854.00   3765415.00   11.31623 (13121718)
        439859.00   3765415.00   11.28064 (13121718)
439674.00   3765420.00   12.11184 (12011417)
        439679.00   3765420.00   12.13235 (12011417)
439684.00   3765420.00   12.14805 (12011417)
        439689.00   3765420.00   12.16186 (12011417)
439694.00   3765420.00   12.17289 (12011417)
        439699.00   3765420.00   12.18431 (12011417)
439704.00   3765420.00   12.19132 (12011417)
        439709.00   3765420.00   12.19526 (12011417)
439714.00   3765420.00   12.19653 (12011417)
        439719.00   3765420.00   12.19397 (12011417)
439729.00   3765420.00   12.18458 (12011417)
        439734.00   3765420.00   12.17372 (12011417)
439739.00   3765420.00   12.15756 (12011417)
        439744.00   3765420.00   12.14056 (12011417)
439749.00   3765420.00   12.12333 (12011417)
        439774.00   3765420.00   11.97608 (12011417)
439779.00   3765420.00   11.93706 (12011417)
        439784.00   3765420.00   11.89371 (12011417)
439789.00   3765420.00   11.85120 (12011417)
        439794.00   3765420.00   11.80609 (12011417)
439799.00   3765420.00   11.75567 (12011417)
        439804.00   3765420.00   11.70255 (12011417)
439809.00   3765420.00   11.66944 (13121718)
        439814.00   3765420.00   11.66061 (13121718)
439819.00   3765420.00   11.65323 (13121718)
        439824.00   3765420.00   11.63968 (13121718)
439829.00   3765420.00   11.62461 (13121718)
        439834.00   3765420.00   11.60663 (13121718)
439839.00   3765420.00   11.58414 (13121718)
        439844.00   3765420.00   11.56073 (13121718)
439849.00   3765420.00   11.53337 (13121718)
        439854.00   3765420.00   11.50528 (13121718)
439859.00   3765420.00   11.47637 (13121718)
        439674.00   3765425.00   12.26003 (12011417)
439679.00   3765425.00   12.28078 (12011417)
        439684.00   3765425.00   12.30383 (12011417)
439689.00   3765425.00   12.32349 (12011417)
        439694.00   3765425.00   12.33966 (12011417)
439699.00   3765425.00   12.35240 (12011417)
        439704.00   3765425.00   12.36354 (12011417)
439709.00   3765425.00   12.37434 (12011417)
        439714.00   3765425.00   12.38109 (12011417)
439719.00   3765425.00   12.38461 (12011417)
        439729.00   3765425.00   12.38117 (12011417)

439734.00   3765425.00   12.37575 (12011417)
        439739.00   3765425.00   12.36891 (12011417)
439744.00   3765425.00   12.35445 (12011417)
        439749.00   3765425.00   12.33834 (12011417)
439774.00   3765425.00   12.21119 (12011417)
        439779.00   3765425.00   12.17760 (12011417)
439784.00   3765425.00   12.13929 (12011417)
        439789.00   3765425.00   12.09838 (12011417)
439794.00   3765425.00   12.05256 (12011417)
        439799.00   3765425.00   12.00804 (12011417)
439804.00   3765425.00   11.95903 (12011417)

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439809.00	3765425.00	11.90740	(12011417)
439814.00	3765425.00	11.85141	(12011417)
439819.00	3765425.00	11.82839	(13121718)
439824.00	3765425.00	11.81885	(13121718)
439829.00	3765425.00	11.80692	(13121718)
439834.00	3765425.00	11.79048	(13121718)
439839.00	3765425.00	11.77297	(13121718)
439844.00	3765425.00	11.75046	(13121718)
439849.00	3765425.00	11.72633	(13121718)
439854.00	3765425.00	11.69743	(13121718)
439859.00	3765425.00	11.66868	(13121718)
439674.00	3765430.00	12.40314	(12011417)
439679.00	3765430.00	12.43178	(12011417)
439684.00	3765430.00	12.45464	(12011417)
439689.00	3765430.00	12.47864	(12011417)
439694.00	3765430.00	12.50020	(12011417)
439699.00	3765430.00	12.52107	(12011417)

439704.00 3765430.00 12.53671 (12011417)
439709.00 3765430.00 12.55030 (12011417)
439714.00 3765430.00 12.56073 (12011417)
439719.00 3765430.00 12.57085 (12011417)
439729.00 3765430.00 12.57942 (12011417)
439734.00 3765430.00 12.57754 (12011417)
439739.00 3765430.00 12.57222 (12011417)
439744.00 3765430.00 12.56681 (12011417)
439749.00 3765430.00 12.55730 (12011417)
439774.00 3765430.00 12.45181 (12011417)
439779.00 3765430.00 12.41889 (12011417)
439784.00 3765430.00 12.38405 (12011417)
439789.00 3765430.00 12.34723 (12011417)
439794.00 3765430.00 12.30809 (12011417)
439799.00 3765430.00 12.26260 (12011417)
439804.00 3765430.00 12.21533 (12011417)
439809.00 3765430.00 12.16782 (12011417)
439814.00 3765430.00 12.11618 (12011417)
439819.00 3765430.00 12.06216 (12011417)
439824.00 3765430.00 12.00365 (12011417)
439829.00 3765430.00 11.99104 (13121718)
439834.00 3765430.00 11.97932 (13121718)
439839.00 3765430.00 11.96093 (13121718)
439844.00 3765430.00 11.94347 (13121718)
439849.00 3765430.00 11.92017 (13121718)
439854.00 3765430.00 11.89651 (13121718)
439859.00 3765430.00 11.86745 (13121718)
439674.00 3765435.00 12.54422 (12011417)
439679.00 3765435.00 12.57462 (12011417)
439684.00 3765435.00 12.60664 (12011417)
439689.00 3765435.00 12.63483 (12011417)
439694.00 3765435.00 12.66020 (12011417)
439699.00 3765435.00 12.68259 (12011417)
439704.00 3765435.00 12.70518 (12011417)
439709.00 3765435.00 12.72554 (12011417)
439714.00 3765435.00 12.74203 (12011417)
439719.00 3765435.00 12.75426 (12011417)
439729.00 3765435.00 12.77357 (12011417)
439734.00 3765435.00 12.77944 (12011417)
439739.00 3765435.00 12.78005 (12011417)
439744.00 3765435.00 12.77605 (12011417)
439749.00 3765435.00 12.77178 (12011417)
439774.00 3765435.00 12.68979 (12011417)
439779.00 3765435.00 12.66413 (12011417)
439784.00 3765435.00 12.63383 (12011417)
439789.00 3765435.00 12.59749 (12011417)
439794.00 3765435.00 12.56032 (12011417)
439799.00 3765435.00 12.52152 (12011417)
439804.00 3765435.00 12.47824 (12011417)
439809.00 3765435.00 12.42994 (12011417)
439814.00 3765435.00 12.38062 (12011417)
439819.00 3765435.00 12.33018 (12011417)

```
439824.00   3765435.00       12.27774  (12011417)
        439829.00   3765435.00       12.21980  (12011417)
439834.00   3765435.00       12.16899  (13121718)
        439839.00   3765435.00       12.15631  (13121718)
439844.00   3765435.00       12.13781  (13121718)
        439849.00   3765435.00       12.11921  (13121718)
439854.00   3765435.00       12.09444  (13121718)
        439859.00   3765435.00       12.07044  (13121718)
439674.00   3765440.00       12.68348  (12011417)
        439679.00   3765440.00       12.71943  (12011417)
439684.00   3765440.00       12.75099  (12011417)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439689.00	3765440.00	12.78369	(12011417)
439694.00	3765440.00	12.81642	(12011417)
439699.00	3765440.00	12.84554	(12011417)
439704.00	3765440.00	12.87172	(12011417)
439709.00	3765440.00	12.89413	(12011417)
439714.00	3765440.00	12.91795	(12011417)
439719.00	3765440.00	12.93695	(12011417)
439729.00	3765440.00	12.96619	(12011417)
439734.00	3765440.00	12.97614	(12011417)
439739.00	3765440.00	12.98288	(12011417)
439744.00	3765440.00	12.98752	(12011417)
439749.00	3765440.00	12.98770	(12011417)
439774.00	3765440.00	12.93082	(12011417)
439779.00	3765440.00	12.90715	(12011417)
439784.00	3765440.00	12.88140	(12011417)
439789.00	3765440.00	12.85318	(12011417)
439794.00	3765440.00	12.81932	(12011417)

439799.00 3765440.00 12.78031 (12011417)
439804.00 3765440.00 12.74102 (12011417)
439809.00 3765440.00 12.69923 (12011417)
439814.00 3765440.00 12.65259 (12011417)
439819.00 3765440.00 12.60185 (12011417)
439824.00 3765440.00 12.54951 (12011417)
439829.00 3765440.00 12.49780 (12011417)
439834.00 3765440.00 12.44216 (12011417)
439839.00 3765440.00 12.38234 (12011417)
439844.00 3765440.00 12.33922 (13121718)
439849.00 3765440.00 12.32009 (13121718)
439854.00 3765440.00 12.30155 (13121718)
439859.00 3765440.00 12.27462 (13121718)
439674.00 3765445.00 12.81680 (12011417)
439679.00 3765445.00 12.85868 (12011417)
439684.00 3765445.00 12.89708 (12011417)
439689.00 3765445.00 12.93464 (12011417)
439694.00 3765445.00 12.96636 (12011417)
439699.00 3765445.00 13.00173 (12011417)
439704.00 3765445.00 13.03487 (12011417)
439709.00 3765445.00 13.06584 (12011417)
439714.00 3765445.00 13.09029 (12011417)
439719.00 3765445.00 13.11470 (12011417)
439729.00 3765445.00 13.15699 (12011417)
439734.00 3765445.00 13.17467 (12011417)
439739.00 3765445.00 13.18441 (12011417)
439744.00 3765445.00 13.19451 (12011417)
439749.00 3765445.00 13.19956 (12011417)
439774.00 3765445.00 13.17191 (12011417)
439779.00 3765445.00 13.15469 (12011417)
439784.00 3765445.00 13.13319 (12011417)
439789.00 3765445.00 13.10529 (12011417)
439794.00 3765445.00 13.07873 (12011417)
439799.00 3765445.00 13.04550 (12011417)
439804.00 3765445.00 13.00929 (12011417)
439809.00 3765445.00 12.96690 (12011417)
439814.00 3765445.00 12.92585 (12011417)
439819.00 3765445.00 12.87989 (12011417)
439824.00 3765445.00 12.83202 (12011417)
439829.00 3765445.00 12.77656 (12011417)
439834.00 3765445.00 12.72305 (12011417)
439839.00 3765445.00 12.66905 (12011417)
439844.00 3765445.00 12.61005 (12011417)
439849.00 3765445.00 12.54837 (12011417)
439854.00 3765445.00 12.50543 (13121718)
439859.00 3765445.00 12.48826 (13121718)
439674.00 3765450.00 12.95201 (12011417)
439679.00 3765450.00 12.99350 (12011417)
439684.00 3765450.00 13.03569 (12011417)
439689.00 3765450.00 13.07825 (12011417)
439694.00 3765450.00 13.11947 (12011417)
439699.00 3765450.00 13.15670 (12011417)

439704.00   3765450.00   13.19283 (12011417)
        439709.00   3765450.00   13.22685 (12011417)
439714.00   3765450.00   13.26305 (12011417)
        439719.00   3765450.00   13.29162 (12011417)
439729.00   3765450.00   13.34294 (12011417)
        439734.00   3765450.00   13.36661 (12011417)
439739.00   3765450.00   13.38574 (12011417)
        439744.00   3765450.00   13.40151 (12011417)
439749.00   3765450.00   13.41241 (12011417)
        439774.00   3765450.00   13.41167 (12011417)
439844.00   3765450.00   12.90162 (12011417)

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439849.00	3765450.00	12.84264	(12011417)
439854.00	3765450.00	12.78386	(12011417)
439859.00	3765450.00	12.71746	(12011417)
439674.00	3765455.00	13.07859	(12011417)
439679.00	3765455.00	13.12857	(12011417)
439684.00	3765455.00	13.17463	(12011417)
439689.00	3765455.00	13.22047	(12011417)
439694.00	3765455.00	13.26257	(12011417)
439699.00	3765455.00	13.30822	(12011417)
439704.00	3765455.00	13.35069	(12011417)
439709.00	3765455.00	13.39095	(12011417)
439714.00	3765455.00	13.42753	(12011417)
439719.00	3765455.00	13.46341	(12011417)
439729.00	3765455.00	13.52922	(12011417)
439734.00	3765455.00	13.55774	(12011417)
439739.00	3765455.00	13.58010	(12011417)
439744.00	3765455.00	13.60463	(12011417)

439749.00   3765455.00   13.62156 (12011417)
        439844.00   3765455.00   13.20004 (12011417)
439849.00   3765455.00   13.14144 (12011417)
        439854.00   3765455.00   13.08185 (12011417)
439859.00   3765455.00   13.02378 (12011417)
        439674.00   3765460.00   13.20907 (12011417)
439679.00   3765460.00   13.25630 (12011417)
        439684.00   3765460.00   13.30850 (12011417)
439689.00   3765460.00   13.35790 (12011417)
        439694.00   3765460.00   13.40962 (12011417)
439699.00   3765460.00   13.45491 (12011417)
        439704.00   3765460.00   13.50071 (12011417)
439709.00   3765460.00   13.54820 (12011417)
        439714.00   3765460.00   13.59299 (12011417)
439719.00   3765460.00   13.63499 (12011417)
        439729.00   3765460.00   13.70893 (12011417)
439734.00   3765460.00   13.74422 (12011417)
        439739.00   3765460.00   13.77679 (12011417)
439744.00   3765460.00   13.80382 (12011417)
        439749.00   3765460.00   13.82873 (12011417)
439789.00   3765460.00   13.88150 (12011417)
        439794.00   3765460.00   13.86747 (12011417)
439799.00   3765460.00   13.84853 (12011417)
        439804.00   3765460.00   13.82710 (12011417)
439809.00   3765460.00   13.80000 (12011417)
        439814.00   3765460.00   13.76827 (12011417)
439819.00   3765460.00   13.73086 (12011417)
        439824.00   3765460.00   13.69449 (12011417)
439829.00   3765460.00   13.65109 (12011417)
        439844.00   3765460.00   13.50317 (12011417)
439849.00   3765460.00   13.44786 (12011417)
        439854.00   3765460.00   13.39352 (12011417)
439859.00   3765460.00   13.32807 (12011417)
        439674.00   3765465.00   13.33050 (12011417)
439679.00   3765465.00   13.38774 (12011417)
        439684.00   3765465.00   13.44034 (12011417)
439689.00   3765465.00   13.49441 (12011417)
        439694.00   3765465.00   13.54625 (12011417)
439699.00   3765465.00   13.60213 (12011417)
        439704.00   3765465.00   13.65338 (12011417)
439709.00   3765465.00   13.70190 (12011417)
        439714.00   3765465.00   13.74965 (12011417)
439719.00   3765465.00   13.79868 (12011417)
        439729.00   3765465.00   13.88805 (12011417)
439734.00   3765465.00   13.92754 (12011417)
        439739.00   3765465.00   13.96356 (12011417)
439744.00   3765465.00   14.00279 (12011417)
        439749.00   3765465.00   14.03205 (12011417)
439789.00   3765465.00   14.14005 (12011417)
        439794.00   3765465.00   14.13349 (12011417)
439799.00   3765465.00   14.12143 (12011417)
        439804.00   3765465.00   14.10280 (12011417)

439809.00   3765465.00   14.08134 (12011417)
        439814.00   3765465.00   14.05589 (12011417)
439819.00   3765465.00   14.02590 (12011417)
        439824.00   3765465.00   13.99000 (12011417)
439829.00   3765465.00   13.94851 (12011417)
        439844.00   3765465.00   13.81242 (12011417)
439849.00   3765465.00   13.75670 (12011417)
        439854.00   3765465.00   13.70362 (12011417)
439859.00   3765465.00   13.64823 (12011417)
        439674.00   3765470.00   13.45891 (12011417)
439679.00   3765470.00   13.51161 (12011417)

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439684.00	3765470.00	13.57065	(12011417)	439689.00	3765470.00	13.62773	(12011417)
439694.00	3765470.00	13.68671	(12011417)	439699.00	3765470.00	13.74061	(12011417)
439704.00	3765470.00	13.79714	(12011417)	439709.00	3765470.00	13.85375	(12011417)
439714.00	3765470.00	13.90804	(12011417)	439719.00	3765470.00	13.95979	(12011417)
439729.00	3765470.00	14.05988	(12011417)	439734.00	3765470.00	14.10904	(12011417)
439739.00	3765470.00	14.15265	(12011417)	439744.00	3765470.00	14.19454	(12011417)
439749.00	3765470.00	14.23191	(12011417)	439789.00	3765470.00	14.39889	(12011417)
439794.00	3765470.00	14.39989	(12011417)	439799.00	3765470.00	14.39319	(12011417)
439804.00	3765470.00	14.38398	(12011417)				

```
439809.00   3765470.00       14.36819  (12011417)
        439814.00   3765470.00       14.34525  (12011417)
439819.00   3765470.00       14.32104  (12011417)
        439824.00   3765470.00       14.29061  (12011417)
439829.00   3765470.00       14.25802  (12011417)
        439844.00   3765470.00       14.12716  (12011417)
439849.00   3765470.00       14.07935  (12011417)
        439854.00   3765470.00       14.02467  (12011417)
439859.00   3765470.00       13.96632  (12011417)
        439674.00   3765475.00       13.57954  (12011417)
439679.00   3765475.00       13.63871  (12011417)
        439684.00   3765475.00       13.70117  (12011417)
439689.00   3765475.00       13.75717  (12011417)
        439694.00   3765475.00       13.82043  (12011417)
439699.00   3765475.00       13.88045  (12011417)
        439704.00   3765475.00       13.94273  (12011417)
439709.00   3765475.00       13.99899  (12011417)
        439714.00   3765475.00       14.05860  (12011417)
439719.00   3765475.00       14.11780  (12011417)
        439729.00   3765475.00       14.23062  (12011417)
439734.00   3765475.00       14.28044  (12011417)
        439739.00   3765475.00       14.33639  (12011417)
439744.00   3765475.00       14.38245  (12011417)
        439749.00   3765475.00       14.43233  (12011417)
439754.00   3765475.00       14.47161  (12011417)
        439789.00   3765475.00       14.65984  (12011417)
439794.00   3765475.00       14.66625  (12011417)
        439799.00   3765475.00       14.66933  (12011417)
439804.00   3765475.00       14.66463  (12011417)
        439809.00   3765475.00       14.65546  (12011417)
439814.00   3765475.00       14.64267  (12011417)
        439819.00   3765475.00       14.62115  (12011417)
439824.00   3765475.00       14.59620  (12011417)
        439829.00   3765475.00       14.56358  (12011417)
439269.00   3764900.00        5.23970  (12010217)
        439369.00   3764900.00        5.40494  (12010217)
439469.00   3764900.00        5.34940  (12010217)
        439569.00   3764900.00        5.24901  (13120808)
439669.00   3764900.00        5.24749  (12010217)
        439769.00   3764900.00        5.37724  (12010217)
439869.00   3764900.00        5.44881  (12010217)
        439969.00   3764900.00        5.30822  (12010217)
440069.00   3764900.00        5.04877  (15010717)
        440169.00   3764900.00        5.24369  (15010717)
440269.00   3764900.00        5.33691  (15010717)
        439269.00   3765000.00        5.62687  (12010217)
439369.00   3765000.00        5.91815  (12010217)
        439469.00   3765000.00        5.89876  (12010217)
439569.00   3765000.00        5.73761  (12010217)
        439669.00   3765000.00        5.81925  (13120808)
439769.00   3765000.00        5.82199  (12010217)
        439869.00   3765000.00        5.98918  (12010217)
```

```
439969.00   3765000.00        5.94235  (12010217)
        440069.00   3765000.00        5.69558  (15010717)
440169.00   3765000.00        5.81519  (15010717)
        440269.00   3765000.00        5.87200  (15010717)
439269.00   3765100.00        6.33489  (13121718)
        439369.00   3765100.00        6.53585  (12010217)
439469.00   3765100.00        6.60071  (12010217)
        439569.00   3765100.00        6.40722  (12010217)
439669.00   3765100.00        6.41884  (13120808)
        439769.00   3765100.00        6.52057  (13120808)
439869.00   3765100.00        6.63166  (12010217)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439969.00	3765100.00	6.68793	(12010217)	440069.00	3765100.00	6.46162	(12010217)
440169.00	3765100.00	6.48147	(15010717)	440269.00	3765100.00	6.53289	(15010717)
439269.00	3765200.00	7.56141	(12011417)	439369.00	3765200.00	7.39246	(12011417)
439469.00	3765200.00	7.50361	(12010217)	439569.00	3765200.00	7.32720	(12010217)
439669.00	3765200.00	7.17737	(15111218)	439769.00	3765200.00	7.42789	(13120808)
439869.00	3765200.00	7.43094	(12010217)	439969.00	3765200.00	7.62070	(12010217)
440069.00	3765200.00	7.48094	(12010217)	440169.00	3765200.00	7.33625	(15010717)
440269.00	3765200.00	7.40953	(15010717)	439269.00	3765300.00	8.93236	(12011417)
439369.00	3765300.00	8.94140	(12011417)				

```
439469.00   3765300.00        9.01623  (12011417)
        439569.00   3765300.00        8.86352  (12011417)
439669.00   3765300.00        8.75374  (13121718)
        439769.00   3765300.00        8.52193  (15111218)
439869.00   3765300.00        8.77214  (13120808)
        439969.00   3765300.00        8.89562  (12010217)
440069.00   3765300.00        8.81503  (12010217)
        440169.00   3765300.00        8.57046  (15010717)
440269.00   3765300.00        8.62552  (15010717)
        439269.00   3765400.00       10.99166  (12011417)
439369.00   3765400.00       10.70909  (12011417)
        439469.00   3765400.00       10.71917  (12011417)
439569.00   3765400.00       11.11706  (12011417)
        439669.00   3765400.00       11.49530  (12011417)
439769.00   3765400.00       11.08992  (12011417)
        439869.00   3765400.00       10.67406  (13120808)
439969.00   3765400.00       10.85775  (12010217)
        440069.00   3765400.00       10.78214  (12010217)
440169.00   3765400.00       10.55563  (12010217)
        440269.00   3765400.00       10.53546  (15113017)
439269.00   3765500.00       14.75567  (12011417)
        439369.00   3765500.00       14.40637  (12011417)
439469.00   3765500.00       13.76469  (12011417)
        439569.00   3765500.00       13.62256  (12010217)
439669.00   3765500.00       14.13475  (12011417)
        439769.00   3765500.00       15.65985  (12011417)
439869.00   3765500.00       15.98461  (12011417)
        439969.00   3765500.00       14.61442  (12011417)
440069.00   3765500.00       14.30474  (12010217)
        440169.00   3765500.00       14.03692  (15113017)
440269.00   3765500.00       14.09782  (15011517)
        439269.00   3765600.00       20.99381  (12111318)
439369.00   3765600.00       22.61056  (12011417)
        439469.00   3765600.00       22.44693  (12011417)
439569.00   3765600.00       21.29361  (12011417)
        439669.00   3765600.00       20.80445  (12010217)
439769.00   3765600.00       21.61761  (12111318)
        439869.00   3765600.00       25.71414  (12111318)
439969.00   3765600.00       28.44807  (12011417)
        440069.00   3765600.00       25.87661  (12011417)
440169.00   3765600.00       25.00441  (15112218)
        440269.00   3765600.00       25.18364  (15112218)
439269.00   3765700.00       70.62459  (14120118)
        439369.00   3765700.00       76.31866  (16121918)
439469.00   3765700.00      102.62547  (14120118)
        439569.00   3765700.00       82.54507  (14120118)
439669.00   3765700.00       79.13982  (15112218)
        439769.00   3765700.00       79.26666  (15112218)
439869.00   3765700.00       79.69381  (14012117)
        439969.00   3765700.00       79.77437  (14012117)
440069.00   3765700.00       80.40730  (14012117)
        440169.00   3765700.00       81.28138  (14120118)
```

```
440269.00   3765700.00       87.66309  (14120118)
        439269.00   3765800.00       32.18092  (12111317)
439369.00   3765800.00       34.60051  (12111317)
        439469.00   3765800.00       34.20689  (12111317)
439569.00   3765800.00       34.49399  (12111317)
        439669.00   3765800.00       36.37473  (15120818)
439769.00   3765800.00       40.82967  (13111217)
        439869.00   3765800.00       54.28118  (13111217)
439969.00   3765800.00       35.13925  (14121418)
        440069.00   3765800.00       29.93616  (14121418)
440169.00   3765800.00       28.16121  (13111217)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
440269.00	3765800.00	29.68409	(13111217)
439269.00	3765900.00	18.20071	(15120818)
439369.00	3765900.00	18.29832	(15120818)
439469.00	3765900.00	18.20591	(15120818)
439569.00	3765900.00	18.00893	(15120818)
439669.00	3765900.00	17.84868	(15112217)
439769.00	3765900.00	17.64899	(13111217)
439869.00	3765900.00	19.00960	(13111217)
439969.00	3765900.00	19.24868	(13111217)
440069.00	3765900.00	18.57573	(12011717)
440169.00	3765900.00	17.33242	(12011717)
440269.00	3765900.00	16.43487	(12011717)
439649.00	3765310.00	8.93023	(13121718)
439679.00	3765310.00	8.94050	(13121718)
439709.00	3765310.00	8.89138	(13121718)
439739.00	3765310.00	8.77948	(13121718)
439769.00	3765310.00	8.68414	(15111218)

```
439799.00   3765310.00        8.72730  (13120808)
        439829.00   3765310.00        8.87117  (13120808)
439859.00   3765310.00        8.92811  (13120808)
        439889.00   3765310.00        8.92130  (13120808)
439649.00   3765340.00        9.64874  (12011417)
        439679.00   3765340.00        9.50542  (13121718)
439709.00   3765340.00        9.54363  (13121718)
        439739.00   3765340.00        9.51219  (13121718)
439769.00   3765340.00        9.39935  (13121718)
        439799.00   3765340.00        9.22573  (15111218)
439829.00   3765340.00        9.32089  (13120808)
        439859.00   3765340.00        9.43525  (13120808)
439889.00   3765340.00        9.45381  (13120808)
        439649.00   3765370.00       10.58508  (12011417)
439679.00   3765370.00       10.49661  (12011417)
        439709.00   3765370.00       10.32728  (12011417)
439739.00   3765370.00       10.23506  (13121718)
        439769.00   3765370.00       10.21557  (13121718)
439799.00   3765370.00       10.10542  (13121718)
        439829.00   3765370.00        9.92290  (13121718)
439859.00   3765370.00        9.98867  (13120808)
        439889.00   3765370.00       10.05406  (13120808)
439649.00   3765400.00       11.45976  (12011417)
        439679.00   3765400.00       11.49920  (12011417)
439709.00   3765400.00       11.46006  (12011417)
        439739.00   3765400.00       11.32346  (12011417)
439769.00   3765400.00       11.08992  (12011417)
        439799.00   3765400.00       11.03246  (13121718)
439829.00   3765400.00       10.92070  (13121718)
        439859.00   3765400.00       10.73033  (13121718)
439889.00   3765400.00       10.74523  (13120808)
        439649.00   3765430.00       12.24732  (12011417)
439679.00   3765430.00       12.43178  (12011417)
        439709.00   3765430.00       12.55030  (12011417)
439739.00   3765430.00       12.57222  (12011417)
        439769.00   3765430.00       12.47901  (12011417)
439799.00   3765430.00       12.26260  (12011417)
        439829.00   3765430.00       11.99104  (13121718)
439859.00   3765430.00       11.86745  (13121718)
        439889.00   3765430.00       11.66666  (13121718)
439649.00   3765460.00       12.95483  (12011417)
        439679.00   3765460.00       13.25630  (12011417)
439709.00   3765460.00       13.54820  (12011417)
        439739.00   3765460.00       13.77679  (12011417)
439769.00   3765460.00       13.88940  (12011417)
        439799.00   3765460.00       13.84853  (12011417)
439829.00   3765460.00       13.65109  (12011417)
        439859.00   3765460.00       13.32807  (12011417)
439889.00   3765460.00       12.99695  (13121718)
        439649.00   3765490.00       13.65508  (12011417)
439679.00   3765490.00       14.01093  (12011417)
        439709.00   3765490.00       14.42691  (12011417)
```

```
439739.00   3765490.00       14.85917  (12011417)
        439769.00   3765490.00       15.24096  (12011417)
439799.00   3765490.00       15.48813  (12011417)
        439829.00   3765490.00       15.52416  (12011417)
439859.00   3765490.00       15.33214  (12011417)
        439889.00   3765490.00       15.00431  (12011417)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE SUMMARY OF MAXIMUM PERIOD (43848 HRS) RESULTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

NETWORK GROUP ID	AVERAGE CONC	RECEPTOR (XR, YR, ZELEV, ZHILL, ZFLAG)	OF TYPE	GRID-ID
EXH	1ST HIGHEST VALUE IS	8.02168 AT	(440269.00, 3765700.00, 289.00, 289.00, 0.00)	DC
	2ND HIGHEST VALUE IS	7.56523 AT	(439569.00, 3765700.00, 289.00, 289.00, 0.00)	DC
	3RD HIGHEST VALUE IS	7.08246 AT	(439469.00, 3765700.00, 289.00, 289.00, 0.00)	DC
	4TH HIGHEST VALUE IS	6.77010 AT	(440169.00, 3765700.00, 289.00, 289.00, 0.00)	DC
	5TH HIGHEST VALUE IS	6.67604 AT	(439669.00, 3765700.00, 289.00, 289.00, 0.00)	DC
	6TH HIGHEST VALUE IS	6.28150 AT	(439769.00, 3765700.00, 289.00, 289.00, 0.00)	DC
	7TH HIGHEST VALUE IS	6.15807 AT	(440069.00, 3765700.00, 289.00, 289.00, 0.00)	DC
	8TH HIGHEST VALUE IS	5.91312 AT	(439869.00, 3765700.00, 289.00, 289.00, 0.00)	DC
	9TH HIGHEST VALUE IS	5.76266 AT	(439969.00, 3765700.00, 289.00, 289.00, 0.00)	DC
	10TH HIGHEST VALUE IS	4.51295 AT	(439369.00, 3765700.00, 289.00, 289.00, 0.00)	DC
EVAP	1ST HIGHEST VALUE IS	7.49644 AT	(440269.00, 3765700.00, 289.00, 289.00, 0.00)	DC
	2ND HIGHEST VALUE IS	5.84784 AT	(440169.00, 3765700.00, 289.00, 289.00, 0.00)	DC
	3RD HIGHEST VALUE IS	4.99170 AT	(440069.00, 3765700.00, 289.00, 289.00, 0.00)	DC
	4TH HIGHEST VALUE IS	4.33857 AT	(439569.00, 3765700.00, 289.00, 289.00, 0.00)	DC

```
          5TH HIGHEST VALUE IS       4.29164 AT (  439969.00,
3765700.00,   289.00,   289.00,    0.00)  DC
          6TH HIGHEST VALUE IS       4.26516 AT (  439669.00,
3765700.00,   289.00,   289.00,    0.00)  DC
          7TH HIGHEST VALUE IS       4.22817 AT (  439769.00,
3765700.00,   289.00,   289.00,    0.00)  DC
          8TH HIGHEST VALUE IS       4.15175 AT (  439869.00,
3765700.00,   289.00,   289.00,    0.00)  DC
          9TH HIGHEST VALUE IS       4.07275 AT (  439469.00,
3765700.00,   289.00,   289.00,    0.00)  DC
         10TH HIGHEST VALUE IS       3.86597 AT (  439869.00,
3765800.00,   289.00,   289.00,    0.00)  DC

FREEEXH   1ST HIGHEST VALUE IS       5.23339 AT (  440269.00,
3765700.00,   289.00,   289.00,    0.00)  DC
          2ND HIGHEST VALUE IS       5.20211 AT (  440169.00,
3765700.00,   289.00,   289.00,    0.00)  DC
          3RD HIGHEST VALUE IS       5.16995 AT (  440069.00,
3765700.00,   289.00,   289.00,    0.00)  DC
          4TH HIGHEST VALUE IS       5.11092 AT (  439969.00,
3765700.00,   289.00,   289.00,    0.00)  DC
          5TH HIGHEST VALUE IS       5.05422 AT (  439869.00,
3765700.00,   289.00,   289.00,    0.00)  DC
          6TH HIGHEST VALUE IS       4.98531 AT (  439769.00,
3765700.00,   289.00,   289.00,    0.00)  DC
          7TH HIGHEST VALUE IS       4.86807 AT (  439669.00,
3765700.00,   289.00,   289.00,    0.00)  DC
          8TH HIGHEST VALUE IS       4.72540 AT (  439569.00,
3765700.00,   289.00,   289.00,    0.00)  DC
          9TH HIGHEST VALUE IS       4.52490 AT (  439469.00,
3765700.00,   289.00,   289.00,    0.00)  DC
         10TH HIGHEST VALUE IS       4.32925 AT (  439369.00,
3765700.00,   289.00,   289.00,    0.00)  DC

ONOFFEXH  1ST HIGHEST VALUE IS       2.83983 AT (  439569.00,
3765700.00,   289.00,   289.00,    0.00)  DC
          2ND HIGHEST VALUE IS       2.78830 AT (  440269.00,
3765700.00,   289.00,   289.00,    0.00)  DC
          3RD HIGHEST VALUE IS       2.55756 AT (  439469.00,
3765700.00,   289.00,   289.00,    0.00)  DC
          4TH HIGHEST VALUE IS       2.19339 AT (  439869.00,
3765800.00,   289.00,   289.00,    0.00)  DC
          5TH HIGHEST VALUE IS       1.80797 AT (  439669.00,
3765700.00,   289.00,   289.00,    0.00)  DC
          6TH HIGHEST VALUE IS       1.56800 AT (  440169.00,
3765700.00,   289.00,   289.00,    0.00)  DC
          7TH HIGHEST VALUE IS       1.29619 AT (  439769.00,
3765700.00,   289.00,   289.00,    0.00)  DC
          8TH HIGHEST VALUE IS       1.25365 AT (  439769.00,
3765800.00,   289.00,   289.00,    0.00)  DC
          9TH HIGHEST VALUE IS       0.98812 AT (  440069.00,
3765700.00,   289.00,   289.00,    0.00)  DC
```

```
         10TH HIGHEST VALUE IS       0.85891 AT (  439869.00,
3765700.00,   289.00,   289.00,    0.00)  DC
```

*** THE SUMMARY OF MAXIMUM PERIOD (43848 HRS) RESULTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

NETWORK GROUP ID	AVERAGE CONC	RECEPTOR (XR, YR, ZELEV, ZHILL, ZFLAG)	OF TYPE	GRID-ID
FREEEVAP	1ST HIGHEST VALUE IS	3.91286 AT (	440269.00, 3765700.00,	289.00, 289.00, 0.00)
	2ND HIGHEST VALUE IS	3.89913 AT (	440169.00, 3765700.00,	289.00, 289.00, 0.00)
	3RD HIGHEST VALUE IS	3.87835 AT (	440069.00, 3765700.00,	289.00, 289.00, 0.00)
	4TH HIGHEST VALUE IS	3.82780 AT (	439969.00, 3765700.00,	289.00, 289.00, 0.00)
	5TH HIGHEST VALUE IS	3.77977 AT (	439869.00, 3765700.00,	289.00, 289.00, 0.00)
	6TH HIGHEST VALUE IS	3.72200 AT (	439769.00, 3765700.00,	289.00, 289.00, 0.00)
	7TH HIGHEST VALUE IS	3.61893 AT (	439669.00, 3765700.00,	289.00, 289.00, 0.00)
	8TH HIGHEST VALUE IS	3.49248 AT (	439569.00, 3765700.00,	289.00, 289.00, 0.00)
	9TH HIGHEST VALUE IS	3.31373 AT (	439469.00, 3765700.00,	289.00, 289.00, 0.00)
	10TH HIGHEST VALUE IS	3.14515 AT (	439369.00, 3765700.00,	289.00, 289.00, 0.00)
ONOFFEVA	1ST HIGHEST VALUE IS	3.58358 AT (	440269.00, 3765700.00,	289.00, 289.00, 0.00)
	2ND HIGHEST VALUE IS	2.65078 AT (	439869.00, 3765800.00,	289.00, 289.00, 0.00)
	3RD HIGHEST VALUE IS	1.94871 AT (	440169.00, 3765700.00,	289.00, 289.00, 0.00)
	4TH HIGHEST VALUE IS	1.41727 AT (	439769.00, 3765800.00,	289.00, 289.00, 0.00)

```
          5TH HIGHEST VALUE IS       1.11334 AT (  440069.00,
3765700.00,   289.00,   289.00,    0.00)  DC
          6TH HIGHEST VALUE IS       0.88694 AT (  439669.00,
3765800.00,   289.00,   289.00,    0.00)  DC
          7TH HIGHEST VALUE IS       0.88228 AT (  439969.00,
3765800.00,   289.00,   289.00,    0.00)  DC
          8TH HIGHEST VALUE IS       0.84610 AT (  439569.00,
3765700.00,   289.00,   289.00,    0.00)  DC
          9TH HIGHEST VALUE IS       0.75902 AT (  439469.00,
3765700.00,   289.00,   289.00,    0.00)  DC
         10TH HIGHEST VALUE IS       0.64623 AT (  439669.00,
3765700.00,   289.00,   289.00,    0.00)  DC

ALL       1ST HIGHEST VALUE IS      15.51813 AT (  440269.00,
3765700.00,   289.00,   289.00,    0.00)  DC
          2ND HIGHEST VALUE IS      12.61795 AT (  440169.00,
3765700.00,   289.00,   289.00,    0.00)  DC
          3RD HIGHEST VALUE IS      11.90380 AT (  439569.00,
3765700.00,   289.00,   289.00,    0.00)  DC
          4TH HIGHEST VALUE IS      11.15521 AT (  439469.00,
3765700.00,   289.00,   289.00,    0.00)  DC
          5TH HIGHEST VALUE IS      11.14977 AT (  440069.00,
3765700.00,   289.00,   289.00,    0.00)  DC
          6TH HIGHEST VALUE IS      10.94120 AT (  439669.00,
3765700.00,   289.00,   289.00,    0.00)  DC
          7TH HIGHEST VALUE IS      10.50967 AT (  439769.00,
3765700.00,   289.00,   289.00,    0.00)  DC
          8TH HIGHEST VALUE IS      10.06488 AT (  439869.00,
3765700.00,   289.00,   289.00,    0.00)  DC
          9TH HIGHEST VALUE IS      10.05430 AT (  439969.00,
3765700.00,   289.00,   289.00,    0.00)  DC
         10TH HIGHEST VALUE IS       8.05806 AT (  439869.00,
3765800.00,   289.00,   289.00,    0.00)  DC


 *** RECEPTOR TYPES:  GC = GRIDCART
                      GP = GRIDPOLR
                      DC = DISCCART
                      DP = DISCPOLR
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE SUMMARY OF HIGHEST 1-HR RESULTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

NETWORK GROUP ID	AVERAGE CONC	DATE (YYMMDDHH)	RECEPTOR (XR, YR, ZELEV, ZHILL, ZFLAG)	OF TYPE	GRID-ID
EXH HIGH 1ST HIGH VALUE IS	64.80176	ON 14012908:	AT (439469.00, 3765700.00, 289.00, 289.00, 0.00)	DC	
EVAP HIGH 1ST HIGH VALUE IS	44.95572	ON 14120118:	AT (440269.00, 3765700.00, 289.00, 289.00, 0.00)	DC	
FREEEXH HIGH 1ST HIGH VALUE IS	41.07030	ON 14101107:	AT (440269.00, 3765700.00, 289.00, 289.00, 0.00)	DC	
ONOFFEXH HIGH 1ST HIGH VALUE IS	29.56830	ON 14101007:	AT (439469.00, 3765700.00, 289.00, 289.00, 0.00)	DC	
FREEEVAP HIGH 1ST HIGH VALUE IS	36.07950	ON 14012117:	AT (440269.00, 3765700.00, 289.00, 289.00, 0.00)	DC	
ONOFFEVA HIGH 1ST HIGH VALUE IS	20.62437	ON 13111217:	AT (440269.00, 3765700.00, 289.00, 289.00, 0.00)	DC	
ALL HIGH 1ST HIGH VALUE IS	102.62547	ON 14120118:	AT (439469.00, 3765700.00, 289.00, 289.00, 0.00)	DC	

*** RECEPTOR TYPES: GC = GRIDCART
GP = GRIDPOLR
DC = DISCCART
DP = DISCPOLR

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** Message Summary : AERMOD Model Execution ***

--------- Summary of Total Messages --------

A Total of 0 Fatal Error Message(s)
A Total of 2 Warning Message(s)
A Total of 1628 Informational Message(s)

A Total of 43848 Hours Were Processed

A Total of 1278 Calm Hours Identified

A Total of 350 Missing Hours Identified (0.80 Percent)

******** FATAL ERROR MESSAGES ********
*** NONE ***

******** WARNING MESSAGES ********
ME W186 2290 MEOPEN: THRESH_1MIN 1-min ASOS wind speed threshold used 0.50
ME W187 2290 MEOPEN: ADJ_U* Option for Stable Low Winds used in AERMET

****
*** AERMOD Finishes Successfully ***
****

```
** Lakes Environmental AERMOD MPI
**
**************************************
**
** AERMOD Input Produced by:
** AERMOD View Ver. 10.2.1
** Lakes Environmental Software Inc.
** Date: 10/5/2022
** File: C:\Lakes\Ontario_PUD-Legacy_Ops-HRA-DPM_20221005
\Ontario_PUD-Legacy_Ops-HRA-DPM_20221005.ADI
**
**************************************
**
**
**************************************
** AERMOD Control Pathway
**************************************
**
**
CO STARTING
   TITLEONE C:\Lakes\Ontario_PUD-Legacy_Ops-HRA_20221004
\Ontario_PUD-Legacy_Ops-
   MODELOPT CONC FLAT
   AVERTIME 1 PERIOD
   URBANOPT 2035210 San_Bernardio_County
   POLLUTID PM_10
   RUNORNOT RUN
   ERRORFIL Ontario_PUD-Legacy_Ops-HRA-DPM_20221005.err
CO FINISHED
**
**************************************
** AERMOD Source Pathway
**************************************
**
**
SO STARTING
** Source Location **
** Source ID - Type - X Coord. - Y Coord. **
** ---------------------------------------------------------------
-------
** Line Source Represented by Area Sources
** LINE AREA Source ID = ARLN01
** DESCRSRC SR 60 WB Freeway DPM Ex
** PREFIX
** Length of Side = 18.29
** Ratio = 10
** Vertical Dimension = 3.20
** Emission Rate = 0.0000307319
** Nodes = 5
** 440650.044, 3765727.326, 260.07, 3.40
** 440119.780, 3765731.800, 261.41, 3.40
** 439661.922, 3765732.944, 260.96, 3.40
```

```
** 439171.250, 3765734.039, 252.11, 3.40
** 438870.985, 3765732.123, 258.88, 3.40
** ------------------------------------------------------------
-------
   LOCATION A0000012     AREA     440650.121 3765736.471 0.0
   LOCATION A0000013     AREA     440473.366 3765737.962 0.0
   LOCATION A0000014     AREA     440296.612 3765739.454 0.0
   LOCATION A0000015     AREA     440119.803 3765740.945 0.0
   LOCATION A0000016     AREA     439967.184 3765741.327 0.0
   LOCATION A0000017     AREA     439814.564 3765741.708 0.0
   LOCATION A0000018     AREA     439661.942 3765742.089 0.0
   LOCATION A0000019     AREA     439498.385 3765742.454 0.0
   LOCATION A0000020     AREA     439334.828 3765742.819 0.0
   LOCATION A0000021     AREA     439171.191 3765743.184 0.0
   LOCATION A0000022     AREA     439021.059 3765742.226 0.0
** End of LINE AREA Source ID = ARLN01
** ------------------------------------------------------------
-------
** Line Source Represented by Area Sources
** LINE AREA Source ID = ARLN02
** DESCRSRC SR 60 EB Freeway DPM Ex
** PREFIX
** Length of Side = 18.29
** Ratio = 10
** Vertical Dimension = 3.20
** Emission Rate = 0.0000307481
** Nodes = 6
** 438872.217, 3765713.798, 258.90, 3.40
** 439571.019, 3765709.354, 260.53, 3.40
** 439744.944, 3765708.790, 261.20, 3.40
** 440090.503, 3765708.356, 261.51, 3.40
** 440405.345, 3765708.356, 260.60, 3.40
** 440650.831, 3765711.094, 260.06, 3.40
** ------------------------------------------------------------
-------
   LOCATION A0000001     AREA     438872.159 3765704.654 0.0
   LOCATION A0000002     AREA     439046.860 3765703.543 0.0
   LOCATION A0000003     AREA     439221.560 3765702.432 0.0
   LOCATION A0000004     AREA     439396.261 3765701.321 0.0
   LOCATION A0000005     AREA     439570.990 3765700.210 0.0
   LOCATION A0000006     AREA     439744.932 3765699.646 0.0
   LOCATION A0000007     AREA     439917.712 3765699.429 0.0
   LOCATION A0000008     AREA     440090.503 3765699.212 0.0
   LOCATION A0000009     AREA     440247.924 3765699.212 0.0
   LOCATION A0000010     AREA     440405.447 3765699.212 0.0
   LOCATION A0000011     AREA     440528.190 3765700.581 0.0
** End of LINE AREA Source ID = ARLN02
** ------------------------------------------------------------
-------
** Line Source Represented by Area Sources
** LINE AREA Source ID = ARLN03
** DESCRSRC SR 60 WB On-Ramp DPM Ex
```

```
** PREFIX
** Length of Side = 3.96
** Ratio = 10
** Vertical Dimension = 3.20
** Emission Rate = 0.0005311802
** Nodes = 6
** 439895.137, 3765792.036, 254.44, 3.40
** 439830.262, 3765782.314, 255.62, 3.40
** 439602.637, 3765750.155, 260.12, 3.40
** 439556.367, 3765746.633, 260.49, 3.40
** 439478.285, 3765744.597, 260.25, 3.40
** 439423.199, 3765742.703, 260.08, 3.40
** ----------------------------------------------------------------
-------
   LOCATION A0000023     AREA     439894.844 3765793.995 0.0
   LOCATION A0000024     AREA     439862.406 3765789.134 0.0
   LOCATION A0000025     AREA     439829.985 3765784.276 0.0
   LOCATION A0000026     AREA     439792.048 3765778.916 0.0
   LOCATION A0000027     AREA     439754.110 3765773.556 0.0
   LOCATION A0000028     AREA     439716.172 3765768.196 0.0
   LOCATION A0000029     AREA     439678.235 3765762.836 0.0
   LOCATION A0000030     AREA     439640.297 3765757.477 0.0
   LOCATION A0000031     AREA     439602.486 3765752.131 0.0
   LOCATION A0000032     AREA     439579.352 3765750.369 0.0
   LOCATION A0000033     AREA     439556.316 3765748.613 0.0
   LOCATION A0000034     AREA     439517.274 3765747.595 0.0
   LOCATION A0000035     AREA     439478.217 3765746.577 0.0
   LOCATION A0000036     AREA     439450.674 3765745.630 0.0
** End of LINE AREA Source ID = ARLN03
** ----------------------------------------------------------------
-------
** Line Source Represented by Area Sources
** LINE AREA Source ID = ARLN04
** DESCRSRC SR 60 EB Offramp DPM Ex
** PREFIX
** Length of Side = 7.62
** Ratio = 10
** Vertical Dimension = 3.20
** Emission Rate = 0.0003007914
** Nodes = 5
** 439895.389, 3765645.743, 252.80, 3.40
** 439818.641, 3765660.066, 254.56, 3.40
** 439755.474, 3765672.004, 257.06, 3.40
** 439662.806, 3765681.323, 259.67, 3.40
** 439463.024, 3765701.522, 260.17, 3.40
** ----------------------------------------------------------------
-------
   LOCATION A0000037     AREA     439896.088 3765649.489 0.0
   LOCATION A0000038     AREA     439857.714 3765656.650 0.0
   LOCATION A0000039     AREA     439819.349 3765663.810 0.0
   LOCATION A0000040     AREA     439755.856 3765675.795 0.0
   LOCATION A0000041     AREA     439709.522 3765680.454 0.0
```

```
   LOCATION A0000042     AREA     439663.190 3765685.113 0.0
   LOCATION A0000043     AREA     439596.595 3765691.846 0.0
   LOCATION A0000044     AREA     439530.001 3765698.580 0.0
** End of LINE AREA Source ID = ARLN04
** ------------------------------------------------------------
-------
** Line Source Represented by Area Sources
** LINE AREA Source ID = ARLN05
** DESCRSRC SR 60 EB On-Ramp DPM Ex
** PREFIX
** Length of Side = 3.96
** Ratio = 10
** Vertical Dimension = 3.20
** Emission Rate = 0.000496591
** Nodes = 7
** 439941.297, 3765645.292, 253.26, 3.40
** 439993.010, 3765652.773, 253.93, 3.40
** 440155.834, 3765673.927, 258.66, 3.40
** 440268.609, 3765688.074, 259.90, 3.40
** 440322.372, 3765691.635, 260.22, 3.40
** 440354.630, 3765692.689, 260.13, 3.40
** 440446.541, 3765695.419, 259.97, 3.40
** ------------------------------------------------------------
-------
   LOCATION A0000045     AREA     439941.581 3765643.331 0.0
   LOCATION A0000046     AREA     439967.437 3765647.072 0.0
   LOCATION A0000047     AREA     439993.265 3765650.809 0.0
   LOCATION A0000048     AREA     440025.830 3765655.039 0.0
   LOCATION A0000049     AREA     440058.395 3765659.270 0.0
   LOCATION A0000050     AREA     440090.960 3765663.501 0.0
   LOCATION A0000051     AREA     440123.524 3765667.732 0.0
   LOCATION A0000052     AREA     440156.081 3765671.961 0.0
   LOCATION A0000053     AREA     440193.672 3765676.677 0.0
   LOCATION A0000054     AREA     440231.264 3765681.392 0.0
   LOCATION A0000055     AREA     440268.740 3765686.097 0.0
   LOCATION A0000056     AREA     440295.621 3765687.877 0.0
   LOCATION A0000057     AREA     440322.437 3765689.655 0.0
   LOCATION A0000058     AREA     440354.688 3765690.708 0.0
   LOCATION A0000059     AREA     440385.325 3765691.619 0.0
   LOCATION A0000060     AREA     440415.962 3765692.529 0.0
** End of LINE AREA Source ID = ARLN05
** ------------------------------------------------------------
-------
** Line Source Represented by Area Sources
** LINE AREA Source ID = ARLN06
** DESCRSRC SR 60 WB Off-ramp DPM Ex
** PREFIX
** Length of Side = 11.58
** Ratio = 10
** Vertical Dimension = 3.20
** Emission Rate = 0.0001897523
** Nodes = 6
```

```
** 440392.606, 3765738.840, 260.54, 3.40
** 440310.837, 3765747.261, 260.35, 3.40
** 440224.880, 3765756.031, 259.69, 3.40
** 440137.544, 3765763.271, 258.13, 3.40
** 440102.580, 3765767.415, 257.28, 3.40
** 439940.966, 3765792.538, 254.87, 3.40
** ------------------------------------------------------------
-------
   LOCATION A0000061     AREA     440393.199 3765744.601 0.0
   LOCATION A0000062     AREA     440311.425 3765753.022 0.0
   LOCATION A0000063     AREA     440225.359 3765761.802 0.0
   LOCATION A0000064     AREA     440138.226 3765769.022 0.0
   LOCATION A0000065     AREA     440103.469 3765773.137 0.0
   LOCATION A0000066     AREA     440022.663 3765785.699 0.0
** End of LINE AREA Source ID = ARLN06
** Source Parameters **
** LINE AREA Source ID = ARLN01
   SRCPARAM A0000012     0.0000307319     3.400   176.761
18.290  -179.517     3.200
   SRCPARAM A0000013     0.0000307319     3.400   176.761
18.290  -179.517     3.200
   SRCPARAM A0000014     0.0000307319     3.400   176.761
18.290  -179.517     3.200
   SRCPARAM A0000015     0.0000307319     3.400   152.620
18.290  -179.857     3.200
   SRCPARAM A0000016     0.0000307319     3.400   152.620
18.290  -179.857     3.200
   SRCPARAM A0000017     0.0000307319     3.400   152.620
18.290  -179.857     3.200
   SRCPARAM A0000018     0.0000307319     3.400   163.558
18.290  -179.872     3.200
   SRCPARAM A0000019     0.0000307319     3.400   163.558
18.290  -179.872     3.200
   SRCPARAM A0000020     0.0000307319     3.400   163.558
18.290  -179.872     3.200
   SRCPARAM A0000021     0.0000307319     3.400   150.135
18.290   179.634     3.200
   SRCPARAM A0000022     0.0000307319     3.400   150.135
18.290   179.634     3.200
** ------------------------------------------------------------
-------
** LINE AREA Source ID = ARLN02
   SRCPARAM A0000001     0.0000307481     3.400   174.704
18.288     0.364     3.200
   SRCPARAM A0000002     0.0000307481     3.400   174.704
18.288     0.364     3.200
   SRCPARAM A0000003     0.0000307481     3.400   174.704
18.288     0.364     3.200
   SRCPARAM A0000004     0.0000307481     3.400   174.704
18.288     0.364     3.200
   SRCPARAM A0000005     0.0000307481     3.400   173.925
18.288     0.186     3.200
```

```
   SRCPARAM A0000006     0.0000307481     3.400   172.780
18.288     0.072     3.200
   SRCPARAM A0000007     0.0000307481     3.400   172.780
18.288     0.072     3.200
   SRCPARAM A0000008     0.0000307481     3.400   157.421
18.288     0.000     3.200
   SRCPARAM A0000009     0.0000307481     3.400   157.421
18.288     0.000     3.200
   SRCPARAM A0000010     0.0000307481     3.400   122.750
18.288    -0.639     3.200
   SRCPARAM A0000011     0.0000307481     3.400   122.750
18.288    -0.639     3.200
** ------------------------------------------------------------
-------
** LINE AREA Source ID = ARLN03
   SRCPARAM A0000023     0.0005311802     3.400    32.800
3.962   171.477     3.200
   SRCPARAM A0000024     0.0005311802     3.400    32.800
3.962   171.477     3.200
   SRCPARAM A0000025     0.0005311802     3.400    38.314
3.962   171.958     3.200
   SRCPARAM A0000026     0.0005311802     3.400    38.314
3.962   171.958     3.200
   SRCPARAM A0000027     0.0005311802     3.400    38.314
3.962   171.958     3.200
   SRCPARAM A0000028     0.0005311802     3.400    38.314
3.962   171.958     3.200
   SRCPARAM A0000029     0.0005311802     3.400    38.314
3.962   171.958     3.200
   SRCPARAM A0000030     0.0005311802     3.400    38.314
3.962   171.958     3.200
   SRCPARAM A0000031     0.0005311802     3.400    23.202
3.962   175.647     3.200
   SRCPARAM A0000032     0.0005311802     3.400    23.202
3.962   175.647     3.200
   SRCPARAM A0000033     0.0005311802     3.400    39.055
3.962   178.506     3.200
   SRCPARAM A0000034     0.0005311802     3.400    39.055
3.962   178.506     3.200
   SRCPARAM A0000035     0.0005311802     3.400    27.559
3.962   178.031     3.200
   SRCPARAM A0000036     0.0005311802     3.400    27.559
3.962   178.031     3.200
** ------------------------------------------------------------
-------
** LINE AREA Source ID = ARLN04
   SRCPARAM A0000037     0.0003007914     3.400    39.036
7.620  -169.429     3.200
   SRCPARAM A0000038     0.0003007914     3.400    39.036
7.620  -169.429     3.200
   SRCPARAM A0000039     0.0003007914     3.400    64.285
7.620  -169.298     3.200
```

```
   SRCPARAM A0000040     0.0003007914     3.400    46.568
7.620  -174.258     3.200
   SRCPARAM A0000041     0.0003007914     3.400    46.568
7.620  -174.258     3.200
   SRCPARAM A0000042     0.0003007914     3.400    66.934
7.620  -174.227     3.200
   SRCPARAM A0000043     0.0003007914     3.400    66.934
7.620  -174.227     3.200
   SRCPARAM A0000044     0.0003007914     3.400    66.934
7.620  -174.227     3.200
** ------------------------------------------------------------
-------
** LINE AREA Source ID = ARLN05
   SRCPARAM A0000045     0.000496591     3.400    26.125
3.962    -8.232     3.200
   SRCPARAM A0000046     0.000496591     3.400    26.125
3.962    -8.232     3.200
   SRCPARAM A0000047     0.000496591     3.400    32.839
3.962    -7.402     3.200
   SRCPARAM A0000048     0.000496591     3.400    32.839
3.962    -7.402     3.200
   SRCPARAM A0000049     0.000496591     3.400    32.839
3.962    -7.402     3.200
   SRCPARAM A0000050     0.000496591     3.400    32.839
3.962    -7.402     3.200
   SRCPARAM A0000051     0.000496591     3.400    32.839
3.962    -7.402     3.200
   SRCPARAM A0000052     0.000496591     3.400    37.886
3.962    -7.150     3.200
   SRCPARAM A0000053     0.000496591     3.400    37.886
3.962    -7.150     3.200
   SRCPARAM A0000054     0.000496591     3.400    37.886
3.962    -7.150     3.200
   SRCPARAM A0000055     0.000496591     3.400    26.940
3.962    -3.790     3.200
   SRCPARAM A0000056     0.000496591     3.400    26.940
3.962    -3.790     3.200
   SRCPARAM A0000057     0.000496591     3.400    32.275
3.962    -1.871     3.200
   SRCPARAM A0000058     0.000496591     3.400    30.651
3.962    -1.702     3.200
   SRCPARAM A0000059     0.000496591     3.400    30.651
3.962    -1.702     3.200
   SRCPARAM A0000060     0.000496591     3.400    30.651
3.962    -1.702     3.200
** ------------------------------------------------------------
-------
** LINE AREA Source ID = ARLN06
   SRCPARAM A0000061     0.0001897523     3.400    82.201
11.582  -174.121     3.200
   SRCPARAM A0000062     0.0001897523     3.400    86.403
11.582  -174.174     3.200
```

```
   SRCPARAM A0000063     0.0001897523     3.400    87.635
11.582  -175.261     3.200
   SRCPARAM A0000064     0.0001897523     3.400    35.209
11.582  -173.241     3.200
   SRCPARAM A0000065     0.0001897523     3.400    81.777
11.582  -171.164     3.200
   SRCPARAM A0000066     0.0001897523     3.400    81.777
11.582  -171.164     3.200
** ----------------------------------------------------------------
-------
   URBANSRC ALL

** Variable Emissions Type: "By Hour-of-Day (HROFDY)"
** Variable Emission Scenario: "ARLN01"
   EMISFACT A0000012     HROFDY 0.00274 0.00271 0.00264 0.00272
0.00339 0.0043
   EMISFACT A0000012     HROFDY 0.00541 0.00502 0.00591 0.00706
0.00747 0.00731
   EMISFACT A0000012     HROFDY 0.0069 0.0063 0.00496 0.00383
0.00289 0.00262
   EMISFACT A0000012     HROFDY 0.00329 0.00402 0.00426 0.00398
0.0038 0.00314
   EMISFACT A0000013     HROFDY 0.00274 0.00271 0.00264 0.00272
0.00339 0.0043
   EMISFACT A0000013     HROFDY 0.00541 0.00502 0.00591 0.00706
0.00747 0.00731
   EMISFACT A0000013     HROFDY 0.0069 0.0063 0.00496 0.00383
0.00289 0.00262
   EMISFACT A0000013     HROFDY 0.00329 0.00402 0.00426 0.00398
0.0038 0.00314
   EMISFACT A0000014     HROFDY 0.00274 0.00271 0.00264 0.00272
0.00339 0.0043
   EMISFACT A0000014     HROFDY 0.00541 0.00502 0.00591 0.00706
0.00747 0.00731
   EMISFACT A0000014     HROFDY 0.0069 0.0063 0.00496 0.00383
0.00289 0.00262
   EMISFACT A0000014     HROFDY 0.00329 0.00402 0.00426 0.00398
0.0038 0.00314
   EMISFACT A0000015     HROFDY 0.00274 0.00271 0.00264 0.00272
0.00339 0.0043
   EMISFACT A0000015     HROFDY 0.00541 0.00502 0.00591 0.00706
0.00747 0.00731
   EMISFACT A0000015     HROFDY 0.0069 0.0063 0.00496 0.00383
0.00289 0.00262
   EMISFACT A0000015     HROFDY 0.00329 0.00402 0.00426 0.00398
0.0038 0.00314
   EMISFACT A0000016     HROFDY 0.00274 0.00271 0.00264 0.00272
0.00339 0.0043
   EMISFACT A0000016     HROFDY 0.00541 0.00502 0.00591 0.00706
0.00747 0.00731
   EMISFACT A0000016     HROFDY 0.0069 0.0063 0.00496 0.00383
0.00289 0.00262
```

```
   EMISFACT A0000016     HROFDY 0.00329 0.00402 0.00426 0.00398
0.0038 0.00314
   EMISFACT A0000017     HROFDY 0.00274 0.00271 0.00264 0.00272
0.00339 0.0043
   EMISFACT A0000017     HROFDY 0.00541 0.00502 0.00591 0.00706
0.00747 0.00731
   EMISFACT A0000017     HROFDY 0.0069 0.0063 0.00496 0.00383
0.00289 0.00262
   EMISFACT A0000017     HROFDY 0.00329 0.00402 0.00426 0.00398
0.0038 0.00314
   EMISFACT A0000018     HROFDY 0.00274 0.00271 0.00264 0.00272
0.00339 0.0043
   EMISFACT A0000018     HROFDY 0.00541 0.00502 0.00591 0.00706
0.00747 0.00731
   EMISFACT A0000018     HROFDY 0.0069 0.0063 0.00496 0.00383
0.00289 0.00262
   EMISFACT A0000018     HROFDY 0.00329 0.00402 0.00426 0.00398
0.0038 0.00314
   EMISFACT A0000019     HROFDY 0.00274 0.00271 0.00264 0.00272
0.00339 0.0043
   EMISFACT A0000019     HROFDY 0.00541 0.00502 0.00591 0.00706
0.00747 0.00731
   EMISFACT A0000019     HROFDY 0.0069 0.0063 0.00496 0.00383
0.00289 0.00262
   EMISFACT A0000019     HROFDY 0.00329 0.00402 0.00426 0.00398
0.0038 0.00314
   EMISFACT A0000020     HROFDY 0.00274 0.00271 0.00264 0.00272
0.00339 0.0043
   EMISFACT A0000020     HROFDY 0.00541 0.00502 0.00591 0.00706
0.00747 0.00731
   EMISFACT A0000020     HROFDY 0.0069 0.0063 0.00496 0.00383
0.00289 0.00262
   EMISFACT A0000020     HROFDY 0.00329 0.00402 0.00426 0.00398
0.0038 0.00314
   EMISFACT A0000021     HROFDY 0.00274 0.00271 0.00264 0.00272
0.00339 0.0043
   EMISFACT A0000021     HROFDY 0.00541 0.00502 0.00591 0.00706
0.00747 0.00731
   EMISFACT A0000021     HROFDY 0.0069 0.0063 0.00496 0.00383
0.00289 0.00262
   EMISFACT A0000021     HROFDY 0.00329 0.00402 0.00426 0.00398
0.0038 0.00314
   EMISFACT A0000022     HROFDY 0.00274 0.00271 0.00264 0.00272
0.00339 0.0043
   EMISFACT A0000022     HROFDY 0.00541 0.00502 0.00591 0.00706
0.00747 0.00731
   EMISFACT A0000022     HROFDY 0.0069 0.0063 0.00496 0.00383
0.00289 0.00262
   EMISFACT A0000022     HROFDY 0.00329 0.00402 0.00426 0.00398
0.0038 0.00314

** Variable Emissions Type: "By Hour-of-Day (HROFDY)"
```

```
** Variable Emission Scenario: "ARLN02"
   EMISFACT A0000001     HROFDY 0.0172 0.0124 0.0108 0.0126
0.0203 0.034
   EMISFACT A0000001     HROFDY 0.0431 0.0457 0.0439 0.0414 0.042
0.0439
   EMISFACT A0000001     HROFDY 0.0463 0.0483 0.0501 0.0491
0.0508 0.0506
   EMISFACT A0000001     HROFDY 0.0472 0.0459 0.0417 0.0408
0.0334 0.0248
   EMISFACT A0000002     HROFDY 0.0172 0.0124 0.0108 0.0126
0.0203 0.034
   EMISFACT A0000002     HROFDY 0.0431 0.0457 0.0439 0.0414 0.042
0.0439
   EMISFACT A0000002     HROFDY 0.0463 0.0483 0.0501 0.0491
0.0508 0.0506
   EMISFACT A0000002     HROFDY 0.0472 0.0459 0.0417 0.0408
0.0334 0.0248
   EMISFACT A0000003     HROFDY 0.0172 0.0124 0.0108 0.0126
0.0203 0.034
   EMISFACT A0000003     HROFDY 0.0431 0.0457 0.0439 0.0414 0.042
0.0439
   EMISFACT A0000003     HROFDY 0.0463 0.0483 0.0501 0.0491
0.0508 0.0506
   EMISFACT A0000003     HROFDY 0.0472 0.0459 0.0417 0.0408
0.0334 0.0248
   EMISFACT A0000004     HROFDY 0.0172 0.0124 0.0108 0.0126
0.0203 0.034
   EMISFACT A0000004     HROFDY 0.0431 0.0457 0.0439 0.0414 0.042
0.0439
   EMISFACT A0000004     HROFDY 0.0463 0.0483 0.0501 0.0491
0.0508 0.0506
   EMISFACT A0000004     HROFDY 0.0472 0.0459 0.0417 0.0408
0.0334 0.0248
   EMISFACT A0000005     HROFDY 0.0172 0.0124 0.0108 0.0126
0.0203 0.034
   EMISFACT A0000005     HROFDY 0.0431 0.0457 0.0439 0.0414 0.042
0.0439
   EMISFACT A0000005     HROFDY 0.0463 0.0483 0.0501 0.0491
0.0508 0.0506
   EMISFACT A0000005     HROFDY 0.0472 0.0459 0.0417 0.0408
0.0334 0.0248
   EMISFACT A0000006     HROFDY 0.0172 0.0124 0.0108 0.0126
0.0203 0.034
   EMISFACT A0000006     HROFDY 0.0431 0.0457 0.0439 0.0414 0.042
0.0439
   EMISFACT A0000006     HROFDY 0.0463 0.0483 0.0501 0.0491
0.0508 0.0506
   EMISFACT A0000006     HROFDY 0.0472 0.0459 0.0417 0.0408
0.0334 0.0248
   EMISFACT A0000007     HROFDY 0.0172 0.0124 0.0108 0.0126
0.0203 0.034
   EMISFACT A0000007     HROFDY 0.0431 0.0457 0.0439 0.0414 0.042
```

```
0.0439
   EMISFACT A0000007     HROFDY 0.0463 0.0483 0.0501 0.0491
0.0508 0.0506
   EMISFACT A0000007     HROFDY 0.0472 0.0459 0.0417 0.0408
0.0334 0.0248
   EMISFACT A0000008     HROFDY 0.0172 0.0124 0.0108 0.0126
0.0203 0.034
   EMISFACT A0000008     HROFDY 0.0431 0.0457 0.0439 0.0414 0.042
0.0439
   EMISFACT A0000008     HROFDY 0.0463 0.0483 0.0501 0.0491
0.0508 0.0506
   EMISFACT A0000008     HROFDY 0.0472 0.0459 0.0417 0.0408
0.0334 0.0248
   EMISFACT A0000009     HROFDY 0.0172 0.0124 0.0108 0.0126
0.0203 0.034
   EMISFACT A0000009     HROFDY 0.0431 0.0457 0.0439 0.0414 0.042
0.0439
   EMISFACT A0000009     HROFDY 0.0463 0.0483 0.0501 0.0491
0.0508 0.0506
   EMISFACT A0000009     HROFDY 0.0472 0.0459 0.0417 0.0408
0.0334 0.0248
   EMISFACT A0000010     HROFDY 0.0172 0.0124 0.0108 0.0126
0.0203 0.034
   EMISFACT A0000010     HROFDY 0.0431 0.0457 0.0439 0.0414 0.042
0.0439
   EMISFACT A0000010     HROFDY 0.0463 0.0483 0.0501 0.0491
0.0508 0.0506
   EMISFACT A0000010     HROFDY 0.0472 0.0459 0.0417 0.0408
0.0334 0.0248
   EMISFACT A0000011     HROFDY 0.0172 0.0124 0.0108 0.0126
0.0203 0.034
   EMISFACT A0000011     HROFDY 0.0431 0.0457 0.0439 0.0414 0.042
0.0439
   EMISFACT A0000011     HROFDY 0.0463 0.0483 0.0501 0.0491
0.0508 0.0506
   EMISFACT A0000011     HROFDY 0.0472 0.0459 0.0417 0.0408
0.0334 0.0248

** Variable Emissions Type: "By Hour-of-Day (HROFDY)"
** Variable Emission Scenario: "ARLN03"
   EMISFACT A0000023     HROFDY 0.0000817 0.0000563 0.0000494
0.000088 0.000251 0.000399
   EMISFACT A0000023     HROFDY 0.00045 0.000513 0.000554
0.000568 0.000587 0.000618
   EMISFACT A0000023     HROFDY 0.000603 0.000582 0.000565
0.000548 0.000528 0.000516
   EMISFACT A0000023     HROFDY 0.000421 0.000329 0.000297
0.000258 0.000191 0.000122
   EMISFACT A0000024     HROFDY 0.0000817 0.0000563 0.0000494
0.000088 0.000251 0.000399
   EMISFACT A0000024     HROFDY 0.00045 0.000513 0.000554
0.000568 0.000587 0.000618
```

```
   EMISFACT A0000024     HROFDY 0.000603 0.000582 0.000565
0.000548 0.000528 0.000516
   EMISFACT A0000024     HROFDY 0.000421 0.000329 0.000297
0.000258 0.000191 0.000122
   EMISFACT A0000025     HROFDY 0.0000817 0.0000563 0.0000494
0.000088 0.000251 0.000399
   EMISFACT A0000025     HROFDY 0.00045 0.000513 0.000554
0.000568 0.000587 0.000618
   EMISFACT A0000025     HROFDY 0.000603 0.000582 0.000565
0.000548 0.000528 0.000516
   EMISFACT A0000025     HROFDY 0.000421 0.000329 0.000297
0.000258 0.000191 0.000122
   EMISFACT A0000026     HROFDY 0.0000817 0.0000563 0.0000494
0.000088 0.000251 0.000399
   EMISFACT A0000026     HROFDY 0.00045 0.000513 0.000554
0.000568 0.000587 0.000618
   EMISFACT A0000026     HROFDY 0.000603 0.000582 0.000565
0.000548 0.000528 0.000516
   EMISFACT A0000026     HROFDY 0.000421 0.000329 0.000297
0.000258 0.000191 0.000122
   EMISFACT A0000027     HROFDY 0.0000817 0.0000563 0.0000494
0.000088 0.000251 0.000399
   EMISFACT A0000027     HROFDY 0.00045 0.000513 0.000554
0.000568 0.000587 0.000618
   EMISFACT A0000027     HROFDY 0.000603 0.000582 0.000565
0.000548 0.000528 0.000516
   EMISFACT A0000027     HROFDY 0.000421 0.000329 0.000297
0.000258 0.000191 0.000122
   EMISFACT A0000028     HROFDY 0.0000817 0.0000563 0.0000494
0.000088 0.000251 0.000399
   EMISFACT A0000028     HROFDY 0.00045 0.000513 0.000554
0.000568 0.000587 0.000618
   EMISFACT A0000028     HROFDY 0.000603 0.000582 0.000565
0.000548 0.000528 0.000516
   EMISFACT A0000028     HROFDY 0.000421 0.000329 0.000297
0.000258 0.000191 0.000122
   EMISFACT A0000029     HROFDY 0.0000817 0.0000563 0.0000494
0.000088 0.000251 0.000399
   EMISFACT A0000029     HROFDY 0.00045 0.000513 0.000554
0.000568 0.000587 0.000618
   EMISFACT A0000029     HROFDY 0.000603 0.000582 0.000565
0.000548 0.000528 0.000516
   EMISFACT A0000029     HROFDY 0.000421 0.000329 0.000297
0.000258 0.000191 0.000122
   EMISFACT A0000030     HROFDY 0.0000817 0.0000563 0.0000494
0.000088 0.000251 0.000399
   EMISFACT A0000030     HROFDY 0.00045 0.000513 0.000554
0.000568 0.000587 0.000618
   EMISFACT A0000030     HROFDY 0.000603 0.000582 0.000565
0.000548 0.000528 0.000516
   EMISFACT A0000030     HROFDY 0.000421 0.000329 0.000297
0.000258 0.000191 0.000122
```

```
   EMISFACT A0000031     HROFDY 0.0000817 0.0000563 0.0000494
0.000088 0.000251 0.000399
   EMISFACT A0000031     HROFDY 0.00045 0.000513 0.000554
0.000568 0.000587 0.000618
   EMISFACT A0000031     HROFDY 0.000603 0.000582 0.000565
0.000548 0.000528 0.000516
   EMISFACT A0000031     HROFDY 0.000421 0.000329 0.000297
0.000258 0.000191 0.000122
   EMISFACT A0000032     HROFDY 0.0000817 0.0000563 0.0000494
0.000088 0.000251 0.000399
   EMISFACT A0000032     HROFDY 0.00045 0.000513 0.000554
0.000568 0.000587 0.000618
   EMISFACT A0000032     HROFDY 0.000603 0.000582 0.000565
0.000548 0.000528 0.000516
   EMISFACT A0000032     HROFDY 0.000421 0.000329 0.000297
0.000258 0.000191 0.000122
   EMISFACT A0000033     HROFDY 0.0000817 0.0000563 0.0000494
0.000088 0.000251 0.000399
   EMISFACT A0000033     HROFDY 0.00045 0.000513 0.000554
0.000568 0.000587 0.000618
   EMISFACT A0000033     HROFDY 0.000603 0.000582 0.000565
0.000548 0.000528 0.000516
   EMISFACT A0000033     HROFDY 0.000421 0.000329 0.000297
0.000258 0.000191 0.000122
   EMISFACT A0000034     HROFDY 0.0000817 0.0000563 0.0000494
0.000088 0.000251 0.000399
   EMISFACT A0000034     HROFDY 0.00045 0.000513 0.000554
0.000568 0.000587 0.000618
   EMISFACT A0000034     HROFDY 0.000603 0.000582 0.000565
0.000548 0.000528 0.000516
   EMISFACT A0000034     HROFDY 0.000421 0.000329 0.000297
0.000258 0.000191 0.000122
   EMISFACT A0000035     HROFDY 0.0000817 0.0000563 0.0000494
0.000088 0.000251 0.000399
   EMISFACT A0000035     HROFDY 0.00045 0.000513 0.000554
0.000568 0.000587 0.000618
   EMISFACT A0000035     HROFDY 0.000603 0.000582 0.000565
0.000548 0.000528 0.000516
   EMISFACT A0000035     HROFDY 0.000421 0.000329 0.000297
0.000258 0.000191 0.000122
   EMISFACT A0000036     HROFDY 0.0000817 0.0000563 0.0000494
0.000088 0.000251 0.000399
   EMISFACT A0000036     HROFDY 0.00045 0.000513 0.000554
0.000568 0.000587 0.000618
   EMISFACT A0000036     HROFDY 0.000603 0.000582 0.000565
0.000548 0.000528 0.000516
   EMISFACT A0000036     HROFDY 0.000421 0.000329 0.000297
0.000258 0.000191 0.000122

** Variable Emissions Type: "By Hour-of-Day (HROFDY)"
** Variable Emission Scenario: "ARLN04"
   EMISFACT A0000037     HROFDY 0.0000451 0.0000446 0.0000433
```

```
0.0000447 0.0000558 0.0000708
   EMISFACT A0000037     HROFDY 0.000089 0.0000825 0.0000971
0.000116 0.000123 0.00012
   EMISFACT A0000037     HROFDY 0.000113 0.000104 0.0000815
0.000063 0.0000548 0.0000497
   EMISFACT A0000037     HROFDY 0.0000541 0.0000662 0.0000701
0.0000655 0.0000625 0.0000516
   EMISFACT A0000038     HROFDY 0.0000451 0.0000446 0.0000433
0.0000447 0.0000558 0.0000708
   EMISFACT A0000038     HROFDY 0.000089 0.0000825 0.0000971
0.000116 0.000123 0.00012
   EMISFACT A0000038     HROFDY 0.000113 0.000104 0.0000815
0.000063 0.0000548 0.0000497
   EMISFACT A0000038     HROFDY 0.0000541 0.0000662 0.0000701
0.0000655 0.0000625 0.0000516
   EMISFACT A0000039     HROFDY 0.0000451 0.0000446 0.0000433
0.0000447 0.0000558 0.0000708
   EMISFACT A0000039     HROFDY 0.000089 0.0000825 0.0000971
0.000116 0.000123 0.00012
   EMISFACT A0000039     HROFDY 0.000113 0.000104 0.0000815
0.000063 0.0000548 0.0000497
   EMISFACT A0000039     HROFDY 0.0000541 0.0000662 0.0000701
0.0000655 0.0000625 0.0000516
   EMISFACT A0000040     HROFDY 0.0000451 0.0000446 0.0000433
0.0000447 0.0000558 0.0000708
   EMISFACT A0000040     HROFDY 0.000089 0.0000825 0.0000971
0.000116 0.000123 0.00012
   EMISFACT A0000040     HROFDY 0.000113 0.000104 0.0000815
0.000063 0.0000548 0.0000497
   EMISFACT A0000040     HROFDY 0.0000541 0.0000662 0.0000701
0.0000655 0.0000625 0.0000516
   EMISFACT A0000041     HROFDY 0.0000451 0.0000446 0.0000433
0.0000447 0.0000558 0.0000708
   EMISFACT A0000041     HROFDY 0.000089 0.0000825 0.0000971
0.000116 0.000123 0.00012
   EMISFACT A0000041     HROFDY 0.000113 0.000104 0.0000815
0.000063 0.0000548 0.0000497
   EMISFACT A0000041     HROFDY 0.0000541 0.0000662 0.0000701
0.0000655 0.0000625 0.0000516
   EMISFACT A0000042     HROFDY 0.0000451 0.0000446 0.0000433
0.0000447 0.0000558 0.0000708
   EMISFACT A0000042     HROFDY 0.000089 0.0000825 0.0000971
0.000116 0.000123 0.00012
   EMISFACT A0000042     HROFDY 0.000113 0.000104 0.0000815
0.000063 0.0000548 0.0000497
   EMISFACT A0000042     HROFDY 0.0000541 0.0000662 0.0000701
0.0000655 0.0000625 0.0000516
   EMISFACT A0000043     HROFDY 0.0000451 0.0000446 0.0000433
0.0000447 0.0000558 0.0000708
   EMISFACT A0000043     HROFDY 0.000089 0.0000825 0.0000971
0.000116 0.000123 0.00012
   EMISFACT A0000043     HROFDY 0.000113 0.000104 0.0000815
```

```
0.000063 0.0000548 0.0000497
   EMISFACT A0000043     HROFDY 0.0000541 0.0000662 0.0000701
0.0000655 0.0000625 0.0000516
   EMISFACT A0000044     HROFDY 0.0000451 0.0000446 0.0000433
0.0000447 0.0000558 0.0000708
   EMISFACT A0000044     HROFDY 0.000089 0.0000825 0.0000971
0.000116 0.000123 0.00012
   EMISFACT A0000044     HROFDY 0.000113 0.000104 0.0000815
0.000063 0.0000548 0.0000497
   EMISFACT A0000044     HROFDY 0.0000541 0.0000662 0.0000701
0.0000655 0.0000625 0.0000516

** Variable Emissions Type: "By Hour-of-Day (HROFDY)"
** Variable Emission Scenario: "ARLN05"
   EMISFACT A0000045     HROFDY 0.000314 0.00031 0.000301
0.000311 0.000388 0.000492
   EMISFACT A0000045     HROFDY 0.000619 0.000574 0.000676
0.000808 0.000855 0.000836
   EMISFACT A0000045     HROFDY 0.000789 0.00072 0.000567
0.000438 0.000381 0.000345
   EMISFACT A0000045     HROFDY 0.000376 0.00046 0.000488
0.000456 0.000435 0.000359
   EMISFACT A0000046     HROFDY 0.000314 0.00031 0.000301
0.000311 0.000388 0.000492
   EMISFACT A0000046     HROFDY 0.000619 0.000574 0.000676
0.000808 0.000855 0.000836
   EMISFACT A0000046     HROFDY 0.000789 0.00072 0.000567
0.000438 0.000381 0.000345
   EMISFACT A0000046     HROFDY 0.000376 0.00046 0.000488
0.000456 0.000435 0.000359
   EMISFACT A0000047     HROFDY 0.000314 0.00031 0.000301
0.000311 0.000388 0.000492
   EMISFACT A0000047     HROFDY 0.000619 0.000574 0.000676
0.000808 0.000855 0.000836
   EMISFACT A0000047     HROFDY 0.000789 0.00072 0.000567
0.000438 0.000381 0.000345
   EMISFACT A0000047     HROFDY 0.000376 0.00046 0.000488
0.000456 0.000435 0.000359
   EMISFACT A0000048     HROFDY 0.000314 0.00031 0.000301
0.000311 0.000388 0.000492
   EMISFACT A0000048     HROFDY 0.000619 0.000574 0.000676
0.000808 0.000855 0.000836
   EMISFACT A0000048     HROFDY 0.000789 0.00072 0.000567
0.000438 0.000381 0.000345
   EMISFACT A0000048     HROFDY 0.000376 0.00046 0.000488
0.000456 0.000435 0.000359
   EMISFACT A0000049     HROFDY 0.000314 0.00031 0.000301
0.000311 0.000388 0.000492
   EMISFACT A0000049     HROFDY 0.000619 0.000574 0.000676
0.000808 0.000855 0.000836
   EMISFACT A0000049     HROFDY 0.000789 0.00072 0.000567
0.000438 0.000381 0.000345
```

```
   EMISFACT A0000049     HROFDY 0.000376 0.00046 0.000488
0.000456 0.000435 0.000359
   EMISFACT A0000050     HROFDY 0.000314 0.00031 0.000301
0.000311 0.000388 0.000492
   EMISFACT A0000050     HROFDY 0.000619 0.000574 0.000676
0.000808 0.000855 0.000836
   EMISFACT A0000050     HROFDY 0.000789 0.00072 0.000567
0.000438 0.000381 0.000345
   EMISFACT A0000050     HROFDY 0.000376 0.00046 0.000488
0.000456 0.000435 0.000359
   EMISFACT A0000051     HROFDY 0.000314 0.00031 0.000301
0.000311 0.000388 0.000492
   EMISFACT A0000051     HROFDY 0.000619 0.000574 0.000676
0.000808 0.000855 0.000836
   EMISFACT A0000051     HROFDY 0.000789 0.00072 0.000567
0.000438 0.000381 0.000345
   EMISFACT A0000051     HROFDY 0.000376 0.00046 0.000488
0.000456 0.000435 0.000359
   EMISFACT A0000052     HROFDY 0.000314 0.00031 0.000301
0.000311 0.000388 0.000492
   EMISFACT A0000052     HROFDY 0.000619 0.000574 0.000676
0.000808 0.000855 0.000836
   EMISFACT A0000052     HROFDY 0.000789 0.00072 0.000567
0.000438 0.000381 0.000345
   EMISFACT A0000052     HROFDY 0.000376 0.00046 0.000488
0.000456 0.000435 0.000359
   EMISFACT A0000053     HROFDY 0.000314 0.00031 0.000301
0.000311 0.000388 0.000492
   EMISFACT A0000053     HROFDY 0.000619 0.000574 0.000676
0.000808 0.000855 0.000836
   EMISFACT A0000053     HROFDY 0.000789 0.00072 0.000567
0.000438 0.000381 0.000345
   EMISFACT A0000053     HROFDY 0.000376 0.00046 0.000488
0.000456 0.000435 0.000359
   EMISFACT A0000054     HROFDY 0.000314 0.00031 0.000301
0.000311 0.000388 0.000492
   EMISFACT A0000054     HROFDY 0.000619 0.000574 0.000676
0.000808 0.000855 0.000836
   EMISFACT A0000054     HROFDY 0.000789 0.00072 0.000567
0.000438 0.000381 0.000345
   EMISFACT A0000054     HROFDY 0.000376 0.00046 0.000488
0.000456 0.000435 0.000359
   EMISFACT A0000055     HROFDY 0.000314 0.00031 0.000301
0.000311 0.000388 0.000492
   EMISFACT A0000055     HROFDY 0.000619 0.000574 0.000676
0.000808 0.000855 0.000836
   EMISFACT A0000055     HROFDY 0.000789 0.00072 0.000567
0.000438 0.000381 0.000345
   EMISFACT A0000055     HROFDY 0.000376 0.00046 0.000488
0.000456 0.000435 0.000359
   EMISFACT A0000056     HROFDY 0.000314 0.00031 0.000301
0.000311 0.000388 0.000492
```

```
   EMISFACT A0000056     HROFDY 0.000619 0.000574 0.000676
0.000808 0.000855 0.000836
   EMISFACT A0000056     HROFDY 0.000789 0.00072 0.000567
0.000438 0.000381 0.000345
   EMISFACT A0000056     HROFDY 0.000376 0.00046 0.000488
0.000456 0.000435 0.000359
   EMISFACT A0000057     HROFDY 0.000314 0.00031 0.000301
0.000311 0.000388 0.000492
   EMISFACT A0000057     HROFDY 0.000619 0.000574 0.000676
0.000808 0.000855 0.000836
   EMISFACT A0000057     HROFDY 0.000789 0.00072 0.000567
0.000438 0.000381 0.000345
   EMISFACT A0000057     HROFDY 0.000376 0.00046 0.000488
0.000456 0.000435 0.000359
   EMISFACT A0000058     HROFDY 0.000314 0.00031 0.000301
0.000311 0.000388 0.000492
   EMISFACT A0000058     HROFDY 0.000619 0.000574 0.000676
0.000808 0.000855 0.000836
   EMISFACT A0000058     HROFDY 0.000789 0.00072 0.000567
0.000438 0.000381 0.000345
   EMISFACT A0000058     HROFDY 0.000376 0.00046 0.000488
0.000456 0.000435 0.000359
   EMISFACT A0000059     HROFDY 0.000314 0.00031 0.000301
0.000311 0.000388 0.000492
   EMISFACT A0000059     HROFDY 0.000619 0.000574 0.000676
0.000808 0.000855 0.000836
   EMISFACT A0000059     HROFDY 0.000789 0.00072 0.000567
0.000438 0.000381 0.000345
   EMISFACT A0000059     HROFDY 0.000376 0.00046 0.000488
0.000456 0.000435 0.000359
   EMISFACT A0000060     HROFDY 0.000314 0.00031 0.000301
0.000311 0.000388 0.000492
   EMISFACT A0000060     HROFDY 0.000619 0.000574 0.000676
0.000808 0.000855 0.000836
   EMISFACT A0000060     HROFDY 0.000789 0.00072 0.000567
0.000438 0.000381 0.000345
   EMISFACT A0000060     HROFDY 0.000376 0.00046 0.000488
0.000456 0.000435 0.000359

** Variable Emissions Type: "By Hour-of-Day (HROFDY)"
** Variable Emission Scenario: "ARLN06"
   EMISFACT A0000061     HROFDY 0.0000229 0.0000158 0.0000139
0.0000247 0.0000704 0.000112
   EMISFACT A0000061     HROFDY 0.000126 0.000144 0.000155
0.000159 0.000165 0.000173
   EMISFACT A0000061     HROFDY 0.000169 0.000163 0.000158
0.000154 0.000148 0.000145
   EMISFACT A0000061     HROFDY 0.000118 0.0000923 0.0000834
0.0000723 0.0000535 0.0000342
   EMISFACT A0000062     HROFDY 0.0000229 0.0000158 0.0000139
0.0000247 0.0000704 0.000112
   EMISFACT A0000062     HROFDY 0.000126 0.000144 0.000155
```

```
0.000159 0.000165 0.000173
   EMISFACT A0000062     HROFDY 0.000169 0.000163 0.000158
0.000154 0.000148 0.000145
   EMISFACT A0000062     HROFDY 0.000118 0.0000923 0.0000834
0.0000723 0.0000535 0.0000342
   EMISFACT A0000063     HROFDY 0.0000229 0.0000158 0.0000139
0.0000247 0.0000704 0.000112
   EMISFACT A0000063     HROFDY 0.000126 0.000144 0.000155
0.000159 0.000165 0.000173
   EMISFACT A0000063     HROFDY 0.000169 0.000163 0.000158
0.000154 0.000148 0.000145
   EMISFACT A0000063     HROFDY 0.000118 0.0000923 0.0000834
0.0000723 0.0000535 0.0000342
   EMISFACT A0000064     HROFDY 0.0000229 0.0000158 0.0000139
0.0000247 0.0000704 0.000112
   EMISFACT A0000064     HROFDY 0.000126 0.000144 0.000155
0.000159 0.000165 0.000173
   EMISFACT A0000064     HROFDY 0.000169 0.000163 0.000158
0.000154 0.000148 0.000145
   EMISFACT A0000064     HROFDY 0.000118 0.0000923 0.0000834
0.0000723 0.0000535 0.0000342
   EMISFACT A0000065     HROFDY 0.0000229 0.0000158 0.0000139
0.0000247 0.0000704 0.000112
   EMISFACT A0000065     HROFDY 0.000126 0.000144 0.000155
0.000159 0.000165 0.000173
   EMISFACT A0000065     HROFDY 0.000169 0.000163 0.000158
0.000154 0.000148 0.000145
   EMISFACT A0000065     HROFDY 0.000118 0.0000923 0.0000834
0.0000723 0.0000535 0.0000342
   EMISFACT A0000066     HROFDY 0.0000229 0.0000158 0.0000139
0.0000247 0.0000704 0.000112
   EMISFACT A0000066     HROFDY 0.000126 0.000144 0.000155
0.000159 0.000165 0.000173
   EMISFACT A0000066     HROFDY 0.000169 0.000163 0.000158
0.000154 0.000148 0.000145
   EMISFACT A0000066     HROFDY 0.000118 0.0000923 0.0000834
0.0000723 0.0000535 0.0000342
   SRCGROUP Exh      A0000012 A0000013 A0000014 A0000015 A0000016
A0000017
   SRCGROUP Exh      A0000018 A0000019 A0000020 A0000021 A0000022
A0000001
   SRCGROUP Exh      A0000002 A0000003 A0000004 A0000005 A0000006
A0000007
   SRCGROUP Exh      A0000008 A0000009 A0000010 A0000011 A0000023
A0000024
   SRCGROUP Exh      A0000025 A0000026 A0000027 A0000028 A0000029
A0000030
   SRCGROUP Exh      A0000031 A0000032 A0000033 A0000034 A0000035
A0000036
   SRCGROUP Exh      A0000037 A0000038 A0000039 A0000040 A0000041
A0000042
   SRCGROUP Exh      A0000043 A0000044 A0000045 A0000046 A0000047
```

```
A0000048
   SRCGROUP Exh      A0000049 A0000050 A0000051 A0000052 A0000053
A0000054
   SRCGROUP Exh      A0000055 A0000056 A0000057 A0000058 A0000059
A0000060
   SRCGROUP Exh      A0000061 A0000062 A0000063 A0000064 A0000065
A0000066
   SRCGROUP FreeExh  A0000012 A0000013 A0000014 A0000015 A0000016
A0000017
   SRCGROUP FreeExh  A0000018 A0000019 A0000020 A0000021 A0000022
A0000001
   SRCGROUP FreeExh  A0000002 A0000003 A0000004 A0000005 A0000006
A0000007
   SRCGROUP FreeExh  A0000008 A0000009 A0000010 A0000011
   SRCGROUP OnOffExh A0000023 A0000024 A0000025 A0000026 A0000027
A0000028
   SRCGROUP OnOffExh A0000029 A0000030 A0000031 A0000032 A0000033
A0000034
   SRCGROUP OnOffExh A0000035 A0000036 A0000037 A0000038 A0000039
A0000040
   SRCGROUP OnOffExh A0000041 A0000042 A0000043 A0000044 A0000045
A0000046
   SRCGROUP OnOffExh A0000047 A0000048 A0000049 A0000050 A0000051
A0000052
   SRCGROUP OnOffExh A0000053 A0000054 A0000055 A0000056 A0000057
A0000058
   SRCGROUP OnOffExh A0000059 A0000060 A0000061 A0000062 A0000063
A0000064
   SRCGROUP OnOffExh A0000065 A0000066
   SRCGROUP ALL
SO FINISHED
**
**************************************
** AERMOD Receptor Pathway
**************************************
**
**
RE STARTING
** DESCRREC "UCART01" "Receptors generated from Uniform Cartesian
Grid"
   DISCCART    439674.00   3765310.00
   DISCCART    439679.00   3765310.00
   DISCCART    439684.00   3765310.00
   DISCCART    439689.00   3765310.00
   DISCCART    439694.00   3765310.00
   DISCCART    439699.00   3765310.00
   DISCCART    439704.00   3765310.00
   DISCCART    439709.00   3765310.00
   DISCCART    439714.00   3765310.00
   DISCCART    439719.00   3765310.00
   DISCCART    439729.00   3765310.00
   DISCCART    439734.00   3765310.00
```

DISCCART	439739.00	3765310.00
DISCCART	439744.00	3765310.00
DISCCART	439749.00	3765310.00
DISCCART	439764.00	3765310.00
DISCCART	439769.00	3765310.00
DISCCART	439774.00	3765310.00
DISCCART	439779.00	3765310.00
DISCCART	439784.00	3765310.00
DISCCART	439789.00	3765310.00
DISCCART	439794.00	3765310.00
DISCCART	439799.00	3765310.00
DISCCART	439804.00	3765310.00
DISCCART	439809.00	3765310.00
DISCCART	439814.00	3765310.00
DISCCART	439819.00	3765310.00
DISCCART	439824.00	3765310.00
DISCCART	439829.00	3765310.00
DISCCART	439839.00	3765310.00
DISCCART	439844.00	3765310.00
DISCCART	439849.00	3765310.00
DISCCART	439854.00	3765310.00
DISCCART	439859.00	3765310.00
DISCCART	439864.00	3765310.00
DISCCART	439869.00	3765310.00
DISCCART	439874.00	3765310.00
DISCCART	439879.00	3765310.00
DISCCART	439884.00	3765310.00
DISCCART	439674.00	3765315.00
DISCCART	439679.00	3765315.00
DISCCART	439684.00	3765315.00
DISCCART	439689.00	3765315.00
DISCCART	439694.00	3765315.00
DISCCART	439699.00	3765315.00
DISCCART	439704.00	3765315.00
DISCCART	439709.00	3765315.00
DISCCART	439714.00	3765315.00
DISCCART	439719.00	3765315.00
DISCCART	439729.00	3765315.00
DISCCART	439734.00	3765315.00
DISCCART	439739.00	3765315.00
DISCCART	439744.00	3765315.00
DISCCART	439749.00	3765315.00
DISCCART	439764.00	3765315.00
DISCCART	439769.00	3765315.00
DISCCART	439774.00	3765315.00
DISCCART	439779.00	3765315.00
DISCCART	439784.00	3765315.00
DISCCART	439789.00	3765315.00
DISCCART	439794.00	3765315.00
DISCCART	439799.00	3765315.00
DISCCART	439804.00	3765315.00
DISCCART	439809.00	3765315.00

DISCCART	439814.00	3765315.00
DISCCART	439819.00	3765315.00
DISCCART	439824.00	3765315.00
DISCCART	439829.00	3765315.00
DISCCART	439839.00	3765315.00
DISCCART	439844.00	3765315.00
DISCCART	439849.00	3765315.00
DISCCART	439854.00	3765315.00
DISCCART	439859.00	3765315.00
DISCCART	439864.00	3765315.00
DISCCART	439869.00	3765315.00
DISCCART	439874.00	3765315.00
DISCCART	439879.00	3765315.00
DISCCART	439884.00	3765315.00
DISCCART	439674.00	3765320.00
DISCCART	439679.00	3765320.00
DISCCART	439684.00	3765320.00
DISCCART	439689.00	3765320.00
DISCCART	439694.00	3765320.00
DISCCART	439699.00	3765320.00
DISCCART	439704.00	3765320.00
DISCCART	439709.00	3765320.00
DISCCART	439714.00	3765320.00
DISCCART	439719.00	3765320.00
DISCCART	439729.00	3765320.00
DISCCART	439734.00	3765320.00
DISCCART	439739.00	3765320.00
DISCCART	439744.00	3765320.00
DISCCART	439749.00	3765320.00
DISCCART	439764.00	3765320.00
DISCCART	439769.00	3765320.00
DISCCART	439774.00	3765320.00
DISCCART	439779.00	3765320.00
DISCCART	439784.00	3765320.00
DISCCART	439789.00	3765320.00
DISCCART	439794.00	3765320.00
DISCCART	439799.00	3765320.00
DISCCART	439804.00	3765320.00
DISCCART	439809.00	3765320.00
DISCCART	439814.00	3765320.00
DISCCART	439819.00	3765320.00
DISCCART	439824.00	3765320.00
DISCCART	439829.00	3765320.00
DISCCART	439839.00	3765320.00
DISCCART	439844.00	3765320.00
DISCCART	439849.00	3765320.00
DISCCART	439854.00	3765320.00
DISCCART	439859.00	3765320.00
DISCCART	439864.00	3765320.00
DISCCART	439869.00	3765320.00
DISCCART	439874.00	3765320.00
DISCCART	439879.00	3765320.00

DISCCART 439884.00 3765320.00
DISCCART 439674.00 3765325.00
DISCCART 439679.00 3765325.00
DISCCART 439684.00 3765325.00
DISCCART 439689.00 3765325.00
DISCCART 439694.00 3765325.00
DISCCART 439699.00 3765325.00
DISCCART 439704.00 3765325.00
DISCCART 439709.00 3765325.00
DISCCART 439714.00 3765325.00
DISCCART 439719.00 3765325.00
DISCCART 439729.00 3765325.00
DISCCART 439734.00 3765325.00
DISCCART 439739.00 3765325.00
DISCCART 439744.00 3765325.00
DISCCART 439749.00 3765325.00
DISCCART 439754.00 3765325.00
DISCCART 439769.00 3765325.00
DISCCART 439774.00 3765325.00
DISCCART 439779.00 3765325.00
DISCCART 439784.00 3765325.00
DISCCART 439789.00 3765325.00
DISCCART 439794.00 3765325.00
DISCCART 439799.00 3765325.00
DISCCART 439804.00 3765325.00
DISCCART 439809.00 3765325.00
DISCCART 439814.00 3765325.00
DISCCART 439819.00 3765325.00
DISCCART 439824.00 3765325.00
DISCCART 439829.00 3765325.00
DISCCART 439839.00 3765325.00
DISCCART 439844.00 3765325.00
DISCCART 439849.00 3765325.00
DISCCART 439854.00 3765325.00
DISCCART 439859.00 3765325.00
DISCCART 439864.00 3765325.00
DISCCART 439869.00 3765325.00
DISCCART 439874.00 3765325.00
DISCCART 439879.00 3765325.00
DISCCART 439884.00 3765325.00
DISCCART 439674.00 3765330.00
DISCCART 439679.00 3765330.00
DISCCART 439684.00 3765330.00
DISCCART 439689.00 3765330.00
DISCCART 439694.00 3765330.00
DISCCART 439699.00 3765330.00
DISCCART 439704.00 3765330.00
DISCCART 439709.00 3765330.00
DISCCART 439714.00 3765330.00
DISCCART 439719.00 3765330.00
DISCCART 439729.00 3765330.00
DISCCART 439734.00 3765330.00

DISCCART	439739.00	3765330.00
DISCCART	439744.00	3765330.00
DISCCART	439749.00	3765330.00
DISCCART	439754.00	3765330.00
DISCCART	439774.00	3765330.00
DISCCART	439779.00	3765330.00
DISCCART	439784.00	3765330.00
DISCCART	439789.00	3765330.00
DISCCART	439794.00	3765330.00
DISCCART	439799.00	3765330.00
DISCCART	439804.00	3765330.00
DISCCART	439809.00	3765330.00
DISCCART	439814.00	3765330.00
DISCCART	439819.00	3765330.00
DISCCART	439824.00	3765330.00
DISCCART	439829.00	3765330.00
DISCCART	439839.00	3765330.00
DISCCART	439844.00	3765330.00
DISCCART	439849.00	3765330.00
DISCCART	439854.00	3765330.00
DISCCART	439859.00	3765330.00
DISCCART	439864.00	3765330.00
DISCCART	439869.00	3765330.00
DISCCART	439874.00	3765330.00
DISCCART	439879.00	3765330.00
DISCCART	439884.00	3765330.00
DISCCART	439674.00	3765335.00
DISCCART	439679.00	3765335.00
DISCCART	439684.00	3765335.00
DISCCART	439689.00	3765335.00
DISCCART	439694.00	3765335.00
DISCCART	439699.00	3765335.00
DISCCART	439704.00	3765335.00
DISCCART	439709.00	3765335.00
DISCCART	439714.00	3765335.00
DISCCART	439719.00	3765335.00
DISCCART	439729.00	3765335.00
DISCCART	439734.00	3765335.00
DISCCART	439739.00	3765335.00
DISCCART	439744.00	3765335.00
DISCCART	439749.00	3765335.00
DISCCART	439774.00	3765335.00
DISCCART	439779.00	3765335.00
DISCCART	439784.00	3765335.00
DISCCART	439789.00	3765335.00
DISCCART	439794.00	3765335.00
DISCCART	439839.00	3765335.00
DISCCART	439844.00	3765335.00
DISCCART	439849.00	3765335.00
DISCCART	439854.00	3765335.00
DISCCART	439859.00	3765335.00
DISCCART	439864.00	3765335.00

DISCCART 439869.00 3765335.00
DISCCART 439874.00 3765335.00
DISCCART 439879.00 3765335.00
DISCCART 439884.00 3765335.00
DISCCART 439674.00 3765340.00
DISCCART 439679.00 3765340.00
DISCCART 439684.00 3765340.00
DISCCART 439689.00 3765340.00
DISCCART 439694.00 3765340.00
DISCCART 439699.00 3765340.00
DISCCART 439704.00 3765340.00
DISCCART 439709.00 3765340.00
DISCCART 439714.00 3765340.00
DISCCART 439719.00 3765340.00
DISCCART 439729.00 3765340.00
DISCCART 439734.00 3765340.00
DISCCART 439739.00 3765340.00
DISCCART 439744.00 3765340.00
DISCCART 439749.00 3765340.00
DISCCART 439774.00 3765340.00
DISCCART 439779.00 3765340.00
DISCCART 439784.00 3765340.00
DISCCART 439789.00 3765340.00
DISCCART 439794.00 3765340.00
DISCCART 439839.00 3765340.00
DISCCART 439844.00 3765340.00
DISCCART 439849.00 3765340.00
DISCCART 439854.00 3765340.00
DISCCART 439859.00 3765340.00
DISCCART 439864.00 3765340.00
DISCCART 439869.00 3765340.00
DISCCART 439874.00 3765340.00
DISCCART 439879.00 3765340.00
DISCCART 439884.00 3765340.00
DISCCART 439674.00 3765345.00
DISCCART 439679.00 3765345.00
DISCCART 439684.00 3765345.00
DISCCART 439689.00 3765345.00
DISCCART 439694.00 3765345.00
DISCCART 439699.00 3765345.00
DISCCART 439704.00 3765345.00
DISCCART 439709.00 3765345.00
DISCCART 439714.00 3765345.00
DISCCART 439719.00 3765345.00
DISCCART 439729.00 3765345.00
DISCCART 439734.00 3765345.00
DISCCART 439739.00 3765345.00
DISCCART 439744.00 3765345.00
DISCCART 439749.00 3765345.00
DISCCART 439774.00 3765345.00
DISCCART 439779.00 3765345.00
DISCCART 439784.00 3765345.00

```
DISCCART    439789.00   3765345.00
DISCCART    439794.00   3765345.00
DISCCART    439839.00   3765345.00
DISCCART    439844.00   3765345.00
DISCCART    439849.00   3765345.00
DISCCART    439854.00   3765345.00
DISCCART    439859.00   3765345.00
DISCCART    439864.00   3765345.00
DISCCART    439869.00   3765345.00
DISCCART    439874.00   3765345.00
DISCCART    439879.00   3765345.00
DISCCART    439884.00   3765345.00
DISCCART    439674.00   3765350.00
DISCCART    439679.00   3765350.00
DISCCART    439684.00   3765350.00
DISCCART    439689.00   3765350.00
DISCCART    439694.00   3765350.00
DISCCART    439699.00   3765350.00
DISCCART    439704.00   3765350.00
DISCCART    439709.00   3765350.00
DISCCART    439714.00   3765350.00
DISCCART    439719.00   3765350.00
DISCCART    439729.00   3765350.00
DISCCART    439734.00   3765350.00
DISCCART    439739.00   3765350.00
DISCCART    439744.00   3765350.00
DISCCART    439749.00   3765350.00
DISCCART    439774.00   3765350.00
DISCCART    439779.00   3765350.00
DISCCART    439784.00   3765350.00
DISCCART    439789.00   3765350.00
DISCCART    439794.00   3765350.00
DISCCART    439839.00   3765350.00
DISCCART    439844.00   3765350.00
DISCCART    439849.00   3765350.00
DISCCART    439854.00   3765350.00
DISCCART    439859.00   3765350.00
DISCCART    439864.00   3765350.00
DISCCART    439869.00   3765350.00
DISCCART    439874.00   3765350.00
DISCCART    439879.00   3765350.00
DISCCART    439884.00   3765350.00
DISCCART    439674.00   3765355.00
DISCCART    439679.00   3765355.00
DISCCART    439684.00   3765355.00
DISCCART    439689.00   3765355.00
DISCCART    439694.00   3765355.00
DISCCART    439699.00   3765355.00
DISCCART    439704.00   3765355.00
DISCCART    439709.00   3765355.00
DISCCART    439714.00   3765355.00
DISCCART    439719.00   3765355.00
```

DISCCART	439729.00	3765355.00
DISCCART	439734.00	3765355.00
DISCCART	439739.00	3765355.00
DISCCART	439744.00	3765355.00
DISCCART	439749.00	3765355.00
DISCCART	439774.00	3765355.00
DISCCART	439779.00	3765355.00
DISCCART	439784.00	3765355.00
DISCCART	439789.00	3765355.00
DISCCART	439794.00	3765355.00
DISCCART	439839.00	3765355.00
DISCCART	439844.00	3765355.00
DISCCART	439849.00	3765355.00
DISCCART	439854.00	3765355.00
DISCCART	439859.00	3765355.00
DISCCART	439864.00	3765355.00
DISCCART	439869.00	3765355.00
DISCCART	439874.00	3765355.00
DISCCART	439879.00	3765355.00
DISCCART	439884.00	3765355.00
DISCCART	439674.00	3765360.00
DISCCART	439679.00	3765360.00
DISCCART	439684.00	3765360.00
DISCCART	439689.00	3765360.00
DISCCART	439694.00	3765360.00
DISCCART	439699.00	3765360.00
DISCCART	439704.00	3765360.00
DISCCART	439709.00	3765360.00
DISCCART	439714.00	3765360.00
DISCCART	439719.00	3765360.00
DISCCART	439729.00	3765360.00
DISCCART	439734.00	3765360.00
DISCCART	439739.00	3765360.00
DISCCART	439744.00	3765360.00
DISCCART	439749.00	3765360.00
DISCCART	439774.00	3765360.00
DISCCART	439779.00	3765360.00
DISCCART	439784.00	3765360.00
DISCCART	439789.00	3765360.00
DISCCART	439794.00	3765360.00
DISCCART	439799.00	3765360.00
DISCCART	439804.00	3765360.00
DISCCART	439809.00	3765360.00
DISCCART	439814.00	3765360.00
DISCCART	439839.00	3765360.00
DISCCART	439844.00	3765360.00
DISCCART	439849.00	3765360.00
DISCCART	439854.00	3765360.00
DISCCART	439859.00	3765360.00
DISCCART	439864.00	3765360.00
DISCCART	439869.00	3765360.00
DISCCART	439874.00	3765360.00

```
DISCCART    439879.00   3765360.00
DISCCART    439884.00   3765360.00
DISCCART    439674.00   3765365.00
DISCCART    439679.00   3765365.00
DISCCART    439684.00   3765365.00
DISCCART    439689.00   3765365.00
DISCCART    439694.00   3765365.00
DISCCART    439699.00   3765365.00
DISCCART    439704.00   3765365.00
DISCCART    439709.00   3765365.00
DISCCART    439714.00   3765365.00
DISCCART    439719.00   3765365.00
DISCCART    439729.00   3765365.00
DISCCART    439734.00   3765365.00
DISCCART    439739.00   3765365.00
DISCCART    439744.00   3765365.00
DISCCART    439749.00   3765365.00
DISCCART    439774.00   3765365.00
DISCCART    439779.00   3765365.00
DISCCART    439784.00   3765365.00
DISCCART    439789.00   3765365.00
DISCCART    439794.00   3765365.00
DISCCART    439799.00   3765365.00
DISCCART    439804.00   3765365.00
DISCCART    439809.00   3765365.00
DISCCART    439814.00   3765365.00
DISCCART    439839.00   3765365.00
DISCCART    439844.00   3765365.00
DISCCART    439849.00   3765365.00
DISCCART    439854.00   3765365.00
DISCCART    439859.00   3765365.00
DISCCART    439864.00   3765365.00
DISCCART    439869.00   3765365.00
DISCCART    439874.00   3765365.00
DISCCART    439879.00   3765365.00
DISCCART    439884.00   3765365.00
DISCCART    439674.00   3765370.00
DISCCART    439679.00   3765370.00
DISCCART    439684.00   3765370.00
DISCCART    439689.00   3765370.00
DISCCART    439694.00   3765370.00
DISCCART    439699.00   3765370.00
DISCCART    439704.00   3765370.00
DISCCART    439709.00   3765370.00
DISCCART    439714.00   3765370.00
DISCCART    439719.00   3765370.00
DISCCART    439729.00   3765370.00
DISCCART    439734.00   3765370.00
DISCCART    439739.00   3765370.00
DISCCART    439744.00   3765370.00
DISCCART    439749.00   3765370.00
DISCCART    439774.00   3765370.00
```

```
DISCCART    439779.00   3765370.00
DISCCART    439784.00   3765370.00
DISCCART    439789.00   3765370.00
DISCCART    439794.00   3765370.00
DISCCART    439799.00   3765370.00
DISCCART    439804.00   3765370.00
DISCCART    439809.00   3765370.00
DISCCART    439814.00   3765370.00
DISCCART    439839.00   3765370.00
DISCCART    439844.00   3765370.00
DISCCART    439849.00   3765370.00
DISCCART    439854.00   3765370.00
DISCCART    439859.00   3765370.00
DISCCART    439864.00   3765370.00
DISCCART    439869.00   3765370.00
DISCCART    439874.00   3765370.00
DISCCART    439879.00   3765370.00
DISCCART    439884.00   3765370.00
DISCCART    439674.00   3765375.00
DISCCART    439679.00   3765375.00
DISCCART    439684.00   3765375.00
DISCCART    439689.00   3765375.00
DISCCART    439694.00   3765375.00
DISCCART    439699.00   3765375.00
DISCCART    439704.00   3765375.00
DISCCART    439709.00   3765375.00
DISCCART    439714.00   3765375.00
DISCCART    439719.00   3765375.00
DISCCART    439729.00   3765375.00
DISCCART    439734.00   3765375.00
DISCCART    439739.00   3765375.00
DISCCART    439744.00   3765375.00
DISCCART    439749.00   3765375.00
DISCCART    439754.00   3765375.00
DISCCART    439774.00   3765375.00
DISCCART    439779.00   3765375.00
DISCCART    439784.00   3765375.00
DISCCART    439789.00   3765375.00
DISCCART    439794.00   3765375.00
DISCCART    439799.00   3765375.00
DISCCART    439804.00   3765375.00
DISCCART    439809.00   3765375.00
DISCCART    439814.00   3765375.00
DISCCART    439839.00   3765375.00
DISCCART    439844.00   3765375.00
DISCCART    439849.00   3765375.00
DISCCART    439854.00   3765375.00
DISCCART    439859.00   3765375.00
DISCCART    439864.00   3765375.00
DISCCART    439869.00   3765375.00
DISCCART    439874.00   3765375.00
DISCCART    439879.00   3765375.00
```

```
DISCCART    439884.00   3765375.00
DISCCART    439774.00   3765380.00
DISCCART    439779.00   3765380.00
DISCCART    439784.00   3765380.00
DISCCART    439789.00   3765380.00
DISCCART    439794.00   3765380.00
DISCCART    439799.00   3765380.00
DISCCART    439804.00   3765380.00
DISCCART    439809.00   3765380.00
DISCCART    439814.00   3765380.00
DISCCART    439769.00   3765385.00
DISCCART    439819.00   3765385.00
DISCCART    439769.00   3765400.00
DISCCART    439844.00   3765400.00
DISCCART    439849.00   3765400.00
DISCCART    439674.00   3765405.00
DISCCART    439714.00   3765405.00
DISCCART    439719.00   3765405.00
DISCCART    439734.00   3765405.00
DISCCART    439749.00   3765405.00
DISCCART    439754.00   3765405.00
DISCCART    439774.00   3765405.00
DISCCART    439779.00   3765405.00
DISCCART    439784.00   3765405.00
DISCCART    439789.00   3765405.00
DISCCART    439794.00   3765405.00
DISCCART    439799.00   3765405.00
DISCCART    439804.00   3765405.00
DISCCART    439809.00   3765405.00
DISCCART    439814.00   3765405.00
DISCCART    439819.00   3765405.00
DISCCART    439824.00   3765405.00
DISCCART    439829.00   3765405.00
DISCCART    439834.00   3765405.00
DISCCART    439839.00   3765405.00
DISCCART    439844.00   3765405.00
DISCCART    439849.00   3765405.00
DISCCART    439854.00   3765405.00
DISCCART    439859.00   3765405.00
DISCCART    439674.00   3765410.00
DISCCART    439679.00   3765410.00
DISCCART    439684.00   3765410.00
DISCCART    439689.00   3765410.00
DISCCART    439694.00   3765410.00
DISCCART    439699.00   3765410.00
DISCCART    439704.00   3765410.00
DISCCART    439709.00   3765410.00
DISCCART    439714.00   3765410.00
DISCCART    439719.00   3765410.00
DISCCART    439729.00   3765410.00
DISCCART    439734.00   3765410.00
DISCCART    439739.00   3765410.00
```

```
DISCCART    439744.00   3765410.00
DISCCART    439749.00   3765410.00
DISCCART    439774.00   3765410.00
DISCCART    439779.00   3765410.00
DISCCART    439784.00   3765410.00
DISCCART    439789.00   3765410.00
DISCCART    439794.00   3765410.00
DISCCART    439799.00   3765410.00
DISCCART    439804.00   3765410.00
DISCCART    439809.00   3765410.00
DISCCART    439814.00   3765410.00
DISCCART    439819.00   3765410.00
DISCCART    439824.00   3765410.00
DISCCART    439829.00   3765410.00
DISCCART    439834.00   3765410.00
DISCCART    439839.00   3765410.00
DISCCART    439844.00   3765410.00
DISCCART    439849.00   3765410.00
DISCCART    439854.00   3765410.00
DISCCART    439859.00   3765410.00
DISCCART    439674.00   3765415.00
DISCCART    439679.00   3765415.00
DISCCART    439684.00   3765415.00
DISCCART    439689.00   3765415.00
DISCCART    439694.00   3765415.00
DISCCART    439699.00   3765415.00
DISCCART    439704.00   3765415.00
DISCCART    439709.00   3765415.00
DISCCART    439714.00   3765415.00
DISCCART    439719.00   3765415.00
DISCCART    439729.00   3765415.00
DISCCART    439734.00   3765415.00
DISCCART    439739.00   3765415.00
DISCCART    439744.00   3765415.00
DISCCART    439749.00   3765415.00
DISCCART    439774.00   3765415.00
DISCCART    439779.00   3765415.00
DISCCART    439784.00   3765415.00
DISCCART    439789.00   3765415.00
DISCCART    439794.00   3765415.00
DISCCART    439799.00   3765415.00
DISCCART    439804.00   3765415.00
DISCCART    439809.00   3765415.00
DISCCART    439814.00   3765415.00
DISCCART    439819.00   3765415.00
DISCCART    439824.00   3765415.00
DISCCART    439829.00   3765415.00
DISCCART    439834.00   3765415.00
DISCCART    439839.00   3765415.00
DISCCART    439844.00   3765415.00
DISCCART    439849.00   3765415.00
DISCCART    439854.00   3765415.00
```

```
DISCCART    439859.00   3765415.00
DISCCART    439674.00   3765420.00
DISCCART    439679.00   3765420.00
DISCCART    439684.00   3765420.00
DISCCART    439689.00   3765420.00
DISCCART    439694.00   3765420.00
DISCCART    439699.00   3765420.00
DISCCART    439704.00   3765420.00
DISCCART    439709.00   3765420.00
DISCCART    439714.00   3765420.00
DISCCART    439719.00   3765420.00
DISCCART    439729.00   3765420.00
DISCCART    439734.00   3765420.00
DISCCART    439739.00   3765420.00
DISCCART    439744.00   3765420.00
DISCCART    439749.00   3765420.00
DISCCART    439774.00   3765420.00
DISCCART    439779.00   3765420.00
DISCCART    439784.00   3765420.00
DISCCART    439789.00   3765420.00
DISCCART    439794.00   3765420.00
DISCCART    439799.00   3765420.00
DISCCART    439804.00   3765420.00
DISCCART    439809.00   3765420.00
DISCCART    439814.00   3765420.00
DISCCART    439819.00   3765420.00
DISCCART    439824.00   3765420.00
DISCCART    439829.00   3765420.00
DISCCART    439834.00   3765420.00
DISCCART    439839.00   3765420.00
DISCCART    439844.00   3765420.00
DISCCART    439849.00   3765420.00
DISCCART    439854.00   3765420.00
DISCCART    439859.00   3765420.00
DISCCART    439674.00   3765425.00
DISCCART    439679.00   3765425.00
DISCCART    439684.00   3765425.00
DISCCART    439689.00   3765425.00
DISCCART    439694.00   3765425.00
DISCCART    439699.00   3765425.00
DISCCART    439704.00   3765425.00
DISCCART    439709.00   3765425.00
DISCCART    439714.00   3765425.00
DISCCART    439719.00   3765425.00
DISCCART    439729.00   3765425.00
DISCCART    439734.00   3765425.00
DISCCART    439739.00   3765425.00
DISCCART    439744.00   3765425.00
DISCCART    439749.00   3765425.00
DISCCART    439774.00   3765425.00
DISCCART    439779.00   3765425.00
DISCCART    439784.00   3765425.00
```

DISCCART	439789.00	3765425.00
DISCCART	439794.00	3765425.00
DISCCART	439799.00	3765425.00
DISCCART	439804.00	3765425.00
DISCCART	439809.00	3765425.00
DISCCART	439814.00	3765425.00
DISCCART	439819.00	3765425.00
DISCCART	439824.00	3765425.00
DISCCART	439829.00	3765425.00
DISCCART	439834.00	3765425.00
DISCCART	439839.00	3765425.00
DISCCART	439844.00	3765425.00
DISCCART	439849.00	3765425.00
DISCCART	439854.00	3765425.00
DISCCART	439859.00	3765425.00
DISCCART	439674.00	3765430.00
DISCCART	439679.00	3765430.00
DISCCART	439684.00	3765430.00
DISCCART	439689.00	3765430.00
DISCCART	439694.00	3765430.00
DISCCART	439699.00	3765430.00
DISCCART	439704.00	3765430.00
DISCCART	439709.00	3765430.00
DISCCART	439714.00	3765430.00
DISCCART	439719.00	3765430.00
DISCCART	439729.00	3765430.00
DISCCART	439734.00	3765430.00
DISCCART	439739.00	3765430.00
DISCCART	439744.00	3765430.00
DISCCART	439749.00	3765430.00
DISCCART	439774.00	3765430.00
DISCCART	439779.00	3765430.00
DISCCART	439784.00	3765430.00
DISCCART	439789.00	3765430.00
DISCCART	439794.00	3765430.00
DISCCART	439799.00	3765430.00
DISCCART	439804.00	3765430.00
DISCCART	439809.00	3765430.00
DISCCART	439814.00	3765430.00
DISCCART	439819.00	3765430.00
DISCCART	439824.00	3765430.00
DISCCART	439829.00	3765430.00
DISCCART	439834.00	3765430.00
DISCCART	439839.00	3765430.00
DISCCART	439844.00	3765430.00
DISCCART	439849.00	3765430.00
DISCCART	439854.00	3765430.00
DISCCART	439859.00	3765430.00
DISCCART	439674.00	3765435.00
DISCCART	439679.00	3765435.00
DISCCART	439684.00	3765435.00
DISCCART	439689.00	3765435.00

DISCCART 439694.00 3765435.00
DISCCART 439699.00 3765435.00
DISCCART 439704.00 3765435.00
DISCCART 439709.00 3765435.00
DISCCART 439714.00 3765435.00
DISCCART 439719.00 3765435.00
DISCCART 439729.00 3765435.00
DISCCART 439734.00 3765435.00
DISCCART 439739.00 3765435.00
DISCCART 439744.00 3765435.00
DISCCART 439749.00 3765435.00
DISCCART 439774.00 3765435.00
DISCCART 439779.00 3765435.00
DISCCART 439784.00 3765435.00
DISCCART 439789.00 3765435.00
DISCCART 439794.00 3765435.00
DISCCART 439799.00 3765435.00
DISCCART 439804.00 3765435.00
DISCCART 439809.00 3765435.00
DISCCART 439814.00 3765435.00
DISCCART 439819.00 3765435.00
DISCCART 439824.00 3765435.00
DISCCART 439829.00 3765435.00
DISCCART 439834.00 3765435.00
DISCCART 439839.00 3765435.00
DISCCART 439844.00 3765435.00
DISCCART 439849.00 3765435.00
DISCCART 439854.00 3765435.00
DISCCART 439859.00 3765435.00
DISCCART 439674.00 3765440.00
DISCCART 439679.00 3765440.00
DISCCART 439684.00 3765440.00
DISCCART 439689.00 3765440.00
DISCCART 439694.00 3765440.00
DISCCART 439699.00 3765440.00
DISCCART 439704.00 3765440.00
DISCCART 439709.00 3765440.00
DISCCART 439714.00 3765440.00
DISCCART 439719.00 3765440.00
DISCCART 439729.00 3765440.00
DISCCART 439734.00 3765440.00
DISCCART 439739.00 3765440.00
DISCCART 439744.00 3765440.00
DISCCART 439749.00 3765440.00
DISCCART 439774.00 3765440.00
DISCCART 439779.00 3765440.00
DISCCART 439784.00 3765440.00
DISCCART 439789.00 3765440.00
DISCCART 439794.00 3765440.00
DISCCART 439799.00 3765440.00
DISCCART 439804.00 3765440.00
DISCCART 439809.00 3765440.00

DISCCART	439814.00	3765440.00
DISCCART	439819.00	3765440.00
DISCCART	439824.00	3765440.00
DISCCART	439829.00	3765440.00
DISCCART	439834.00	3765440.00
DISCCART	439839.00	3765440.00
DISCCART	439844.00	3765440.00
DISCCART	439849.00	3765440.00
DISCCART	439854.00	3765440.00
DISCCART	439859.00	3765440.00
DISCCART	439674.00	3765445.00
DISCCART	439679.00	3765445.00
DISCCART	439684.00	3765445.00
DISCCART	439689.00	3765445.00
DISCCART	439694.00	3765445.00
DISCCART	439699.00	3765445.00
DISCCART	439704.00	3765445.00
DISCCART	439709.00	3765445.00
DISCCART	439714.00	3765445.00
DISCCART	439719.00	3765445.00
DISCCART	439729.00	3765445.00
DISCCART	439734.00	3765445.00
DISCCART	439739.00	3765445.00
DISCCART	439744.00	3765445.00
DISCCART	439749.00	3765445.00
DISCCART	439774.00	3765445.00
DISCCART	439779.00	3765445.00
DISCCART	439784.00	3765445.00
DISCCART	439789.00	3765445.00
DISCCART	439794.00	3765445.00
DISCCART	439799.00	3765445.00
DISCCART	439804.00	3765445.00
DISCCART	439809.00	3765445.00
DISCCART	439814.00	3765445.00
DISCCART	439819.00	3765445.00
DISCCART	439824.00	3765445.00
DISCCART	439829.00	3765445.00
DISCCART	439834.00	3765445.00
DISCCART	439839.00	3765445.00
DISCCART	439844.00	3765445.00
DISCCART	439849.00	3765445.00
DISCCART	439854.00	3765445.00
DISCCART	439859.00	3765445.00
DISCCART	439674.00	3765450.00
DISCCART	439679.00	3765450.00
DISCCART	439684.00	3765450.00
DISCCART	439689.00	3765450.00
DISCCART	439694.00	3765450.00
DISCCART	439699.00	3765450.00
DISCCART	439704.00	3765450.00
DISCCART	439709.00	3765450.00
DISCCART	439714.00	3765450.00

```
DISCCART    439719.00   3765450.00
DISCCART    439729.00   3765450.00
DISCCART    439734.00   3765450.00
DISCCART    439739.00   3765450.00
DISCCART    439744.00   3765450.00
DISCCART    439749.00   3765450.00
DISCCART    439774.00   3765450.00
DISCCART    439844.00   3765450.00
DISCCART    439849.00   3765450.00
DISCCART    439854.00   3765450.00
DISCCART    439859.00   3765450.00
DISCCART    439674.00   3765455.00
DISCCART    439679.00   3765455.00
DISCCART    439684.00   3765455.00
DISCCART    439689.00   3765455.00
DISCCART    439694.00   3765455.00
DISCCART    439699.00   3765455.00
DISCCART    439704.00   3765455.00
DISCCART    439709.00   3765455.00
DISCCART    439714.00   3765455.00
DISCCART    439719.00   3765455.00
DISCCART    439729.00   3765455.00
DISCCART    439734.00   3765455.00
DISCCART    439739.00   3765455.00
DISCCART    439744.00   3765455.00
DISCCART    439749.00   3765455.00
DISCCART    439844.00   3765455.00
DISCCART    439849.00   3765455.00
DISCCART    439854.00   3765455.00
DISCCART    439859.00   3765455.00
DISCCART    439674.00   3765460.00
DISCCART    439679.00   3765460.00
DISCCART    439684.00   3765460.00
DISCCART    439689.00   3765460.00
DISCCART    439694.00   3765460.00
DISCCART    439699.00   3765460.00
DISCCART    439704.00   3765460.00
DISCCART    439709.00   3765460.00
DISCCART    439714.00   3765460.00
DISCCART    439719.00   3765460.00
DISCCART    439729.00   3765460.00
DISCCART    439734.00   3765460.00
DISCCART    439739.00   3765460.00
DISCCART    439744.00   3765460.00
DISCCART    439749.00   3765460.00
DISCCART    439789.00   3765460.00
DISCCART    439794.00   3765460.00
DISCCART    439799.00   3765460.00
DISCCART    439804.00   3765460.00
DISCCART    439809.00   3765460.00
DISCCART    439814.00   3765460.00
DISCCART    439819.00   3765460.00
```

```
DISCCART    439824.00   3765460.00
DISCCART    439829.00   3765460.00
DISCCART    439844.00   3765460.00
DISCCART    439849.00   3765460.00
DISCCART    439854.00   3765460.00
DISCCART    439859.00   3765460.00
DISCCART    439674.00   3765465.00
DISCCART    439679.00   3765465.00
DISCCART    439684.00   3765465.00
DISCCART    439689.00   3765465.00
DISCCART    439694.00   3765465.00
DISCCART    439699.00   3765465.00
DISCCART    439704.00   3765465.00
DISCCART    439709.00   3765465.00
DISCCART    439714.00   3765465.00
DISCCART    439719.00   3765465.00
DISCCART    439729.00   3765465.00
DISCCART    439734.00   3765465.00
DISCCART    439739.00   3765465.00
DISCCART    439744.00   3765465.00
DISCCART    439749.00   3765465.00
DISCCART    439789.00   3765465.00
DISCCART    439794.00   3765465.00
DISCCART    439799.00   3765465.00
DISCCART    439804.00   3765465.00
DISCCART    439809.00   3765465.00
DISCCART    439814.00   3765465.00
DISCCART    439819.00   3765465.00
DISCCART    439824.00   3765465.00
DISCCART    439829.00   3765465.00
DISCCART    439844.00   3765465.00
DISCCART    439849.00   3765465.00
DISCCART    439854.00   3765465.00
DISCCART    439859.00   3765465.00
DISCCART    439674.00   3765470.00
DISCCART    439679.00   3765470.00
DISCCART    439684.00   3765470.00
DISCCART    439689.00   3765470.00
DISCCART    439694.00   3765470.00
DISCCART    439699.00   3765470.00
DISCCART    439704.00   3765470.00
DISCCART    439709.00   3765470.00
DISCCART    439714.00   3765470.00
DISCCART    439719.00   3765470.00
DISCCART    439729.00   3765470.00
DISCCART    439734.00   3765470.00
DISCCART    439739.00   3765470.00
DISCCART    439744.00   3765470.00
DISCCART    439749.00   3765470.00
DISCCART    439789.00   3765470.00
DISCCART    439794.00   3765470.00
DISCCART    439799.00   3765470.00
```

```
   DISCCART    439804.00   3765470.00
   DISCCART    439809.00   3765470.00
   DISCCART    439814.00   3765470.00
   DISCCART    439819.00   3765470.00
   DISCCART    439824.00   3765470.00
   DISCCART    439829.00   3765470.00
   DISCCART    439844.00   3765470.00
   DISCCART    439849.00   3765470.00
   DISCCART    439854.00   3765470.00
   DISCCART    439859.00   3765470.00
   DISCCART    439674.00   3765475.00
   DISCCART    439679.00   3765475.00
   DISCCART    439684.00   3765475.00
   DISCCART    439689.00   3765475.00
   DISCCART    439694.00   3765475.00
   DISCCART    439699.00   3765475.00
   DISCCART    439704.00   3765475.00
   DISCCART    439709.00   3765475.00
   DISCCART    439714.00   3765475.00
   DISCCART    439719.00   3765475.00
   DISCCART    439729.00   3765475.00
   DISCCART    439734.00   3765475.00
   DISCCART    439739.00   3765475.00
   DISCCART    439744.00   3765475.00
   DISCCART    439749.00   3765475.00
   DISCCART    439754.00   3765475.00
   DISCCART    439789.00   3765475.00
   DISCCART    439794.00   3765475.00
   DISCCART    439799.00   3765475.00
   DISCCART    439804.00   3765475.00
   DISCCART    439809.00   3765475.00
   DISCCART    439814.00   3765475.00
   DISCCART    439819.00   3765475.00
   DISCCART    439824.00   3765475.00
   DISCCART    439829.00   3765475.00
** DESCRREC "UCART03" "Receptors generated from Uniform Cartesian
Grid"
   DISCCART    439269.00   3764900.00
   DISCCART    439369.00   3764900.00
   DISCCART    439469.00   3764900.00
   DISCCART    439569.00   3764900.00
   DISCCART    439669.00   3764900.00
   DISCCART    439769.00   3764900.00
   DISCCART    439869.00   3764900.00
   DISCCART    439969.00   3764900.00
   DISCCART    440069.00   3764900.00
   DISCCART    440169.00   3764900.00
   DISCCART    440269.00   3764900.00
   DISCCART    439269.00   3765000.00
   DISCCART    439369.00   3765000.00
   DISCCART    439469.00   3765000.00
   DISCCART    439569.00   3765000.00
```

```
DISCCART    439669.00   3765000.00
DISCCART    439769.00   3765000.00
DISCCART    439869.00   3765000.00
DISCCART    439969.00   3765000.00
DISCCART    440069.00   3765000.00
DISCCART    440169.00   3765000.00
DISCCART    440269.00   3765000.00
DISCCART    439269.00   3765100.00
DISCCART    439369.00   3765100.00
DISCCART    439469.00   3765100.00
DISCCART    439569.00   3765100.00
DISCCART    439669.00   3765100.00
DISCCART    439769.00   3765100.00
DISCCART    439869.00   3765100.00
DISCCART    439969.00   3765100.00
DISCCART    440069.00   3765100.00
DISCCART    440169.00   3765100.00
DISCCART    440269.00   3765100.00
DISCCART    439269.00   3765200.00
DISCCART    439369.00   3765200.00
DISCCART    439469.00   3765200.00
DISCCART    439569.00   3765200.00
DISCCART    439669.00   3765200.00
DISCCART    439769.00   3765200.00
DISCCART    439869.00   3765200.00
DISCCART    439969.00   3765200.00
DISCCART    440069.00   3765200.00
DISCCART    440169.00   3765200.00
DISCCART    440269.00   3765200.00
DISCCART    439269.00   3765300.00
DISCCART    439369.00   3765300.00
DISCCART    439469.00   3765300.00
DISCCART    439569.00   3765300.00
DISCCART    439669.00   3765300.00
DISCCART    439769.00   3765300.00
DISCCART    439869.00   3765300.00
DISCCART    439969.00   3765300.00
DISCCART    440069.00   3765300.00
DISCCART    440169.00   3765300.00
DISCCART    440269.00   3765300.00
DISCCART    439269.00   3765400.00
DISCCART    439369.00   3765400.00
DISCCART    439469.00   3765400.00
DISCCART    439569.00   3765400.00
DISCCART    439669.00   3765400.00
DISCCART    439769.00   3765400.00
DISCCART    439869.00   3765400.00
DISCCART    439969.00   3765400.00
DISCCART    440069.00   3765400.00
DISCCART    440169.00   3765400.00
DISCCART    440269.00   3765400.00
DISCCART    439269.00   3765500.00
```

DISCCART	439369.00	3765500.00
DISCCART	439469.00	3765500.00
DISCCART	439569.00	3765500.00
DISCCART	439669.00	3765500.00
DISCCART	439769.00	3765500.00
DISCCART	439869.00	3765500.00
DISCCART	439969.00	3765500.00
DISCCART	440069.00	3765500.00
DISCCART	440169.00	3765500.00
DISCCART	440269.00	3765500.00
DISCCART	439269.00	3765600.00
DISCCART	439369.00	3765600.00
DISCCART	439469.00	3765600.00
DISCCART	439569.00	3765600.00
DISCCART	439669.00	3765600.00
DISCCART	439769.00	3765600.00
DISCCART	439869.00	3765600.00
DISCCART	439969.00	3765600.00
DISCCART	440069.00	3765600.00
DISCCART	440169.00	3765600.00
DISCCART	440269.00	3765600.00
DISCCART	439269.00	3765700.00
DISCCART	439369.00	3765700.00
DISCCART	439469.00	3765700.00
DISCCART	439569.00	3765700.00
DISCCART	439669.00	3765700.00
DISCCART	439769.00	3765700.00
DISCCART	439869.00	3765700.00
DISCCART	439969.00	3765700.00
DISCCART	440069.00	3765700.00
DISCCART	440169.00	3765700.00
DISCCART	440269.00	3765700.00
DISCCART	439269.00	3765800.00
DISCCART	439369.00	3765800.00
DISCCART	439469.00	3765800.00
DISCCART	439569.00	3765800.00
DISCCART	439669.00	3765800.00
DISCCART	439769.00	3765800.00
DISCCART	439869.00	3765800.00
DISCCART	439969.00	3765800.00
DISCCART	440069.00	3765800.00
DISCCART	440169.00	3765800.00
DISCCART	440269.00	3765800.00
DISCCART	439269.00	3765900.00
DISCCART	439369.00	3765900.00
DISCCART	439469.00	3765900.00
DISCCART	439569.00	3765900.00
DISCCART	439669.00	3765900.00
DISCCART	439769.00	3765900.00
DISCCART	439869.00	3765900.00
DISCCART	439969.00	3765900.00
DISCCART	440069.00	3765900.00

```
   DISCCART    440169.00   3765900.00
   DISCCART    440269.00   3765900.00
** DESCRREC "UCART02" "Receptors generated from Uniform Cartesian
Grid"
   DISCCART    439649.00   3765310.00
   DISCCART    439679.00   3765310.00
   DISCCART    439709.00   3765310.00
   DISCCART    439739.00   3765310.00
   DISCCART    439769.00   3765310.00
   DISCCART    439799.00   3765310.00
   DISCCART    439829.00   3765310.00
   DISCCART    439859.00   3765310.00
   DISCCART    439889.00   3765310.00
   DISCCART    439649.00   3765340.00
   DISCCART    439679.00   3765340.00
   DISCCART    439709.00   3765340.00
   DISCCART    439739.00   3765340.00
   DISCCART    439769.00   3765340.00
   DISCCART    439799.00   3765340.00
   DISCCART    439829.00   3765340.00
   DISCCART    439859.00   3765340.00
   DISCCART    439889.00   3765340.00
   DISCCART    439649.00   3765370.00
   DISCCART    439679.00   3765370.00
   DISCCART    439709.00   3765370.00
   DISCCART    439739.00   3765370.00
   DISCCART    439769.00   3765370.00
   DISCCART    439799.00   3765370.00
   DISCCART    439829.00   3765370.00
   DISCCART    439859.00   3765370.00
   DISCCART    439889.00   3765370.00
   DISCCART    439649.00   3765400.00
   DISCCART    439679.00   3765400.00
   DISCCART    439709.00   3765400.00
   DISCCART    439739.00   3765400.00
   DISCCART    439769.00   3765400.00
   DISCCART    439799.00   3765400.00
   DISCCART    439829.00   3765400.00
   DISCCART    439859.00   3765400.00
   DISCCART    439889.00   3765400.00
   DISCCART    439649.00   3765430.00
   DISCCART    439679.00   3765430.00
   DISCCART    439709.00   3765430.00
   DISCCART    439739.00   3765430.00
   DISCCART    439769.00   3765430.00
   DISCCART    439799.00   3765430.00
   DISCCART    439829.00   3765430.00
   DISCCART    439859.00   3765430.00
   DISCCART    439889.00   3765430.00
   DISCCART    439649.00   3765460.00
   DISCCART    439679.00   3765460.00
   DISCCART    439709.00   3765460.00
```

```
   DISCCART    439739.00   3765460.00
   DISCCART    439769.00   3765460.00
   DISCCART    439799.00   3765460.00
   DISCCART    439829.00   3765460.00
   DISCCART    439859.00   3765460.00
   DISCCART    439889.00   3765460.00
   DISCCART    439649.00   3765490.00
   DISCCART    439679.00   3765490.00
   DISCCART    439709.00   3765490.00
   DISCCART    439739.00   3765490.00
   DISCCART    439769.00   3765490.00
   DISCCART    439799.00   3765490.00
   DISCCART    439829.00   3765490.00
   DISCCART    439859.00   3765490.00
   DISCCART    439889.00   3765490.00
RE FINISHED
**
****************************************
** AERMOD Meteorology Pathway
****************************************
**
**
ME STARTING
   SURFFILE "C:\Users\sjremote\Desktop\Ontario_PUD-Legacy
\OntarioIntlAirportADJU (1)\KONT_V9_ADJU\KONT_v9.SFC"
   PROFFILE "C:\Users\sjremote\Desktop\Ontario_PUD-Legacy
\OntarioIntlAirportADJU (1)\KONT_V9_ADJU\KONT_v9.PFL"
   SURFDATA 3102 2012 Ontario_Apt
   UAIRDATA 3190 2012
   PROFBASE 289.0 METERS
ME FINISHED
**
****************************************
** AERMOD Output Pathway
****************************************
**
**
OU STARTING
   RECTABLE ALLAVE 1ST
   RECTABLE 1 1ST
** Auto-Generated Plotfiles
   PLOTFILE 1 ALL 1ST ONTARIO_PUD-LEGACY_OPS-HRA-DPM_20221005.AD
\01H1GALL.PLT 31
   PLOTFILE 1 Exh 1ST ONTARIO_PUD-LEGACY_OPS-HRA-DPM_20221005.AD
\01H1G001.PLT 32
   PLOTFILE 1 FreeExh 1ST ONTARIO_PUD-LEGACY_OPS-HRA-DPM_
20221005.AD\01H1G002.PLT 33
   PLOTFILE 1 OnOffExh 1ST ONTARIO_PUD-LEGACY_OPS-HRA-DPM_
20221005.AD\01H1G003.PLT 34
   PLOTFILE PERIOD ALL ONTARIO_PUD-LEGACY_OPS-HRA-DPM_20221005.AD
\PE00GALL.PLT 35
   PLOTFILE PERIOD Exh ONTARIO_PUD-LEGACY_OPS-HRA-DPM_20221005.AD
```

```
\PE00G001.PLT 36
   PLOTFILE PERIOD FreeExh ONTARIO_PUD-LEGACY_OPS-HRA-DPM_
20221005.AD\PE00G002.PLT 37
   PLOTFILE PERIOD OnOffExh ONTARIO_PUD-LEGACY_OPS-HRA-DPM_
20221005.AD\PE00G003.PLT 38
   SUMMFILE Ontario_PUD-Legacy_Ops-HRA-DPM_20221005.sum
OU FINISHED


  *** Message Summary For AERMOD Model Setup ***

  --------- Summary of Total Messages --------

 A Total of            0 Fatal Error Message(s)
 A Total of            2 Warning Message(s)
 A Total of            0 Informational Message(s)


    ******** FATAL ERROR MESSAGES ********
               ***  NONE  ***


    ********   WARNING MESSAGES   ********
 ME W186    1734       MEOPEN: THRESH_1MIN 1-min ASOS wind speed
threshold used           0.50
 ME W187    1734       MEOPEN: ADJ_U* Option for Stable Low Winds
used in AERMET

 *********************************
 *** SETUP Finishes Successfully ***
 *********************************
```

```
 *** AERMOD - VERSION 21112  ***   *** C:\Lakes\Ontario_PUD-
Legacy_Ops-HRA_20221004\Ontario_PUD-Legacy_Ops- ***
10/05/22
 *** AERMET - VERSION  16216 ***   ***
***        12:31:02

PAGE   1
 *** MODELOPTs:    NonDFAULT  CONC  FLAT  URBAN  ADJ_U*

                                              ***     MODEL SETUP
OPTIONS SUMMARY       ***
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

 **Model Is Setup For Calculation of Average CONCentration
Values.

   --  DEPOSITION LOGIC  --
 **NO GAS DEPOSITION Data Provided.
 **NO PARTICLE DEPOSITION Data Provided.
 **Model Uses NO DRY DEPLETION.  DRYDPLT  =  F
 **Model Uses NO WET DEPLETION.  WETDPLT  =  F

 **Model Uses URBAN Dispersion Algorithm for the SBL for    66
Source(s),
   for Total of    1 Urban Area(s):
   Urban Population =   2035210.0 ;  Urban Roughness Length =
1.000 m

 **Model Allows User-Specified Options:
         1. Stack-tip Downwash.
         2. Model Assumes Receptors on FLAT Terrain.
         3. Use Calms Processing Routine.
         4. Use Missing Data Processing Routine.
         5. No Exponential Decay.
         6. Urban Roughness Length of 1.0 Meter Used.

 **Other Options Specified:
         ADJ_U*   - Use ADJ_U* option for SBL in AERMET
         CCVR_Sub - Meteorological data includes CCVR
substitutions
         TEMP_Sub - Meteorological data includes TEMP
substitutions

 **Model Assumes No FLAGPOLE Receptor Heights.

 **The User Specified a Pollutant Type of:  PM_10

 **Model Calculates  1 Short Term Average(s) of:   1-HR
     and Calculates PERIOD Averages

 **This Run Includes:     66 Source(s);       4 Source Group(s);
```

```
and    1115 Receptor(s)

                with:      0 POINT(s), including
                           0 POINTCAP(s) and      0 POINTHOR(s)
                 and:      0 VOLUME source(s)
                 and:     66 AREA type source(s)
                 and:      0 LINE source(s)
                 and:      0 RLINE/RLINEXT source(s)
                 and:      0 OPENPIT source(s)
                 and:      0 BUOYANT LINE source(s) with a total
of     0 line(s)


 **Model Set To Continue RUNning After the Setup Testing.

 **The AERMET Input Meteorological Data Version Date:  16216

 **Output Options Selected:
          Model Outputs Tables of PERIOD Averages by Receptor
          Model Outputs Tables of Highest Short Term Values by
Receptor (RECTABLE Keyword)
          Model Outputs External File(s) of High Values for
Plotting (PLOTFILE Keyword)
          Model Outputs Separate Summary File of High Ranked
Values (SUMMFILE Keyword)

 **NOTE:  The Following Flags May Appear Following CONC Values:
c for Calm Hours

m for Missing Hours

b for Both Calm and Missing Hours

 **Misc. Inputs:  Base Elev. for Pot. Temp. Profile (m MSL) =
289.00 ;  Decay Coef. =    0.000     ;  Rot. Angle =     0.0
                  Emission Units =
GRAMS/SEC                                  ;  Emission Rate Unit
Factor =   0.10000E+07
                  Output Units   = MICROGRAMS/M**3

 **Approximate Storage Requirements of Model =      3.8 MB of
RAM.

 **Input Runstream File:          aermod.inp
 **Output Print File:             aermod.out

 **Detailed Error/Message File:   Ontario_PUD-Legacy_Ops-HRA-DPM_
20221005.err
 **File for Summary of Results:   Ontario_PUD-Legacy_Ops-HRA-DPM_
20221005.sum
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** AREA SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC /METER**2)	COORD (SW CORNER) X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	X-DIM OF AREA (METERS)	Y-DIM OF AREA (METERS)	ORIENT. OF AREA (DEG.)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
A0000012	0	0.30732E-04	440650.1	3765736.5	289.0	3.40	176.76	18.29	-179.52	3.20	YES	HROFDY
A0000013	0	0.30732E-04	440473.4	3765738.0	289.0	3.40	176.76	18.29	-179.52	3.20	YES	HROFDY
A0000014	0	0.30732E-04	440296.6	3765739.5	289.0	3.40	176.76	18.29	-179.52	3.20	YES	HROFDY
A0000015	0	0.30732E-04	440119.8	3765740.9	289.0	3.40	152.62	18.29	-179.86	3.20	YES	HROFDY
A0000016	0	0.30732E-04	439967.2	3765741.3	289.0	3.40	152.62	18.29	-179.86	3.20	YES	HROFDY
A0000017	0	0.30732E-04	439814.6	3765741.7	289.0	3.40	152.62	18.29	-179.86	3.20	YES	HROFDY
A0000018	0	0.30732E-04	439661.9	3765742.1	289.0	3.40	163.56	18.29	-179.87	3.20	YES	HROFDY
A0000019	0	0.30732E-04	439498.4	3765742.5	289.0	3.40	163.56	18.29	-179.87	3.20	YES	HROFDY
A0000020	0	0.30732E-04	439334.8	3765742.8	289.0	3.40	163.56	18.29	-179.87	3.20	YES	HROFDY
A0000021	0	0.30732E-04	439171.2	3765743.2	289.0	3.40	150.13	18.29	179.63	3.20	YES	HROFDY
A0000022	0	0.30732E-04	439021.1	3765742.2	289.0	3.40	150.13	18.29	179.63	3.20	YES	HROFDY
A0000001	0	0.30748E-04	438872.2	3765704.7	289.0	3.40	174.70	18.29	0.36	3.20	YES	HROFDY
A0000002	0	0.30748E-04	439046.9	3765703.5	289.0	3.40	174.70	18.29	0.36	3.20	YES	HROFDY
A0000003	0	0.30748E-04	439221.6	3765702.4	289.0							

```
3.40    174.70     18.29      0.36     3.20     YES   HROFDY
 A0000004         0   0.30748E-04  439396.3 3765701.3   289.0
3.40    174.70     18.29      0.36     3.20     YES   HROFDY
 A0000005         0   0.30748E-04  439571.0 3765700.2   289.0
3.40    173.93     18.29      0.19     3.20     YES   HROFDY
 A0000006         0   0.30748E-04  439744.9 3765699.6   289.0
3.40    172.78     18.29      0.07     3.20     YES   HROFDY
 A0000007         0   0.30748E-04  439917.7 3765699.4   289.0
3.40    172.78     18.29      0.07     3.20     YES   HROFDY
 A0000008         0   0.30748E-04  440090.5 3765699.2   289.0
3.40    157.42     18.29      0.00     3.20     YES   HROFDY
 A0000009         0   0.30748E-04  440247.9 3765699.2   289.0
3.40    157.42     18.29      0.00     3.20     YES   HROFDY
 A0000010         0   0.30748E-04  440405.4 3765699.2   289.0
3.40    122.75     18.29     -0.64     3.20     YES   HROFDY
 A0000011         0   0.30748E-04  440528.2 3765700.6   289.0
3.40    122.75     18.29     -0.64     3.20     YES   HROFDY
 A0000023         0   0.53118E-03  439894.8 3765794.0   289.0
3.40     32.80      3.96    171.48     3.20     YES   HROFDY
 A0000024         0   0.53118E-03  439862.4 3765789.1   289.0
3.40     32.80      3.96    171.48     3.20     YES   HROFDY
 A0000025         0   0.53118E-03  439830.0 3765784.3   289.0
3.40     38.31      3.96    171.96     3.20     YES   HROFDY
 A0000026         0   0.53118E-03  439792.0 3765778.9   289.0
3.40     38.31      3.96    171.96     3.20     YES   HROFDY
 A0000027         0   0.53118E-03  439754.1 3765773.6   289.0
3.40     38.31      3.96    171.96     3.20     YES   HROFDY
 A0000028         0   0.53118E-03  439716.2 3765768.2   289.0
3.40     38.31      3.96    171.96     3.20     YES   HROFDY
 A0000029         0   0.53118E-03  439678.2 3765762.8   289.0
3.40     38.31      3.96    171.96     3.20     YES   HROFDY
 A0000030         0   0.53118E-03  439640.3 3765757.5   289.0
3.40     38.31      3.96    171.96     3.20     YES   HROFDY
 A0000031         0   0.53118E-03  439602.5 3765752.1   289.0
3.40     23.20      3.96    175.65     3.20     YES   HROFDY
 A0000032         0   0.53118E-03  439579.4 3765750.4   289.0
3.40     23.20      3.96    175.65     3.20     YES   HROFDY
 A0000033         0   0.53118E-03  439556.3 3765748.6   289.0
3.40     39.05      3.96    178.51     3.20     YES   HROFDY
 A0000034         0   0.53118E-03  439517.3 3765747.6   289.0
3.40     39.05      3.96    178.51     3.20     YES   HROFDY
 A0000035         0   0.53118E-03  439478.2 3765746.6   289.0
3.40     27.56      3.96    178.03     3.20     YES   HROFDY
 A0000036         0   0.53118E-03  439450.7 3765745.6   289.0
3.40     27.56      3.96    178.03     3.20     YES   HROFDY
 A0000037         0   0.30079E-03  439896.1 3765649.5   289.0
3.40     39.04      7.62   -169.43     3.20     YES   HROFDY
 A0000038         0   0.30079E-03  439857.7 3765656.6   289.0
3.40     39.04      7.62   -169.43     3.20     YES   HROFDY
 A0000039         0   0.30079E-03  439819.3 3765663.8   289.0
3.40     64.28      7.62   -169.30     3.20     YES   HROFDY
 A0000040         0   0.30079E-03  439755.9 3765675.8   289.0
```

3.40	46.57	7.62	-174.26	3.20	YES	HROFDY

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** AREA SOURCE DATA ***

RELEASE	X-DIM	Y-DIM	ORIENT.	INIT.	URBAN	EMISSION RATE
SOURCE ID	PART. CATS.	(GRAMS/SEC /METER**2)	X (METERS)	Y (METERS)	ELEV. (METERS)	
HEIGHT (METERS)	OF AREA (METERS)	OF AREA (METERS)	OF AREA (DEG.)	SZ (METERS)	SOURCE	SCALAR BY
A0000041	0	0.30079E-03	439709.5	3765680.5	289.0	
3.40	46.57	7.62	-174.26	3.20	YES	HROFDY
A0000042	0	0.30079E-03	439663.2	3765685.1	289.0	
3.40	66.93	7.62	-174.23	3.20	YES	HROFDY
A0000043	0	0.30079E-03	439596.6	3765691.8	289.0	
3.40	66.93	7.62	-174.23	3.20	YES	HROFDY
A0000044	0	0.30079E-03	439530.0	3765698.6	289.0	
3.40	66.93	7.62	-174.23	3.20	YES	HROFDY
A0000045	0	0.49659E-03	439941.6	3765643.3	289.0	
3.40	26.12	3.96	-8.23	3.20	YES	HROFDY
A0000046	0	0.49659E-03	439967.4	3765647.1	289.0	
3.40	26.12	3.96	-8.23	3.20	YES	HROFDY
A0000047	0	0.49659E-03	439993.3	3765650.8	289.0	
3.40	32.84	3.96	-7.40	3.20	YES	HROFDY
A0000048	0	0.49659E-03	440025.8	3765655.0	289.0	
3.40	32.84	3.96	-7.40	3.20	YES	HROFDY
A0000049	0	0.49659E-03	440058.4	3765659.3	289.0	
3.40	32.84	3.96	-7.40	3.20	YES	HROFDY
A0000050	0	0.49659E-03	440091.0	3765663.5	289.0	
3.40	32.84	3.96	-7.40	3.20	YES	HROFDY
A0000051	0	0.49659E-03	440123.5	3765667.7	289.0	
3.40	32.84	3.96	-7.40	3.20	YES	HROFDY
A0000052	0	0.49659E-03	440156.1	3765672.0	289.0	
3.40	37.89	3.96	-7.15	3.20	YES	HROFDY
A0000053	0	0.49659E-03	440193.7	3765676.7	289.0	
3.40	37.89	3.96	-7.15	3.20	YES	HROFDY
A0000054	0	0.49659E-03	440231.3	3765681.4	289.0	

```
3.40     37.89      3.96     -7.15     3.20     YES   HROFDY
 A0000055         0   0.49659E-03  440268.7 3765686.1   289.0
3.40     26.94      3.96     -3.79     3.20     YES   HROFDY
 A0000056         0   0.49659E-03  440295.6 3765687.9   289.0
3.40     26.94      3.96     -3.79     3.20     YES   HROFDY
 A0000057         0   0.49659E-03  440322.4 3765689.7   289.0
3.40     32.28      3.96     -1.87     3.20     YES   HROFDY
 A0000058         0   0.49659E-03  440354.7 3765690.7   289.0
3.40     30.65      3.96     -1.70     3.20     YES   HROFDY
 A0000059         0   0.49659E-03  440385.3 3765691.6   289.0
3.40     30.65      3.96     -1.70     3.20     YES   HROFDY
 A0000060         0   0.49659E-03  440416.0 3765692.5   289.0
3.40     30.65      3.96     -1.70     3.20     YES   HROFDY
 A0000061         0   0.18975E-03  440393.2 3765744.6   289.0
3.40     82.20     11.58   -174.12     3.20     YES   HROFDY
 A0000062         0   0.18975E-03  440311.4 3765753.0   289.0
3.40     86.40     11.58   -174.17     3.20     YES   HROFDY
 A0000063         0   0.18975E-03  440225.4 3765761.8   289.0
3.40     87.63     11.58   -175.26     3.20     YES   HROFDY
 A0000064         0   0.18975E-03  440138.2 3765769.0   289.0
3.40     35.21     11.58   -173.24     3.20     YES   HROFDY
 A0000065         0   0.18975E-03  440103.5 3765773.1   289.0
3.40     81.78     11.58   -171.16     3.20     YES   HROFDY
 A0000066         0   0.18975E-03  440022.7 3765785.7   289.0
3.40     81.78     11.58   -171.16     3.20     YES   HROFDY
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** SOURCE IDs DEFINING SOURCE GROUPS ***

SRCGROUP ID	SOURCE IDs
EXH	A0000012 , A0000013 , A0000014 , A0000015 , A0000016 , A0000017 , A0000018 , A0000019 ,
	A0000020 , A0000021 , A0000022 , A0000001 , A0000002 , A0000003 , A0000004 , A0000005 ,
	A0000006 , A0000007 , A0000008 , A0000009 , A0000010 , A0000011 , A0000023 , A0000024 ,
	A0000025 , A0000026 , A0000027 , A0000028 , A0000029 , A0000030 , A0000031 , A0000032 ,
	A0000033 , A0000034 , A0000035 , A0000036 , A0000037 , A0000038 , A0000039 , A0000040 ,
	A0000041 , A0000042 , A0000043 , A0000044 , A0000045 , A0000046 , A0000047 , A0000048 ,
	A0000049 , A0000050 , A0000051 , A0000052 , A0000053 , A0000054 , A0000055 , A0000056 ,
	A0000057 , A0000058 , A0000059 , A0000060 , A0000061 , A0000062 , A0000063 , A0000064 ,
	A0000065 , A0000066 ,

```
  FREEEXH    A0000012    , A0000013    , A0000014    ,
A0000015    , A0000016    , A0000017    , A0000018    ,
A0000019    ,

             A0000020    , A0000021    , A0000022    ,
A0000001    , A0000002    , A0000003    , A0000004    ,
A0000005    ,

             A0000006    , A0000007    , A0000008    ,
A0000009    , A0000010    , A0000011    ,

  ONOFFEXH   A0000023    , A0000024    , A0000025    ,
A0000026    , A0000027    , A0000028    , A0000029    ,
A0000030    ,

             A0000031    , A0000032    , A0000033    ,
A0000034    , A0000035    , A0000036    , A0000037    ,
A0000038    ,

             A0000039    , A0000040    , A0000041    ,
A0000042    , A0000043    , A0000044    , A0000045    ,
A0000046    ,

             A0000047    , A0000048    , A0000049    ,
A0000050    , A0000051    , A0000052    , A0000053    ,
A0000054    ,

             A0000055    , A0000056    , A0000057    ,
A0000058    , A0000059    , A0000060    , A0000061    ,
A0000062    ,

             A0000063    , A0000064    , A0000065    ,
A0000066    ,

  ALL        A0000012    , A0000013    , A0000014    ,
A0000015    , A0000016    , A0000017    , A0000018    ,
A0000019    ,

             A0000020    , A0000021    , A0000022    ,
A0000001    , A0000002    , A0000003    , A0000004    ,
A0000005    ,
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** SOURCE IDs DEFINING SOURCE GROUPS ***

SRCGROUP ID	SOURCE IDs
A0000006 , A0000007 , A0000008 , A0000009 , A0000010 , A0000011 , A0000023 , A0000024 ,	
A0000025 , A0000026 , A0000027 , A0000028 , A0000029 , A0000030 , A0000031 , A0000032 ,	
A0000033 , A0000034 , A0000035 , A0000036 , A0000037 , A0000038 , A0000039 , A0000040 ,	
A0000041 , A0000042 , A0000043 , A0000044 , A0000045 , A0000046 , A0000047 , A0000048 ,	
A0000049 , A0000050 , A0000051 , A0000052 , A0000053 , A0000054 , A0000055 , A0000056 ,	
A0000057 , A0000058 , A0000059 , A0000060 , A0000061 , A0000062 , A0000063 , A0000064 ,	
A0000065 , A0000066 ,	

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** SOURCE IDs DEFINED AS URBAN SOURCES ***

URBAN ID	URBAN POP	SOURCE IDs

2035210. A0000012 , A0000013 , A0000014 , A0000015 , A0000016 , A0000017 , A0000018 , A0000019 ,

A0000020 , A0000021 , A0000022 , A0000001 , A0000002 , A0000003 , A0000004 , A0000005 ,

A0000006 , A0000007 , A0000008 , A0000009 , A0000010 , A0000011 , A0000023 , A0000024 ,

A0000025 , A0000026 , A0000027 , A0000028 , A0000029 , A0000030 , A0000031 , A0000032 ,

A0000033 , A0000034 , A0000035 , A0000036 , A0000037 , A0000038 , A0000039 , A0000040 ,

A0000041 , A0000042 , A0000043 , A0000044 , A0000045 , A0000046 , A0000047 , A0000048 ,

A0000049 , A0000050 , A0000051 , A0000052 , A0000053 , A0000054 , A0000055 , A0000056 ,

A0000057 , A0000058 , A0000059 , A0000060 , A0000061 , A0000062 , A0000063 , A0000064 ,

A0000065 , A0000066 ,

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.27400E-02	2	.27100E-02	3	.26400E-02
4	.27200E-02	5	.33900E-02	6	.43000E-02
7	.54100E-02	8	.50200E-02	9	.59100E-02
10	.70600E-02	11	.74700E-02	12	.73100E-02
13	.69000E-02	14	.63000E-02	15	.49600E-02
16	.38300E-02	17	.28900E-02	18	.26200E-02
19	.32900E-02	20	.40200E-02	21	.42600E-02
22	.39800E-02	23	.38000E-02	24	.31400E-02

SOURCE ID = A0000012 ; SOURCE TYPE = AREA :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.27400E-02	2	.27100E-02	3	.26400E-02
4	.27200E-02	5	.33900E-02	6	.43000E-02
7	.54100E-02	8	.50200E-02	9	.59100E-02
10	.70600E-02	11	.74700E-02	12	.73100E-02
13	.69000E-02	14	.63000E-02	15	.49600E-02
16	.38300E-02	17	.28900E-02	18	.26200E-02
19	.32900E-02	20	.40200E-02	21	.42600E-02
22	.39800E-02	23	.38000E-02	24	.31400E-02

SOURCE ID = A0000013 ; SOURCE TYPE = AREA :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.27400E-02	2	.27100E-02	3	.26400E-02
4	.27200E-02	5	.33900E-02	6	.43000E-02
7	.54100E-02	8	.50200E-02	9	.59100E-02
10	.70600E-02	11	.74700E-02	12	.73100E-02
13	.69000E-02	14	.63000E-02	15	.49600E-02
16	.38300E-02	17	.28900E-02	18	.26200E-02
19	.32900E-02	20	.40200E-02	21	.42600E-02
22	.39800E-02	23	.38000E-02	24	.31400E-02

SOURCE ID = A0000014 ; SOURCE TYPE = AREA :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.27400E-02	2	.27100E-02	3	.26400E-02
4	.27200E-02	5	.33900E-02	6	.43000E-02
7	.54100E-02	8	.50200E-02	9	.59100E-02
10	.70600E-02	11	.74700E-02	12	.73100E-02
13	.69000E-02	14	.63000E-02	15	.49600E-02
16	.38300E-02	17	.28900E-02	18	.26200E-02
19	.32900E-02	20	.40200E-02	21	.42600E-02
22	.39800E-02	23	.38000E-02	24	.31400E-02

SOURCE ID = A0000015 ; SOURCE TYPE = AREA :

```
       1   .27400E-02      2   .27100E-02      3   .26400E-02
4   .27200E-02      5   .33900E-02      6   .43000E-02
       7   .54100E-02      8   .50200E-02      9   .59100E-02
10   .70600E-02     11   .74700E-02     12   .73100E-02
      13   .69000E-02     14   .63000E-02     15   .49600E-02
16   .38300E-02     17   .28900E-02     18   .26200E-02
      19   .32900E-02     20   .40200E-02     21   .42600E-02
22   .39800E-02     23   .38000E-02     24   .31400E-02


 SOURCE ID = A0000016     ; SOURCE TYPE = AREA     :
       1   .27400E-02      2   .27100E-02      3   .26400E-02
4   .27200E-02      5   .33900E-02      6   .43000E-02
       7   .54100E-02      8   .50200E-02      9   .59100E-02
10   .70600E-02     11   .74700E-02     12   .73100E-02
      13   .69000E-02     14   .63000E-02     15   .49600E-02
16   .38300E-02     17   .28900E-02     18   .26200E-02
      19   .32900E-02     20   .40200E-02     21   .42600E-02
22   .39800E-02     23   .38000E-02     24   .31400E-02
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.27400E-02	2	.27100E-02	3	.26400E-02
4	.27200E-02	5	.33900E-02	6	.43000E-02
7	.54100E-02	8	.50200E-02	9	.59100E-02
10	.70600E-02	11	.74700E-02	12	.73100E-02
13	.69000E-02	14	.63000E-02	15	.49600E-02
16	.38300E-02	17	.28900E-02	18	.26200E-02
19	.32900E-02	20	.40200E-02	21	.42600E-02
22	.39800E-02	23	.38000E-02	24	.31400E-02

SOURCE ID = A0000017 ; SOURCE TYPE = AREA :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.27400E-02	2	.27100E-02	3	.26400E-02
4	.27200E-02	5	.33900E-02	6	.43000E-02
7	.54100E-02	8	.50200E-02	9	.59100E-02
10	.70600E-02	11	.74700E-02	12	.73100E-02
13	.69000E-02	14	.63000E-02	15	.49600E-02
16	.38300E-02	17	.28900E-02	18	.26200E-02
19	.32900E-02	20	.40200E-02	21	.42600E-02
22	.39800E-02	23	.38000E-02	24	.31400E-02

SOURCE ID = A0000018 ; SOURCE TYPE = AREA :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.27400E-02	2	.27100E-02	3	.26400E-02
4	.27200E-02	5	.33900E-02	6	.43000E-02
7	.54100E-02	8	.50200E-02	9	.59100E-02
10	.70600E-02	11	.74700E-02	12	.73100E-02
13	.69000E-02	14	.63000E-02	15	.49600E-02
16	.38300E-02	17	.28900E-02	18	.26200E-02
19	.32900E-02	20	.40200E-02	21	.42600E-02
22	.39800E-02	23	.38000E-02	24	.31400E-02

SOURCE ID = A0000019 ; SOURCE TYPE = AREA :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.27400E-02	2	.27100E-02	3	.26400E-02
4	.27200E-02	5	.33900E-02	6	.43000E-02
7	.54100E-02	8	.50200E-02	9	.59100E-02
10	.70600E-02	11	.74700E-02	12	.73100E-02
13	.69000E-02	14	.63000E-02	15	.49600E-02
16	.38300E-02	17	.28900E-02	18	.26200E-02
19	.32900E-02	20	.40200E-02	21	.42600E-02
22	.39800E-02	23	.38000E-02	24	.31400E-02

SOURCE ID = A0000020 ; SOURCE TYPE = AREA :

```
       1   .27400E-02      2   .27100E-02      3   .26400E-02
4   .27200E-02      5   .33900E-02      6   .43000E-02
       7   .54100E-02      8   .50200E-02      9   .59100E-02
10   .70600E-02     11   .74700E-02     12   .73100E-02
      13   .69000E-02     14   .63000E-02     15   .49600E-02
16   .38300E-02     17   .28900E-02     18   .26200E-02
      19   .32900E-02     20   .40200E-02     21   .42600E-02
22   .39800E-02     23   .38000E-02     24   .31400E-02


 SOURCE ID = A0000021     ; SOURCE TYPE = AREA     :
       1   .27400E-02      2   .27100E-02      3   .26400E-02
4   .27200E-02      5   .33900E-02      6   .43000E-02
       7   .54100E-02      8   .50200E-02      9   .59100E-02
10   .70600E-02     11   .74700E-02     12   .73100E-02
      13   .69000E-02     14   .63000E-02     15   .49600E-02
16   .38300E-02     17   .28900E-02     18   .26200E-02
      19   .32900E-02     20   .40200E-02     21   .42600E-02
22   .39800E-02     23   .38000E-02     24   .31400E-02
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.27400E-02	2	.27100E-02	3	.26400E-02
4	.27200E-02	5	.33900E-02	6	.43000E-02
7	.54100E-02	8	.50200E-02	9	.59100E-02
10	.70600E-02	11	.74700E-02	12	.73100E-02
13	.69000E-02	14	.63000E-02	15	.49600E-02
16	.38300E-02	17	.28900E-02	18	.26200E-02
19	.32900E-02	20	.40200E-02	21	.42600E-02
22	.39800E-02	23	.38000E-02	24	.31400E-02

SOURCE ID = A0000022 ; SOURCE TYPE = AREA :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.17200E-01	2	.12400E-01	3	.10800E-01
4	.12600E-01	5	.20300E-01	6	.34000E-01
7	.43100E-01	8	.45700E-01	9	.43900E-01
10	.41400E-01	11	.42000E-01	12	.43900E-01
13	.46300E-01	14	.48300E-01	15	.50100E-01
16	.49100E-01	17	.50800E-01	18	.50600E-01
19	.47200E-01	20	.45900E-01	21	.41700E-01
22	.40800E-01	23	.33400E-01	24	.24800E-01

SOURCE ID = A0000001 ; SOURCE TYPE = AREA :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.17200E-01	2	.12400E-01	3	.10800E-01
4	.12600E-01	5	.20300E-01	6	.34000E-01
7	.43100E-01	8	.45700E-01	9	.43900E-01
10	.41400E-01	11	.42000E-01	12	.43900E-01
13	.46300E-01	14	.48300E-01	15	.50100E-01
16	.49100E-01	17	.50800E-01	18	.50600E-01
19	.47200E-01	20	.45900E-01	21	.41700E-01
22	.40800E-01	23	.33400E-01	24	.24800E-01

SOURCE ID = A0000002 ; SOURCE TYPE = AREA :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.17200E-01	2	.12400E-01	3	.10800E-01
4	.12600E-01	5	.20300E-01	6	.34000E-01
7	.43100E-01	8	.45700E-01	9	.43900E-01
10	.41400E-01	11	.42000E-01	12	.43900E-01
13	.46300E-01	14	.48300E-01	15	.50100E-01
16	.49100E-01	17	.50800E-01	18	.50600E-01
19	.47200E-01	20	.45900E-01	21	.41700E-01
22	.40800E-01	23	.33400E-01	24	.24800E-01

SOURCE ID = A0000003 ; SOURCE TYPE = AREA :

```
       1   .17200E-01      2   .12400E-01      3   .10800E-01
4   .12600E-01      5   .20300E-01      6   .34000E-01
       7   .43100E-01      8   .45700E-01      9   .43900E-01
10   .41400E-01     11   .42000E-01     12   .43900E-01
      13   .46300E-01     14   .48300E-01     15   .50100E-01
16   .49100E-01     17   .50800E-01     18   .50600E-01
      19   .47200E-01     20   .45900E-01     21   .41700E-01
22   .40800E-01     23   .33400E-01     24   .24800E-01


 SOURCE ID = A0000004     ; SOURCE TYPE = AREA     :
       1   .17200E-01      2   .12400E-01      3   .10800E-01
4   .12600E-01      5   .20300E-01      6   .34000E-01
       7   .43100E-01      8   .45700E-01      9   .43900E-01
10   .41400E-01     11   .42000E-01     12   .43900E-01
      13   .46300E-01     14   .48300E-01     15   .50100E-01
16   .49100E-01     17   .50800E-01     18   .50600E-01
      19   .47200E-01     20   .45900E-01     21   .41700E-01
22   .40800E-01     23   .33400E-01     24   .24800E-01
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.17200E-01	2	.12400E-01	3	.10800E-01
4	.12600E-01	5	.20300E-01	6	.34000E-01
7	.43100E-01	8	.45700E-01	9	.43900E-01
10	.41400E-01	11	.42000E-01	12	.43900E-01
13	.46300E-01	14	.48300E-01	15	.50100E-01
16	.49100E-01	17	.50800E-01	18	.50600E-01
19	.47200E-01	20	.45900E-01	21	.41700E-01
22	.40800E-01	23	.33400E-01	24	.24800E-01

SOURCE ID = A0000005 ; SOURCE TYPE = AREA :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.17200E-01	2	.12400E-01	3	.10800E-01
4	.12600E-01	5	.20300E-01	6	.34000E-01
7	.43100E-01	8	.45700E-01	9	.43900E-01
10	.41400E-01	11	.42000E-01	12	.43900E-01
13	.46300E-01	14	.48300E-01	15	.50100E-01
16	.49100E-01	17	.50800E-01	18	.50600E-01
19	.47200E-01	20	.45900E-01	21	.41700E-01
22	.40800E-01	23	.33400E-01	24	.24800E-01

SOURCE ID = A0000006 ; SOURCE TYPE = AREA :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.17200E-01	2	.12400E-01	3	.10800E-01
4	.12600E-01	5	.20300E-01	6	.34000E-01
7	.43100E-01	8	.45700E-01	9	.43900E-01
10	.41400E-01	11	.42000E-01	12	.43900E-01
13	.46300E-01	14	.48300E-01	15	.50100E-01
16	.49100E-01	17	.50800E-01	18	.50600E-01
19	.47200E-01	20	.45900E-01	21	.41700E-01
22	.40800E-01	23	.33400E-01	24	.24800E-01

SOURCE ID = A0000007 ; SOURCE TYPE = AREA :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.17200E-01	2	.12400E-01	3	.10800E-01
4	.12600E-01	5	.20300E-01	6	.34000E-01
7	.43100E-01	8	.45700E-01	9	.43900E-01
10	.41400E-01	11	.42000E-01	12	.43900E-01
13	.46300E-01	14	.48300E-01	15	.50100E-01
16	.49100E-01	17	.50800E-01	18	.50600E-01
19	.47200E-01	20	.45900E-01	21	.41700E-01
22	.40800E-01	23	.33400E-01	24	.24800E-01

SOURCE ID = A0000008 ; SOURCE TYPE = AREA :

```
       1   .17200E-01      2   .12400E-01      3   .10800E-01
4   .12600E-01      5   .20300E-01      6   .34000E-01
       7   .43100E-01      8   .45700E-01      9   .43900E-01
10   .41400E-01     11   .42000E-01     12   .43900E-01
      13   .46300E-01     14   .48300E-01     15   .50100E-01
16   .49100E-01     17   .50800E-01     18   .50600E-01
      19   .47200E-01     20   .45900E-01     21   .41700E-01
22   .40800E-01     23   .33400E-01     24   .24800E-01


 SOURCE ID = A0000009     ; SOURCE TYPE = AREA     :
       1   .17200E-01      2   .12400E-01      3   .10800E-01
4   .12600E-01      5   .20300E-01      6   .34000E-01
       7   .43100E-01      8   .45700E-01      9   .43900E-01
10   .41400E-01     11   .42000E-01     12   .43900E-01
      13   .46300E-01     14   .48300E-01     15   .50100E-01
16   .49100E-01     17   .50800E-01     18   .50600E-01
      19   .47200E-01     20   .45900E-01     21   .41700E-01
22   .40800E-01     23   .33400E-01     24   .24800E-01
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.17200E-01	2	.12400E-01	3	.10800E-01
4	.12600E-01	5	.20300E-01	6	.34000E-01
7	.43100E-01	8	.45700E-01	9	.43900E-01
10	.41400E-01	11	.42000E-01	12	.43900E-01
13	.46300E-01	14	.48300E-01	15	.50100E-01
16	.49100E-01	17	.50800E-01	18	.50600E-01
19	.47200E-01	20	.45900E-01	21	.41700E-01
22	.40800E-01	23	.33400E-01	24	.24800E-01

SOURCE ID = A0000010 ; SOURCE TYPE = AREA :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.17200E-01	2	.12400E-01	3	.10800E-01
4	.12600E-01	5	.20300E-01	6	.34000E-01
7	.43100E-01	8	.45700E-01	9	.43900E-01
10	.41400E-01	11	.42000E-01	12	.43900E-01
13	.46300E-01	14	.48300E-01	15	.50100E-01
16	.49100E-01	17	.50800E-01	18	.50600E-01
19	.47200E-01	20	.45900E-01	21	.41700E-01
22	.40800E-01	23	.33400E-01	24	.24800E-01

SOURCE ID = A0000011 ; SOURCE TYPE = AREA :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.17200E-01	2	.12400E-01	3	.10800E-01
4	.12600E-01	5	.20300E-01	6	.34000E-01
7	.43100E-01	8	.45700E-01	9	.43900E-01
10	.41400E-01	11	.42000E-01	12	.43900E-01
13	.46300E-01	14	.48300E-01	15	.50100E-01
16	.49100E-01	17	.50800E-01	18	.50600E-01
19	.47200E-01	20	.45900E-01	21	.41700E-01
22	.40800E-01	23	.33400E-01	24	.24800E-01

SOURCE ID = A0000023 ; SOURCE TYPE = AREA :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.81700E-04	2	.56300E-04	3	.49400E-04
4	.88000E-04	5	.25100E-03	6	.39900E-03
7	.45000E-03	8	.51300E-03	9	.55400E-03
10	.56800E-03	11	.58700E-03	12	.61800E-03
13	.60300E-03	14	.58200E-03	15	.56500E-03
16	.54800E-03	17	.52800E-03	18	.51600E-03
19	.42100E-03	20	.32900E-03	21	.29700E-03
22	.25800E-03	23	.19100E-03	24	.12200E-03

SOURCE ID = A0000024 ; SOURCE TYPE = AREA :

```
       1   .81700E-04      2   .56300E-04      3   .49400E-04
4   .88000E-04      5   .25100E-03      6   .39900E-03
       7   .45000E-03      8   .51300E-03      9   .55400E-03
10   .56800E-03     11   .58700E-03     12   .61800E-03
      13   .60300E-03     14   .58200E-03     15   .56500E-03
16   .54800E-03     17   .52800E-03     18   .51600E-03
      19   .42100E-03     20   .32900E-03     21   .29700E-03
22   .25800E-03     23   .19100E-03     24   .12200E-03


 SOURCE ID = A0000025     ; SOURCE TYPE = AREA     :
       1   .81700E-04      2   .56300E-04      3   .49400E-04
4   .88000E-04      5   .25100E-03      6   .39900E-03
       7   .45000E-03      8   .51300E-03      9   .55400E-03
10   .56800E-03     11   .58700E-03     12   .61800E-03
      13   .60300E-03     14   .58200E-03     15   .56500E-03
16   .54800E-03     17   .52800E-03     18   .51600E-03
      19   .42100E-03     20   .32900E-03     21   .29700E-03
22   .25800E-03     23   .19100E-03     24   .12200E-03
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.81700E-04	2	.56300E-04	3	.49400E-04
4	.88000E-04	5	.25100E-03	6	.39900E-03
7	.45000E-03	8	.51300E-03	9	.55400E-03
10	.56800E-03	11	.58700E-03	12	.61800E-03
13	.60300E-03	14	.58200E-03	15	.56500E-03
16	.54800E-03	17	.52800E-03	18	.51600E-03
19	.42100E-03	20	.32900E-03	21	.29700E-03
22	.25800E-03	23	.19100E-03	24	.12200E-03

SOURCE ID = A0000026 ; SOURCE TYPE = AREA :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.81700E-04	2	.56300E-04	3	.49400E-04
4	.88000E-04	5	.25100E-03	6	.39900E-03
7	.45000E-03	8	.51300E-03	9	.55400E-03
10	.56800E-03	11	.58700E-03	12	.61800E-03
13	.60300E-03	14	.58200E-03	15	.56500E-03
16	.54800E-03	17	.52800E-03	18	.51600E-03
19	.42100E-03	20	.32900E-03	21	.29700E-03
22	.25800E-03	23	.19100E-03	24	.12200E-03

SOURCE ID = A0000027 ; SOURCE TYPE = AREA :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.81700E-04	2	.56300E-04	3	.49400E-04
4	.88000E-04	5	.25100E-03	6	.39900E-03
7	.45000E-03	8	.51300E-03	9	.55400E-03
10	.56800E-03	11	.58700E-03	12	.61800E-03
13	.60300E-03	14	.58200E-03	15	.56500E-03
16	.54800E-03	17	.52800E-03	18	.51600E-03
19	.42100E-03	20	.32900E-03	21	.29700E-03
22	.25800E-03	23	.19100E-03	24	.12200E-03

SOURCE ID = A0000028 ; SOURCE TYPE = AREA :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.81700E-04	2	.56300E-04	3	.49400E-04
4	.88000E-04	5	.25100E-03	6	.39900E-03
7	.45000E-03	8	.51300E-03	9	.55400E-03
10	.56800E-03	11	.58700E-03	12	.61800E-03
13	.60300E-03	14	.58200E-03	15	.56500E-03
16	.54800E-03	17	.52800E-03	18	.51600E-03
19	.42100E-03	20	.32900E-03	21	.29700E-03
22	.25800E-03	23	.19100E-03	24	.12200E-03

SOURCE ID = A0000029 ; SOURCE TYPE = AREA :

```
       1   .81700E-04      2   .56300E-04      3   .49400E-04
4   .88000E-04      5   .25100E-03      6   .39900E-03
       7   .45000E-03      8   .51300E-03      9   .55400E-03
10   .56800E-03     11   .58700E-03     12   .61800E-03
      13   .60300E-03     14   .58200E-03     15   .56500E-03
16   .54800E-03     17   .52800E-03     18   .51600E-03
      19   .42100E-03     20   .32900E-03     21   .29700E-03
22   .25800E-03     23   .19100E-03     24   .12200E-03


 SOURCE ID = A0000030     ; SOURCE TYPE = AREA     :
       1   .81700E-04      2   .56300E-04      3   .49400E-04
4   .88000E-04      5   .25100E-03      6   .39900E-03
       7   .45000E-03      8   .51300E-03      9   .55400E-03
10   .56800E-03     11   .58700E-03     12   .61800E-03
      13   .60300E-03     14   .58200E-03     15   .56500E-03
16   .54800E-03     17   .52800E-03     18   .51600E-03
      19   .42100E-03     20   .32900E-03     21   .29700E-03
22   .25800E-03     23   .19100E-03     24   .12200E-03
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.81700E-04	2	.56300E-04	3	.49400E-04
4	.88000E-04	5	.25100E-03	6	.39900E-03
7	.45000E-03	8	.51300E-03	9	.55400E-03
10	.56800E-03	11	.58700E-03	12	.61800E-03
13	.60300E-03	14	.58200E-03	15	.56500E-03
16	.54800E-03	17	.52800E-03	18	.51600E-03
19	.42100E-03	20	.32900E-03	21	.29700E-03
22	.25800E-03	23	.19100E-03	24	.12200E-03

SOURCE ID = A0000031 ; SOURCE TYPE = AREA :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.81700E-04	2	.56300E-04	3	.49400E-04
4	.88000E-04	5	.25100E-03	6	.39900E-03
7	.45000E-03	8	.51300E-03	9	.55400E-03
10	.56800E-03	11	.58700E-03	12	.61800E-03
13	.60300E-03	14	.58200E-03	15	.56500E-03
16	.54800E-03	17	.52800E-03	18	.51600E-03
19	.42100E-03	20	.32900E-03	21	.29700E-03
22	.25800E-03	23	.19100E-03	24	.12200E-03

SOURCE ID = A0000032 ; SOURCE TYPE = AREA :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.81700E-04	2	.56300E-04	3	.49400E-04
4	.88000E-04	5	.25100E-03	6	.39900E-03
7	.45000E-03	8	.51300E-03	9	.55400E-03
10	.56800E-03	11	.58700E-03	12	.61800E-03
13	.60300E-03	14	.58200E-03	15	.56500E-03
16	.54800E-03	17	.52800E-03	18	.51600E-03
19	.42100E-03	20	.32900E-03	21	.29700E-03
22	.25800E-03	23	.19100E-03	24	.12200E-03

SOURCE ID = A0000033 ; SOURCE TYPE = AREA :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.81700E-04	2	.56300E-04	3	.49400E-04
4	.88000E-04	5	.25100E-03	6	.39900E-03
7	.45000E-03	8	.51300E-03	9	.55400E-03
10	.56800E-03	11	.58700E-03	12	.61800E-03
13	.60300E-03	14	.58200E-03	15	.56500E-03
16	.54800E-03	17	.52800E-03	18	.51600E-03
19	.42100E-03	20	.32900E-03	21	.29700E-03
22	.25800E-03	23	.19100E-03	24	.12200E-03

SOURCE ID = A0000034 ; SOURCE TYPE = AREA :

```
       1   .81700E-04      2   .56300E-04      3   .49400E-04
4   .88000E-04      5   .25100E-03      6   .39900E-03
       7   .45000E-03      8   .51300E-03      9   .55400E-03
10   .56800E-03     11   .58700E-03     12   .61800E-03
      13   .60300E-03     14   .58200E-03     15   .56500E-03
16   .54800E-03     17   .52800E-03     18   .51600E-03
      19   .42100E-03     20   .32900E-03     21   .29700E-03
22   .25800E-03     23   .19100E-03     24   .12200E-03


 SOURCE ID = A0000035     ; SOURCE TYPE = AREA     :
       1   .81700E-04      2   .56300E-04      3   .49400E-04
4   .88000E-04      5   .25100E-03      6   .39900E-03
       7   .45000E-03      8   .51300E-03      9   .55400E-03
10   .56800E-03     11   .58700E-03     12   .61800E-03
      13   .60300E-03     14   .58200E-03     15   .56500E-03
16   .54800E-03     17   .52800E-03     18   .51600E-03
      19   .42100E-03     20   .32900E-03     21   .29700E-03
22   .25800E-03     23   .19100E-03     24   .12200E-03
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.81700E-04	2	.56300E-04	3	.49400E-04
4	.88000E-04	5	.25100E-03	6	.39900E-03
7	.45000E-03	8	.51300E-03	9	.55400E-03
10	.56800E-03	11	.58700E-03	12	.61800E-03
13	.60300E-03	14	.58200E-03	15	.56500E-03
16	.54800E-03	17	.52800E-03	18	.51600E-03
19	.42100E-03	20	.32900E-03	21	.29700E-03
22	.25800E-03	23	.19100E-03	24	.12200E-03

SOURCE ID = A0000036 ; SOURCE TYPE = AREA :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.45100E-04	2	.44600E-04	3	.43300E-04
4	.44700E-04	5	.55800E-04	6	.70800E-04
7	.89000E-04	8	.82500E-04	9	.97100E-04
10	.11600E-03	11	.12300E-03	12	.12000E-03
13	.11300E-03	14	.10400E-03	15	.81500E-04
16	.63000E-04	17	.54800E-04	18	.49700E-04
19	.54100E-04	20	.66200E-04	21	.70100E-04
22	.65500E-04	23	.62500E-04	24	.51600E-04

SOURCE ID = A0000037 ; SOURCE TYPE = AREA :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.45100E-04	2	.44600E-04	3	.43300E-04
4	.44700E-04	5	.55800E-04	6	.70800E-04
7	.89000E-04	8	.82500E-04	9	.97100E-04
10	.11600E-03	11	.12300E-03	12	.12000E-03
13	.11300E-03	14	.10400E-03	15	.81500E-04
16	.63000E-04	17	.54800E-04	18	.49700E-04
19	.54100E-04	20	.66200E-04	21	.70100E-04
22	.65500E-04	23	.62500E-04	24	.51600E-04

SOURCE ID = A0000038 ; SOURCE TYPE = AREA :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.45100E-04	2	.44600E-04	3	.43300E-04
4	.44700E-04	5	.55800E-04	6	.70800E-04
7	.89000E-04	8	.82500E-04	9	.97100E-04
10	.11600E-03	11	.12300E-03	12	.12000E-03
13	.11300E-03	14	.10400E-03	15	.81500E-04
16	.63000E-04	17	.54800E-04	18	.49700E-04
19	.54100E-04	20	.66200E-04	21	.70100E-04
22	.65500E-04	23	.62500E-04	24	.51600E-04

SOURCE ID = A0000039 ; SOURCE TYPE = AREA :

```
       1   .45100E-04      2   .44600E-04      3   .43300E-04
4   .44700E-04      5   .55800E-04      6   .70800E-04
       7   .89000E-04      8   .82500E-04      9   .97100E-04
10   .11600E-03     11   .12300E-03     12   .12000E-03
      13   .11300E-03     14   .10400E-03     15   .81500E-04
16   .63000E-04     17   .54800E-04     18   .49700E-04
      19   .54100E-04     20   .66200E-04     21   .70100E-04
22   .65500E-04     23   .62500E-04     24   .51600E-04


 SOURCE ID = A0000040     ; SOURCE TYPE = AREA     :
       1   .45100E-04      2   .44600E-04      3   .43300E-04
4   .44700E-04      5   .55800E-04      6   .70800E-04
       7   .89000E-04      8   .82500E-04      9   .97100E-04
10   .11600E-03     11   .12300E-03     12   .12000E-03
      13   .11300E-03     14   .10400E-03     15   .81500E-04
16   .63000E-04     17   .54800E-04     18   .49700E-04
      19   .54100E-04     20   .66200E-04     21   .70100E-04
22   .65500E-04     23   .62500E-04     24   .51600E-04
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.45100E-04	2	.44600E-04	3	.43300E-04
4	.44700E-04	5	.55800E-04	6	.70800E-04
7	.89000E-04	8	.82500E-04	9	.97100E-04
10	.11600E-03	11	.12300E-03	12	.12000E-03
13	.11300E-03	14	.10400E-03	15	.81500E-04
16	.63000E-04	17	.54800E-04	18	.49700E-04
19	.54100E-04	20	.66200E-04	21	.70100E-04
22	.65500E-04	23	.62500E-04	24	.51600E-04

SOURCE ID = A0000041 ; SOURCE TYPE = AREA :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.45100E-04	2	.44600E-04	3	.43300E-04
4	.44700E-04	5	.55800E-04	6	.70800E-04
7	.89000E-04	8	.82500E-04	9	.97100E-04
10	.11600E-03	11	.12300E-03	12	.12000E-03
13	.11300E-03	14	.10400E-03	15	.81500E-04
16	.63000E-04	17	.54800E-04	18	.49700E-04
19	.54100E-04	20	.66200E-04	21	.70100E-04
22	.65500E-04	23	.62500E-04	24	.51600E-04

SOURCE ID = A0000042 ; SOURCE TYPE = AREA :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.45100E-04	2	.44600E-04	3	.43300E-04
4	.44700E-04	5	.55800E-04	6	.70800E-04
7	.89000E-04	8	.82500E-04	9	.97100E-04
10	.11600E-03	11	.12300E-03	12	.12000E-03
13	.11300E-03	14	.10400E-03	15	.81500E-04
16	.63000E-04	17	.54800E-04	18	.49700E-04
19	.54100E-04	20	.66200E-04	21	.70100E-04
22	.65500E-04	23	.62500E-04	24	.51600E-04

SOURCE ID = A0000043 ; SOURCE TYPE = AREA :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.45100E-04	2	.44600E-04	3	.43300E-04
4	.44700E-04	5	.55800E-04	6	.70800E-04
7	.89000E-04	8	.82500E-04	9	.97100E-04
10	.11600E-03	11	.12300E-03	12	.12000E-03
13	.11300E-03	14	.10400E-03	15	.81500E-04
16	.63000E-04	17	.54800E-04	18	.49700E-04
19	.54100E-04	20	.66200E-04	21	.70100E-04
22	.65500E-04	23	.62500E-04	24	.51600E-04

SOURCE ID = A0000044 ; SOURCE TYPE = AREA :

```
       1   .45100E-04      2   .44600E-04      3   .43300E-04
4   .44700E-04      5   .55800E-04      6   .70800E-04
       7   .89000E-04      8   .82500E-04      9   .97100E-04
10   .11600E-03     11   .12300E-03     12   .12000E-03
      13   .11300E-03     14   .10400E-03     15   .81500E-04
16   .63000E-04     17   .54800E-04     18   .49700E-04
      19   .54100E-04     20   .66200E-04     21   .70100E-04
22   .65500E-04     23   .62500E-04     24   .51600E-04


 SOURCE ID = A0000045     ; SOURCE TYPE = AREA     :
       1   .31400E-03      2   .31000E-03      3   .30100E-03
4   .31100E-03      5   .38800E-03      6   .49200E-03
       7   .61900E-03      8   .57400E-03      9   .67600E-03
10   .80800E-03     11   .85500E-03     12   .83600E-03
      13   .78900E-03     14   .72000E-03     15   .56700E-03
16   .43800E-03     17   .38100E-03     18   .34500E-03
      19   .37600E-03     20   .46000E-03     21   .48800E-03
22   .45600E-03     23   .43500E-03     24   .35900E-03
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.31400E-03	2	.31000E-03	3	.30100E-03
4	.31100E-03	5	.38800E-03	6	.49200E-03
7	.61900E-03	8	.57400E-03	9	.67600E-03
10	.80800E-03	11	.85500E-03	12	.83600E-03
13	.78900E-03	14	.72000E-03	15	.56700E-03
16	.43800E-03	17	.38100E-03	18	.34500E-03
19	.37600E-03	20	.46000E-03	21	.48800E-03
22	.45600E-03	23	.43500E-03	24	.35900E-03

SOURCE ID = A0000046 ; SOURCE TYPE = AREA :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.31400E-03	2	.31000E-03	3	.30100E-03
4	.31100E-03	5	.38800E-03	6	.49200E-03
7	.61900E-03	8	.57400E-03	9	.67600E-03
10	.80800E-03	11	.85500E-03	12	.83600E-03
13	.78900E-03	14	.72000E-03	15	.56700E-03
16	.43800E-03	17	.38100E-03	18	.34500E-03
19	.37600E-03	20	.46000E-03	21	.48800E-03
22	.45600E-03	23	.43500E-03	24	.35900E-03

SOURCE ID = A0000047 ; SOURCE TYPE = AREA :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.31400E-03	2	.31000E-03	3	.30100E-03
4	.31100E-03	5	.38800E-03	6	.49200E-03
7	.61900E-03	8	.57400E-03	9	.67600E-03
10	.80800E-03	11	.85500E-03	12	.83600E-03
13	.78900E-03	14	.72000E-03	15	.56700E-03
16	.43800E-03	17	.38100E-03	18	.34500E-03
19	.37600E-03	20	.46000E-03	21	.48800E-03
22	.45600E-03	23	.43500E-03	24	.35900E-03

SOURCE ID = A0000048 ; SOURCE TYPE = AREA :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.31400E-03	2	.31000E-03	3	.30100E-03
4	.31100E-03	5	.38800E-03	6	.49200E-03
7	.61900E-03	8	.57400E-03	9	.67600E-03
10	.80800E-03	11	.85500E-03	12	.83600E-03
13	.78900E-03	14	.72000E-03	15	.56700E-03
16	.43800E-03	17	.38100E-03	18	.34500E-03
19	.37600E-03	20	.46000E-03	21	.48800E-03
22	.45600E-03	23	.43500E-03	24	.35900E-03

SOURCE ID = A0000049 ; SOURCE TYPE = AREA :

```
       1   .31400E-03      2   .31000E-03      3   .30100E-03
4   .31100E-03      5   .38800E-03      6   .49200E-03
       7   .61900E-03      8   .57400E-03      9   .67600E-03
10   .80800E-03     11   .85500E-03     12   .83600E-03
      13   .78900E-03     14   .72000E-03     15   .56700E-03
16   .43800E-03     17   .38100E-03     18   .34500E-03
      19   .37600E-03     20   .46000E-03     21   .48800E-03
22   .45600E-03     23   .43500E-03     24   .35900E-03


 SOURCE ID = A0000050     ; SOURCE TYPE = AREA     :
       1   .31400E-03      2   .31000E-03      3   .30100E-03
4   .31100E-03      5   .38800E-03      6   .49200E-03
       7   .61900E-03      8   .57400E-03      9   .67600E-03
10   .80800E-03     11   .85500E-03     12   .83600E-03
      13   .78900E-03     14   .72000E-03     15   .56700E-03
16   .43800E-03     17   .38100E-03     18   .34500E-03
      19   .37600E-03     20   .46000E-03     21   .48800E-03
22   .45600E-03     23   .43500E-03     24   .35900E-03
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.31400E-03	2	.31000E-03	3	.30100E-03
4	.31100E-03	5	.38800E-03	6	.49200E-03
7	.61900E-03	8	.57400E-03	9	.67600E-03
10	.80800E-03	11	.85500E-03	12	.83600E-03
13	.78900E-03	14	.72000E-03	15	.56700E-03
16	.43800E-03	17	.38100E-03	18	.34500E-03
19	.37600E-03	20	.46000E-03	21	.48800E-03
22	.45600E-03	23	.43500E-03	24	.35900E-03

SOURCE ID = A0000051 ; SOURCE TYPE = AREA :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.31400E-03	2	.31000E-03	3	.30100E-03
4	.31100E-03	5	.38800E-03	6	.49200E-03
7	.61900E-03	8	.57400E-03	9	.67600E-03
10	.80800E-03	11	.85500E-03	12	.83600E-03
13	.78900E-03	14	.72000E-03	15	.56700E-03
16	.43800E-03	17	.38100E-03	18	.34500E-03
19	.37600E-03	20	.46000E-03	21	.48800E-03
22	.45600E-03	23	.43500E-03	24	.35900E-03

SOURCE ID = A0000052 ; SOURCE TYPE = AREA :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.31400E-03	2	.31000E-03	3	.30100E-03
4	.31100E-03	5	.38800E-03	6	.49200E-03
7	.61900E-03	8	.57400E-03	9	.67600E-03
10	.80800E-03	11	.85500E-03	12	.83600E-03
13	.78900E-03	14	.72000E-03	15	.56700E-03
16	.43800E-03	17	.38100E-03	18	.34500E-03
19	.37600E-03	20	.46000E-03	21	.48800E-03
22	.45600E-03	23	.43500E-03	24	.35900E-03

SOURCE ID = A0000053 ; SOURCE TYPE = AREA :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.31400E-03	2	.31000E-03	3	.30100E-03
4	.31100E-03	5	.38800E-03	6	.49200E-03
7	.61900E-03	8	.57400E-03	9	.67600E-03
10	.80800E-03	11	.85500E-03	12	.83600E-03
13	.78900E-03	14	.72000E-03	15	.56700E-03
16	.43800E-03	17	.38100E-03	18	.34500E-03
19	.37600E-03	20	.46000E-03	21	.48800E-03
22	.45600E-03	23	.43500E-03	24	.35900E-03

SOURCE ID = A0000054 ; SOURCE TYPE = AREA :

```
       1   .31400E-03      2   .31000E-03      3   .30100E-03
4   .31100E-03      5   .38800E-03      6   .49200E-03
       7   .61900E-03      8   .57400E-03      9   .67600E-03
10   .80800E-03     11   .85500E-03     12   .83600E-03
      13   .78900E-03     14   .72000E-03     15   .56700E-03
16   .43800E-03     17   .38100E-03     18   .34500E-03
      19   .37600E-03     20   .46000E-03     21   .48800E-03
22   .45600E-03     23   .43500E-03     24   .35900E-03


 SOURCE ID = A0000055     ; SOURCE TYPE = AREA     :
       1   .31400E-03      2   .31000E-03      3   .30100E-03
4   .31100E-03      5   .38800E-03      6   .49200E-03
       7   .61900E-03      8   .57400E-03      9   .67600E-03
10   .80800E-03     11   .85500E-03     12   .83600E-03
      13   .78900E-03     14   .72000E-03     15   .56700E-03
16   .43800E-03     17   .38100E-03     18   .34500E-03
      19   .37600E-03     20   .46000E-03     21   .48800E-03
22   .45600E-03     23   .43500E-03     24   .35900E-03
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.31400E-03	2	.31000E-03	3	.30100E-03
4	.31100E-03	5	.38800E-03	6	.49200E-03
7	.61900E-03	8	.57400E-03	9	.67600E-03
10	.80800E-03	11	.85500E-03	12	.83600E-03
13	.78900E-03	14	.72000E-03	15	.56700E-03
16	.43800E-03	17	.38100E-03	18	.34500E-03
19	.37600E-03	20	.46000E-03	21	.48800E-03
22	.45600E-03	23	.43500E-03	24	.35900E-03

SOURCE ID = A0000056 ; SOURCE TYPE = AREA :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.31400E-03	2	.31000E-03	3	.30100E-03
4	.31100E-03	5	.38800E-03	6	.49200E-03
7	.61900E-03	8	.57400E-03	9	.67600E-03
10	.80800E-03	11	.85500E-03	12	.83600E-03
13	.78900E-03	14	.72000E-03	15	.56700E-03
16	.43800E-03	17	.38100E-03	18	.34500E-03
19	.37600E-03	20	.46000E-03	21	.48800E-03
22	.45600E-03	23	.43500E-03	24	.35900E-03

SOURCE ID = A0000057 ; SOURCE TYPE = AREA :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.31400E-03	2	.31000E-03	3	.30100E-03
4	.31100E-03	5	.38800E-03	6	.49200E-03
7	.61900E-03	8	.57400E-03	9	.67600E-03
10	.80800E-03	11	.85500E-03	12	.83600E-03
13	.78900E-03	14	.72000E-03	15	.56700E-03
16	.43800E-03	17	.38100E-03	18	.34500E-03
19	.37600E-03	20	.46000E-03	21	.48800E-03
22	.45600E-03	23	.43500E-03	24	.35900E-03

SOURCE ID = A0000058 ; SOURCE TYPE = AREA :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.31400E-03	2	.31000E-03	3	.30100E-03
4	.31100E-03	5	.38800E-03	6	.49200E-03
7	.61900E-03	8	.57400E-03	9	.67600E-03
10	.80800E-03	11	.85500E-03	12	.83600E-03
13	.78900E-03	14	.72000E-03	15	.56700E-03
16	.43800E-03	17	.38100E-03	18	.34500E-03
19	.37600E-03	20	.46000E-03	21	.48800E-03
22	.45600E-03	23	.43500E-03	24	.35900E-03

SOURCE ID = A0000059 ; SOURCE TYPE = AREA :

```
       1   .31400E-03      2   .31000E-03      3   .30100E-03
4   .31100E-03      5   .38800E-03      6   .49200E-03
       7   .61900E-03      8   .57400E-03      9   .67600E-03
10   .80800E-03     11   .85500E-03     12   .83600E-03
      13   .78900E-03     14   .72000E-03     15   .56700E-03
16   .43800E-03     17   .38100E-03     18   .34500E-03
      19   .37600E-03     20   .46000E-03     21   .48800E-03
22   .45600E-03     23   .43500E-03     24   .35900E-03


 SOURCE ID = A0000060     ; SOURCE TYPE = AREA     :
       1   .31400E-03      2   .31000E-03      3   .30100E-03
4   .31100E-03      5   .38800E-03      6   .49200E-03
       7   .61900E-03      8   .57400E-03      9   .67600E-03
10   .80800E-03     11   .85500E-03     12   .83600E-03
      13   .78900E-03     14   .72000E-03     15   .56700E-03
16   .43800E-03     17   .38100E-03     18   .34500E-03
      19   .37600E-03     20   .46000E-03     21   .48800E-03
22   .45600E-03     23   .43500E-03     24   .35900E-03
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.22900E-04	2	.15800E-04	3	.13900E-04
4	.24700E-04	5	.70400E-04	6	.11200E-03
7	.12600E-03	8	.14400E-03	9	.15500E-03
10	.15900E-03	11	.16500E-03	12	.17300E-03
13	.16900E-03	14	.16300E-03	15	.15800E-03
16	.15400E-03	17	.14800E-03	18	.14500E-03
19	.11800E-03	20	.92300E-04	21	.83400E-04
22	.72300E-04	23	.53500E-04	24	.34200E-04

SOURCE ID = A0000061 ; SOURCE TYPE = AREA :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.22900E-04	2	.15800E-04	3	.13900E-04
4	.24700E-04	5	.70400E-04	6	.11200E-03
7	.12600E-03	8	.14400E-03	9	.15500E-03
10	.15900E-03	11	.16500E-03	12	.17300E-03
13	.16900E-03	14	.16300E-03	15	.15800E-03
16	.15400E-03	17	.14800E-03	18	.14500E-03
19	.11800E-03	20	.92300E-04	21	.83400E-04
22	.72300E-04	23	.53500E-04	24	.34200E-04

SOURCE ID = A0000062 ; SOURCE TYPE = AREA :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.22900E-04	2	.15800E-04	3	.13900E-04
4	.24700E-04	5	.70400E-04	6	.11200E-03
7	.12600E-03	8	.14400E-03	9	.15500E-03
10	.15900E-03	11	.16500E-03	12	.17300E-03
13	.16900E-03	14	.16300E-03	15	.15800E-03
16	.15400E-03	17	.14800E-03	18	.14500E-03
19	.11800E-03	20	.92300E-04	21	.83400E-04
22	.72300E-04	23	.53500E-04	24	.34200E-04

SOURCE ID = A0000063 ; SOURCE TYPE = AREA :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.22900E-04	2	.15800E-04	3	.13900E-04
4	.24700E-04	5	.70400E-04	6	.11200E-03
7	.12600E-03	8	.14400E-03	9	.15500E-03
10	.15900E-03	11	.16500E-03	12	.17300E-03
13	.16900E-03	14	.16300E-03	15	.15800E-03
16	.15400E-03	17	.14800E-03	18	.14500E-03
19	.11800E-03	20	.92300E-04	21	.83400E-04
22	.72300E-04	23	.53500E-04	24	.34200E-04

SOURCE ID = A0000064 ; SOURCE TYPE = AREA :

```
       1   .22900E-04      2   .15800E-04      3   .13900E-04
4   .24700E-04      5   .70400E-04      6   .11200E-03
       7   .12600E-03      8   .14400E-03      9   .15500E-03
10   .15900E-03     11   .16500E-03     12   .17300E-03
      13   .16900E-03     14   .16300E-03     15   .15800E-03
16   .15400E-03     17   .14800E-03     18   .14500E-03
      19   .11800E-03     20   .92300E-04     21   .83400E-04
22   .72300E-04     23   .53500E-04     24   .34200E-04


 SOURCE ID = A0000065     ; SOURCE TYPE = AREA     :
       1   .22900E-04      2   .15800E-04      3   .13900E-04
4   .24700E-04      5   .70400E-04      6   .11200E-03
       7   .12600E-03      8   .14400E-03      9   .15500E-03
10   .15900E-03     11   .16500E-03     12   .17300E-03
      13   .16900E-03     14   .16300E-03     15   .15800E-03
16   .15400E-03     17   .14800E-03     18   .14500E-03
      19   .11800E-03     20   .92300E-04     21   .83400E-04
22   .72300E-04     23   .53500E-04     24   .34200E-04
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

* SOURCE EMISSION RATE SCALARS WHICH VARY FOR EACH HOUR OF THE DAY *

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

SOURCE ID = A0000066 ; SOURCE TYPE = AREA :

1	.22900E-04	2	.15800E-04	3	.13900E-04
4	.24700E-04	5	.70400E-04	6	.11200E-03
7	.12600E-03	8	.14400E-03	9	.15500E-03
10	.15900E-03	11	.16500E-03	12	.17300E-03
13	.16900E-03	14	.16300E-03	15	.15800E-03
16	.15400E-03	17	.14800E-03	18	.14500E-03
19	.11800E-03	20	.92300E-04	21	.83400E-04
22	.72300E-04	23	.53500E-04	24	.34200E-04

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)

(METERS)

(439674.0, 3765310.0, 289.0, 289.0, 0.0);
(439679.0, 3765310.0, 289.0, 289.0, 0.0);
(439684.0, 3765310.0, 289.0, 289.0, 0.0);
(439689.0, 3765310.0, 289.0, 289.0, 0.0);
(439694.0, 3765310.0, 289.0, 289.0, 0.0);
(439699.0, 3765310.0, 289.0, 289.0, 0.0);
(439704.0, 3765310.0, 289.0, 289.0, 0.0);
(439709.0, 3765310.0, 289.0, 289.0, 0.0);
(439714.0, 3765310.0, 289.0, 289.0, 0.0);
(439719.0, 3765310.0, 289.0, 289.0, 0.0);
(439729.0, 3765310.0, 289.0, 289.0, 0.0);
(439734.0, 3765310.0, 289.0, 289.0, 0.0);
(439739.0, 3765310.0, 289.0, 289.0, 0.0);
(439744.0, 3765310.0, 289.0, 289.0, 0.0);
(439749.0, 3765310.0, 289.0, 289.0, 0.0);
(439764.0, 3765310.0, 289.0, 289.0, 0.0);
(439769.0, 3765310.0, 289.0, 289.0, 0.0);
(439774.0, 3765310.0, 289.0, 289.0, 0.0);
(439779.0, 3765310.0, 289.0, 289.0, 0.0);
(439784.0, 3765310.0, 289.0, 289.0, 0.0);
(439789.0, 3765310.0, 289.0, 289.0, 0.0);
(439794.0, 3765310.0, 289.0, 289.0, 0.0);
(439799.0, 3765310.0, 289.0, 289.0, 0.0);
(439804.0, 3765310.0, 289.0, 289.0, 0.0);
(439809.0, 3765310.0, 289.0, 289.0, 0.0);
(439814.0, 3765310.0, 289.0, 289.0, 0.0);
(439819.0, 3765310.0, 289.0, 289.0, 0.0);
(439824.0, 3765310.0, 289.0, 289.0, 0.0);
(439829.0, 3765310.0, 289.0, 289.0, 0.0);
(439839.0, 3765310.0, 289.0, 289.0, 0.0);
(439844.0, 3765310.0, 289.0, 289.0, 0.0);
(439849.0, 3765310.0, 289.0, 289.0, 0.0);
(439854.0, 3765310.0, 289.0, 289.0, 0.0);
(439859.0, 3765310.0, 289.0, 289.0, 0.0);
(439864.0, 3765310.0, 289.0, 289.0, 0.0);
(439869.0, 3765310.0, 289.0, 289.0, 0.0);

```
     ( 439874.0, 3765310.0,     289.0,     289.0,       0.0);
( 439879.0, 3765310.0,     289.0,     289.0,       0.0);
     ( 439884.0, 3765310.0,     289.0,     289.0,       0.0);
( 439674.0, 3765315.0,     289.0,     289.0,       0.0);
     ( 439679.0, 3765315.0,     289.0,     289.0,       0.0);
( 439684.0, 3765315.0,     289.0,     289.0,       0.0);
     ( 439689.0, 3765315.0,     289.0,     289.0,       0.0);
( 439694.0, 3765315.0,     289.0,     289.0,       0.0);
     ( 439699.0, 3765315.0,     289.0,     289.0,       0.0);
( 439704.0, 3765315.0,     289.0,     289.0,       0.0);
     ( 439709.0, 3765315.0,     289.0,     289.0,       0.0);
( 439714.0, 3765315.0,     289.0,     289.0,       0.0);
     ( 439719.0, 3765315.0,     289.0,     289.0,       0.0);
( 439729.0, 3765315.0,     289.0,     289.0,       0.0);
     ( 439734.0, 3765315.0,     289.0,     289.0,       0.0);
( 439739.0, 3765315.0,     289.0,     289.0,       0.0);
     ( 439744.0, 3765315.0,     289.0,     289.0,       0.0);
( 439749.0, 3765315.0,     289.0,     289.0,       0.0);
     ( 439764.0, 3765315.0,     289.0,     289.0,       0.0);
( 439769.0, 3765315.0,     289.0,     289.0,       0.0);
     ( 439774.0, 3765315.0,     289.0,     289.0,       0.0);
( 439779.0, 3765315.0,     289.0,     289.0,       0.0);
     ( 439784.0, 3765315.0,     289.0,     289.0,       0.0);
( 439789.0, 3765315.0,     289.0,     289.0,       0.0);
     ( 439794.0, 3765315.0,     289.0,     289.0,       0.0);
( 439799.0, 3765315.0,     289.0,     289.0,       0.0);
     ( 439804.0, 3765315.0,     289.0,     289.0,       0.0);
( 439809.0, 3765315.0,     289.0,     289.0,       0.0);
     ( 439814.0, 3765315.0,     289.0,     289.0,       0.0);
( 439819.0, 3765315.0,     289.0,     289.0,       0.0);
     ( 439824.0, 3765315.0,     289.0,     289.0,       0.0);
( 439829.0, 3765315.0,     289.0,     289.0,       0.0);
     ( 439839.0, 3765315.0,     289.0,     289.0,       0.0);
( 439844.0, 3765315.0,     289.0,     289.0,       0.0);
     ( 439849.0, 3765315.0,     289.0,     289.0,       0.0);
( 439854.0, 3765315.0,     289.0,     289.0,       0.0);
     ( 439859.0, 3765315.0,     289.0,     289.0,       0.0);
( 439864.0, 3765315.0,     289.0,     289.0,       0.0);
     ( 439869.0, 3765315.0,     289.0,     289.0,       0.0);
( 439874.0, 3765315.0,     289.0,     289.0,       0.0);
     ( 439879.0, 3765315.0,     289.0,     289.0,       0.0);
( 439884.0, 3765315.0,     289.0,     289.0,       0.0);
     ( 439674.0, 3765320.0,     289.0,     289.0,       0.0);
( 439679.0, 3765320.0,     289.0,     289.0,       0.0);
     ( 439684.0, 3765320.0,     289.0,     289.0,       0.0);
( 439689.0, 3765320.0,     289.0,     289.0,       0.0);
     ( 439694.0, 3765320.0,     289.0,     289.0,       0.0);
( 439699.0, 3765320.0,     289.0,     289.0,       0.0);
     ( 439704.0, 3765320.0,     289.0,     289.0,       0.0);
( 439709.0, 3765320.0,     289.0,     289.0,       0.0);
     ( 439714.0, 3765320.0,     289.0,     289.0,       0.0);
( 439719.0, 3765320.0,     289.0,     289.0,       0.0);
```

```
     ( 439729.0, 3765320.0,     289.0,     289.0,       0.0);
( 439734.0, 3765320.0,     289.0,     289.0,       0.0);
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)

(METERS)

(439739.0, 3765320.0, 289.0, 289.0, 0.0);
(439744.0, 3765320.0, 289.0, 289.0, 0.0);
(439749.0, 3765320.0, 289.0, 289.0, 0.0);
(439764.0, 3765320.0, 289.0, 289.0, 0.0);
(439769.0, 3765320.0, 289.0, 289.0, 0.0);
(439774.0, 3765320.0, 289.0, 289.0, 0.0);
(439779.0, 3765320.0, 289.0, 289.0, 0.0);
(439784.0, 3765320.0, 289.0, 289.0, 0.0);
(439789.0, 3765320.0, 289.0, 289.0, 0.0);
(439794.0, 3765320.0, 289.0, 289.0, 0.0);
(439799.0, 3765320.0, 289.0, 289.0, 0.0);
(439804.0, 3765320.0, 289.0, 289.0, 0.0);
(439809.0, 3765320.0, 289.0, 289.0, 0.0);
(439814.0, 3765320.0, 289.0, 289.0, 0.0);
(439819.0, 3765320.0, 289.0, 289.0, 0.0);
(439824.0, 3765320.0, 289.0, 289.0, 0.0);
(439829.0, 3765320.0, 289.0, 289.0, 0.0);
(439839.0, 3765320.0, 289.0, 289.0, 0.0);
(439844.0, 3765320.0, 289.0, 289.0, 0.0);
(439849.0, 3765320.0, 289.0, 289.0, 0.0);
(439854.0, 3765320.0, 289.0, 289.0, 0.0);
(439859.0, 3765320.0, 289.0, 289.0, 0.0);
(439864.0, 3765320.0, 289.0, 289.0, 0.0);
(439869.0, 3765320.0, 289.0, 289.0, 0.0);
(439874.0, 3765320.0, 289.0, 289.0, 0.0);
(439879.0, 3765320.0, 289.0, 289.0, 0.0);
(439884.0, 3765320.0, 289.0, 289.0, 0.0);
(439674.0, 3765325.0, 289.0, 289.0, 0.0);
(439679.0, 3765325.0, 289.0, 289.0, 0.0);
(439684.0, 3765325.0, 289.0, 289.0, 0.0);
(439689.0, 3765325.0, 289.0, 289.0, 0.0);
(439694.0, 3765325.0, 289.0, 289.0, 0.0);
(439699.0, 3765325.0, 289.0, 289.0, 0.0);
(439704.0, 3765325.0, 289.0, 289.0, 0.0);
(439709.0, 3765325.0, 289.0, 289.0, 0.0);
(439714.0, 3765325.0, 289.0, 289.0, 0.0);

```
     ( 439719.0, 3765325.0,     289.0,     289.0,       0.0);
( 439729.0, 3765325.0,     289.0,     289.0,       0.0);
     ( 439734.0, 3765325.0,     289.0,     289.0,       0.0);
( 439739.0, 3765325.0,     289.0,     289.0,       0.0);
     ( 439744.0, 3765325.0,     289.0,     289.0,       0.0);
( 439749.0, 3765325.0,     289.0,     289.0,       0.0);
     ( 439754.0, 3765325.0,     289.0,     289.0,       0.0);
( 439769.0, 3765325.0,     289.0,     289.0,       0.0);
     ( 439774.0, 3765325.0,     289.0,     289.0,       0.0);
( 439779.0, 3765325.0,     289.0,     289.0,       0.0);
     ( 439784.0, 3765325.0,     289.0,     289.0,       0.0);
( 439789.0, 3765325.0,     289.0,     289.0,       0.0);
     ( 439794.0, 3765325.0,     289.0,     289.0,       0.0);
( 439799.0, 3765325.0,     289.0,     289.0,       0.0);
     ( 439804.0, 3765325.0,     289.0,     289.0,       0.0);
( 439809.0, 3765325.0,     289.0,     289.0,       0.0);
     ( 439814.0, 3765325.0,     289.0,     289.0,       0.0);
( 439819.0, 3765325.0,     289.0,     289.0,       0.0);
     ( 439824.0, 3765325.0,     289.0,     289.0,       0.0);
( 439829.0, 3765325.0,     289.0,     289.0,       0.0);
     ( 439839.0, 3765325.0,     289.0,     289.0,       0.0);
( 439844.0, 3765325.0,     289.0,     289.0,       0.0);
     ( 439849.0, 3765325.0,     289.0,     289.0,       0.0);
( 439854.0, 3765325.0,     289.0,     289.0,       0.0);
     ( 439859.0, 3765325.0,     289.0,     289.0,       0.0);
( 439864.0, 3765325.0,     289.0,     289.0,       0.0);
     ( 439869.0, 3765325.0,     289.0,     289.0,       0.0);
( 439874.0, 3765325.0,     289.0,     289.0,       0.0);
     ( 439879.0, 3765325.0,     289.0,     289.0,       0.0);
( 439884.0, 3765325.0,     289.0,     289.0,       0.0);
     ( 439674.0, 3765330.0,     289.0,     289.0,       0.0);
( 439679.0, 3765330.0,     289.0,     289.0,       0.0);
     ( 439684.0, 3765330.0,     289.0,     289.0,       0.0);
( 439689.0, 3765330.0,     289.0,     289.0,       0.0);
     ( 439694.0, 3765330.0,     289.0,     289.0,       0.0);
( 439699.0, 3765330.0,     289.0,     289.0,       0.0);
     ( 439704.0, 3765330.0,     289.0,     289.0,       0.0);
( 439709.0, 3765330.0,     289.0,     289.0,       0.0);
     ( 439714.0, 3765330.0,     289.0,     289.0,       0.0);
( 439719.0, 3765330.0,     289.0,     289.0,       0.0);
     ( 439729.0, 3765330.0,     289.0,     289.0,       0.0);
( 439734.0, 3765330.0,     289.0,     289.0,       0.0);
     ( 439739.0, 3765330.0,     289.0,     289.0,       0.0);
( 439744.0, 3765330.0,     289.0,     289.0,       0.0);
     ( 439749.0, 3765330.0,     289.0,     289.0,       0.0);
( 439754.0, 3765330.0,     289.0,     289.0,       0.0);
     ( 439774.0, 3765330.0,     289.0,     289.0,       0.0);
( 439779.0, 3765330.0,     289.0,     289.0,       0.0);
     ( 439784.0, 3765330.0,     289.0,     289.0,       0.0);
( 439789.0, 3765330.0,     289.0,     289.0,       0.0);
     ( 439794.0, 3765330.0,     289.0,     289.0,       0.0);
( 439799.0, 3765330.0,     289.0,     289.0,       0.0);
```

```
     ( 439804.0, 3765330.0,     289.0,     289.0,       0.0);
( 439809.0, 3765330.0,     289.0,     289.0,       0.0);
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)

(METERS)

(439814.0, 3765330.0, 289.0, 289.0, 0.0);
(439819.0, 3765330.0, 289.0, 289.0, 0.0);
(439824.0, 3765330.0, 289.0, 289.0, 0.0);
(439829.0, 3765330.0, 289.0, 289.0, 0.0);
(439839.0, 3765330.0, 289.0, 289.0, 0.0);
(439844.0, 3765330.0, 289.0, 289.0, 0.0);
(439849.0, 3765330.0, 289.0, 289.0, 0.0);
(439854.0, 3765330.0, 289.0, 289.0, 0.0);
(439859.0, 3765330.0, 289.0, 289.0, 0.0);
(439864.0, 3765330.0, 289.0, 289.0, 0.0);
(439869.0, 3765330.0, 289.0, 289.0, 0.0);
(439874.0, 3765330.0, 289.0, 289.0, 0.0);
(439879.0, 3765330.0, 289.0, 289.0, 0.0);
(439884.0, 3765330.0, 289.0, 289.0, 0.0);
(439674.0, 3765335.0, 289.0, 289.0, 0.0);
(439679.0, 3765335.0, 289.0, 289.0, 0.0);
(439684.0, 3765335.0, 289.0, 289.0, 0.0);
(439689.0, 3765335.0, 289.0, 289.0, 0.0);
(439694.0, 3765335.0, 289.0, 289.0, 0.0);
(439699.0, 3765335.0, 289.0, 289.0, 0.0);
(439704.0, 3765335.0, 289.0, 289.0, 0.0);
(439709.0, 3765335.0, 289.0, 289.0, 0.0);
(439714.0, 3765335.0, 289.0, 289.0, 0.0);
(439719.0, 3765335.0, 289.0, 289.0, 0.0);
(439729.0, 3765335.0, 289.0, 289.0, 0.0);
(439734.0, 3765335.0, 289.0, 289.0, 0.0);
(439739.0, 3765335.0, 289.0, 289.0, 0.0);
(439744.0, 3765335.0, 289.0, 289.0, 0.0);
(439749.0, 3765335.0, 289.0, 289.0, 0.0);
(439774.0, 3765335.0, 289.0, 289.0, 0.0);
(439779.0, 3765335.0, 289.0, 289.0, 0.0);
(439784.0, 3765335.0, 289.0, 289.0, 0.0);
(439789.0, 3765335.0, 289.0, 289.0, 0.0);
(439794.0, 3765335.0, 289.0, 289.0, 0.0);
(439839.0, 3765335.0, 289.0, 289.0, 0.0);
(439844.0, 3765335.0, 289.0, 289.0, 0.0);

```
     ( 439849.0, 3765335.0,     289.0,     289.0,       0.0);
( 439854.0, 3765335.0,     289.0,     289.0,       0.0);
     ( 439859.0, 3765335.0,     289.0,     289.0,       0.0);
( 439864.0, 3765335.0,     289.0,     289.0,       0.0);
     ( 439869.0, 3765335.0,     289.0,     289.0,       0.0);
( 439874.0, 3765335.0,     289.0,     289.0,       0.0);
     ( 439879.0, 3765335.0,     289.0,     289.0,       0.0);
( 439884.0, 3765335.0,     289.0,     289.0,       0.0);
     ( 439674.0, 3765340.0,     289.0,     289.0,       0.0);
( 439679.0, 3765340.0,     289.0,     289.0,       0.0);
     ( 439684.0, 3765340.0,     289.0,     289.0,       0.0);
( 439689.0, 3765340.0,     289.0,     289.0,       0.0);
     ( 439694.0, 3765340.0,     289.0,     289.0,       0.0);
( 439699.0, 3765340.0,     289.0,     289.0,       0.0);
     ( 439704.0, 3765340.0,     289.0,     289.0,       0.0);
( 439709.0, 3765340.0,     289.0,     289.0,       0.0);
     ( 439714.0, 3765340.0,     289.0,     289.0,       0.0);
( 439719.0, 3765340.0,     289.0,     289.0,       0.0);
     ( 439729.0, 3765340.0,     289.0,     289.0,       0.0);
( 439734.0, 3765340.0,     289.0,     289.0,       0.0);
     ( 439739.0, 3765340.0,     289.0,     289.0,       0.0);
( 439744.0, 3765340.0,     289.0,     289.0,       0.0);
     ( 439749.0, 3765340.0,     289.0,     289.0,       0.0);
( 439774.0, 3765340.0,     289.0,     289.0,       0.0);
     ( 439779.0, 3765340.0,     289.0,     289.0,       0.0);
( 439784.0, 3765340.0,     289.0,     289.0,       0.0);
     ( 439789.0, 3765340.0,     289.0,     289.0,       0.0);
( 439794.0, 3765340.0,     289.0,     289.0,       0.0);
     ( 439839.0, 3765340.0,     289.0,     289.0,       0.0);
( 439844.0, 3765340.0,     289.0,     289.0,       0.0);
     ( 439849.0, 3765340.0,     289.0,     289.0,       0.0);
( 439854.0, 3765340.0,     289.0,     289.0,       0.0);
     ( 439859.0, 3765340.0,     289.0,     289.0,       0.0);
( 439864.0, 3765340.0,     289.0,     289.0,       0.0);
     ( 439869.0, 3765340.0,     289.0,     289.0,       0.0);
( 439874.0, 3765340.0,     289.0,     289.0,       0.0);
     ( 439879.0, 3765340.0,     289.0,     289.0,       0.0);
( 439884.0, 3765340.0,     289.0,     289.0,       0.0);
     ( 439674.0, 3765345.0,     289.0,     289.0,       0.0);
( 439679.0, 3765345.0,     289.0,     289.0,       0.0);
     ( 439684.0, 3765345.0,     289.0,     289.0,       0.0);
( 439689.0, 3765345.0,     289.0,     289.0,       0.0);
     ( 439694.0, 3765345.0,     289.0,     289.0,       0.0);
( 439699.0, 3765345.0,     289.0,     289.0,       0.0);
     ( 439704.0, 3765345.0,     289.0,     289.0,       0.0);
( 439709.0, 3765345.0,     289.0,     289.0,       0.0);
     ( 439714.0, 3765345.0,     289.0,     289.0,       0.0);
( 439719.0, 3765345.0,     289.0,     289.0,       0.0);
     ( 439729.0, 3765345.0,     289.0,     289.0,       0.0);
( 439734.0, 3765345.0,     289.0,     289.0,       0.0);
     ( 439739.0, 3765345.0,     289.0,     289.0,       0.0);
( 439744.0, 3765345.0,     289.0,     289.0,       0.0);
```

```
     ( 439749.0, 3765345.0,     289.0,     289.0,       0.0);
( 439774.0, 3765345.0,     289.0,     289.0,       0.0);
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)

(METERS)

(439779.0, 3765345.0, 289.0, 289.0, 0.0);
(439784.0, 3765345.0, 289.0, 289.0, 0.0);
(439789.0, 3765345.0, 289.0, 289.0, 0.0);
(439794.0, 3765345.0, 289.0, 289.0, 0.0);
(439839.0, 3765345.0, 289.0, 289.0, 0.0);
(439844.0, 3765345.0, 289.0, 289.0, 0.0);
(439849.0, 3765345.0, 289.0, 289.0, 0.0);
(439854.0, 3765345.0, 289.0, 289.0, 0.0);
(439859.0, 3765345.0, 289.0, 289.0, 0.0);
(439864.0, 3765345.0, 289.0, 289.0, 0.0);
(439869.0, 3765345.0, 289.0, 289.0, 0.0);
(439874.0, 3765345.0, 289.0, 289.0, 0.0);
(439879.0, 3765345.0, 289.0, 289.0, 0.0);
(439884.0, 3765345.0, 289.0, 289.0, 0.0);
(439674.0, 3765350.0, 289.0, 289.0, 0.0);
(439679.0, 3765350.0, 289.0, 289.0, 0.0);
(439684.0, 3765350.0, 289.0, 289.0, 0.0);
(439689.0, 3765350.0, 289.0, 289.0, 0.0);
(439694.0, 3765350.0, 289.0, 289.0, 0.0);
(439699.0, 3765350.0, 289.0, 289.0, 0.0);
(439704.0, 3765350.0, 289.0, 289.0, 0.0);
(439709.0, 3765350.0, 289.0, 289.0, 0.0);
(439714.0, 3765350.0, 289.0, 289.0, 0.0);
(439719.0, 3765350.0, 289.0, 289.0, 0.0);
(439729.0, 3765350.0, 289.0, 289.0, 0.0);
(439734.0, 3765350.0, 289.0, 289.0, 0.0);
(439739.0, 3765350.0, 289.0, 289.0, 0.0);
(439744.0, 3765350.0, 289.0, 289.0, 0.0);
(439749.0, 3765350.0, 289.0, 289.0, 0.0);
(439774.0, 3765350.0, 289.0, 289.0, 0.0);
(439779.0, 3765350.0, 289.0, 289.0, 0.0);
(439784.0, 3765350.0, 289.0, 289.0, 0.0);
(439789.0, 3765350.0, 289.0, 289.0, 0.0);
(439794.0, 3765350.0, 289.0, 289.0, 0.0);
(439839.0, 3765350.0, 289.0, 289.0, 0.0);
(439844.0, 3765350.0, 289.0, 289.0, 0.0);

```
     ( 439849.0, 3765350.0,     289.0,     289.0,       0.0);
( 439854.0, 3765350.0,     289.0,     289.0,       0.0);
     ( 439859.0, 3765350.0,     289.0,     289.0,       0.0);
( 439864.0, 3765350.0,     289.0,     289.0,       0.0);
     ( 439869.0, 3765350.0,     289.0,     289.0,       0.0);
( 439874.0, 3765350.0,     289.0,     289.0,       0.0);
     ( 439879.0, 3765350.0,     289.0,     289.0,       0.0);
( 439884.0, 3765350.0,     289.0,     289.0,       0.0);
     ( 439674.0, 3765355.0,     289.0,     289.0,       0.0);
( 439679.0, 3765355.0,     289.0,     289.0,       0.0);
     ( 439684.0, 3765355.0,     289.0,     289.0,       0.0);
( 439689.0, 3765355.0,     289.0,     289.0,       0.0);
     ( 439694.0, 3765355.0,     289.0,     289.0,       0.0);
( 439699.0, 3765355.0,     289.0,     289.0,       0.0);
     ( 439704.0, 3765355.0,     289.0,     289.0,       0.0);
( 439709.0, 3765355.0,     289.0,     289.0,       0.0);
     ( 439714.0, 3765355.0,     289.0,     289.0,       0.0);
( 439719.0, 3765355.0,     289.0,     289.0,       0.0);
     ( 439729.0, 3765355.0,     289.0,     289.0,       0.0);
( 439734.0, 3765355.0,     289.0,     289.0,       0.0);
     ( 439739.0, 3765355.0,     289.0,     289.0,       0.0);
( 439744.0, 3765355.0,     289.0,     289.0,       0.0);
     ( 439749.0, 3765355.0,     289.0,     289.0,       0.0);
( 439774.0, 3765355.0,     289.0,     289.0,       0.0);
     ( 439779.0, 3765355.0,     289.0,     289.0,       0.0);
( 439784.0, 3765355.0,     289.0,     289.0,       0.0);
     ( 439789.0, 3765355.0,     289.0,     289.0,       0.0);
( 439794.0, 3765355.0,     289.0,     289.0,       0.0);
     ( 439839.0, 3765355.0,     289.0,     289.0,       0.0);
( 439844.0, 3765355.0,     289.0,     289.0,       0.0);
     ( 439849.0, 3765355.0,     289.0,     289.0,       0.0);
( 439854.0, 3765355.0,     289.0,     289.0,       0.0);
     ( 439859.0, 3765355.0,     289.0,     289.0,       0.0);
( 439864.0, 3765355.0,     289.0,     289.0,       0.0);
     ( 439869.0, 3765355.0,     289.0,     289.0,       0.0);
( 439874.0, 3765355.0,     289.0,     289.0,       0.0);
     ( 439879.0, 3765355.0,     289.0,     289.0,       0.0);
( 439884.0, 3765355.0,     289.0,     289.0,       0.0);
     ( 439674.0, 3765360.0,     289.0,     289.0,       0.0);
( 439679.0, 3765360.0,     289.0,     289.0,       0.0);
     ( 439684.0, 3765360.0,     289.0,     289.0,       0.0);
( 439689.0, 3765360.0,     289.0,     289.0,       0.0);
     ( 439694.0, 3765360.0,     289.0,     289.0,       0.0);
( 439699.0, 3765360.0,     289.0,     289.0,       0.0);
     ( 439704.0, 3765360.0,     289.0,     289.0,       0.0);
( 439709.0, 3765360.0,     289.0,     289.0,       0.0);
     ( 439714.0, 3765360.0,     289.0,     289.0,       0.0);
( 439719.0, 3765360.0,     289.0,     289.0,       0.0);
     ( 439729.0, 3765360.0,     289.0,     289.0,       0.0);
( 439734.0, 3765360.0,     289.0,     289.0,       0.0);
     ( 439739.0, 3765360.0,     289.0,     289.0,       0.0);
( 439744.0, 3765360.0,     289.0,     289.0,       0.0);
```

```
     ( 439749.0, 3765360.0,     289.0,     289.0,       0.0);
( 439774.0, 3765360.0,     289.0,     289.0,       0.0);
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)

(METERS)

(439779.0, 3765360.0, 289.0, 289.0, 0.0);
(439784.0, 3765360.0, 289.0, 289.0, 0.0);
(439789.0, 3765360.0, 289.0, 289.0, 0.0);
(439794.0, 3765360.0, 289.0, 289.0, 0.0);
(439799.0, 3765360.0, 289.0, 289.0, 0.0);
(439804.0, 3765360.0, 289.0, 289.0, 0.0);
(439809.0, 3765360.0, 289.0, 289.0, 0.0);
(439814.0, 3765360.0, 289.0, 289.0, 0.0);
(439839.0, 3765360.0, 289.0, 289.0, 0.0);
(439844.0, 3765360.0, 289.0, 289.0, 0.0);
(439849.0, 3765360.0, 289.0, 289.0, 0.0);
(439854.0, 3765360.0, 289.0, 289.0, 0.0);
(439859.0, 3765360.0, 289.0, 289.0, 0.0);
(439864.0, 3765360.0, 289.0, 289.0, 0.0);
(439869.0, 3765360.0, 289.0, 289.0, 0.0);
(439874.0, 3765360.0, 289.0, 289.0, 0.0);
(439879.0, 3765360.0, 289.0, 289.0, 0.0);
(439884.0, 3765360.0, 289.0, 289.0, 0.0);
(439674.0, 3765365.0, 289.0, 289.0, 0.0);
(439679.0, 3765365.0, 289.0, 289.0, 0.0);
(439684.0, 3765365.0, 289.0, 289.0, 0.0);
(439689.0, 3765365.0, 289.0, 289.0, 0.0);
(439694.0, 3765365.0, 289.0, 289.0, 0.0);
(439699.0, 3765365.0, 289.0, 289.0, 0.0);
(439704.0, 3765365.0, 289.0, 289.0, 0.0);
(439709.0, 3765365.0, 289.0, 289.0, 0.0);
(439714.0, 3765365.0, 289.0, 289.0, 0.0);
(439719.0, 3765365.0, 289.0, 289.0, 0.0);
(439729.0, 3765365.0, 289.0, 289.0, 0.0);
(439734.0, 3765365.0, 289.0, 289.0, 0.0);
(439739.0, 3765365.0, 289.0, 289.0, 0.0);
(439744.0, 3765365.0, 289.0, 289.0, 0.0);
(439749.0, 3765365.0, 289.0, 289.0, 0.0);
(439774.0, 3765365.0, 289.0, 289.0, 0.0);
(439779.0, 3765365.0, 289.0, 289.0, 0.0);
(439784.0, 3765365.0, 289.0, 289.0, 0.0);

```
     ( 439789.0, 3765365.0,     289.0,     289.0,       0.0);
( 439794.0, 3765365.0,     289.0,     289.0,       0.0);
     ( 439799.0, 3765365.0,     289.0,     289.0,       0.0);
( 439804.0, 3765365.0,     289.0,     289.0,       0.0);
     ( 439809.0, 3765365.0,     289.0,     289.0,       0.0);
( 439814.0, 3765365.0,     289.0,     289.0,       0.0);
     ( 439839.0, 3765365.0,     289.0,     289.0,       0.0);
( 439844.0, 3765365.0,     289.0,     289.0,       0.0);
     ( 439849.0, 3765365.0,     289.0,     289.0,       0.0);
( 439854.0, 3765365.0,     289.0,     289.0,       0.0);
     ( 439859.0, 3765365.0,     289.0,     289.0,       0.0);
( 439864.0, 3765365.0,     289.0,     289.0,       0.0);
     ( 439869.0, 3765365.0,     289.0,     289.0,       0.0);
( 439874.0, 3765365.0,     289.0,     289.0,       0.0);
     ( 439879.0, 3765365.0,     289.0,     289.0,       0.0);
( 439884.0, 3765365.0,     289.0,     289.0,       0.0);
     ( 439674.0, 3765370.0,     289.0,     289.0,       0.0);
( 439679.0, 3765370.0,     289.0,     289.0,       0.0);
     ( 439684.0, 3765370.0,     289.0,     289.0,       0.0);
( 439689.0, 3765370.0,     289.0,     289.0,       0.0);
     ( 439694.0, 3765370.0,     289.0,     289.0,       0.0);
( 439699.0, 3765370.0,     289.0,     289.0,       0.0);
     ( 439704.0, 3765370.0,     289.0,     289.0,       0.0);
( 439709.0, 3765370.0,     289.0,     289.0,       0.0);
     ( 439714.0, 3765370.0,     289.0,     289.0,       0.0);
( 439719.0, 3765370.0,     289.0,     289.0,       0.0);
     ( 439729.0, 3765370.0,     289.0,     289.0,       0.0);
( 439734.0, 3765370.0,     289.0,     289.0,       0.0);
     ( 439739.0, 3765370.0,     289.0,     289.0,       0.0);
( 439744.0, 3765370.0,     289.0,     289.0,       0.0);
     ( 439749.0, 3765370.0,     289.0,     289.0,       0.0);
( 439774.0, 3765370.0,     289.0,     289.0,       0.0);
     ( 439779.0, 3765370.0,     289.0,     289.0,       0.0);
( 439784.0, 3765370.0,     289.0,     289.0,       0.0);
     ( 439789.0, 3765370.0,     289.0,     289.0,       0.0);
( 439794.0, 3765370.0,     289.0,     289.0,       0.0);
     ( 439799.0, 3765370.0,     289.0,     289.0,       0.0);
( 439804.0, 3765370.0,     289.0,     289.0,       0.0);
     ( 439809.0, 3765370.0,     289.0,     289.0,       0.0);
( 439814.0, 3765370.0,     289.0,     289.0,       0.0);
     ( 439839.0, 3765370.0,     289.0,     289.0,       0.0);
( 439844.0, 3765370.0,     289.0,     289.0,       0.0);
     ( 439849.0, 3765370.0,     289.0,     289.0,       0.0);
( 439854.0, 3765370.0,     289.0,     289.0,       0.0);
     ( 439859.0, 3765370.0,     289.0,     289.0,       0.0);
( 439864.0, 3765370.0,     289.0,     289.0,       0.0);
     ( 439869.0, 3765370.0,     289.0,     289.0,       0.0);
( 439874.0, 3765370.0,     289.0,     289.0,       0.0);
     ( 439879.0, 3765370.0,     289.0,     289.0,       0.0);
( 439884.0, 3765370.0,     289.0,     289.0,       0.0);
     ( 439674.0, 3765375.0,     289.0,     289.0,       0.0);
( 439679.0, 3765375.0,     289.0,     289.0,       0.0);
```

```
     ( 439684.0, 3765375.0,     289.0,     289.0,       0.0);
( 439689.0, 3765375.0,     289.0,     289.0,       0.0);
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)

(METERS)

(439694.0, 3765375.0, 289.0, 289.0, 0.0);
(439699.0, 3765375.0, 289.0, 289.0, 0.0);
(439704.0, 3765375.0, 289.0, 289.0, 0.0);
(439709.0, 3765375.0, 289.0, 289.0, 0.0);
(439714.0, 3765375.0, 289.0, 289.0, 0.0);
(439719.0, 3765375.0, 289.0, 289.0, 0.0);
(439729.0, 3765375.0, 289.0, 289.0, 0.0);
(439734.0, 3765375.0, 289.0, 289.0, 0.0);
(439739.0, 3765375.0, 289.0, 289.0, 0.0);
(439744.0, 3765375.0, 289.0, 289.0, 0.0);
(439749.0, 3765375.0, 289.0, 289.0, 0.0);
(439754.0, 3765375.0, 289.0, 289.0, 0.0);
(439774.0, 3765375.0, 289.0, 289.0, 0.0);
(439779.0, 3765375.0, 289.0, 289.0, 0.0);
(439784.0, 3765375.0, 289.0, 289.0, 0.0);
(439789.0, 3765375.0, 289.0, 289.0, 0.0);
(439794.0, 3765375.0, 289.0, 289.0, 0.0);
(439799.0, 3765375.0, 289.0, 289.0, 0.0);
(439804.0, 3765375.0, 289.0, 289.0, 0.0);
(439809.0, 3765375.0, 289.0, 289.0, 0.0);
(439814.0, 3765375.0, 289.0, 289.0, 0.0);
(439839.0, 3765375.0, 289.0, 289.0, 0.0);
(439844.0, 3765375.0, 289.0, 289.0, 0.0);
(439849.0, 3765375.0, 289.0, 289.0, 0.0);
(439854.0, 3765375.0, 289.0, 289.0, 0.0);
(439859.0, 3765375.0, 289.0, 289.0, 0.0);
(439864.0, 3765375.0, 289.0, 289.0, 0.0);
(439869.0, 3765375.0, 289.0, 289.0, 0.0);
(439874.0, 3765375.0, 289.0, 289.0, 0.0);
(439879.0, 3765375.0, 289.0, 289.0, 0.0);
(439884.0, 3765375.0, 289.0, 289.0, 0.0);
(439774.0, 3765380.0, 289.0, 289.0, 0.0);
(439779.0, 3765380.0, 289.0, 289.0, 0.0);
(439784.0, 3765380.0, 289.0, 289.0, 0.0);
(439789.0, 3765380.0, 289.0, 289.0, 0.0);
(439794.0, 3765380.0, 289.0, 289.0, 0.0);

```
     ( 439799.0, 3765380.0,     289.0,     289.0,       0.0);
( 439804.0, 3765380.0,     289.0,     289.0,       0.0);
     ( 439809.0, 3765380.0,     289.0,     289.0,       0.0);
( 439814.0, 3765380.0,     289.0,     289.0,       0.0);
     ( 439769.0, 3765385.0,     289.0,     289.0,       0.0);
( 439819.0, 3765385.0,     289.0,     289.0,       0.0);
     ( 439769.0, 3765400.0,     289.0,     289.0,       0.0);
( 439844.0, 3765400.0,     289.0,     289.0,       0.0);
     ( 439849.0, 3765400.0,     289.0,     289.0,       0.0);
( 439674.0, 3765405.0,     289.0,     289.0,       0.0);
     ( 439714.0, 3765405.0,     289.0,     289.0,       0.0);
( 439719.0, 3765405.0,     289.0,     289.0,       0.0);
     ( 439734.0, 3765405.0,     289.0,     289.0,       0.0);
( 439749.0, 3765405.0,     289.0,     289.0,       0.0);
     ( 439754.0, 3765405.0,     289.0,     289.0,       0.0);
( 439774.0, 3765405.0,     289.0,     289.0,       0.0);
     ( 439779.0, 3765405.0,     289.0,     289.0,       0.0);
( 439784.0, 3765405.0,     289.0,     289.0,       0.0);
     ( 439789.0, 3765405.0,     289.0,     289.0,       0.0);
( 439794.0, 3765405.0,     289.0,     289.0,       0.0);
     ( 439799.0, 3765405.0,     289.0,     289.0,       0.0);
( 439804.0, 3765405.0,     289.0,     289.0,       0.0);
     ( 439809.0, 3765405.0,     289.0,     289.0,       0.0);
( 439814.0, 3765405.0,     289.0,     289.0,       0.0);
     ( 439819.0, 3765405.0,     289.0,     289.0,       0.0);
( 439824.0, 3765405.0,     289.0,     289.0,       0.0);
     ( 439829.0, 3765405.0,     289.0,     289.0,       0.0);
( 439834.0, 3765405.0,     289.0,     289.0,       0.0);
     ( 439839.0, 3765405.0,     289.0,     289.0,       0.0);
( 439844.0, 3765405.0,     289.0,     289.0,       0.0);
     ( 439849.0, 3765405.0,     289.0,     289.0,       0.0);
( 439854.0, 3765405.0,     289.0,     289.0,       0.0);
     ( 439859.0, 3765405.0,     289.0,     289.0,       0.0);
( 439674.0, 3765410.0,     289.0,     289.0,       0.0);
     ( 439679.0, 3765410.0,     289.0,     289.0,       0.0);
( 439684.0, 3765410.0,     289.0,     289.0,       0.0);
     ( 439689.0, 3765410.0,     289.0,     289.0,       0.0);
( 439694.0, 3765410.0,     289.0,     289.0,       0.0);
     ( 439699.0, 3765410.0,     289.0,     289.0,       0.0);
( 439704.0, 3765410.0,     289.0,     289.0,       0.0);
     ( 439709.0, 3765410.0,     289.0,     289.0,       0.0);
( 439714.0, 3765410.0,     289.0,     289.0,       0.0);
     ( 439719.0, 3765410.0,     289.0,     289.0,       0.0);
( 439729.0, 3765410.0,     289.0,     289.0,       0.0);
     ( 439734.0, 3765410.0,     289.0,     289.0,       0.0);
( 439739.0, 3765410.0,     289.0,     289.0,       0.0);
     ( 439744.0, 3765410.0,     289.0,     289.0,       0.0);
( 439749.0, 3765410.0,     289.0,     289.0,       0.0);
     ( 439774.0, 3765410.0,     289.0,     289.0,       0.0);
( 439779.0, 3765410.0,     289.0,     289.0,       0.0);
     ( 439784.0, 3765410.0,     289.0,     289.0,       0.0);
( 439789.0, 3765410.0,     289.0,     289.0,       0.0);
```

```
     ( 439794.0, 3765410.0,     289.0,     289.0,       0.0);
( 439799.0, 3765410.0,     289.0,     289.0,       0.0);
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)

(METERS)

(439804.0, 3765410.0, 289.0, 289.0, 0.0);
(439809.0, 3765410.0, 289.0, 289.0, 0.0);
(439814.0, 3765410.0, 289.0, 289.0, 0.0);
(439819.0, 3765410.0, 289.0, 289.0, 0.0);
(439824.0, 3765410.0, 289.0, 289.0, 0.0);
(439829.0, 3765410.0, 289.0, 289.0, 0.0);
(439834.0, 3765410.0, 289.0, 289.0, 0.0);
(439839.0, 3765410.0, 289.0, 289.0, 0.0);
(439844.0, 3765410.0, 289.0, 289.0, 0.0);
(439849.0, 3765410.0, 289.0, 289.0, 0.0);
(439854.0, 3765410.0, 289.0, 289.0, 0.0);
(439859.0, 3765410.0, 289.0, 289.0, 0.0);
(439674.0, 3765415.0, 289.0, 289.0, 0.0);
(439679.0, 3765415.0, 289.0, 289.0, 0.0);
(439684.0, 3765415.0, 289.0, 289.0, 0.0);
(439689.0, 3765415.0, 289.0, 289.0, 0.0);
(439694.0, 3765415.0, 289.0, 289.0, 0.0);
(439699.0, 3765415.0, 289.0, 289.0, 0.0);
(439704.0, 3765415.0, 289.0, 289.0, 0.0);
(439709.0, 3765415.0, 289.0, 289.0, 0.0);
(439714.0, 3765415.0, 289.0, 289.0, 0.0);
(439719.0, 3765415.0, 289.0, 289.0, 0.0);
(439729.0, 3765415.0, 289.0, 289.0, 0.0);
(439734.0, 3765415.0, 289.0, 289.0, 0.0);
(439739.0, 3765415.0, 289.0, 289.0, 0.0);
(439744.0, 3765415.0, 289.0, 289.0, 0.0);
(439749.0, 3765415.0, 289.0, 289.0, 0.0);
(439774.0, 3765415.0, 289.0, 289.0, 0.0);
(439779.0, 3765415.0, 289.0, 289.0, 0.0);
(439784.0, 3765415.0, 289.0, 289.0, 0.0);
(439789.0, 3765415.0, 289.0, 289.0, 0.0);
(439794.0, 3765415.0, 289.0, 289.0, 0.0);
(439799.0, 3765415.0, 289.0, 289.0, 0.0);
(439804.0, 3765415.0, 289.0, 289.0, 0.0);
(439809.0, 3765415.0, 289.0, 289.0, 0.0);
(439814.0, 3765415.0, 289.0, 289.0, 0.0);

```
     ( 439819.0, 3765415.0,     289.0,     289.0,       0.0);
( 439824.0, 3765415.0,     289.0,     289.0,       0.0);
     ( 439829.0, 3765415.0,     289.0,     289.0,       0.0);
( 439834.0, 3765415.0,     289.0,     289.0,       0.0);
     ( 439839.0, 3765415.0,     289.0,     289.0,       0.0);
( 439844.0, 3765415.0,     289.0,     289.0,       0.0);
     ( 439849.0, 3765415.0,     289.0,     289.0,       0.0);
( 439854.0, 3765415.0,     289.0,     289.0,       0.0);
     ( 439859.0, 3765415.0,     289.0,     289.0,       0.0);
( 439674.0, 3765420.0,     289.0,     289.0,       0.0);
     ( 439679.0, 3765420.0,     289.0,     289.0,       0.0);
( 439684.0, 3765420.0,     289.0,     289.0,       0.0);
     ( 439689.0, 3765420.0,     289.0,     289.0,       0.0);
( 439694.0, 3765420.0,     289.0,     289.0,       0.0);
     ( 439699.0, 3765420.0,     289.0,     289.0,       0.0);
( 439704.0, 3765420.0,     289.0,     289.0,       0.0);
     ( 439709.0, 3765420.0,     289.0,     289.0,       0.0);
( 439714.0, 3765420.0,     289.0,     289.0,       0.0);
     ( 439719.0, 3765420.0,     289.0,     289.0,       0.0);
( 439729.0, 3765420.0,     289.0,     289.0,       0.0);
     ( 439734.0, 3765420.0,     289.0,     289.0,       0.0);
( 439739.0, 3765420.0,     289.0,     289.0,       0.0);
     ( 439744.0, 3765420.0,     289.0,     289.0,       0.0);
( 439749.0, 3765420.0,     289.0,     289.0,       0.0);
     ( 439774.0, 3765420.0,     289.0,     289.0,       0.0);
( 439779.0, 3765420.0,     289.0,     289.0,       0.0);
     ( 439784.0, 3765420.0,     289.0,     289.0,       0.0);
( 439789.0, 3765420.0,     289.0,     289.0,       0.0);
     ( 439794.0, 3765420.0,     289.0,     289.0,       0.0);
( 439799.0, 3765420.0,     289.0,     289.0,       0.0);
     ( 439804.0, 3765420.0,     289.0,     289.0,       0.0);
( 439809.0, 3765420.0,     289.0,     289.0,       0.0);
     ( 439814.0, 3765420.0,     289.0,     289.0,       0.0);
( 439819.0, 3765420.0,     289.0,     289.0,       0.0);
     ( 439824.0, 3765420.0,     289.0,     289.0,       0.0);
( 439829.0, 3765420.0,     289.0,     289.0,       0.0);
     ( 439834.0, 3765420.0,     289.0,     289.0,       0.0);
( 439839.0, 3765420.0,     289.0,     289.0,       0.0);
     ( 439844.0, 3765420.0,     289.0,     289.0,       0.0);
( 439849.0, 3765420.0,     289.0,     289.0,       0.0);
     ( 439854.0, 3765420.0,     289.0,     289.0,       0.0);
( 439859.0, 3765420.0,     289.0,     289.0,       0.0);
     ( 439674.0, 3765425.0,     289.0,     289.0,       0.0);
( 439679.0, 3765425.0,     289.0,     289.0,       0.0);
     ( 439684.0, 3765425.0,     289.0,     289.0,       0.0);
( 439689.0, 3765425.0,     289.0,     289.0,       0.0);
     ( 439694.0, 3765425.0,     289.0,     289.0,       0.0);
( 439699.0, 3765425.0,     289.0,     289.0,       0.0);
     ( 439704.0, 3765425.0,     289.0,     289.0,       0.0);
( 439709.0, 3765425.0,     289.0,     289.0,       0.0);
     ( 439714.0, 3765425.0,     289.0,     289.0,       0.0);
( 439719.0, 3765425.0,     289.0,     289.0,       0.0);
```

```
     ( 439729.0, 3765425.0,     289.0,     289.0,       0.0);
( 439734.0, 3765425.0,     289.0,     289.0,       0.0);
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)

(METERS)

(439739.0, 3765425.0, 289.0, 289.0, 0.0);
(439744.0, 3765425.0, 289.0, 289.0, 0.0);
(439749.0, 3765425.0, 289.0, 289.0, 0.0);
(439774.0, 3765425.0, 289.0, 289.0, 0.0);
(439779.0, 3765425.0, 289.0, 289.0, 0.0);
(439784.0, 3765425.0, 289.0, 289.0, 0.0);
(439789.0, 3765425.0, 289.0, 289.0, 0.0);
(439794.0, 3765425.0, 289.0, 289.0, 0.0);
(439799.0, 3765425.0, 289.0, 289.0, 0.0);
(439804.0, 3765425.0, 289.0, 289.0, 0.0);
(439809.0, 3765425.0, 289.0, 289.0, 0.0);
(439814.0, 3765425.0, 289.0, 289.0, 0.0);
(439819.0, 3765425.0, 289.0, 289.0, 0.0);
(439824.0, 3765425.0, 289.0, 289.0, 0.0);
(439829.0, 3765425.0, 289.0, 289.0, 0.0);
(439834.0, 3765425.0, 289.0, 289.0, 0.0);
(439839.0, 3765425.0, 289.0, 289.0, 0.0);
(439844.0, 3765425.0, 289.0, 289.0, 0.0);
(439849.0, 3765425.0, 289.0, 289.0, 0.0);
(439854.0, 3765425.0, 289.0, 289.0, 0.0);
(439859.0, 3765425.0, 289.0, 289.0, 0.0);
(439674.0, 3765430.0, 289.0, 289.0, 0.0);
(439679.0, 3765430.0, 289.0, 289.0, 0.0);
(439684.0, 3765430.0, 289.0, 289.0, 0.0);
(439689.0, 3765430.0, 289.0, 289.0, 0.0);
(439694.0, 3765430.0, 289.0, 289.0, 0.0);
(439699.0, 3765430.0, 289.0, 289.0, 0.0);
(439704.0, 3765430.0, 289.0, 289.0, 0.0);
(439709.0, 3765430.0, 289.0, 289.0, 0.0);
(439714.0, 3765430.0, 289.0, 289.0, 0.0);
(439719.0, 3765430.0, 289.0, 289.0, 0.0);
(439729.0, 3765430.0, 289.0, 289.0, 0.0);
(439734.0, 3765430.0, 289.0, 289.0, 0.0);
(439739.0, 3765430.0, 289.0, 289.0, 0.0);
(439744.0, 3765430.0, 289.0, 289.0, 0.0);
(439749.0, 3765430.0, 289.0, 289.0, 0.0);

```
     ( 439774.0, 3765430.0,     289.0,     289.0,       0.0);
( 439779.0, 3765430.0,     289.0,     289.0,       0.0);
     ( 439784.0, 3765430.0,     289.0,     289.0,       0.0);
( 439789.0, 3765430.0,     289.0,     289.0,       0.0);
     ( 439794.0, 3765430.0,     289.0,     289.0,       0.0);
( 439799.0, 3765430.0,     289.0,     289.0,       0.0);
     ( 439804.0, 3765430.0,     289.0,     289.0,       0.0);
( 439809.0, 3765430.0,     289.0,     289.0,       0.0);
     ( 439814.0, 3765430.0,     289.0,     289.0,       0.0);
( 439819.0, 3765430.0,     289.0,     289.0,       0.0);
     ( 439824.0, 3765430.0,     289.0,     289.0,       0.0);
( 439829.0, 3765430.0,     289.0,     289.0,       0.0);
     ( 439834.0, 3765430.0,     289.0,     289.0,       0.0);
( 439839.0, 3765430.0,     289.0,     289.0,       0.0);
     ( 439844.0, 3765430.0,     289.0,     289.0,       0.0);
( 439849.0, 3765430.0,     289.0,     289.0,       0.0);
     ( 439854.0, 3765430.0,     289.0,     289.0,       0.0);
( 439859.0, 3765430.0,     289.0,     289.0,       0.0);
     ( 439674.0, 3765435.0,     289.0,     289.0,       0.0);
( 439679.0, 3765435.0,     289.0,     289.0,       0.0);
     ( 439684.0, 3765435.0,     289.0,     289.0,       0.0);
( 439689.0, 3765435.0,     289.0,     289.0,       0.0);
     ( 439694.0, 3765435.0,     289.0,     289.0,       0.0);
( 439699.0, 3765435.0,     289.0,     289.0,       0.0);
     ( 439704.0, 3765435.0,     289.0,     289.0,       0.0);
( 439709.0, 3765435.0,     289.0,     289.0,       0.0);
     ( 439714.0, 3765435.0,     289.0,     289.0,       0.0);
( 439719.0, 3765435.0,     289.0,     289.0,       0.0);
     ( 439729.0, 3765435.0,     289.0,     289.0,       0.0);
( 439734.0, 3765435.0,     289.0,     289.0,       0.0);
     ( 439739.0, 3765435.0,     289.0,     289.0,       0.0);
( 439744.0, 3765435.0,     289.0,     289.0,       0.0);
     ( 439749.0, 3765435.0,     289.0,     289.0,       0.0);
( 439774.0, 3765435.0,     289.0,     289.0,       0.0);
     ( 439779.0, 3765435.0,     289.0,     289.0,       0.0);
( 439784.0, 3765435.0,     289.0,     289.0,       0.0);
     ( 439789.0, 3765435.0,     289.0,     289.0,       0.0);
( 439794.0, 3765435.0,     289.0,     289.0,       0.0);
     ( 439799.0, 3765435.0,     289.0,     289.0,       0.0);
( 439804.0, 3765435.0,     289.0,     289.0,       0.0);
     ( 439809.0, 3765435.0,     289.0,     289.0,       0.0);
( 439814.0, 3765435.0,     289.0,     289.0,       0.0);
     ( 439819.0, 3765435.0,     289.0,     289.0,       0.0);
( 439824.0, 3765435.0,     289.0,     289.0,       0.0);
     ( 439829.0, 3765435.0,     289.0,     289.0,       0.0);
( 439834.0, 3765435.0,     289.0,     289.0,       0.0);
     ( 439839.0, 3765435.0,     289.0,     289.0,       0.0);
( 439844.0, 3765435.0,     289.0,     289.0,       0.0);
     ( 439849.0, 3765435.0,     289.0,     289.0,       0.0);
( 439854.0, 3765435.0,     289.0,     289.0,       0.0);
     ( 439859.0, 3765435.0,     289.0,     289.0,       0.0);
( 439674.0, 3765440.0,     289.0,     289.0,       0.0);
```

```
     ( 439679.0, 3765440.0,     289.0,     289.0,       0.0);
( 439684.0, 3765440.0,     289.0,     289.0,       0.0);
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)

(METERS)

(439689.0, 3765440.0, 289.0, 289.0, 0.0);
(439694.0, 3765440.0, 289.0, 289.0, 0.0);
(439699.0, 3765440.0, 289.0, 289.0, 0.0);
(439704.0, 3765440.0, 289.0, 289.0, 0.0);
(439709.0, 3765440.0, 289.0, 289.0, 0.0);
(439714.0, 3765440.0, 289.0, 289.0, 0.0);
(439719.0, 3765440.0, 289.0, 289.0, 0.0);
(439729.0, 3765440.0, 289.0, 289.0, 0.0);
(439734.0, 3765440.0, 289.0, 289.0, 0.0);
(439739.0, 3765440.0, 289.0, 289.0, 0.0);
(439744.0, 3765440.0, 289.0, 289.0, 0.0);
(439749.0, 3765440.0, 289.0, 289.0, 0.0);
(439774.0, 3765440.0, 289.0, 289.0, 0.0);
(439779.0, 3765440.0, 289.0, 289.0, 0.0);
(439784.0, 3765440.0, 289.0, 289.0, 0.0);
(439789.0, 3765440.0, 289.0, 289.0, 0.0);
(439794.0, 3765440.0, 289.0, 289.0, 0.0);
(439799.0, 3765440.0, 289.0, 289.0, 0.0);
(439804.0, 3765440.0, 289.0, 289.0, 0.0);
(439809.0, 3765440.0, 289.0, 289.0, 0.0);
(439814.0, 3765440.0, 289.0, 289.0, 0.0);
(439819.0, 3765440.0, 289.0, 289.0, 0.0);
(439824.0, 3765440.0, 289.0, 289.0, 0.0);
(439829.0, 3765440.0, 289.0, 289.0, 0.0);
(439834.0, 3765440.0, 289.0, 289.0, 0.0);
(439839.0, 3765440.0, 289.0, 289.0, 0.0);
(439844.0, 3765440.0, 289.0, 289.0, 0.0);
(439849.0, 3765440.0, 289.0, 289.0, 0.0);
(439854.0, 3765440.0, 289.0, 289.0, 0.0);
(439859.0, 3765440.0, 289.0, 289.0, 0.0);
(439674.0, 3765445.0, 289.0, 289.0, 0.0);
(439679.0, 3765445.0, 289.0, 289.0, 0.0);
(439684.0, 3765445.0, 289.0, 289.0, 0.0);
(439689.0, 3765445.0, 289.0, 289.0, 0.0);
(439694.0, 3765445.0, 289.0, 289.0, 0.0);
(439699.0, 3765445.0, 289.0, 289.0, 0.0);

```
     ( 439704.0, 3765445.0,     289.0,     289.0,       0.0);
( 439709.0, 3765445.0,     289.0,     289.0,       0.0);
     ( 439714.0, 3765445.0,     289.0,     289.0,       0.0);
( 439719.0, 3765445.0,     289.0,     289.0,       0.0);
     ( 439729.0, 3765445.0,     289.0,     289.0,       0.0);
( 439734.0, 3765445.0,     289.0,     289.0,       0.0);
     ( 439739.0, 3765445.0,     289.0,     289.0,       0.0);
( 439744.0, 3765445.0,     289.0,     289.0,       0.0);
     ( 439749.0, 3765445.0,     289.0,     289.0,       0.0);
( 439774.0, 3765445.0,     289.0,     289.0,       0.0);
     ( 439779.0, 3765445.0,     289.0,     289.0,       0.0);
( 439784.0, 3765445.0,     289.0,     289.0,       0.0);
     ( 439789.0, 3765445.0,     289.0,     289.0,       0.0);
( 439794.0, 3765445.0,     289.0,     289.0,       0.0);
     ( 439799.0, 3765445.0,     289.0,     289.0,       0.0);
( 439804.0, 3765445.0,     289.0,     289.0,       0.0);
     ( 439809.0, 3765445.0,     289.0,     289.0,       0.0);
( 439814.0, 3765445.0,     289.0,     289.0,       0.0);
     ( 439819.0, 3765445.0,     289.0,     289.0,       0.0);
( 439824.0, 3765445.0,     289.0,     289.0,       0.0);
     ( 439829.0, 3765445.0,     289.0,     289.0,       0.0);
( 439834.0, 3765445.0,     289.0,     289.0,       0.0);
     ( 439839.0, 3765445.0,     289.0,     289.0,       0.0);
( 439844.0, 3765445.0,     289.0,     289.0,       0.0);
     ( 439849.0, 3765445.0,     289.0,     289.0,       0.0);
( 439854.0, 3765445.0,     289.0,     289.0,       0.0);
     ( 439859.0, 3765445.0,     289.0,     289.0,       0.0);
( 439674.0, 3765450.0,     289.0,     289.0,       0.0);
     ( 439679.0, 3765450.0,     289.0,     289.0,       0.0);
( 439684.0, 3765450.0,     289.0,     289.0,       0.0);
     ( 439689.0, 3765450.0,     289.0,     289.0,       0.0);
( 439694.0, 3765450.0,     289.0,     289.0,       0.0);
     ( 439699.0, 3765450.0,     289.0,     289.0,       0.0);
( 439704.0, 3765450.0,     289.0,     289.0,       0.0);
     ( 439709.0, 3765450.0,     289.0,     289.0,       0.0);
( 439714.0, 3765450.0,     289.0,     289.0,       0.0);
     ( 439719.0, 3765450.0,     289.0,     289.0,       0.0);
( 439729.0, 3765450.0,     289.0,     289.0,       0.0);
     ( 439734.0, 3765450.0,     289.0,     289.0,       0.0);
( 439739.0, 3765450.0,     289.0,     289.0,       0.0);
     ( 439744.0, 3765450.0,     289.0,     289.0,       0.0);
( 439749.0, 3765450.0,     289.0,     289.0,       0.0);
     ( 439774.0, 3765450.0,     289.0,     289.0,       0.0);
( 439844.0, 3765450.0,     289.0,     289.0,       0.0);
     ( 439849.0, 3765450.0,     289.0,     289.0,       0.0);
( 439854.0, 3765450.0,     289.0,     289.0,       0.0);
     ( 439859.0, 3765450.0,     289.0,     289.0,       0.0);
( 439674.0, 3765455.0,     289.0,     289.0,       0.0);
     ( 439679.0, 3765455.0,     289.0,     289.0,       0.0);
( 439684.0, 3765455.0,     289.0,     289.0,       0.0);
     ( 439689.0, 3765455.0,     289.0,     289.0,       0.0);
( 439694.0, 3765455.0,     289.0,     289.0,       0.0);
```

```
     ( 439699.0, 3765455.0,     289.0,     289.0,       0.0);
( 439704.0, 3765455.0,     289.0,     289.0,       0.0);
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)

(METERS)

(439709.0, 3765455.0, 289.0, 289.0, 0.0);
(439714.0, 3765455.0, 289.0, 289.0, 0.0);
(439719.0, 3765455.0, 289.0, 289.0, 0.0);
(439729.0, 3765455.0, 289.0, 289.0, 0.0);
(439734.0, 3765455.0, 289.0, 289.0, 0.0);
(439739.0, 3765455.0, 289.0, 289.0, 0.0);
(439744.0, 3765455.0, 289.0, 289.0, 0.0);
(439749.0, 3765455.0, 289.0, 289.0, 0.0);
(439844.0, 3765455.0, 289.0, 289.0, 0.0);
(439849.0, 3765455.0, 289.0, 289.0, 0.0);
(439854.0, 3765455.0, 289.0, 289.0, 0.0);
(439859.0, 3765455.0, 289.0, 289.0, 0.0);
(439674.0, 3765460.0, 289.0, 289.0, 0.0);
(439679.0, 3765460.0, 289.0, 289.0, 0.0);
(439684.0, 3765460.0, 289.0, 289.0, 0.0);
(439689.0, 3765460.0, 289.0, 289.0, 0.0);
(439694.0, 3765460.0, 289.0, 289.0, 0.0);
(439699.0, 3765460.0, 289.0, 289.0, 0.0);
(439704.0, 3765460.0, 289.0, 289.0, 0.0);
(439709.0, 3765460.0, 289.0, 289.0, 0.0);
(439714.0, 3765460.0, 289.0, 289.0, 0.0);
(439719.0, 3765460.0, 289.0, 289.0, 0.0);
(439729.0, 3765460.0, 289.0, 289.0, 0.0);
(439734.0, 3765460.0, 289.0, 289.0, 0.0);
(439739.0, 3765460.0, 289.0, 289.0, 0.0);
(439744.0, 3765460.0, 289.0, 289.0, 0.0);
(439749.0, 3765460.0, 289.0, 289.0, 0.0);
(439789.0, 3765460.0, 289.0, 289.0, 0.0);
(439794.0, 3765460.0, 289.0, 289.0, 0.0);
(439799.0, 3765460.0, 289.0, 289.0, 0.0);
(439804.0, 3765460.0, 289.0, 289.0, 0.0);
(439809.0, 3765460.0, 289.0, 289.0, 0.0);
(439814.0, 3765460.0, 289.0, 289.0, 0.0);
(439819.0, 3765460.0, 289.0, 289.0, 0.0);
(439824.0, 3765460.0, 289.0, 289.0, 0.0);
(439829.0, 3765460.0, 289.0, 289.0, 0.0);

```
     ( 439844.0, 3765460.0,     289.0,     289.0,       0.0);
( 439849.0, 3765460.0,     289.0,     289.0,       0.0);
     ( 439854.0, 3765460.0,     289.0,     289.0,       0.0);
( 439859.0, 3765460.0,     289.0,     289.0,       0.0);
     ( 439674.0, 3765465.0,     289.0,     289.0,       0.0);
( 439679.0, 3765465.0,     289.0,     289.0,       0.0);
     ( 439684.0, 3765465.0,     289.0,     289.0,       0.0);
( 439689.0, 3765465.0,     289.0,     289.0,       0.0);
     ( 439694.0, 3765465.0,     289.0,     289.0,       0.0);
( 439699.0, 3765465.0,     289.0,     289.0,       0.0);
     ( 439704.0, 3765465.0,     289.0,     289.0,       0.0);
( 439709.0, 3765465.0,     289.0,     289.0,       0.0);
     ( 439714.0, 3765465.0,     289.0,     289.0,       0.0);
( 439719.0, 3765465.0,     289.0,     289.0,       0.0);
     ( 439729.0, 3765465.0,     289.0,     289.0,       0.0);
( 439734.0, 3765465.0,     289.0,     289.0,       0.0);
     ( 439739.0, 3765465.0,     289.0,     289.0,       0.0);
( 439744.0, 3765465.0,     289.0,     289.0,       0.0);
     ( 439749.0, 3765465.0,     289.0,     289.0,       0.0);
( 439789.0, 3765465.0,     289.0,     289.0,       0.0);
     ( 439794.0, 3765465.0,     289.0,     289.0,       0.0);
( 439799.0, 3765465.0,     289.0,     289.0,       0.0);
     ( 439804.0, 3765465.0,     289.0,     289.0,       0.0);
( 439809.0, 3765465.0,     289.0,     289.0,       0.0);
     ( 439814.0, 3765465.0,     289.0,     289.0,       0.0);
( 439819.0, 3765465.0,     289.0,     289.0,       0.0);
     ( 439824.0, 3765465.0,     289.0,     289.0,       0.0);
( 439829.0, 3765465.0,     289.0,     289.0,       0.0);
     ( 439844.0, 3765465.0,     289.0,     289.0,       0.0);
( 439849.0, 3765465.0,     289.0,     289.0,       0.0);
     ( 439854.0, 3765465.0,     289.0,     289.0,       0.0);
( 439859.0, 3765465.0,     289.0,     289.0,       0.0);
     ( 439674.0, 3765470.0,     289.0,     289.0,       0.0);
( 439679.0, 3765470.0,     289.0,     289.0,       0.0);
     ( 439684.0, 3765470.0,     289.0,     289.0,       0.0);
( 439689.0, 3765470.0,     289.0,     289.0,       0.0);
     ( 439694.0, 3765470.0,     289.0,     289.0,       0.0);
( 439699.0, 3765470.0,     289.0,     289.0,       0.0);
     ( 439704.0, 3765470.0,     289.0,     289.0,       0.0);
( 439709.0, 3765470.0,     289.0,     289.0,       0.0);
     ( 439714.0, 3765470.0,     289.0,     289.0,       0.0);
( 439719.0, 3765470.0,     289.0,     289.0,       0.0);
     ( 439729.0, 3765470.0,     289.0,     289.0,       0.0);
( 439734.0, 3765470.0,     289.0,     289.0,       0.0);
     ( 439739.0, 3765470.0,     289.0,     289.0,       0.0);
( 439744.0, 3765470.0,     289.0,     289.0,       0.0);
     ( 439749.0, 3765470.0,     289.0,     289.0,       0.0);
( 439789.0, 3765470.0,     289.0,     289.0,       0.0);
     ( 439794.0, 3765470.0,     289.0,     289.0,       0.0);
( 439799.0, 3765470.0,     289.0,     289.0,       0.0);
     ( 439804.0, 3765470.0,     289.0,     289.0,       0.0);
( 439809.0, 3765470.0,     289.0,     289.0,       0.0);
```

```
     ( 439814.0, 3765470.0,     289.0,     289.0,       0.0);
( 439819.0, 3765470.0,     289.0,     289.0,       0.0);
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)

(METERS)

(439824.0, 3765470.0, 289.0, 289.0, 0.0);
(439829.0, 3765470.0, 289.0, 289.0, 0.0);
(439844.0, 3765470.0, 289.0, 289.0, 0.0);
(439849.0, 3765470.0, 289.0, 289.0, 0.0);
(439854.0, 3765470.0, 289.0, 289.0, 0.0);
(439859.0, 3765470.0, 289.0, 289.0, 0.0);
(439674.0, 3765475.0, 289.0, 289.0, 0.0);
(439679.0, 3765475.0, 289.0, 289.0, 0.0);
(439684.0, 3765475.0, 289.0, 289.0, 0.0);
(439689.0, 3765475.0, 289.0, 289.0, 0.0);
(439694.0, 3765475.0, 289.0, 289.0, 0.0);
(439699.0, 3765475.0, 289.0, 289.0, 0.0);
(439704.0, 3765475.0, 289.0, 289.0, 0.0);
(439709.0, 3765475.0, 289.0, 289.0, 0.0);
(439714.0, 3765475.0, 289.0, 289.0, 0.0);
(439719.0, 3765475.0, 289.0, 289.0, 0.0);
(439729.0, 3765475.0, 289.0, 289.0, 0.0);
(439734.0, 3765475.0, 289.0, 289.0, 0.0);
(439739.0, 3765475.0, 289.0, 289.0, 0.0);
(439744.0, 3765475.0, 289.0, 289.0, 0.0);
(439749.0, 3765475.0, 289.0, 289.0, 0.0);
(439754.0, 3765475.0, 289.0, 289.0, 0.0);
(439789.0, 3765475.0, 289.0, 289.0, 0.0);
(439794.0, 3765475.0, 289.0, 289.0, 0.0);
(439799.0, 3765475.0, 289.0, 289.0, 0.0);
(439804.0, 3765475.0, 289.0, 289.0, 0.0);
(439809.0, 3765475.0, 289.0, 289.0, 0.0);
(439814.0, 3765475.0, 289.0, 289.0, 0.0);
(439819.0, 3765475.0, 289.0, 289.0, 0.0);
(439824.0, 3765475.0, 289.0, 289.0, 0.0);
(439829.0, 3765475.0, 289.0, 289.0, 0.0);
(439269.0, 3764900.0, 289.0, 289.0, 0.0);
(439369.0, 3764900.0, 289.0, 289.0, 0.0);
(439469.0, 3764900.0, 289.0, 289.0, 0.0);
(439569.0, 3764900.0, 289.0, 289.0, 0.0);
(439669.0, 3764900.0, 289.0, 289.0, 0.0);

```
     ( 439769.0, 3764900.0,     289.0,     289.0,       0.0);
( 439869.0, 3764900.0,     289.0,     289.0,       0.0);
     ( 439969.0, 3764900.0,     289.0,     289.0,       0.0);
( 440069.0, 3764900.0,     289.0,     289.0,       0.0);
     ( 440169.0, 3764900.0,     289.0,     289.0,       0.0);
( 440269.0, 3764900.0,     289.0,     289.0,       0.0);
     ( 439269.0, 3765000.0,     289.0,     289.0,       0.0);
( 439369.0, 3765000.0,     289.0,     289.0,       0.0);
     ( 439469.0, 3765000.0,     289.0,     289.0,       0.0);
( 439569.0, 3765000.0,     289.0,     289.0,       0.0);
     ( 439669.0, 3765000.0,     289.0,     289.0,       0.0);
( 439769.0, 3765000.0,     289.0,     289.0,       0.0);
     ( 439869.0, 3765000.0,     289.0,     289.0,       0.0);
( 439969.0, 3765000.0,     289.0,     289.0,       0.0);
     ( 440069.0, 3765000.0,     289.0,     289.0,       0.0);
( 440169.0, 3765000.0,     289.0,     289.0,       0.0);
     ( 440269.0, 3765000.0,     289.0,     289.0,       0.0);
( 439269.0, 3765100.0,     289.0,     289.0,       0.0);
     ( 439369.0, 3765100.0,     289.0,     289.0,       0.0);
( 439469.0, 3765100.0,     289.0,     289.0,       0.0);
     ( 439569.0, 3765100.0,     289.0,     289.0,       0.0);
( 439669.0, 3765100.0,     289.0,     289.0,       0.0);
     ( 439769.0, 3765100.0,     289.0,     289.0,       0.0);
( 439869.0, 3765100.0,     289.0,     289.0,       0.0);
     ( 439969.0, 3765100.0,     289.0,     289.0,       0.0);
( 440069.0, 3765100.0,     289.0,     289.0,       0.0);
     ( 440169.0, 3765100.0,     289.0,     289.0,       0.0);
( 440269.0, 3765100.0,     289.0,     289.0,       0.0);
     ( 439269.0, 3765200.0,     289.0,     289.0,       0.0);
( 439369.0, 3765200.0,     289.0,     289.0,       0.0);
     ( 439469.0, 3765200.0,     289.0,     289.0,       0.0);
( 439569.0, 3765200.0,     289.0,     289.0,       0.0);
     ( 439669.0, 3765200.0,     289.0,     289.0,       0.0);
( 439769.0, 3765200.0,     289.0,     289.0,       0.0);
     ( 439869.0, 3765200.0,     289.0,     289.0,       0.0);
( 439969.0, 3765200.0,     289.0,     289.0,       0.0);
     ( 440069.0, 3765200.0,     289.0,     289.0,       0.0);
( 440169.0, 3765200.0,     289.0,     289.0,       0.0);
     ( 440269.0, 3765200.0,     289.0,     289.0,       0.0);
( 439269.0, 3765300.0,     289.0,     289.0,       0.0);
     ( 439369.0, 3765300.0,     289.0,     289.0,       0.0);
( 439469.0, 3765300.0,     289.0,     289.0,       0.0);
     ( 439569.0, 3765300.0,     289.0,     289.0,       0.0);
( 439669.0, 3765300.0,     289.0,     289.0,       0.0);
     ( 439769.0, 3765300.0,     289.0,     289.0,       0.0);
( 439869.0, 3765300.0,     289.0,     289.0,       0.0);
     ( 439969.0, 3765300.0,     289.0,     289.0,       0.0);
( 440069.0, 3765300.0,     289.0,     289.0,       0.0);
     ( 440169.0, 3765300.0,     289.0,     289.0,       0.0);
( 440269.0, 3765300.0,     289.0,     289.0,       0.0);
     ( 439269.0, 3765400.0,     289.0,     289.0,       0.0);
( 439369.0, 3765400.0,     289.0,     289.0,       0.0);
```

```
     ( 439469.0, 3765400.0,     289.0,     289.0,       0.0);
( 439569.0, 3765400.0,     289.0,     289.0,       0.0);
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)

(METERS)

(439669.0, 3765400.0, 289.0, 289.0, 0.0);
(439769.0, 3765400.0, 289.0, 289.0, 0.0);
(439869.0, 3765400.0, 289.0, 289.0, 0.0);
(439969.0, 3765400.0, 289.0, 289.0, 0.0);
(440069.0, 3765400.0, 289.0, 289.0, 0.0);
(440169.0, 3765400.0, 289.0, 289.0, 0.0);
(440269.0, 3765400.0, 289.0, 289.0, 0.0);
(439269.0, 3765500.0, 289.0, 289.0, 0.0);
(439369.0, 3765500.0, 289.0, 289.0, 0.0);
(439469.0, 3765500.0, 289.0, 289.0, 0.0);
(439569.0, 3765500.0, 289.0, 289.0, 0.0);
(439669.0, 3765500.0, 289.0, 289.0, 0.0);
(439769.0, 3765500.0, 289.0, 289.0, 0.0);
(439869.0, 3765500.0, 289.0, 289.0, 0.0);
(439969.0, 3765500.0, 289.0, 289.0, 0.0);
(440069.0, 3765500.0, 289.0, 289.0, 0.0);
(440169.0, 3765500.0, 289.0, 289.0, 0.0);
(440269.0, 3765500.0, 289.0, 289.0, 0.0);
(439269.0, 3765600.0, 289.0, 289.0, 0.0);
(439369.0, 3765600.0, 289.0, 289.0, 0.0);
(439469.0, 3765600.0, 289.0, 289.0, 0.0);
(439569.0, 3765600.0, 289.0, 289.0, 0.0);
(439669.0, 3765600.0, 289.0, 289.0, 0.0);
(439769.0, 3765600.0, 289.0, 289.0, 0.0);
(439869.0, 3765600.0, 289.0, 289.0, 0.0);
(439969.0, 3765600.0, 289.0, 289.0, 0.0);
(440069.0, 3765600.0, 289.0, 289.0, 0.0);
(440169.0, 3765600.0, 289.0, 289.0, 0.0);
(440269.0, 3765600.0, 289.0, 289.0, 0.0);
(439269.0, 3765700.0, 289.0, 289.0, 0.0);
(439369.0, 3765700.0, 289.0, 289.0, 0.0);
(439469.0, 3765700.0, 289.0, 289.0, 0.0);
(439569.0, 3765700.0, 289.0, 289.0, 0.0);
(439669.0, 3765700.0, 289.0, 289.0, 0.0);
(439769.0, 3765700.0, 289.0, 289.0, 0.0);
(439869.0, 3765700.0, 289.0, 289.0, 0.0);

```
     ( 439969.0, 3765700.0,     289.0,     289.0,       0.0);
( 440069.0, 3765700.0,     289.0,     289.0,       0.0);
     ( 440169.0, 3765700.0,     289.0,     289.0,       0.0);
( 440269.0, 3765700.0,     289.0,     289.0,       0.0);
     ( 439269.0, 3765800.0,     289.0,     289.0,       0.0);
( 439369.0, 3765800.0,     289.0,     289.0,       0.0);
     ( 439469.0, 3765800.0,     289.0,     289.0,       0.0);
( 439569.0, 3765800.0,     289.0,     289.0,       0.0);
     ( 439669.0, 3765800.0,     289.0,     289.0,       0.0);
( 439769.0, 3765800.0,     289.0,     289.0,       0.0);
     ( 439869.0, 3765800.0,     289.0,     289.0,       0.0);
( 439969.0, 3765800.0,     289.0,     289.0,       0.0);
     ( 440069.0, 3765800.0,     289.0,     289.0,       0.0);
( 440169.0, 3765800.0,     289.0,     289.0,       0.0);
     ( 440269.0, 3765800.0,     289.0,     289.0,       0.0);
( 439269.0, 3765900.0,     289.0,     289.0,       0.0);
     ( 439369.0, 3765900.0,     289.0,     289.0,       0.0);
( 439469.0, 3765900.0,     289.0,     289.0,       0.0);
     ( 439569.0, 3765900.0,     289.0,     289.0,       0.0);
( 439669.0, 3765900.0,     289.0,     289.0,       0.0);
     ( 439769.0, 3765900.0,     289.0,     289.0,       0.0);
( 439869.0, 3765900.0,     289.0,     289.0,       0.0);
     ( 439969.0, 3765900.0,     289.0,     289.0,       0.0);
( 440069.0, 3765900.0,     289.0,     289.0,       0.0);
     ( 440169.0, 3765900.0,     289.0,     289.0,       0.0);
( 440269.0, 3765900.0,     289.0,     289.0,       0.0);
     ( 439649.0, 3765310.0,     289.0,     289.0,       0.0);
( 439679.0, 3765310.0,     289.0,     289.0,       0.0);
     ( 439709.0, 3765310.0,     289.0,     289.0,       0.0);
( 439739.0, 3765310.0,     289.0,     289.0,       0.0);
     ( 439769.0, 3765310.0,     289.0,     289.0,       0.0);
( 439799.0, 3765310.0,     289.0,     289.0,       0.0);
     ( 439829.0, 3765310.0,     289.0,     289.0,       0.0);
( 439859.0, 3765310.0,     289.0,     289.0,       0.0);
     ( 439889.0, 3765310.0,     289.0,     289.0,       0.0);
( 439649.0, 3765340.0,     289.0,     289.0,       0.0);
     ( 439679.0, 3765340.0,     289.0,     289.0,       0.0);
( 439709.0, 3765340.0,     289.0,     289.0,       0.0);
     ( 439739.0, 3765340.0,     289.0,     289.0,       0.0);
( 439769.0, 3765340.0,     289.0,     289.0,       0.0);
     ( 439799.0, 3765340.0,     289.0,     289.0,       0.0);
( 439829.0, 3765340.0,     289.0,     289.0,       0.0);
     ( 439859.0, 3765340.0,     289.0,     289.0,       0.0);
( 439889.0, 3765340.0,     289.0,     289.0,       0.0);
     ( 439649.0, 3765370.0,     289.0,     289.0,       0.0);
( 439679.0, 3765370.0,     289.0,     289.0,       0.0);
     ( 439709.0, 3765370.0,     289.0,     289.0,       0.0);
( 439739.0, 3765370.0,     289.0,     289.0,       0.0);
     ( 439769.0, 3765370.0,     289.0,     289.0,       0.0);
( 439799.0, 3765370.0,     289.0,     289.0,       0.0);
     ( 439829.0, 3765370.0,     289.0,     289.0,       0.0);
( 439859.0, 3765370.0,     289.0,     289.0,       0.0);
```

```
     ( 439889.0, 3765370.0,     289.0,     289.0,       0.0);
( 439649.0, 3765400.0,     289.0,     289.0,       0.0);
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)

(METERS)

(439679.0, 3765400.0, 289.0, 289.0, 0.0);
(439709.0, 3765400.0, 289.0, 289.0, 0.0);
(439739.0, 3765400.0, 289.0, 289.0, 0.0);
(439769.0, 3765400.0, 289.0, 289.0, 0.0);
(439799.0, 3765400.0, 289.0, 289.0, 0.0);
(439829.0, 3765400.0, 289.0, 289.0, 0.0);
(439859.0, 3765400.0, 289.0, 289.0, 0.0);
(439889.0, 3765400.0, 289.0, 289.0, 0.0);
(439649.0, 3765430.0, 289.0, 289.0, 0.0);
(439679.0, 3765430.0, 289.0, 289.0, 0.0);
(439709.0, 3765430.0, 289.0, 289.0, 0.0);
(439739.0, 3765430.0, 289.0, 289.0, 0.0);
(439769.0, 3765430.0, 289.0, 289.0, 0.0);
(439799.0, 3765430.0, 289.0, 289.0, 0.0);
(439829.0, 3765430.0, 289.0, 289.0, 0.0);
(439859.0, 3765430.0, 289.0, 289.0, 0.0);
(439889.0, 3765430.0, 289.0, 289.0, 0.0);
(439649.0, 3765460.0, 289.0, 289.0, 0.0);
(439679.0, 3765460.0, 289.0, 289.0, 0.0);
(439709.0, 3765460.0, 289.0, 289.0, 0.0);
(439739.0, 3765460.0, 289.0, 289.0, 0.0);
(439769.0, 3765460.0, 289.0, 289.0, 0.0);
(439799.0, 3765460.0, 289.0, 289.0, 0.0);
(439829.0, 3765460.0, 289.0, 289.0, 0.0);
(439859.0, 3765460.0, 289.0, 289.0, 0.0);
(439889.0, 3765460.0, 289.0, 289.0, 0.0);
(439649.0, 3765490.0, 289.0, 289.0, 0.0);
(439679.0, 3765490.0, 289.0, 289.0, 0.0);
(439709.0, 3765490.0, 289.0, 289.0, 0.0);
(439739.0, 3765490.0, 289.0, 289.0, 0.0);
(439769.0, 3765490.0, 289.0, 289.0, 0.0);
(439799.0, 3765490.0, 289.0, 289.0, 0.0);
(439829.0, 3765490.0, 289.0, 289.0, 0.0);
(439859.0, 3765490.0, 289.0, 289.0, 0.0);
(439889.0, 3765490.0, 289.0, 289.0, 0.0);

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** METEOROLOGICAL DAYS SELECTED FOR PROCESSING ***

(1=YES; 0=NO)

```
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1
1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1
1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1
1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1
1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1
1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1
1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1
1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
            1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1
```

NOTE: METEOROLOGICAL DATA ACTUALLY PROCESSED WILL ALSO DEPEND ON WHAT IS INCLUDED IN THE DATA FILE.

*** UPPER BOUND OF FIRST THROUGH FIFTH WIND SPEED CATEGORIES ***

(METERS/SEC)

1.54, 3.09, 5.14, 8.23, 10.80,

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** UP TO THE FIRST 24 HOURS OF METEOROLOGICAL DATA ***

Surface file: C:\Users\sjremote\Desktop\Ontario_PUD-Legacy\OntarioIntlAirportADJU (1)\KONT_V9_ Met Version: 16216
Profile file: C:\Users\sjremote\Desktop\Ontario_PUD-Legacy\OntarioIntlAirportADJU (1)\KONT_V9_
Surface format: FREE
Profile format: FREE
Surface station no.: 3102 Upper air station no.: 3190
Name: ONTARIO_APT Name: UNKNOWN
Year: 2012 Year: 2012

First 24 hours of scalar data

YR	MO	DY	JDY	HR	H0	U*	W*	DT/DZ	ZICNV	ZIMCH	M-O LEN	Z0	BOWEN	ALBEDO	REF WS	WD	HT	REF TA	HT
12	01	01	1	01	-16.4	0.171	-9.000	-9.000	-999.	170.	32.3	0.09	1.12	1.00	2.03	43.	7.9	285.9	2.0
12	01	01	1	02	-18.8	0.194	-9.000	-9.000	-999.	205.	41.3	0.09	1.12	1.00	2.28	34.	7.9	285.4	2.0
12	01	01	1	03	-17.8	0.182	-9.000	-9.000	-999.	187.	36.5	0.09	1.12	1.00	2.15	24.	7.9	282.0	2.0
12	01	01	1	04	-9.4	0.128	-9.000	-9.000	-999.	110.	19.6	0.09	1.12	1.00	1.55	41.	7.9	283.1	2.0
12	01	01	1	05	-16.9	0.173	-9.000	-9.000	-999.	173.	33.0	0.09	1.12	1.00	2.05	39.	7.9	280.4	2.0
12	01	01	1	06	-8.0	0.117	-9.000	-9.000	-999.	97.	17.8	0.09	1.12	1.00	1.43	21.	7.9	282.0	2.0
12	01	01	1	07	-7.6	0.115	-9.000	-9.000	-999.	93.	17.4	0.09	1.12	1.00	1.40	31.	7.9	282.5	2.0
12	01	01	1	08	-13.6	0.184	-9.000	-9.000	-999.	190.	40.5	0.09	1.12	0.54	2.16	34.	7.9	284.2	2.0
12	01	01	1	09	28.4	0.126	0.300	0.011	33.	108.	-6.2	0.09	1.12	0.32	1.03	29.	7.9	289.2	2.0
12	01	01	1	10	79.8	0.133	0.607	0.010	99.	116.	-2.6	0.09	1.12	0.25	0.94	173.	7.9	292.5	2.0
12	01	01	1	11	115.8	0.137	0.932	0.006	246.	121.	-2.0	0.09	1.12	0.22	0.92	172.	7.9	295.4	2.0

```
 12 01 01   1 12  133.7  0.139  1.197  0.005  453.  125.     -1.8
0.09   1.12   0.21    0.92  146.    7.9  297.5    2.0
 12 01 01   1 13  133.2  0.160  1.354  0.005  657.  153.     -2.7
0.09   1.12   0.21    1.14  117.    7.9  299.9    2.0
 12 01 01   1 14  113.5  0.159  1.454  0.005  955.  151.     -3.1
0.09   1.12   0.23    1.16  285.    7.9  300.9    2.0
 12 01 01   1 15   76.2  0.166  1.350  0.005 1138.  163.     -5.3
0.09   1.12   0.26    1.33   72.    7.9  302.0    2.0
 12 01 01   1 16   23.5  0.175  0.925  0.005 1183.  175.    -19.9
0.09   1.12   0.35    1.65  107.    7.9  301.4    2.0
 12 01 01   1 17   -6.1  0.107 -9.000 -9.000 -999.   86.     18.0
0.09   1.12   0.63    1.31  107.    7.9  298.1    2.0
 12 01 01   1 18  -11.1  0.141 -9.000 -9.000 -999.  127.     22.1
0.09   1.12   1.00    1.69   86.    7.9  293.1    2.0
 12 01 01   1 19   -3.2  0.076 -9.000 -9.000 -999.   51.     11.8
0.09   1.12   1.00    0.91   64.    7.9  292.0    2.0
 12 01 01   1 20   -2.3  0.066 -9.000 -9.000 -999.   41.     11.2
0.09   1.12   1.00    0.74   73.    7.9  288.8    2.0
 12 01 01   1 21  -10.0  0.133 -9.000 -9.000 -999.  116.     20.5
0.09   1.12   1.00    1.60   14.    7.9  288.1    2.0
 12 01 01   1 22  -19.4  0.201 -9.000 -9.000 -999.  216.     44.5
0.09   1.12   1.00    2.36   22.    7.9  287.5    2.0
 12 01 01   1 23  -23.7  0.246 -9.000 -9.000 -999.  293.     66.5
0.09   1.12   1.00    2.86   40.    7.9  287.0    2.0
 12 01 01   1 24  -12.3  0.147 -9.000 -9.000 -999.  139.     23.8
0.09   1.12   1.00    1.76   40.    7.9  283.8    2.0


 First hour of profile data
 YR MO DY HR HEIGHT F  WDIR    WSPD AMB_TMP sigmaA  sigmaW
sigmaV
 12 01 01 01    7.9 1   43.    2.03   286.0
99.0  -99.00  -99.00

 F indicates top of profile (=1) or below (=0)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: EXH *** INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439674.00	3765310.00	0.10334	439679.00	3765310.00	0.10335
439684.00	3765310.00	0.10335	439689.00	3765310.00	0.10335
439694.00	3765310.00	0.10335	439699.00	3765310.00	0.10335
439704.00	3765310.00	0.10334	439709.00	3765310.00	0.10334
439714.00	3765310.00	0.10333	439719.00	3765310.00	0.10332
439729.00	3765310.00	0.10330	439734.00	3765310.00	0.10329
439739.00	3765310.00	0.10327	439744.00	3765310.00	0.10325
439749.00	3765310.00	0.10324	439764.00	3765310.00	0.10317
439769.00	3765310.00	0.10314	439774.00	3765310.00	0.10312

```
          439779.00    3765310.00        0.10309
439784.00    3765310.00        0.10305
          439789.00    3765310.00        0.10302
439794.00    3765310.00        0.10298
          439799.00    3765310.00        0.10295
439804.00    3765310.00        0.10291
          439809.00    3765310.00        0.10286
439814.00    3765310.00        0.10282
          439819.00    3765310.00        0.10277
439824.00    3765310.00        0.10272
          439829.00    3765310.00        0.10267
439839.00    3765310.00        0.10256
          439844.00    3765310.00        0.10250
439849.00    3765310.00        0.10244
          439854.00    3765310.00        0.10238
439859.00    3765310.00        0.10231
          439864.00    3765310.00        0.10224
439869.00    3765310.00        0.10217
          439874.00    3765310.00        0.10209
439879.00    3765310.00        0.10202
          439884.00    3765310.00        0.10194
439674.00    3765315.00        0.10472
          439679.00    3765315.00        0.10472
439684.00    3765315.00        0.10473
          439689.00    3765315.00        0.10473
439694.00    3765315.00        0.10473
          439699.00    3765315.00        0.10473
439704.00    3765315.00        0.10473
          439709.00    3765315.00        0.10472
439714.00    3765315.00        0.10472
          439719.00    3765315.00        0.10471
439729.00    3765315.00        0.10469
          439734.00    3765315.00        0.10468
439739.00    3765315.00        0.10467
          439744.00    3765315.00        0.10465
439749.00    3765315.00        0.10464
          439764.00    3765315.00        0.10458
439769.00    3765315.00        0.10455
          439774.00    3765315.00        0.10453
439779.00    3765315.00        0.10450
          439784.00    3765315.00        0.10447
439789.00    3765315.00        0.10444
          439794.00    3765315.00        0.10440
439799.00    3765315.00        0.10437
          439804.00    3765315.00        0.10433
439809.00    3765315.00        0.10429
          439814.00    3765315.00        0.10424
439819.00    3765315.00        0.10420
          439824.00    3765315.00        0.10415
439829.00    3765315.00        0.10410
          439839.00    3765315.00        0.10400
439844.00    3765315.00        0.10394
```

```
         439849.00    3765315.00        0.10388
439854.00    3765315.00        0.10382
         439859.00    3765315.00        0.10375
439864.00    3765315.00        0.10368
         439869.00    3765315.00        0.10361
439874.00    3765315.00        0.10354
         439879.00    3765315.00        0.10346
439884.00    3765315.00        0.10339
         439674.00    3765320.00        0.10612
439679.00    3765320.00        0.10613
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: EXH *** INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439684.00	3765320.00	0.10614	439689.00	3765320.00	0.10614
439694.00	3765320.00	0.10614	439699.00	3765320.00	0.10614
439704.00	3765320.00	0.10614	439709.00	3765320.00	0.10614
439714.00	3765320.00	0.10614	439719.00	3765320.00	0.10613
439729.00	3765320.00	0.10612	439734.00	3765320.00	0.10611
439739.00	3765320.00	0.10610	439744.00	3765320.00	0.10609
439749.00	3765320.00	0.10607	439764.00	3765320.00	0.10602
439769.00	3765320.00	0.10599	439774.00	3765320.00	0.10597
439779.00	3765320.00	0.10594	439784.00	3765320.00	0.10592

```
         439789.00    3765320.00        0.10589
439794.00    3765320.00        0.10585
         439799.00    3765320.00        0.10582
439804.00    3765320.00        0.10578
         439809.00    3765320.00        0.10574
439814.00    3765320.00        0.10570
         439819.00    3765320.00        0.10566
439824.00    3765320.00        0.10561
         439829.00    3765320.00        0.10557
439839.00    3765320.00        0.10546
         439844.00    3765320.00        0.10541
439849.00    3765320.00        0.10535
         439854.00    3765320.00        0.10529
439859.00    3765320.00        0.10523
         439864.00    3765320.00        0.10516
439869.00    3765320.00        0.10509
         439874.00    3765320.00        0.10502
439879.00    3765320.00        0.10495
         439884.00    3765320.00        0.10487
439674.00    3765325.00        0.10756
         439679.00    3765325.00        0.10757
439684.00    3765325.00        0.10758
         439689.00    3765325.00        0.10758
439694.00    3765325.00        0.10759
         439699.00    3765325.00        0.10759
439704.00    3765325.00        0.10759
         439709.00    3765325.00        0.10760
439714.00    3765325.00        0.10759
         439719.00    3765325.00        0.10759
439729.00    3765325.00        0.10758
         439734.00    3765325.00        0.10757
439739.00    3765325.00        0.10756
         439744.00    3765325.00        0.10755
439749.00    3765325.00        0.10754
         439754.00    3765325.00        0.10752
439769.00    3765325.00        0.10747
         439774.00    3765325.00        0.10745
439779.00    3765325.00        0.10742
         439784.00    3765325.00        0.10740
439789.00    3765325.00        0.10737
         439794.00    3765325.00        0.10734
439799.00    3765325.00        0.10731
         439804.00    3765325.00        0.10727
439809.00    3765325.00        0.10724
         439814.00    3765325.00        0.10720
439819.00    3765325.00        0.10716
         439824.00    3765325.00        0.10711
439829.00    3765325.00        0.10707
         439839.00    3765325.00        0.10697
439844.00    3765325.00        0.10691
         439849.00    3765325.00        0.10686
439854.00    3765325.00        0.10680
```

```
         439859.00    3765325.00        0.10674
439864.00    3765325.00        0.10667
         439869.00    3765325.00        0.10661
439874.00    3765325.00        0.10654
         439879.00    3765325.00        0.10647
439884.00    3765325.00        0.10639
         439674.00    3765330.00        0.10903
439679.00    3765330.00        0.10905
         439684.00    3765330.00        0.10906
439689.00    3765330.00        0.10906
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: EXH *** INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439694.00	3765330.00	0.10907	439699.00	3765330.00	0.10908
439704.00	3765330.00	0.10908	439709.00	3765330.00	0.10908
439714.00	3765330.00	0.10908	439719.00	3765330.00	0.10908
439729.00	3765330.00	0.10908	439734.00	3765330.00	0.10907
439739.00	3765330.00	0.10906	439744.00	3765330.00	0.10905
439749.00	3765330.00	0.10904	439754.00	3765330.00	0.10903
439774.00	3765330.00	0.10896	439779.00	3765330.00	0.10894
439784.00	3765330.00	0.10891	439789.00	3765330.00	0.10889
439794.00	3765330.00	0.10886	439799.00	3765330.00	0.10883

```
          439804.00    3765330.00        0.10880
439809.00    3765330.00        0.10876
          439814.00    3765330.00        0.10873
439819.00    3765330.00        0.10869
          439824.00    3765330.00        0.10865
439829.00    3765330.00        0.10860
          439839.00    3765330.00        0.10851
439844.00    3765330.00        0.10846
          439849.00    3765330.00        0.10840
439854.00    3765330.00        0.10835
          439859.00    3765330.00        0.10829
439864.00    3765330.00        0.10822
          439869.00    3765330.00        0.10816
439874.00    3765330.00        0.10809
          439879.00    3765330.00        0.10802
439884.00    3765330.00        0.10795
          439674.00    3765335.00        0.11054
439679.00    3765335.00        0.11056
          439684.00    3765335.00        0.11057
439689.00    3765335.00        0.11058
          439694.00    3765335.00        0.11059
439699.00    3765335.00        0.11060
          439704.00    3765335.00        0.11060
439709.00    3765335.00        0.11061
          439714.00    3765335.00        0.11061
439719.00    3765335.00        0.11061
          439729.00    3765335.00        0.11061
439734.00    3765335.00        0.11060
          439739.00    3765335.00        0.11060
439744.00    3765335.00        0.11059
          439749.00    3765335.00        0.11058
439774.00    3765335.00        0.11051
          439779.00    3765335.00        0.11049
439784.00    3765335.00        0.11047
          439789.00    3765335.00        0.11044
439794.00    3765335.00        0.11042
          439839.00    3765335.00        0.11008
439844.00    3765335.00        0.11003
          439849.00    3765335.00        0.10998
439854.00    3765335.00        0.10993
          439859.00    3765335.00        0.10987
439864.00    3765335.00        0.10981
          439869.00    3765335.00        0.10975
439874.00    3765335.00        0.10968
          439879.00    3765335.00        0.10961
439884.00    3765335.00        0.10954
          439674.00    3765340.00        0.11209
439679.00    3765340.00        0.11211
          439684.00    3765340.00        0.11212
439689.00    3765340.00        0.11213
          439694.00    3765340.00        0.11214
439699.00    3765340.00        0.11215
```

```
         439704.00    3765340.00        0.11216
439709.00    3765340.00        0.11217
         439714.00    3765340.00        0.11217
439719.00    3765340.00        0.11217
         439729.00    3765340.00        0.11218
439734.00    3765340.00        0.11217
         439739.00    3765340.00        0.11217
439744.00    3765340.00        0.11217
         439749.00    3765340.00        0.11216
439774.00    3765340.00        0.11210
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: EXH *** INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439779.00	3765340.00	0.11208	439784.00	3765340.00	0.11206
439789.00	3765340.00	0.11204	439794.00	3765340.00	0.11202
439839.00	3765340.00	0.11170	439844.00	3765340.00	0.11165
439849.00	3765340.00	0.11160	439854.00	3765340.00	0.11155
439859.00	3765340.00	0.11150	439864.00	3765340.00	0.11144
439869.00	3765340.00	0.11138	439874.00	3765340.00	0.11131
439879.00	3765340.00	0.11125	439884.00	3765340.00	0.11118
439674.00	3765345.00	0.11368	439679.00	3765345.00	0.11369
439684.00	3765345.00	0.11371	439689.00	3765345.00	0.11372

```
          439694.00    3765345.00        0.11374
439699.00    3765345.00        0.11375
          439704.00    3765345.00        0.11376
439709.00    3765345.00        0.11377
          439714.00    3765345.00        0.11377
439719.00    3765345.00        0.11378
          439729.00    3765345.00        0.11378
439734.00    3765345.00        0.11378
          439739.00    3765345.00        0.11378
439744.00    3765345.00        0.11378
          439749.00    3765345.00        0.11378
439774.00    3765345.00        0.11373
          439779.00    3765345.00        0.11371
439784.00    3765345.00        0.11369
          439789.00    3765345.00        0.11367
439794.00    3765345.00        0.11365
          439839.00    3765345.00        0.11336
439844.00    3765345.00        0.11331
          439849.00    3765345.00        0.11327
439854.00    3765345.00        0.11322
          439859.00    3765345.00        0.11316
439864.00    3765345.00        0.11311
          439869.00    3765345.00        0.11305
439874.00    3765345.00        0.11299
          439879.00    3765345.00        0.11292
439884.00    3765345.00        0.11285
          439674.00    3765350.00        0.11530
439679.00    3765350.00        0.11532
          439684.00    3765350.00        0.11534
439689.00    3765350.00        0.11535
          439694.00    3765350.00        0.11537
439699.00    3765350.00        0.11538
          439704.00    3765350.00        0.11539
439709.00    3765350.00        0.11540
          439714.00    3765350.00        0.11541
439719.00    3765350.00        0.11542
          439729.00    3765350.00        0.11543
439734.00    3765350.00        0.11543
          439739.00    3765350.00        0.11544
439744.00    3765350.00        0.11543
          439749.00    3765350.00        0.11543
439774.00    3765350.00        0.11539
          439779.00    3765350.00        0.11538
439784.00    3765350.00        0.11537
          439789.00    3765350.00        0.11535
439794.00    3765350.00        0.11533
          439839.00    3765350.00        0.11506
439844.00    3765350.00        0.11501
          439849.00    3765350.00        0.11497
439854.00    3765350.00        0.11492
          439859.00    3765350.00        0.11487
439864.00    3765350.00        0.11482
```

```
         439869.00    3765350.00        0.11476
439874.00    3765350.00        0.11470
         439879.00    3765350.00        0.11464
439884.00    3765350.00        0.11457
         439674.00    3765355.00        0.11697
439679.00    3765355.00        0.11699
         439684.00    3765355.00        0.11701
439689.00    3765355.00        0.11703
         439694.00    3765355.00        0.11704
439699.00    3765355.00        0.11706
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: EXH *** INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439704.00	3765355.00	0.11707	439709.00	3765355.00	0.11709
439714.00	3765355.00	0.11710	439719.00	3765355.00	0.11711
439729.00	3765355.00	0.11712	439734.00	3765355.00	0.11713
439739.00	3765355.00	0.11713	439744.00	3765355.00	0.11713
439749.00	3765355.00	0.11713	439774.00	3765355.00	0.11711
439779.00	3765355.00	0.11710	439784.00	3765355.00	0.11708
439789.00	3765355.00	0.11707	439794.00	3765355.00	0.11705
439839.00	3765355.00	0.11680	439844.00	3765355.00	0.11676
439849.00	3765355.00	0.11672	439854.00	3765355.00	0.11667

```
          439859.00    3765355.00        0.11662
439864.00    3765355.00        0.11657
          439869.00    3765355.00        0.11652
439874.00    3765355.00        0.11646
          439879.00    3765355.00        0.11640
439884.00    3765355.00        0.11634
          439674.00    3765360.00        0.11868
439679.00    3765360.00        0.11870
          439684.00    3765360.00        0.11872
439689.00    3765360.00        0.11874
          439694.00    3765360.00        0.11876
439699.00    3765360.00        0.11878
          439704.00    3765360.00        0.11880
439709.00    3765360.00        0.11881
          439714.00    3765360.00        0.11883
439719.00    3765360.00        0.11884
          439729.00    3765360.00        0.11886
439734.00    3765360.00        0.11886
          439739.00    3765360.00        0.11887
439744.00    3765360.00        0.11887
          439749.00    3765360.00        0.11888
439774.00    3765360.00        0.11886
          439779.00    3765360.00        0.11885
439784.00    3765360.00        0.11884
          439789.00    3765360.00        0.11883
439794.00    3765360.00        0.11882
          439799.00    3765360.00        0.11880
439804.00    3765360.00        0.11878
          439809.00    3765360.00        0.11876
439814.00    3765360.00        0.11874
          439839.00    3765360.00        0.11859
439844.00    3765360.00        0.11855
          439849.00    3765360.00        0.11851
439854.00    3765360.00        0.11847
          439859.00    3765360.00        0.11842
439864.00    3765360.00        0.11837
          439869.00    3765360.00        0.11832
439874.00    3765360.00        0.11827
          439879.00    3765360.00        0.11821
439884.00    3765360.00        0.11815
          439674.00    3765365.00        0.12043
439679.00    3765365.00        0.12046
          439684.00    3765365.00        0.12048
439689.00    3765365.00        0.12051
          439694.00    3765365.00        0.12053
439699.00    3765365.00        0.12055
          439704.00    3765365.00        0.12057
439709.00    3765365.00        0.12058
          439714.00    3765365.00        0.12060
439719.00    3765365.00        0.12061
          439729.00    3765365.00        0.12064
439734.00    3765365.00        0.12065
```

```
         439739.00    3765365.00        0.12066
439744.00    3765365.00        0.12066
         439749.00    3765365.00        0.12067
439774.00    3765365.00        0.12066
         439779.00    3765365.00        0.12066
439784.00    3765365.00        0.12065
         439789.00    3765365.00        0.12064
439794.00    3765365.00        0.12063
         439799.00    3765365.00        0.12062
439804.00    3765365.00        0.12060
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: EXH *** INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439809.00	3765365.00	0.12058	439814.00	3765365.00	0.12056
439839.00	3765365.00	0.12042	439844.00	3765365.00	0.12039
439849.00	3765365.00	0.12035	439854.00	3765365.00	0.12031
439859.00	3765365.00	0.12027	439864.00	3765365.00	0.12022
439869.00	3765365.00	0.12017	439874.00	3765365.00	0.12012
439879.00	3765365.00	0.12006	439884.00	3765365.00	0.12001
439674.00	3765370.00	0.12224	439679.00	3765370.00	0.12226
439684.00	3765370.00	0.12229	439689.00	3765370.00	0.12232
439694.00	3765370.00	0.12234	439699.00	3765370.00	0.12236

```
          439704.00    3765370.00         0.12238
439709.00    3765370.00         0.12240
          439714.00    3765370.00         0.12242
439719.00    3765370.00         0.12244
          439729.00    3765370.00         0.12247
439734.00    3765370.00         0.12248
          439739.00    3765370.00         0.12249
439744.00    3765370.00         0.12250
          439749.00    3765370.00         0.12250
439774.00    3765370.00         0.12251
          439779.00    3765370.00         0.12251
439784.00    3765370.00         0.12251
          439789.00    3765370.00         0.12250
439794.00    3765370.00         0.12249
          439799.00    3765370.00         0.12248
439804.00    3765370.00         0.12247
          439809.00    3765370.00         0.12245
439814.00    3765370.00         0.12243
          439839.00    3765370.00         0.12231
439844.00    3765370.00         0.12228
          439849.00    3765370.00         0.12224
439854.00    3765370.00         0.12220
          439859.00    3765370.00         0.12216
439864.00    3765370.00         0.12212
          439869.00    3765370.00         0.12207
439874.00    3765370.00         0.12202
          439879.00    3765370.00         0.12197
439884.00    3765370.00         0.12191
          439674.00    3765375.00         0.12409
439679.00    3765375.00         0.12412
          439684.00    3765375.00         0.12415
439689.00    3765375.00         0.12417
          439694.00    3765375.00         0.12420
439699.00    3765375.00         0.12423
          439704.00    3765375.00         0.12425
439709.00    3765375.00         0.12427
          439714.00    3765375.00         0.12429
439719.00    3765375.00         0.12431
          439729.00    3765375.00         0.12434
439734.00    3765375.00         0.12436
          439739.00    3765375.00         0.12437
439744.00    3765375.00         0.12438
          439749.00    3765375.00         0.12439
439754.00    3765375.00         0.12440
          439774.00    3765375.00         0.12442
439779.00    3765375.00         0.12442
          439784.00    3765375.00         0.12441
439789.00    3765375.00         0.12441
          439794.00    3765375.00         0.12440
439799.00    3765375.00         0.12439
          439804.00    3765375.00         0.12438
439809.00    3765375.00         0.12437
```

```
         439814.00    3765375.00        0.12435
439839.00    3765375.00        0.12424
         439844.00    3765375.00        0.12421
439849.00    3765375.00        0.12418
         439854.00    3765375.00        0.12415
439859.00    3765375.00        0.12411
         439864.00    3765375.00        0.12407
439869.00    3765375.00        0.12402
         439874.00    3765375.00        0.12398
439879.00    3765375.00        0.12393
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: EXH *** INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439884.00	3765375.00	0.12388	439774.00	3765380.00	0.12637
439779.00	3765380.00	0.12637	439784.00	3765380.00	0.12637
439789.00	3765380.00	0.12637	439794.00	3765380.00	0.12637
439799.00	3765380.00	0.12636	439804.00	3765380.00	0.12635
439809.00	3765380.00	0.12634	439814.00	3765380.00	0.12633
439769.00	3765385.00	0.12837	439819.00	3765385.00	0.12835
439769.00	3765400.00	0.13474	439844.00	3765400.00	0.13476
439849.00	3765400.00	0.13475	439674.00	3765405.00	0.13636
439714.00	3765405.00	0.13668	439719.00	3765405.00	0.13672

```
          439734.00    3765405.00        0.13681
439749.00    3765405.00        0.13689
          439754.00    3765405.00        0.13692
439774.00    3765405.00        0.13700
          439779.00    3765405.00        0.13702
439784.00    3765405.00        0.13704
          439789.00    3765405.00        0.13705
439794.00    3765405.00        0.13706
          439799.00    3765405.00        0.13707
439804.00    3765405.00        0.13708
          439809.00    3765405.00        0.13709
439814.00    3765405.00        0.13709
          439819.00    3765405.00        0.13709
439824.00    3765405.00        0.13709
          439829.00    3765405.00        0.13709
439834.00    3765405.00        0.13708
          439839.00    3765405.00        0.13707
439844.00    3765405.00        0.13706
          439849.00    3765405.00        0.13705
439854.00    3765405.00        0.13703
          439859.00    3765405.00        0.13701
439674.00    3765410.00        0.13862
          439679.00    3765410.00        0.13867
439684.00    3765410.00        0.13872
          439689.00    3765410.00        0.13876
439694.00    3765410.00        0.13880
          439699.00    3765410.00        0.13885
439704.00    3765410.00        0.13889
          439709.00    3765410.00        0.13893
439714.00    3765410.00        0.13897
          439719.00    3765410.00        0.13900
439729.00    3765410.00        0.13907
          439734.00    3765410.00        0.13911
439739.00    3765410.00        0.13914
          439744.00    3765410.00        0.13917
439749.00    3765410.00        0.13920
          439774.00    3765410.00        0.13932
439779.00    3765410.00        0.13934
          439784.00    3765410.00        0.13936
439789.00    3765410.00        0.13938
          439794.00    3765410.00        0.13940
439799.00    3765410.00        0.13941
          439804.00    3765410.00        0.13942
439809.00    3765410.00        0.13943
          439814.00    3765410.00        0.13944
439819.00    3765410.00        0.13944
          439824.00    3765410.00        0.13944
439829.00    3765410.00        0.13944
          439834.00    3765410.00        0.13944
439839.00    3765410.00        0.13944
          439844.00    3765410.00        0.13943
439849.00    3765410.00        0.13942
```

```
         439854.00    3765410.00        0.13941
439859.00    3765410.00        0.13939
         439674.00    3765415.00        0.14095
439679.00    3765415.00        0.14100
         439684.00    3765415.00        0.14105
439689.00    3765415.00        0.14110
         439694.00    3765415.00        0.14115
439699.00    3765415.00        0.14119
         439704.00    3765415.00        0.14124
439709.00    3765415.00        0.14128
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: EXH *** INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439714.00	3765415.00	0.14132	439719.00	3765415.00	0.14136
439729.00	3765415.00	0.14144	439734.00	3765415.00	0.14147
439739.00	3765415.00	0.14151	439744.00	3765415.00	0.14154
439749.00	3765415.00	0.14158	439774.00	3765415.00	0.14172
439779.00	3765415.00	0.14174	439784.00	3765415.00	0.14176
439789.00	3765415.00	0.14178	439794.00	3765415.00	0.14180
439799.00	3765415.00	0.14182	439804.00	3765415.00	0.14183
439809.00	3765415.00	0.14185	439814.00	3765415.00	0.14186
439819.00	3765415.00	0.14186	439824.00	3765415.00	0.14187

```
          439829.00    3765415.00        0.14188
439834.00    3765415.00        0.14188
          439839.00    3765415.00        0.14188
439844.00    3765415.00        0.14187
          439849.00    3765415.00        0.14187
439854.00    3765415.00        0.14186
          439859.00    3765415.00        0.14185
439674.00    3765420.00        0.14336
          439679.00    3765420.00        0.14341
439684.00    3765420.00        0.14347
          439689.00    3765420.00        0.14352
439694.00    3765420.00        0.14357
          439699.00    3765420.00        0.14361
439704.00    3765420.00        0.14366
          439709.00    3765420.00        0.14371
439714.00    3765420.00        0.14375
          439719.00    3765420.00        0.14379
439729.00    3765420.00        0.14388
          439734.00    3765420.00        0.14392
439739.00    3765420.00        0.14395
          439744.00    3765420.00        0.14399
439749.00    3765420.00        0.14403
          439774.00    3765420.00        0.14418
439779.00    3765420.00        0.14421
          439784.00    3765420.00        0.14423
439789.00    3765420.00        0.14426
          439794.00    3765420.00        0.14428
439799.00    3765420.00        0.14430
          439804.00    3765420.00        0.14432
439809.00    3765420.00        0.14434
          439814.00    3765420.00        0.14435
439819.00    3765420.00        0.14436
          439824.00    3765420.00        0.14437
439829.00    3765420.00        0.14438
          439834.00    3765420.00        0.14439
439839.00    3765420.00        0.14439
          439844.00    3765420.00        0.14439
439849.00    3765420.00        0.14439
          439854.00    3765420.00        0.14439
439859.00    3765420.00        0.14438
          439674.00    3765425.00        0.14584
439679.00    3765425.00        0.14590
          439684.00    3765425.00        0.14596
439689.00    3765425.00        0.14601
          439694.00    3765425.00        0.14606
439699.00    3765425.00        0.14611
          439704.00    3765425.00        0.14616
439709.00    3765425.00        0.14621
          439714.00    3765425.00        0.14626
439719.00    3765425.00        0.14630
          439729.00    3765425.00        0.14639
439734.00    3765425.00        0.14643
```

```
         439739.00    3765425.00        0.14648
439744.00    3765425.00        0.14652
         439749.00    3765425.00        0.14656
439774.00    3765425.00        0.14673
         439779.00    3765425.00        0.14676
439784.00    3765425.00        0.14679
         439789.00    3765425.00        0.14682
439794.00    3765425.00        0.14684
         439799.00    3765425.00        0.14686
439804.00    3765425.00        0.14689
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: EXH *** INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439809.00	3765425.00	0.14691	439814.00	3765425.00	0.14693
439819.00	3765425.00	0.14694	439824.00	3765425.00	0.14696
439829.00	3765425.00	0.14697	439834.00	3765425.00	0.14698
439839.00	3765425.00	0.14699	439844.00	3765425.00	0.14699
439849.00	3765425.00	0.14699	439854.00	3765425.00	0.14699
439859.00	3765425.00	0.14699	439674.00	3765430.00	0.14841
439679.00	3765430.00	0.14847	439684.00	3765430.00	0.14853
439689.00	3765430.00	0.14858	439694.00	3765430.00	0.14864
439699.00	3765430.00	0.14869	439704.00	3765430.00	0.14874

```
          439709.00    3765430.00        0.14880
439714.00    3765430.00        0.14885
          439719.00    3765430.00        0.14890
439729.00    3765430.00        0.14899
          439734.00    3765430.00        0.14904
439739.00    3765430.00        0.14908
          439744.00    3765430.00        0.14912
439749.00    3765430.00        0.14917
          439774.00    3765430.00        0.14936
439779.00    3765430.00        0.14939
          439784.00    3765430.00        0.14942
439789.00    3765430.00        0.14945
          439794.00    3765430.00        0.14948
439799.00    3765430.00        0.14951
          439804.00    3765430.00        0.14954
439809.00    3765430.00        0.14956
          439814.00    3765430.00        0.14958
439819.00    3765430.00        0.14961
          439824.00    3765430.00        0.14962
439829.00    3765430.00        0.14964
          439834.00    3765430.00        0.14965
439839.00    3765430.00        0.14967
          439844.00    3765430.00        0.14967
439849.00    3765430.00        0.14968
          439854.00    3765430.00        0.14968
439859.00    3765430.00        0.14968
          439674.00    3765435.00        0.15106
439679.00    3765435.00        0.15112
          439684.00    3765435.00        0.15118
439689.00    3765435.00        0.15124
          439694.00    3765435.00        0.15130
439699.00    3765435.00        0.15136
          439704.00    3765435.00        0.15141
439709.00    3765435.00        0.15147
          439714.00    3765435.00        0.15152
439719.00    3765435.00        0.15158
          439729.00    3765435.00        0.15168
439734.00    3765435.00        0.15172
          439739.00    3765435.00        0.15177
439744.00    3765435.00        0.15182
          439749.00    3765435.00        0.15186
439774.00    3765435.00        0.15207
          439779.00    3765435.00        0.15211
439784.00    3765435.00        0.15215
          439789.00    3765435.00        0.15218
439794.00    3765435.00        0.15221
          439799.00    3765435.00        0.15225
439804.00    3765435.00        0.15228
          439809.00    3765435.00        0.15230
439814.00    3765435.00        0.15233
          439819.00    3765435.00        0.15236
439824.00    3765435.00        0.15238
```

```
         439829.00    3765435.00        0.15240
439834.00    3765435.00        0.15242
         439839.00    3765435.00        0.15243
439844.00    3765435.00        0.15245
         439849.00    3765435.00        0.15246
439854.00    3765435.00        0.15247
         439859.00    3765435.00        0.15247
439674.00    3765440.00        0.15380
         439679.00    3765440.00        0.15387
439684.00    3765440.00        0.15393
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: EXH *** INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439689.00	3765440.00	0.15399	439694.00	3765440.00	0.15406
439699.00	3765440.00	0.15412	439704.00	3765440.00	0.15417
439709.00	3765440.00	0.15423	439714.00	3765440.00	0.15429
439719.00	3765440.00	0.15434	439729.00	3765440.00	0.15445
439734.00	3765440.00	0.15450	439739.00	3765440.00	0.15455
439744.00	3765440.00	0.15460	439749.00	3765440.00	0.15465
439774.00	3765440.00	0.15488	439779.00	3765440.00	0.15492
439784.00	3765440.00	0.15496	439789.00	3765440.00	0.15500
439794.00	3765440.00	0.15504	439799.00	3765440.00	0.15507

```
          439804.00    3765440.00        0.15511
439809.00    3765440.00        0.15514
          439814.00    3765440.00        0.15517
439819.00    3765440.00        0.15520
          439824.00    3765440.00        0.15523
439829.00    3765440.00        0.15525
          439834.00    3765440.00        0.15527
439839.00    3765440.00        0.15529
          439844.00    3765440.00        0.15531
439849.00    3765440.00        0.15533
          439854.00    3765440.00        0.15534
439859.00    3765440.00        0.15535
          439674.00    3765445.00        0.15664
439679.00    3765445.00        0.15671
          439684.00    3765445.00        0.15677
439689.00    3765445.00        0.15684
          439694.00    3765445.00        0.15690
439699.00    3765445.00        0.15697
          439704.00    3765445.00        0.15703
439709.00    3765445.00        0.15709
          439714.00    3765445.00        0.15715
439719.00    3765445.00        0.15721
          439729.00    3765445.00        0.15732
439734.00    3765445.00        0.15738
          439739.00    3765445.00        0.15743
439744.00    3765445.00        0.15749
          439749.00    3765445.00        0.15754
439774.00    3765445.00        0.15778
          439779.00    3765445.00        0.15783
439784.00    3765445.00        0.15787
          439789.00    3765445.00        0.15791
439794.00    3765445.00        0.15795
          439799.00    3765445.00        0.15800
439804.00    3765445.00        0.15803
          439809.00    3765445.00        0.15807
439814.00    3765445.00        0.15810
          439819.00    3765445.00        0.15814
439824.00    3765445.00        0.15817
          439829.00    3765445.00        0.15820
439834.00    3765445.00        0.15823
          439839.00    3765445.00        0.15825
439844.00    3765445.00        0.15828
          439849.00    3765445.00        0.15830
439854.00    3765445.00        0.15831
          439859.00    3765445.00        0.15833
439674.00    3765450.00        0.15958
          439679.00    3765450.00        0.15965
439684.00    3765450.00        0.15972
          439689.00    3765450.00        0.15979
439694.00    3765450.00        0.15985
          439699.00    3765450.00        0.15992
439704.00    3765450.00        0.15999
```

```
         439709.00    3765450.00        0.16005
439714.00    3765450.00        0.16011
         439719.00    3765450.00        0.16017
439729.00    3765450.00        0.16030
         439734.00    3765450.00        0.16035
439739.00    3765450.00        0.16041
         439744.00    3765450.00        0.16047
439749.00    3765450.00        0.16052
         439774.00    3765450.00        0.16079
439844.00    3765450.00        0.16134
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: EXH *** INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 , A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439849.00	3765450.00	0.16137	439854.00	3765450.00	0.16139
439859.00	3765450.00	0.16141	439674.00	3765455.00	0.16262
439679.00	3765455.00	0.16269	439684.00	3765455.00	0.16277
439689.00	3765455.00	0.16284	439694.00	3765455.00	0.16291
439699.00	3765455.00	0.16298	439704.00	3765455.00	0.16305
439709.00	3765455.00	0.16311	439714.00	3765455.00	0.16318
439719.00	3765455.00	0.16325	439729.00	3765455.00	0.16337
439734.00	3765455.00	0.16344	439739.00	3765455.00	0.16350
439744.00	3765455.00	0.16356	439749.00	3765455.00	0.16362

```
          439844.00    3765455.00        0.16452
439849.00    3765455.00        0.16455
          439854.00    3765455.00        0.16458
439859.00    3765455.00        0.16460
          439674.00    3765460.00        0.16577
439679.00    3765460.00        0.16585
          439684.00    3765460.00        0.16593
439689.00    3765460.00        0.16600
          439694.00    3765460.00        0.16608
439699.00    3765460.00        0.16615
          439704.00    3765460.00        0.16622
439709.00    3765460.00        0.16629
          439714.00    3765460.00        0.16636
439719.00    3765460.00        0.16643
          439729.00    3765460.00        0.16656
439734.00    3765460.00        0.16663
          439739.00    3765460.00        0.16670
439744.00    3765460.00        0.16676
          439749.00    3765460.00        0.16682
439789.00    3765460.00        0.16729
          439794.00    3765460.00        0.16735
439799.00    3765460.00        0.16740
          439804.00    3765460.00        0.16745
439809.00    3765460.00        0.16750
          439814.00    3765460.00        0.16755
439819.00    3765460.00        0.16760
          439824.00    3765460.00        0.16764
439829.00    3765460.00        0.16769
          439844.00    3765460.00        0.16781
439849.00    3765460.00        0.16785
          439854.00    3765460.00        0.16788
439859.00    3765460.00        0.16791
          439674.00    3765465.00        0.16904
439679.00    3765465.00        0.16913
          439684.00    3765465.00        0.16921
439689.00    3765465.00        0.16928
          439694.00    3765465.00        0.16936
439699.00    3765465.00        0.16944
          439704.00    3765465.00        0.16951
439709.00    3765465.00        0.16959
          439714.00    3765465.00        0.16966
439719.00    3765465.00        0.16973
          439729.00    3765465.00        0.16988
439734.00    3765465.00        0.16994
          439739.00    3765465.00        0.17001
439744.00    3765465.00        0.17008
          439749.00    3765465.00        0.17015
439789.00    3765465.00        0.17065
          439794.00    3765465.00        0.17071
439799.00    3765465.00        0.17076
          439804.00    3765465.00        0.17082
439809.00    3765465.00        0.17088
```

```
         439814.00    3765465.00        0.17093
439819.00    3765465.00        0.17098
         439824.00    3765465.00        0.17104
439829.00    3765465.00        0.17109
         439844.00    3765465.00        0.17123
439849.00    3765465.00        0.17127
         439854.00    3765465.00        0.17131
439859.00    3765465.00        0.17134
         439674.00    3765470.00        0.17244
439679.00    3765470.00        0.17253
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: EXH *** INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439684.00	3765470.00	0.17261	439689.00	3765470.00	0.17269
439694.00	3765470.00	0.17277	439699.00	3765470.00	0.17285
439704.00	3765470.00	0.17293	439709.00	3765470.00	0.17301
439714.00	3765470.00	0.17309	439719.00	3765470.00	0.17316
439729.00	3765470.00	0.17331	439734.00	3765470.00	0.17338
439739.00	3765470.00	0.17346	439744.00	3765470.00	0.17353
439749.00	3765470.00	0.17360	439789.00	3765470.00	0.17413
439794.00	3765470.00	0.17420	439799.00	3765470.00	0.17426
439804.00	3765470.00	0.17432	439809.00	3765470.00	0.17438

```
          439814.00    3765470.00        0.17444
439819.00    3765470.00        0.17450
          439824.00    3765470.00        0.17456
439829.00    3765470.00        0.17461
          439844.00    3765470.00        0.17477
439849.00    3765470.00        0.17482
          439854.00    3765470.00        0.17486
439859.00    3765470.00        0.17491
          439674.00    3765475.00        0.17597
439679.00    3765475.00        0.17606
          439684.00    3765475.00        0.17615
439689.00    3765475.00        0.17623
          439694.00    3765475.00        0.17632
439699.00    3765475.00        0.17640
          439704.00    3765475.00        0.17648
439709.00    3765475.00        0.17656
          439714.00    3765475.00        0.17665
439719.00    3765475.00        0.17673
          439729.00    3765475.00        0.17688
439734.00    3765475.00        0.17696
          439739.00    3765475.00        0.17703
439744.00    3765475.00        0.17711
          439749.00    3765475.00        0.17718
439754.00    3765475.00        0.17726
          439789.00    3765475.00        0.17775
439794.00    3765475.00        0.17782
          439799.00    3765475.00        0.17789
439804.00    3765475.00        0.17795
          439809.00    3765475.00        0.17802
439814.00    3765475.00        0.17808
          439819.00    3765475.00        0.17815
439824.00    3765475.00        0.17821
          439829.00    3765475.00        0.17827
439269.00    3764900.00        0.04606
          439369.00    3764900.00        0.04642
439469.00    3764900.00        0.04639
          439569.00    3764900.00        0.04597
439669.00    3764900.00        0.04512
          439769.00    3764900.00        0.04385
439869.00    3764900.00        0.04214
          439969.00    3764900.00        0.04002
440069.00    3764900.00        0.03753
          440169.00    3764900.00        0.03475
440269.00    3764900.00        0.03183
          439269.00    3765000.00        0.05372
439369.00    3765000.00        0.05436
          439469.00    3765000.00        0.05456
439569.00    3765000.00        0.05430
          439669.00    3765000.00        0.05356
439769.00    3765000.00        0.05232
          439869.00    3765000.00        0.05055
439969.00    3765000.00        0.04821
```

```
         440069.00    3765000.00        0.04534
440169.00    3765000.00        0.04199
         440269.00    3765000.00        0.03833
439269.00    3765100.00        0.06359
         439369.00    3765100.00        0.06461
439469.00    3765100.00        0.06510
         439569.00    3765100.00        0.06509
439669.00    3765100.00        0.06456
         439769.00    3765100.00        0.06346
439869.00    3765100.00        0.06172
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: EXH *** INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439969.00	3765100.00	0.05926	440069.00	3765100.00	0.05603
440169.00	3765100.00	0.05206	440269.00	3765100.00	0.04746
439269.00	3765200.00	0.07686	439369.00	3765200.00	0.07837
439469.00	3765200.00	0.07926	439569.00	3765200.00	0.07961
439669.00	3765200.00	0.07941	439769.00	3765200.00	0.07861
439869.00	3765200.00	0.07708	439969.00	3765200.00	0.07466
440069.00	3765200.00	0.07121	440169.00	3765200.00	0.06661
440269.00	3765200.00	0.06089	439269.00	3765300.00	0.09575
439369.00	3765300.00	0.09797	439469.00	3765300.00	0.09947

```
         439569.00    3765300.00        0.10035
439669.00    3765300.00        0.10068
         439769.00    3765300.00        0.10042
439869.00    3765300.00        0.09937
         439969.00    3765300.00        0.09727
440069.00    3765300.00        0.09384
         440169.00    3765300.00        0.08878
440269.00    3765300.00        0.08184
         439269.00    3765400.00        0.12516
439369.00    3765400.00        0.12859
         439469.00    3765400.00        0.13115
439569.00    3765400.00        0.13295
         439669.00    3765400.00        0.13412
439769.00    3765400.00        0.13474
         439869.00    3765400.00        0.13465
439969.00    3765400.00        0.13333
         440069.00    3765400.00        0.13031
440169.00    3765400.00        0.12517
         440269.00    3765400.00        0.11721
439269.00    3765500.00        0.17876
         439369.00    3765500.00        0.18478
439469.00    3765500.00        0.18961
         439569.00    3765500.00        0.19322
439669.00    3765500.00        0.19582
         439769.00    3765500.00        0.19781
439869.00    3765500.00        0.19964
         439969.00    3765500.00        0.20029
440069.00    3765500.00        0.19829
         440169.00    3765500.00        0.19359
440269.00    3765500.00        0.18527
         439269.00    3765600.00        0.31632
439369.00    3765600.00        0.32940
         439469.00    3765600.00        0.34044
439569.00    3765600.00        0.34849
         439669.00    3765600.00        0.35423
439769.00    3765600.00        0.35865
         439869.00    3765600.00        0.36362
439969.00    3765600.00        0.37453
         440069.00    3765600.00        0.37423
440169.00    3765600.00        0.36957
         440269.00    3765600.00        0.36104
439269.00    3765700.00        1.67000
         439369.00    3765700.00        1.75481
439469.00    3765700.00        1.85402
         439569.00    3765700.00        1.93748
439669.00    3765700.00        1.99410
         439769.00    3765700.00        2.03560
439869.00    3765700.00        2.05444
         439969.00    3765700.00        2.07937
440069.00    3765700.00        2.11887
         440169.00    3765700.00        2.14786
440269.00    3765700.00        2.18082
```

```
         439269.00    3765800.00        0.55059
439369.00    3765800.00        0.58078
         439469.00    3765800.00        0.60591
439569.00    3765800.00        0.62930
         439669.00    3765800.00        0.64728
439769.00    3765800.00        0.66861
         439869.00    3765800.00        0.69784
439969.00    3765800.00        0.66347
         440069.00    3765800.00        0.65659
440169.00    3765800.00        0.65426
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: EXH *** INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
440269.00	3765800.00	0.65258	439269.00	3765900.00	0.20138
439369.00	3765900.00	0.23137	439469.00	3765900.00	0.25454
439569.00	3765900.00	0.27290	439669.00	3765900.00	0.28770
439769.00	3765900.00	0.29954	439869.00	3765900.00	0.30880
439969.00	3765900.00	0.31495	440069.00	3765900.00	0.31797
440169.00	3765900.00	0.31964	440269.00	3765900.00	0.32025
439649.00	3765310.00	0.10330	439679.00	3765310.00	0.10335
439709.00	3765310.00	0.10334	439739.00	3765310.00	0.10327
439769.00	3765310.00	0.10314	439799.00	3765310.00	0.10295

```
          439829.00    3765310.00        0.10267
439859.00    3765310.00        0.10231
          439889.00    3765310.00        0.10185
439649.00    3765340.00        0.11199
          439679.00    3765340.00        0.11211
439709.00    3765340.00        0.11217
          439739.00    3765340.00        0.11217
439769.00    3765340.00        0.11211
          439799.00    3765340.00        0.11199
439829.00    3765340.00        0.11179
          439859.00    3765340.00        0.11150
439889.00    3765340.00        0.11111
          439649.00    3765370.00        0.12208
439679.00    3765370.00        0.12226
          439709.00    3765370.00        0.12240
439739.00    3765370.00        0.12249
          439769.00    3765370.00        0.12252
439799.00    3765370.00        0.12248
          439829.00    3765370.00        0.12237
439859.00    3765370.00        0.12216
          439889.00    3765370.00        0.12186
439649.00    3765400.00        0.13393
          439679.00    3765400.00        0.13420
439709.00    3765400.00        0.13443
          439739.00    3765400.00        0.13461
439769.00    3765400.00        0.13474
          439799.00    3765400.00        0.13480
439829.00    3765400.00        0.13480
          439859.00    3765400.00        0.13471
439889.00    3765400.00        0.13450
          439649.00    3765430.00        0.14810
439679.00    3765430.00        0.14847
          439709.00    3765430.00        0.14880
439739.00    3765430.00        0.14908
          439769.00    3765430.00        0.14932
439799.00    3765430.00        0.14951
          439829.00    3765430.00        0.14964
439859.00    3765430.00        0.14968
          439889.00    3765430.00        0.14962
439649.00    3765460.00        0.16536
          439679.00    3765460.00        0.16585
439709.00    3765460.00        0.16629
          439739.00    3765460.00        0.16670
439769.00    3765460.00        0.16706
          439799.00    3765460.00        0.16740
439829.00    3765460.00        0.16769
          439859.00    3765460.00        0.16791
439889.00    3765460.00        0.16803
          439649.00    3765490.00        0.18692
439679.00    3765490.00        0.18754
          439709.00    3765490.00        0.18812
439739.00    3765490.00        0.18865
```

```
         439769.00    3765490.00        0.18917
439799.00    3765490.00        0.18967
         439829.00    3765490.00        0.19015
439859.00    3765490.00        0.19061
         439889.00    3765490.00        0.19098
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: FREEEXH ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439674.00	3765310.00	0.10015	439679.00	3765310.00	0.10014
439684.00	3765310.00	0.10013	439689.00	3765310.00	0.10011
439694.00	3765310.00	0.10010	439699.00	3765310.00	0.10008
439704.00	3765310.00	0.10006	439709.00	3765310.00	0.10004
439714.00	3765310.00	0.10002	439719.00	3765310.00	0.09999
439729.00	3765310.00	0.09994	439734.00	3765310.00	0.09991
439739.00	3765310.00	0.09988	439744.00	3765310.00	0.09985
439749.00	3765310.00	0.09982	439764.00	3765310.00	0.09971
439769.00	3765310.00	0.09967	439774.00	3765310.00	0.09962
439779.00	3765310.00	0.09958	439784.00	3765310.00	0.09953

```
         439789.00    3765310.00        0.09949
439794.00    3765310.00        0.09944
         439799.00    3765310.00        0.09939
439804.00    3765310.00        0.09933
         439809.00    3765310.00        0.09928
439814.00    3765310.00        0.09922
         439819.00    3765310.00        0.09916
439824.00    3765310.00        0.09910
         439829.00    3765310.00        0.09904
439839.00    3765310.00        0.09891
         439844.00    3765310.00        0.09884
439849.00    3765310.00        0.09877
         439854.00    3765310.00        0.09870
439859.00    3765310.00        0.09862
         439864.00    3765310.00        0.09854
439869.00    3765310.00        0.09847
         439874.00    3765310.00        0.09838
439879.00    3765310.00        0.09830
         439884.00    3765310.00        0.09821
439674.00    3765315.00        0.10149
         439679.00    3765315.00        0.10148
439684.00    3765315.00        0.10147
         439689.00    3765315.00        0.10145
439694.00    3765315.00        0.10144
         439699.00    3765315.00        0.10142
439704.00    3765315.00        0.10141
         439709.00    3765315.00        0.10139
439714.00    3765315.00        0.10137
         439719.00    3765315.00        0.10134
439729.00    3765315.00        0.10129
         439734.00    3765315.00        0.10127
439739.00    3765315.00        0.10124
         439744.00    3765315.00        0.10121
439749.00    3765315.00        0.10117
         439764.00    3765315.00        0.10107
439769.00    3765315.00        0.10103
         439774.00    3765315.00        0.10099
439779.00    3765315.00        0.10095
         439784.00    3765315.00        0.10090
439789.00    3765315.00        0.10085
         439794.00    3765315.00        0.10081
439799.00    3765315.00        0.10076
         439804.00    3765315.00        0.10070
439809.00    3765315.00        0.10065
         439814.00    3765315.00        0.10060
439819.00    3765315.00        0.10054
         439824.00    3765315.00        0.10048
439829.00    3765315.00        0.10042
         439839.00    3765315.00        0.10029
439844.00    3765315.00        0.10022
         439849.00    3765315.00        0.10015
439854.00    3765315.00        0.10008
```

```
         439859.00    3765315.00        0.10001
439864.00    3765315.00        0.09993
         439869.00    3765315.00        0.09985
439874.00    3765315.00        0.09977
         439879.00    3765315.00        0.09969
439884.00    3765315.00        0.09961
         439674.00    3765320.00        0.10286
439679.00    3765320.00        0.10285
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: FREEEXH ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439684.00	3765320.00	0.10284	439689.00	3765320.00	0.10283
439694.00	3765320.00	0.10281	439699.00	3765320.00	0.10280
439704.00	3765320.00	0.10278	439709.00	3765320.00	0.10276
439714.00	3765320.00	0.10275	439719.00	3765320.00	0.10272
439729.00	3765320.00	0.10268	439734.00	3765320.00	0.10265
439739.00	3765320.00	0.10262	439744.00	3765320.00	0.10260
439749.00	3765320.00	0.10256	439764.00	3765320.00	0.10246
439769.00	3765320.00	0.10242	439774.00	3765320.00	0.10238
439779.00	3765320.00	0.10234	439784.00	3765320.00	0.10230
439789.00	3765320.00	0.10225	439794.00	3765320.00	0.10221

```
         439799.00    3765320.00        0.10216
439804.00    3765320.00        0.10211
         439809.00    3765320.00        0.10206
439814.00    3765320.00        0.10200
         439819.00    3765320.00        0.10194
439824.00    3765320.00        0.10189
         439829.00    3765320.00        0.10183
439839.00    3765320.00        0.10170
         439844.00    3765320.00        0.10163
439849.00    3765320.00        0.10157
         439854.00    3765320.00        0.10150
439859.00    3765320.00        0.10142
         439864.00    3765320.00        0.10135
439869.00    3765320.00        0.10127
         439874.00    3765320.00        0.10119
439879.00    3765320.00        0.10111
         439884.00    3765320.00        0.10103
439674.00    3765325.00        0.10426
         439679.00    3765325.00        0.10425
439684.00    3765325.00        0.10424
         439689.00    3765325.00        0.10423
439694.00    3765325.00        0.10422
         439699.00    3765325.00        0.10421
439704.00    3765325.00        0.10419
         439709.00    3765325.00        0.10418
439714.00    3765325.00        0.10416
         439719.00    3765325.00        0.10414
439729.00    3765325.00        0.10409
         439734.00    3765325.00        0.10407
439739.00    3765325.00        0.10404
         439744.00    3765325.00        0.10402
439749.00    3765325.00        0.10399
         439754.00    3765325.00        0.10396
439769.00    3765325.00        0.10385
         439774.00    3765325.00        0.10381
439779.00    3765325.00        0.10377
         439784.00    3765325.00        0.10373
439789.00    3765325.00        0.10369
         439794.00    3765325.00        0.10364
439799.00    3765325.00        0.10359
         439804.00    3765325.00        0.10355
439809.00    3765325.00        0.10349
         439814.00    3765325.00        0.10344
439819.00    3765325.00        0.10339
         439824.00    3765325.00        0.10333
439829.00    3765325.00        0.10327
         439839.00    3765325.00        0.10315
439844.00    3765325.00        0.10308
         439849.00    3765325.00        0.10301
439854.00    3765325.00        0.10294
         439859.00    3765325.00        0.10287
439864.00    3765325.00        0.10280
```

```
         439869.00    3765325.00        0.10272
439874.00    3765325.00        0.10265
         439879.00    3765325.00        0.10257
439884.00    3765325.00        0.10248
         439674.00    3765330.00        0.10569
439679.00    3765330.00        0.10569
         439684.00    3765330.00        0.10568
439689.00    3765330.00        0.10567
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: FREEEXH ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439694.00	3765330.00	0.10566	439699.00	3765330.00	0.10565
439704.00	3765330.00	0.10564	439709.00	3765330.00	0.10562
439714.00	3765330.00	0.10560	439719.00	3765330.00	0.10559
439729.00	3765330.00	0.10555	439734.00	3765330.00	0.10552
439739.00	3765330.00	0.10550	439744.00	3765330.00	0.10547
439749.00	3765330.00	0.10544	439754.00	3765330.00	0.10541
439774.00	3765330.00	0.10528	439779.00	3765330.00	0.10524
439784.00	3765330.00	0.10520	439789.00	3765330.00	0.10516
439794.00	3765330.00	0.10511	439799.00	3765330.00	0.10506
439804.00	3765330.00	0.10502	439809.00	3765330.00	0.10497

```
          439814.00    3765330.00        0.10492
439819.00    3765330.00        0.10486
          439824.00    3765330.00        0.10481
439829.00    3765330.00        0.10475
          439839.00    3765330.00        0.10463
439844.00    3765330.00        0.10456
          439849.00    3765330.00        0.10450
439854.00    3765330.00        0.10443
          439859.00    3765330.00        0.10436
439864.00    3765330.00        0.10429
          439869.00    3765330.00        0.10421
439874.00    3765330.00        0.10414
          439879.00    3765330.00        0.10406
439884.00    3765330.00        0.10398
          439674.00    3765335.00        0.10716
439679.00    3765335.00        0.10716
          439684.00    3765335.00        0.10715
439689.00    3765335.00        0.10714
          439694.00    3765335.00        0.10714
439699.00    3765335.00        0.10713
          439704.00    3765335.00        0.10712
439709.00    3765335.00        0.10710
          439714.00    3765335.00        0.10709
439719.00    3765335.00        0.10707
          439729.00    3765335.00        0.10703
439734.00    3765335.00        0.10701
          439739.00    3765335.00        0.10699
439744.00    3765335.00        0.10696
          439749.00    3765335.00        0.10694
439774.00    3765335.00        0.10678
          439779.00    3765335.00        0.10674
439784.00    3765335.00        0.10670
          439789.00    3765335.00        0.10666
439794.00    3765335.00        0.10662
          439839.00    3765335.00        0.10614
439844.00    3765335.00        0.10608
          439849.00    3765335.00        0.10602
439854.00    3765335.00        0.10595
          439859.00    3765335.00        0.10588
439864.00    3765335.00        0.10581
          439869.00    3765335.00        0.10574
439874.00    3765335.00        0.10566
          439879.00    3765335.00        0.10558
439884.00    3765335.00        0.10550
          439674.00    3765340.00        0.10867
439679.00    3765340.00        0.10866
          439684.00    3765340.00        0.10866
439689.00    3765340.00        0.10866
          439694.00    3765340.00        0.10865
439699.00    3765340.00        0.10864
          439704.00    3765340.00        0.10863
439709.00    3765340.00        0.10862
```

```
         439714.00    3765340.00        0.10861
439719.00    3765340.00        0.10859
         439729.00    3765340.00        0.10856
439734.00    3765340.00        0.10854
         439739.00    3765340.00        0.10851
439744.00    3765340.00        0.10849
         439749.00    3765340.00        0.10847
439774.00    3765340.00        0.10831
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: FREEEXH ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439779.00	3765340.00	0.10828	439784.00	3765340.00	0.10824
439789.00	3765340.00	0.10820	439794.00	3765340.00	0.10816
439839.00	3765340.00	0.10770	439844.00	3765340.00	0.10764
439849.00	3765340.00	0.10757	439854.00	3765340.00	0.10751
439859.00	3765340.00	0.10744	439864.00	3765340.00	0.10737
439869.00	3765340.00	0.10730	439874.00	3765340.00	0.10723
439879.00	3765340.00	0.10715	439884.00	3765340.00	0.10707
439674.00	3765345.00	0.11021	439679.00	3765345.00	0.11021
439684.00	3765345.00	0.11021	439689.00	3765345.00	0.11021
439694.00	3765345.00	0.11020	439699.00	3765345.00	0.11019

```
          439704.00    3765345.00        0.11018
439709.00    3765345.00        0.11017
          439714.00    3765345.00        0.11016
439719.00    3765345.00        0.11015
          439729.00    3765345.00        0.11012
439734.00    3765345.00        0.11010
          439739.00    3765345.00        0.11008
439744.00    3765345.00        0.11006
          439749.00    3765345.00        0.11003
439774.00    3765345.00        0.10989
          439779.00    3765345.00        0.10985
439784.00    3765345.00        0.10982
          439789.00    3765345.00        0.10978
439794.00    3765345.00        0.10974
          439839.00    3765345.00        0.10929
439844.00    3765345.00        0.10923
          439849.00    3765345.00        0.10917
439854.00    3765345.00        0.10911
          439859.00    3765345.00        0.10904
439864.00    3765345.00        0.10897
          439869.00    3765345.00        0.10890
439874.00    3765345.00        0.10883
          439879.00    3765345.00        0.10875
439884.00    3765345.00        0.10868
          439674.00    3765350.00        0.11180
439679.00    3765350.00        0.11180
          439684.00    3765350.00        0.11180
439689.00    3765350.00        0.11179
          439694.00    3765350.00        0.11179
439699.00    3765350.00        0.11178
          439704.00    3765350.00        0.11178
439709.00    3765350.00        0.11177
          439714.00    3765350.00        0.11176
439719.00    3765350.00        0.11175
          439729.00    3765350.00        0.11172
439734.00    3765350.00        0.11170
          439739.00    3765350.00        0.11168
439744.00    3765350.00        0.11166
          439749.00    3765350.00        0.11164
439774.00    3765350.00        0.11150
          439779.00    3765350.00        0.11147
439784.00    3765350.00        0.11144
          439789.00    3765350.00        0.11140
439794.00    3765350.00        0.11136
          439839.00    3765350.00        0.11093
439844.00    3765350.00        0.11087
          439849.00    3765350.00        0.11081
439854.00    3765350.00        0.11075
          439859.00    3765350.00        0.11068
439864.00    3765350.00        0.11061
          439869.00    3765350.00        0.11054
439874.00    3765350.00        0.11047
```

```
         439879.00    3765350.00        0.11040
439884.00    3765350.00        0.11032
         439674.00    3765355.00        0.11342
439679.00    3765355.00        0.11342
         439684.00    3765355.00        0.11342
439689.00    3765355.00        0.11342
         439694.00    3765355.00        0.11342
439699.00    3765355.00        0.11342
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: FREEEXH ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439704.00	3765355.00	0.11341	439709.00	3765355.00	0.11341
439714.00	3765355.00	0.11340	439719.00	3765355.00	0.11339
439729.00	3765355.00	0.11336	439734.00	3765355.00	0.11335
439739.00	3765355.00	0.11333	439744.00	3765355.00	0.11331
439749.00	3765355.00	0.11329	439774.00	3765355.00	0.11316
439779.00	3765355.00	0.11313	439784.00	3765355.00	0.11310
439789.00	3765355.00	0.11306	439794.00	3765355.00	0.11303
439839.00	3765355.00	0.11260	439844.00	3765355.00	0.11255
439849.00	3765355.00	0.11249	439854.00	3765355.00	0.11243
439859.00	3765355.00	0.11236	439864.00	3765355.00	0.11230

```
          439869.00    3765355.00        0.11223
439874.00    3765355.00        0.11216
          439879.00    3765355.00        0.11209
439884.00    3765355.00        0.11201
          439674.00    3765360.00        0.11509
439679.00    3765360.00        0.11509
          439684.00    3765360.00        0.11509
439689.00    3765360.00        0.11510
          439694.00    3765360.00        0.11510
439699.00    3765360.00        0.11509
          439704.00    3765360.00        0.11509
439709.00    3765360.00        0.11509
          439714.00    3765360.00        0.11508
439719.00    3765360.00        0.11507
          439729.00    3765360.00        0.11505
439734.00    3765360.00        0.11504
          439739.00    3765360.00        0.11502
439744.00    3765360.00        0.11500
          439749.00    3765360.00        0.11498
439774.00    3765360.00        0.11486
          439779.00    3765360.00        0.11483
439784.00    3765360.00        0.11480
          439789.00    3765360.00        0.11477
439794.00    3765360.00        0.11473
          439799.00    3765360.00        0.11470
439804.00    3765360.00        0.11466
          439809.00    3765360.00        0.11462
439814.00    3765360.00        0.11457
          439839.00    3765360.00        0.11433
439844.00    3765360.00        0.11427
          439849.00    3765360.00        0.11421
439854.00    3765360.00        0.11415
          439859.00    3765360.00        0.11409
439864.00    3765360.00        0.11403
          439869.00    3765360.00        0.11396
439874.00    3765360.00        0.11389
          439879.00    3765360.00        0.11382
439884.00    3765360.00        0.11375
          439674.00    3765365.00        0.11680
439679.00    3765365.00        0.11680
          439684.00    3765365.00        0.11681
439689.00    3765365.00        0.11681
          439694.00    3765365.00        0.11681
439699.00    3765365.00        0.11681
          439704.00    3765365.00        0.11681
439709.00    3765365.00        0.11681
          439714.00    3765365.00        0.11680
439719.00    3765365.00        0.11680
          439729.00    3765365.00        0.11678
439734.00    3765365.00        0.11677
          439739.00    3765365.00        0.11675
439744.00    3765365.00        0.11674
```

```
         439749.00    3765365.00        0.11672
439774.00    3765365.00        0.11661
         439779.00    3765365.00        0.11658
439784.00    3765365.00        0.11655
         439789.00    3765365.00        0.11652
439794.00    3765365.00        0.11649
         439799.00    3765365.00        0.11645
439804.00    3765365.00        0.11641
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: FREEEXH ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439809.00	3765365.00	0.11637	439814.00	3765365.00	0.11633
439839.00	3765365.00	0.11609	439844.00	3765365.00	0.11604
439849.00	3765365.00	0.11598	439854.00	3765365.00	0.11592
439859.00	3765365.00	0.11586	439864.00	3765365.00	0.11580
439869.00	3765365.00	0.11574	439874.00	3765365.00	0.11567
439879.00	3765365.00	0.11560	439884.00	3765365.00	0.11553
439674.00	3765370.00	0.11856	439679.00	3765370.00	0.11856
439684.00	3765370.00	0.11857	439689.00	3765370.00	0.11858
439694.00	3765370.00	0.11858	439699.00	3765370.00	0.11858
439704.00	3765370.00	0.11858	439709.00	3765370.00	0.11858

```
          439714.00    3765370.00        0.11858
439719.00    3765370.00        0.11857
          439729.00    3765370.00        0.11856
439734.00    3765370.00        0.11855
          439739.00    3765370.00        0.11854
439744.00    3765370.00        0.11852
          439749.00    3765370.00        0.11851
439774.00    3765370.00        0.11840
          439779.00    3765370.00        0.11838
439784.00    3765370.00        0.11835
          439789.00    3765370.00        0.11832
439794.00    3765370.00        0.11829
          439799.00    3765370.00        0.11825
439804.00    3765370.00        0.11822
          439809.00    3765370.00        0.11818
439814.00    3765370.00        0.11814
          439839.00    3765370.00        0.11791
439844.00    3765370.00        0.11786
          439849.00    3765370.00        0.11780
439854.00    3765370.00        0.11774
          439859.00    3765370.00        0.11769
439864.00    3765370.00        0.11762
          439869.00    3765370.00        0.11756
439874.00    3765370.00        0.11750
          439879.00    3765370.00        0.11743
439884.00    3765370.00        0.11736
          439674.00    3765375.00        0.12036
439679.00    3765375.00        0.12037
          439684.00    3765375.00        0.12038
439689.00    3765375.00        0.12039
          439694.00    3765375.00        0.12039
439699.00    3765375.00        0.12040
          439704.00    3765375.00        0.12040
439709.00    3765375.00        0.12040
          439714.00    3765375.00        0.12040
439719.00    3765375.00        0.12040
          439729.00    3765375.00        0.12038
439734.00    3765375.00        0.12038
          439739.00    3765375.00        0.12037
439744.00    3765375.00        0.12035
          439749.00    3765375.00        0.12034
439754.00    3765375.00        0.12033
          439774.00    3765375.00        0.12025
439779.00    3765375.00        0.12022
          439784.00    3765375.00        0.12019
439789.00    3765375.00        0.12017
          439794.00    3765375.00        0.12014
439799.00    3765375.00        0.12010
          439804.00    3765375.00        0.12007
439809.00    3765375.00        0.12003
          439814.00    3765375.00        0.11999
439839.00    3765375.00        0.11977
```

```
         439844.00    3765375.00        0.11972
439849.00    3765375.00        0.11967
         439854.00    3765375.00        0.11961
439859.00    3765375.00        0.11956
         439864.00    3765375.00        0.11950
439869.00    3765375.00        0.11943
         439874.00    3765375.00        0.11937
439879.00    3765375.00        0.11930
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: FREEEXH ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439884.00	3765375.00	0.11924	439774.00	3765380.00	0.12214
439779.00	3765380.00	0.12212	439784.00	3765380.00	0.12209
439789.00	3765380.00	0.12207	439794.00	3765380.00	0.12204
439799.00	3765380.00	0.12201	439804.00	3765380.00	0.12197
439809.00	3765380.00	0.12194	439814.00	3765380.00	0.12190
439769.00	3765385.00	0.12411	439819.00	3765385.00	0.12383
439769.00	3765400.00	0.13029	439844.00	3765400.00	0.12988
439849.00	3765400.00	0.12984	439674.00	3765405.00	0.13234
439714.00	3765405.00	0.13247	439719.00	3765405.00	0.13248
439734.00	3765405.00	0.13250	439749.00	3765405.00	0.13250

```
          439754.00    3765405.00        0.13250
439774.00    3765405.00        0.13246
          439779.00    3765405.00        0.13245
439784.00    3765405.00        0.13244
          439789.00    3765405.00        0.13242
439794.00    3765405.00        0.13240
          439799.00    3765405.00        0.13238
439804.00    3765405.00        0.13235
          439809.00    3765405.00        0.13233
439814.00    3765405.00        0.13230
          439819.00    3765405.00        0.13227
439824.00    3765405.00        0.13224
          439829.00    3765405.00        0.13221
439834.00    3765405.00        0.13217
          439839.00    3765405.00        0.13213
439844.00    3765405.00        0.13209
          439849.00    3765405.00        0.13205
439854.00    3765405.00        0.13201
          439859.00    3765405.00        0.13196
439674.00    3765410.00        0.13454
          439679.00    3765410.00        0.13457
439684.00    3765410.00        0.13460
          439689.00    3765410.00        0.13462
439694.00    3765410.00        0.13464
          439699.00    3765410.00        0.13466
439704.00    3765410.00        0.13467
          439709.00    3765410.00        0.13469
439714.00    3765410.00        0.13470
          439719.00    3765410.00        0.13471
439729.00    3765410.00        0.13473
          439734.00    3765410.00        0.13474
439739.00    3765410.00        0.13474
          439744.00    3765410.00        0.13474
439749.00    3765410.00        0.13474
          439774.00    3765410.00        0.13472
439779.00    3765410.00        0.13471
          439784.00    3765410.00        0.13469
439789.00    3765410.00        0.13468
          439794.00    3765410.00        0.13466
439799.00    3765410.00        0.13464
          439804.00    3765410.00        0.13462
439809.00    3765410.00        0.13460
          439814.00    3765410.00        0.13457
439819.00    3765410.00        0.13455
          439824.00    3765410.00        0.13452
439829.00    3765410.00        0.13448
          439834.00    3765410.00        0.13445
439839.00    3765410.00        0.13442
          439844.00    3765410.00        0.13438
439849.00    3765410.00        0.13434
          439854.00    3765410.00        0.13429
439859.00    3765410.00        0.13425
```

```
         439674.00    3765415.00        0.13682
439679.00    3765415.00        0.13685
         439684.00    3765415.00        0.13688
439689.00    3765415.00        0.13690
         439694.00    3765415.00        0.13693
439699.00    3765415.00        0.13695
         439704.00    3765415.00        0.13697
439709.00    3765415.00        0.13698
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: FREEEXH ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439714.00	3765415.00	0.13700	439719.00	3765415.00	0.13701
439729.00	3765415.00	0.13704	439734.00	3765415.00	0.13704
439739.00	3765415.00	0.13705	439744.00	3765415.00	0.13705
439749.00	3765415.00	0.13706	439774.00	3765415.00	0.13704
439779.00	3765415.00	0.13703	439784.00	3765415.00	0.13702
439789.00	3765415.00	0.13701	439794.00	3765415.00	0.13700
439799.00	3765415.00	0.13698	439804.00	3765415.00	0.13696
439809.00	3765415.00	0.13694	439814.00	3765415.00	0.13691
439819.00	3765415.00	0.13689	439824.00	3765415.00	0.13686
439829.00	3765415.00	0.13683	439834.00	3765415.00	0.13680

```
          439839.00    3765415.00        0.13677
439844.00    3765415.00        0.13673
          439849.00    3765415.00        0.13669
439854.00    3765415.00        0.13665
          439859.00    3765415.00        0.13661
439674.00    3765420.00        0.13917
          439679.00    3765420.00        0.13921
439684.00    3765420.00        0.13923
          439689.00    3765420.00        0.13926
439694.00    3765420.00        0.13929
          439699.00    3765420.00        0.13931
439704.00    3765420.00        0.13933
          439709.00    3765420.00        0.13935
439714.00    3765420.00        0.13937
          439719.00    3765420.00        0.13939
439729.00    3765420.00        0.13941
          439734.00    3765420.00        0.13942
439739.00    3765420.00        0.13943
          439744.00    3765420.00        0.13944
439749.00    3765420.00        0.13944
          439774.00    3765420.00        0.13944
439779.00    3765420.00        0.13943
          439784.00    3765420.00        0.13942
439789.00    3765420.00        0.13941
          439794.00    3765420.00        0.13940
439799.00    3765420.00        0.13939
          439804.00    3765420.00        0.13937
439809.00    3765420.00        0.13935
          439814.00    3765420.00        0.13933
439819.00    3765420.00        0.13931
          439824.00    3765420.00        0.13928
439829.00    3765420.00        0.13925
          439834.00    3765420.00        0.13923
439839.00    3765420.00        0.13919
          439844.00    3765420.00        0.13916
439849.00    3765420.00        0.13912
          439854.00    3765420.00        0.13908
439859.00    3765420.00        0.13904
          439674.00    3765425.00        0.14160
439679.00    3765425.00        0.14163
          439684.00    3765425.00        0.14167
439689.00    3765425.00        0.14170
          439694.00    3765425.00        0.14172
439699.00    3765425.00        0.14175
          439704.00    3765425.00        0.14177
439709.00    3765425.00        0.14180
          439714.00    3765425.00        0.14182
439719.00    3765425.00        0.14184
          439729.00    3765425.00        0.14187
439734.00    3765425.00        0.14188
          439739.00    3765425.00        0.14189
439744.00    3765425.00        0.14190
```

```
         439749.00    3765425.00        0.14191
439774.00    3765425.00        0.14192
         439779.00    3765425.00        0.14191
439784.00    3765425.00        0.14191
         439789.00    3765425.00        0.14190
439794.00    3765425.00        0.14189
         439799.00    3765425.00        0.14187
439804.00    3765425.00        0.14186
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: FREEEXH ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439809.00	3765425.00	0.14184	439814.00	3765425.00	0.14182
439819.00	3765425.00	0.14180	439824.00	3765425.00	0.14178
439829.00	3765425.00	0.14175	439834.00	3765425.00	0.14173
439839.00	3765425.00	0.14170	439844.00	3765425.00	0.14167
439849.00	3765425.00	0.14163	439854.00	3765425.00	0.14159
439859.00	3765425.00	0.14156	439674.00	3765430.00	0.14411
439679.00	3765430.00	0.14414	439684.00	3765430.00	0.14418
439689.00	3765430.00	0.14421	439694.00	3765430.00	0.14424
439699.00	3765430.00	0.14427	439704.00	3765430.00	0.14430
439709.00	3765430.00	0.14432	439714.00	3765430.00	0.14434

```
          439719.00    3765430.00        0.14437
439729.00    3765430.00        0.14440
          439734.00    3765430.00        0.14442
439739.00    3765430.00        0.14443
          439744.00    3765430.00        0.14444
439749.00    3765430.00        0.14445
          439774.00    3765430.00        0.14447
439779.00    3765430.00        0.14447
          439784.00    3765430.00        0.14447
439789.00    3765430.00        0.14446
          439794.00    3765430.00        0.14445
439799.00    3765430.00        0.14444
          439804.00    3765430.00        0.14443
439809.00    3765430.00        0.14442
          439814.00    3765430.00        0.14440
439819.00    3765430.00        0.14438
          439824.00    3765430.00        0.14436
439829.00    3765430.00        0.14434
          439834.00    3765430.00        0.14431
439839.00    3765430.00        0.14428
          439844.00    3765430.00        0.14425
439849.00    3765430.00        0.14422
          439854.00    3765430.00        0.14419
439859.00    3765430.00        0.14415
          439674.00    3765435.00        0.14670
439679.00    3765435.00        0.14674
          439684.00    3765435.00        0.14677
439689.00    3765435.00        0.14681
          439694.00    3765435.00        0.14684
439699.00    3765435.00        0.14687
          439704.00    3765435.00        0.14690
439709.00    3765435.00        0.14693
          439714.00    3765435.00        0.14696
439719.00    3765435.00        0.14698
          439729.00    3765435.00        0.14702
439734.00    3765435.00        0.14704
          439739.00    3765435.00        0.14706
439744.00    3765435.00        0.14707
          439749.00    3765435.00        0.14708
439774.00    3765435.00        0.14712
          439779.00    3765435.00        0.14712
439784.00    3765435.00        0.14711
          439789.00    3765435.00        0.14711
439794.00    3765435.00        0.14710
          439799.00    3765435.00        0.14710
439804.00    3765435.00        0.14709
          439809.00    3765435.00        0.14707
439814.00    3765435.00        0.14706
          439819.00    3765435.00        0.14704
439824.00    3765435.00        0.14703
          439829.00    3765435.00        0.14700
439834.00    3765435.00        0.14698
```

```
         439839.00    3765435.00        0.14696
439844.00    3765435.00        0.14693
         439849.00    3765435.00        0.14690
439854.00    3765435.00        0.14687
         439859.00    3765435.00        0.14683
439674.00    3765440.00        0.14938
         439679.00    3765440.00        0.14942
439684.00    3765440.00        0.14946
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: FREEEXH ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439689.00	3765440.00	0.14950	439694.00	3765440.00	0.14953
439699.00	3765440.00	0.14957	439704.00	3765440.00	0.14960
439709.00	3765440.00	0.14963	439714.00	3765440.00	0.14966
439719.00	3765440.00	0.14968	439729.00	3765440.00	0.14973
439734.00	3765440.00	0.14975	439739.00	3765440.00	0.14977
439744.00	3765440.00	0.14979	439749.00	3765440.00	0.14980
439774.00	3765440.00	0.14985	439779.00	3765440.00	0.14985
439784.00	3765440.00	0.14985	439789.00	3765440.00	0.14985
439794.00	3765440.00	0.14985	439799.00	3765440.00	0.14984
439804.00	3765440.00	0.14983	439809.00	3765440.00	0.14982

```
          439814.00    3765440.00        0.14981
439819.00    3765440.00        0.14980
          439824.00    3765440.00        0.14978
439829.00    3765440.00        0.14976
          439834.00    3765440.00        0.14974
439839.00    3765440.00        0.14972
          439844.00    3765440.00        0.14970
439849.00    3765440.00        0.14967
          439854.00    3765440.00        0.14964
439859.00    3765440.00        0.14961
          439674.00    3765445.00        0.15215
439679.00    3765445.00        0.15219
          439684.00    3765445.00        0.15224
439689.00    3765445.00        0.15228
          439694.00    3765445.00        0.15232
439699.00    3765445.00        0.15235
          439704.00    3765445.00        0.15239
439709.00    3765445.00        0.15242
          439714.00    3765445.00        0.15245
439719.00    3765445.00        0.15248
          439729.00    3765445.00        0.15254
439734.00    3765445.00        0.15256
          439739.00    3765445.00        0.15258
439744.00    3765445.00        0.15260
          439749.00    3765445.00        0.15262
439774.00    3765445.00        0.15268
          439779.00    3765445.00        0.15268
439784.00    3765445.00        0.15268
          439789.00    3765445.00        0.15269
439794.00    3765445.00        0.15268
          439799.00    3765445.00        0.15268
439804.00    3765445.00        0.15268
          439809.00    3765445.00        0.15267
439814.00    3765445.00        0.15266
          439819.00    3765445.00        0.15265
439824.00    3765445.00        0.15263
          439829.00    3765445.00        0.15262
439834.00    3765445.00        0.15260
          439839.00    3765445.00        0.15258
439844.00    3765445.00        0.15256
          439849.00    3765445.00        0.15253
439854.00    3765445.00        0.15250
          439859.00    3765445.00        0.15247
439674.00    3765450.00        0.15502
          439679.00    3765450.00        0.15507
439684.00    3765450.00        0.15511
          439689.00    3765450.00        0.15516
439694.00    3765450.00        0.15520
          439699.00    3765450.00        0.15524
439704.00    3765450.00        0.15528
          439709.00    3765450.00        0.15531
439714.00    3765450.00        0.15535
```

```
         439719.00    3765450.00        0.15538
439729.00    3765450.00        0.15544
         439734.00    3765450.00        0.15546
439739.00    3765450.00        0.15549
         439744.00    3765450.00        0.15551
439749.00    3765450.00        0.15553
         439774.00    3765450.00        0.15560
439844.00    3765450.00        0.15552
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: FREEEXH ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439849.00	3765450.00	0.15550	439854.00	3765450.00	0.15547
439859.00	3765450.00	0.15544	439674.00	3765455.00	0.15799
439679.00	3765455.00	0.15805	439684.00	3765455.00	0.15809
439689.00	3765455.00	0.15814	439694.00	3765455.00	0.15819
439699.00	3765455.00	0.15823	439704.00	3765455.00	0.15827
439709.00	3765455.00	0.15831	439714.00	3765455.00	0.15835
439719.00	3765455.00	0.15838	439729.00	3765455.00	0.15845
439734.00	3765455.00	0.15847	439739.00	3765455.00	0.15850
439744.00	3765455.00	0.15853	439749.00	3765455.00	0.15855
439844.00	3765455.00	0.15859	439849.00	3765455.00	0.15857

```
          439854.00    3765455.00        0.15855
439859.00    3765455.00        0.15852
          439674.00    3765460.00        0.16108
439679.00    3765460.00        0.16113
          439684.00    3765460.00        0.16118
439689.00    3765460.00        0.16123
          439694.00    3765460.00        0.16128
439699.00    3765460.00        0.16133
          439704.00    3765460.00        0.16137
439709.00    3765460.00        0.16141
          439714.00    3765460.00        0.16145
439719.00    3765460.00        0.16149
          439729.00    3765460.00        0.16156
439734.00    3765460.00        0.16160
          439739.00    3765460.00        0.16163
439744.00    3765460.00        0.16165
          439749.00    3765460.00        0.16168
439789.00    3765460.00        0.16181
          439794.00    3765460.00        0.16182
439799.00    3765460.00        0.16183
          439804.00    3765460.00        0.16183
439809.00    3765460.00        0.16183
          439814.00    3765460.00        0.16183
439819.00    3765460.00        0.16182
          439824.00    3765460.00        0.16182
439829.00    3765460.00        0.16181
          439844.00    3765460.00        0.16177
439849.00    3765460.00        0.16175
          439854.00    3765460.00        0.16173
439859.00    3765460.00        0.16171
          439674.00    3765465.00        0.16428
439679.00    3765465.00        0.16434
          439684.00    3765465.00        0.16439
439689.00    3765465.00        0.16444
          439694.00    3765465.00        0.16450
439699.00    3765465.00        0.16454
          439704.00    3765465.00        0.16459
439709.00    3765465.00        0.16464
          439714.00    3765465.00        0.16468
439719.00    3765465.00        0.16472
          439729.00    3765465.00        0.16480
439734.00    3765465.00        0.16483
          439739.00    3765465.00        0.16487
439744.00    3765465.00        0.16490
          439749.00    3765465.00        0.16493
439789.00    3765465.00        0.16508
          439794.00    3765465.00        0.16509
439799.00    3765465.00        0.16510
          439804.00    3765465.00        0.16511
439809.00    3765465.00        0.16511
          439814.00    3765465.00        0.16511
439819.00    3765465.00        0.16511
```

```
         439824.00    3765465.00        0.16511
439829.00    3765465.00        0.16510
         439844.00    3765465.00        0.16507
439849.00    3765465.00        0.16505
         439854.00    3765465.00        0.16504
439859.00    3765465.00        0.16502
         439674.00    3765470.00        0.16760
439679.00    3765470.00        0.16766
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: FREEEXH ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439684.00	3765470.00	0.16772	439689.00	3765470.00	0.16778
439694.00	3765470.00	0.16783	439699.00	3765470.00	0.16788
439704.00	3765470.00	0.16793	439709.00	3765470.00	0.16798
439714.00	3765470.00	0.16803	439719.00	3765470.00	0.16808
439729.00	3765470.00	0.16816	439734.00	3765470.00	0.16820
439739.00	3765470.00	0.16823	439744.00	3765470.00	0.16827
439749.00	3765470.00	0.16830	439789.00	3765470.00	0.16848
439794.00	3765470.00	0.16849	439799.00	3765470.00	0.16850
439804.00	3765470.00	0.16851	439809.00	3765470.00	0.16852
439814.00	3765470.00	0.16852	439819.00	3765470.00	0.16852

```
          439824.00    3765470.00        0.16852
439829.00    3765470.00        0.16852
          439844.00    3765470.00        0.16850
439849.00    3765470.00        0.16848
          439854.00    3765470.00        0.16847
439859.00    3765470.00        0.16845
          439674.00    3765475.00        0.17105
439679.00    3765475.00        0.17112
          439684.00    3765475.00        0.17118
439689.00    3765475.00        0.17124
          439694.00    3765475.00        0.17130
439699.00    3765475.00        0.17135
          439704.00    3765475.00        0.17141
439709.00    3765475.00        0.17146
          439714.00    3765475.00        0.17151
439719.00    3765475.00        0.17156
          439729.00    3765475.00        0.17165
439734.00    3765475.00        0.17169
          439739.00    3765475.00        0.17173
439744.00    3765475.00        0.17177
          439749.00    3765475.00        0.17180
439754.00    3765475.00        0.17183
          439789.00    3765475.00        0.17201
439794.00    3765475.00        0.17202
          439799.00    3765475.00        0.17204
439804.00    3765475.00        0.17205
          439809.00    3765475.00        0.17206
439814.00    3765475.00        0.17206
          439819.00    3765475.00        0.17207
439824.00    3765475.00        0.17207
          439829.00    3765475.00        0.17207
439269.00    3764900.00        0.04488
          439369.00    3764900.00        0.04516
439469.00    3764900.00        0.04507
          439569.00    3764900.00        0.04460
439669.00    3764900.00        0.04374
          439769.00    3764900.00        0.04249
439869.00    3764900.00        0.04083
          439969.00    3764900.00        0.03879
440069.00    3764900.00        0.03640
          440169.00    3764900.00        0.03373
440269.00    3764900.00        0.03092
          439269.00    3765000.00        0.05238
439369.00    3765000.00        0.05292
          439469.00    3765000.00        0.05302
439569.00    3765000.00        0.05269
          439669.00    3765000.00        0.05190
439769.00    3765000.00        0.05066
          439869.00    3765000.00        0.04892
439969.00    3765000.00        0.04668
          440069.00    3765000.00        0.04393
440169.00    3765000.00        0.04073
```

```
         440269.00    3765000.00        0.03722
439269.00    3765100.00        0.06207
         439369.00    3765100.00        0.06294
439469.00    3765100.00        0.06330
         439569.00    3765100.00        0.06316
439669.00    3765100.00        0.06253
         439769.00    3765100.00        0.06138
439869.00    3765100.00        0.05966
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: FREEEXH ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439969.00	3765100.00	0.05729	440069.00	3765100.00	0.05423
440169.00	3765100.00	0.05045	440269.00	3765100.00	0.04607
439269.00	3765200.00	0.07513	439369.00	3765200.00	0.07643
439469.00	3765200.00	0.07713	439569.00	3765200.00	0.07729
439669.00	3765200.00	0.07692	439769.00	3765200.00	0.07598
439869.00	3765200.00	0.07440	439969.00	3765200.00	0.07206
440069.00	3765200.00	0.06880	440169.00	3765200.00	0.06448
440269.00	3765200.00	0.05907	439269.00	3765300.00	0.09375
439369.00	3765300.00	0.09566	439469.00	3765300.00	0.09689
439569.00	3765300.00	0.09752	439669.00	3765300.00	0.09758

```
         439769.00    3765300.00        0.09703
439869.00    3765300.00        0.09579
         439969.00    3765300.00        0.09367
440069.00    3765300.00        0.09044
         440169.00    3765300.00        0.08577
440269.00    3765300.00        0.07931
         439269.00    3765400.00        0.12284
439369.00    3765400.00        0.12577
         439469.00    3765400.00        0.12791
439569.00    3765400.00        0.12937
         439669.00    3765400.00        0.13017
439769.00    3765400.00        0.13029
         439869.00    3765400.00        0.12964
439969.00    3765400.00        0.12803
         440069.00    3765400.00        0.12517
440169.00    3765400.00        0.12053
         440269.00    3765400.00        0.11336
439269.00    3765500.00        0.17606
         439369.00    3765500.00        0.18117
439469.00    3765500.00        0.18521
         439569.00    3765500.00        0.18830
439669.00    3765500.00        0.19049
         439769.00    3765500.00        0.19179
439869.00    3765500.00        0.19217
         439969.00    3765500.00        0.19148
440069.00    3765500.00        0.18942
         440169.00    3765500.00        0.18542
440269.00    3765500.00        0.17836
         439269.00    3765600.00        0.31335
439369.00    3765600.00        0.32449
         439469.00    3765600.00        0.33334
439569.00    3765600.00        0.34028
         439669.00    3765600.00        0.34548
439769.00    3765600.00        0.34917
         439869.00    3765600.00        0.35147
439969.00    3765600.00        0.35246
         440069.00    3765600.00        0.35191
440169.00    3765600.00        0.34931
         440269.00    3765600.00        0.34361
439269.00    3765700.00        1.66725
         439369.00    3765700.00        1.74831
439469.00    3765700.00        1.82739
         439569.00    3765700.00        1.90454
439669.00    3765700.00        1.96641
         439769.00    3765700.00        2.01278
439869.00    3765700.00        2.03652
         439969.00    3765700.00        2.05764
440069.00    3765700.00        2.07627
         440169.00    3765700.00        2.08198
440269.00    3765700.00        2.08072
         439269.00    3765800.00        0.54859
439369.00    3765800.00        0.57719
```

```
         439469.00    3765800.00        0.59530
439569.00    3765800.00        0.60721
         439669.00    3765800.00        0.61549
439769.00    3765800.00        0.62173
         439869.00    3765800.00        0.62640
439969.00    3765800.00        0.62970
         440069.00    3765800.00        0.63144
440169.00    3765800.00        0.63147
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: FREEEXH ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
440269.00	3765800.00	0.62942	439269.00	3765900.00	0.20001
439369.00	3765900.00	0.22948	439469.00	3765900.00	0.25167
439569.00	3765900.00	0.26832	439669.00	3765900.00	0.28089
439769.00	3765900.00	0.29047	439869.00	3765900.00	0.29780
439969.00	3765900.00	0.30332	440069.00	3765900.00	0.30727
440169.00	3765900.00	0.30970	440269.00	3765900.00	0.31052
439649.00	3765310.00	0.10018	439679.00	3765310.00	0.10014
439709.00	3765310.00	0.10004	439739.00	3765310.00	0.09988
439769.00	3765310.00	0.09967	439799.00	3765310.00	0.09939
439829.00	3765310.00	0.09904	439859.00	3765310.00	0.09862

```
          439889.00    3765310.00        0.09813
439649.00    3765340.00        0.10866
          439679.00    3765340.00        0.10866
439709.00    3765340.00        0.10862
          439739.00    3765340.00        0.10851
439769.00    3765340.00        0.10835
          439799.00    3765340.00        0.10812
439829.00    3765340.00        0.10782
          439859.00    3765340.00        0.10744
439889.00    3765340.00        0.10699
          439649.00    3765370.00        0.11849
439679.00    3765370.00        0.11856
          439709.00    3765370.00        0.11858
439739.00    3765370.00        0.11854
          439769.00    3765370.00        0.11843
439799.00    3765370.00        0.11825
          439829.00    3765370.00        0.11801
439859.00    3765370.00        0.11769
          439889.00    3765370.00        0.11728
439649.00    3765400.00        0.13006
          439679.00    3765400.00        0.13021
439709.00    3765400.00        0.13030
          439739.00    3765400.00        0.13033
439769.00    3765400.00        0.13029
          439799.00    3765400.00        0.13018
439829.00    3765400.00        0.13000
          439859.00    3765400.00        0.12974
439889.00    3765400.00        0.12940
          439649.00    3765430.00        0.14390
439679.00    3765430.00        0.14414
          439709.00    3765430.00        0.14432
439739.00    3765430.00        0.14443
          439769.00    3765430.00        0.14447
439799.00    3765430.00        0.14444
          439829.00    3765430.00        0.14434
439859.00    3765430.00        0.14415
          439889.00    3765430.00        0.14388
439649.00    3765460.00        0.16078
          439679.00    3765460.00        0.16113
439709.00    3765460.00        0.16141
          439739.00    3765460.00        0.16163
439769.00    3765460.00        0.16176
          439799.00    3765460.00        0.16183
439829.00    3765460.00        0.16181
          439859.00    3765460.00        0.16171
439889.00    3765460.00        0.16152
          439649.00    3765490.00        0.18186
439679.00    3765490.00        0.18235
          439709.00    3765490.00        0.18276
439739.00    3765490.00        0.18309
          439769.00    3765490.00        0.18335
439799.00    3765490.00        0.18352
```

```
          439829.00    3765490.00        0.18361
439859.00    3765490.00        0.18361
          439889.00    3765490.00        0.18352
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONOFFEXH ***
INCLUDING SOURCE(S):
A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , A0000029 , A0000030 , A0000031 , A0000032 , A0000033 , A0000034 , A0000035 ,
A0000036 , A0000037 , A0000038 , A0000039 , A0000040 , A0000041 , A0000042 , A0000043 ,
A0000044 , A0000045 , A0000046 , A0000047 , A0000048 , A0000049 , A0000050 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439674.00	3765310.00	0.00319	439679.00	3765310.00	0.00321
439684.00	3765310.00	0.00322	439689.00	3765310.00	0.00324
439694.00	3765310.00	0.00325	439699.00	3765310.00	0.00327
439704.00	3765310.00	0.00328	439709.00	3765310.00	0.00330
439714.00	3765310.00	0.00331	439719.00	3765310.00	0.00333
439729.00	3765310.00	0.00336	439734.00	3765310.00	0.00337
439739.00	3765310.00	0.00339	439744.00	3765310.00	0.00340
439749.00	3765310.00	0.00342	439764.00	3765310.00	0.00346
439769.00	3765310.00	0.00348	439774.00	3765310.00	0.00349

```
          439779.00    3765310.00         0.00351
439784.00    3765310.00         0.00352
          439789.00    3765310.00         0.00353
439794.00    3765310.00         0.00355
          439799.00    3765310.00         0.00356
439804.00    3765310.00         0.00357
          439809.00    3765310.00         0.00358
439814.00    3765310.00         0.00360
          439819.00    3765310.00         0.00361
439824.00    3765310.00         0.00362
          439829.00    3765310.00         0.00363
439839.00    3765310.00         0.00365
          439844.00    3765310.00         0.00366
439849.00    3765310.00         0.00367
          439854.00    3765310.00         0.00368
439859.00    3765310.00         0.00369
          439864.00    3765310.00         0.00370
439869.00    3765310.00         0.00370
          439874.00    3765310.00         0.00371
439879.00    3765310.00         0.00372
          439884.00    3765310.00         0.00372
439674.00    3765315.00         0.00323
          439679.00    3765315.00         0.00324
439684.00    3765315.00         0.00326
          439689.00    3765315.00         0.00328
439694.00    3765315.00         0.00329
          439699.00    3765315.00         0.00331
439704.00    3765315.00         0.00332
          439709.00    3765315.00         0.00334
439714.00    3765315.00         0.00335
          439719.00    3765315.00         0.00337
439729.00    3765315.00         0.00340
          439734.00    3765315.00         0.00342
439739.00    3765315.00         0.00343
          439744.00    3765315.00         0.00345
439749.00    3765315.00         0.00346
          439764.00    3765315.00         0.00351
439769.00    3765315.00         0.00352
          439774.00    3765315.00         0.00354
439779.00    3765315.00         0.00355
          439784.00    3765315.00         0.00357
439789.00    3765315.00         0.00358
          439794.00    3765315.00         0.00360
439799.00    3765315.00         0.00361
          439804.00    3765315.00         0.00362
439809.00    3765315.00         0.00364
          439814.00    3765315.00         0.00365
439819.00    3765315.00         0.00366
          439824.00    3765315.00         0.00367
439829.00    3765315.00         0.00368
          439839.00    3765315.00         0.00371
439844.00    3765315.00         0.00372
```

```
         439849.00    3765315.00        0.00373
439854.00    3765315.00        0.00374
         439859.00    3765315.00        0.00375
439864.00    3765315.00        0.00375
         439869.00    3765315.00        0.00376
439874.00    3765315.00        0.00377
         439879.00    3765315.00        0.00378
439884.00    3765315.00        0.00378
         439674.00    3765320.00        0.00327
439679.00    3765320.00        0.00328
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONOFFEXH ***
INCLUDING SOURCE(S):
A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , A0000029 , A0000030 , A0000031 , A0000032 , A0000033 , A0000034 , A0000035 ,
A0000036 , A0000037 , A0000038 , A0000039 , A0000040 , A0000041 , A0000042 , A0000043 ,
A0000044 , A0000045 , A0000046 , A0000047 , A0000048 , A0000049 , A0000050 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439684.00	3765320.00	0.00330	439689.00	3765320.00	0.00331
439694.00	3765320.00	0.00333	439699.00	3765320.00	0.00335
439704.00	3765320.00	0.00336	439709.00	3765320.00	0.00338
439714.00	3765320.00	0.00339	439719.00	3765320.00	0.00341
439729.00	3765320.00	0.00344	439734.00	3765320.00	0.00346
439739.00	3765320.00	0.00348	439744.00	3765320.00	0.00349
439749.00	3765320.00	0.00351	439764.00	3765320.00	0.00355
439769.00	3765320.00	0.00357	439774.00	3765320.00	0.00359
439779.00	3765320.00	0.00360	439784.00	3765320.00	0.00362

```
         439789.00    3765320.00        0.00363
439794.00    3765320.00        0.00365
         439799.00    3765320.00        0.00366
439804.00    3765320.00        0.00367
         439809.00    3765320.00        0.00369
439814.00    3765320.00        0.00370
         439819.00    3765320.00        0.00371
439824.00    3765320.00        0.00373
         439829.00    3765320.00        0.00374
439839.00    3765320.00        0.00376
         439844.00    3765320.00        0.00377
439849.00    3765320.00        0.00378
         439854.00    3765320.00        0.00379
439859.00    3765320.00        0.00380
         439864.00    3765320.00        0.00381
439869.00    3765320.00        0.00382
         439874.00    3765320.00        0.00383
439879.00    3765320.00        0.00384
         439884.00    3765320.00        0.00384
439674.00    3765325.00        0.00330
         439679.00    3765325.00        0.00332
439684.00    3765325.00        0.00334
         439689.00    3765325.00        0.00335
439694.00    3765325.00        0.00337
         439699.00    3765325.00        0.00339
439704.00    3765325.00        0.00340
         439709.00    3765325.00        0.00342
439714.00    3765325.00        0.00344
         439719.00    3765325.00        0.00345
439729.00    3765325.00        0.00349
         439734.00    3765325.00        0.00350
439739.00    3765325.00        0.00352
         439744.00    3765325.00        0.00354
439749.00    3765325.00        0.00355
         439754.00    3765325.00        0.00357
439769.00    3765325.00        0.00362
         439774.00    3765325.00        0.00363
439779.00    3765325.00        0.00365
         439784.00    3765325.00        0.00367
439789.00    3765325.00        0.00368
         439794.00    3765325.00        0.00370
439799.00    3765325.00        0.00371
         439804.00    3765325.00        0.00373
439809.00    3765325.00        0.00374
         439814.00    3765325.00        0.00376
439819.00    3765325.00        0.00377
         439824.00    3765325.00        0.00378
439829.00    3765325.00        0.00380
         439839.00    3765325.00        0.00382
439844.00    3765325.00        0.00383
         439849.00    3765325.00        0.00384
439854.00    3765325.00        0.00385
```

```
         439859.00    3765325.00        0.00386
439864.00    3765325.00        0.00387
         439869.00    3765325.00        0.00388
439874.00    3765325.00        0.00389
         439879.00    3765325.00        0.00390
439884.00    3765325.00        0.00391
         439674.00    3765330.00        0.00334
439679.00    3765330.00        0.00336
         439684.00    3765330.00        0.00338
439689.00    3765330.00        0.00339
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONOFFEXH ***
INCLUDING SOURCE(S):
A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , A0000029 , A0000030 , A0000031 , A0000032 , A0000033 , A0000034 , A0000035 ,
A0000036 , A0000037 , A0000038 , A0000039 , A0000040 , A0000041 , A0000042 , A0000043 ,
A0000044 , A0000045 , A0000046 , A0000047 , A0000048 , A0000049 , A0000050 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439694.00	3765330.00	0.00341	439699.00	3765330.00	0.00343
439704.00	3765330.00	0.00344	439709.00	3765330.00	0.00346
439714.00	3765330.00	0.00348	439719.00	3765330.00	0.00350
439729.00	3765330.00	0.00353	439734.00	3765330.00	0.00355
439739.00	3765330.00	0.00356	439744.00	3765330.00	0.00358
439749.00	3765330.00	0.00360	439754.00	3765330.00	0.00362
439774.00	3765330.00	0.00368	439779.00	3765330.00	0.00370
439784.00	3765330.00	0.00372	439789.00	3765330.00	0.00373
439794.00	3765330.00	0.00375	439799.00	3765330.00	0.00377

```
          439804.00    3765330.00         0.00378
439809.00    3765330.00         0.00380
          439814.00    3765330.00         0.00381
439819.00    3765330.00         0.00383
          439824.00    3765330.00         0.00384
439829.00    3765330.00         0.00385
          439839.00    3765330.00         0.00388
439844.00    3765330.00         0.00389
          439849.00    3765330.00         0.00390
439854.00    3765330.00         0.00392
          439859.00    3765330.00         0.00393
439864.00    3765330.00         0.00394
          439869.00    3765330.00         0.00395
439874.00    3765330.00         0.00396
          439879.00    3765330.00         0.00396
439884.00    3765330.00         0.00397
          439674.00    3765335.00         0.00338
439679.00    3765335.00         0.00340
          439684.00    3765335.00         0.00342
439689.00    3765335.00         0.00343
          439694.00    3765335.00         0.00345
439699.00    3765335.00         0.00347
          439704.00    3765335.00         0.00349
439709.00    3765335.00         0.00350
          439714.00    3765335.00         0.00352
439719.00    3765335.00         0.00354
          439729.00    3765335.00         0.00357
439734.00    3765335.00         0.00359
          439739.00    3765335.00         0.00361
439744.00    3765335.00         0.00363
          439749.00    3765335.00         0.00365
439774.00    3765335.00         0.00373
          439779.00    3765335.00         0.00375
439784.00    3765335.00         0.00377
          439789.00    3765335.00         0.00379
439794.00    3765335.00         0.00380
          439839.00    3765335.00         0.00394
439844.00    3765335.00         0.00395
          439849.00    3765335.00         0.00397
439854.00    3765335.00         0.00398
          439859.00    3765335.00         0.00399
439864.00    3765335.00         0.00400
          439869.00    3765335.00         0.00401
439874.00    3765335.00         0.00402
          439879.00    3765335.00         0.00403
439884.00    3765335.00         0.00404
          439674.00    3765340.00         0.00342
439679.00    3765340.00         0.00344
          439684.00    3765340.00         0.00346
439689.00    3765340.00         0.00348
          439694.00    3765340.00         0.00349
439699.00    3765340.00         0.00351
```

```
          439704.00    3765340.00         0.00353
439709.00    3765340.00         0.00355
          439714.00    3765340.00         0.00356
439719.00    3765340.00         0.00358
          439729.00    3765340.00         0.00362
439734.00    3765340.00         0.00364
          439739.00    3765340.00         0.00366
439744.00    3765340.00         0.00368
          439749.00    3765340.00         0.00369
439774.00    3765340.00         0.00379
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONOFFEXH ***
INCLUDING SOURCE(S):
A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , A0000029 , A0000030 , A0000031 , A0000032 , A0000033 , A0000034 , A0000035 ,
A0000036 , A0000037 , A0000038 , A0000039 , A0000040 , A0000041 , A0000042 , A0000043 ,
A0000044 , A0000045 , A0000046 , A0000047 , A0000048 , A0000049 , A0000050 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439779.00	3765340.00	0.00380	439784.00	3765340.00	0.00382
439789.00	3765340.00	0.00384	439794.00	3765340.00	0.00386
439839.00	3765340.00	0.00400	439844.00	3765340.00	0.00402
439849.00	3765340.00	0.00403	439854.00	3765340.00	0.00404
439859.00	3765340.00	0.00405	439864.00	3765340.00	0.00407
439869.00	3765340.00	0.00408	439874.00	3765340.00	0.00409
439879.00	3765340.00	0.00410	439884.00	3765340.00	0.00411
439674.00	3765345.00	0.00346	439679.00	3765345.00	0.00348
439684.00	3765345.00	0.00350	439689.00	3765345.00	0.00352

```
          439694.00    3765345.00        0.00354
439699.00    3765345.00        0.00355
          439704.00    3765345.00        0.00357
439709.00    3765345.00        0.00359
          439714.00    3765345.00        0.00361
439719.00    3765345.00        0.00363
          439729.00    3765345.00        0.00367
439734.00    3765345.00        0.00368
          439739.00    3765345.00        0.00370
439744.00    3765345.00        0.00372
          439749.00    3765345.00        0.00374
439774.00    3765345.00        0.00384
          439779.00    3765345.00        0.00386
439784.00    3765345.00        0.00388
          439789.00    3765345.00        0.00389
439794.00    3765345.00        0.00391
          439839.00    3765345.00        0.00406
439844.00    3765345.00        0.00408
          439849.00    3765345.00        0.00409
439854.00    3765345.00        0.00411
          439859.00    3765345.00        0.00412
439864.00    3765345.00        0.00413
          439869.00    3765345.00        0.00415
439874.00    3765345.00        0.00416
          439879.00    3765345.00        0.00417
439884.00    3765345.00        0.00418
          439674.00    3765350.00        0.00351
439679.00    3765350.00        0.00352
          439684.00    3765350.00        0.00354
439689.00    3765350.00        0.00356
          439694.00    3765350.00        0.00358
439699.00    3765350.00        0.00360
          439704.00    3765350.00        0.00362
439709.00    3765350.00        0.00364
          439714.00    3765350.00        0.00365
439719.00    3765350.00        0.00367
          439729.00    3765350.00        0.00371
439734.00    3765350.00        0.00373
          439739.00    3765350.00        0.00375
439744.00    3765350.00        0.00377
          439749.00    3765350.00        0.00379
439774.00    3765350.00        0.00389
          439779.00    3765350.00        0.00391
439784.00    3765350.00        0.00393
          439789.00    3765350.00        0.00395
439794.00    3765350.00        0.00397
          439839.00    3765350.00        0.00413
439844.00    3765350.00        0.00414
          439849.00    3765350.00        0.00416
439854.00    3765350.00        0.00417
          439859.00    3765350.00        0.00419
439864.00    3765350.00        0.00420
```

```
         439869.00    3765350.00        0.00422
439874.00    3765350.00        0.00423
         439879.00    3765350.00        0.00424
439884.00    3765350.00        0.00425
         439674.00    3765355.00        0.00355
439679.00    3765355.00        0.00357
         439684.00    3765355.00        0.00359
439689.00    3765355.00        0.00360
         439694.00    3765355.00        0.00362
439699.00    3765355.00        0.00364
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONOFFEXH ***
INCLUDING SOURCE(S):
A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , A0000029 , A0000030 , A0000031 , A0000032 , A0000033 , A0000034 , A0000035 ,
A0000036 , A0000037 , A0000038 , A0000039 , A0000040 , A0000041 , A0000042 , A0000043 ,
A0000044 , A0000045 , A0000046 , A0000047 , A0000048 , A0000049 , A0000050 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439704.00	3765355.00	0.00366	439709.00	3765355.00	0.00368
439714.00	3765355.00	0.00370	439719.00	3765355.00	0.00372
439729.00	3765355.00	0.00376	439734.00	3765355.00	0.00378
439739.00	3765355.00	0.00380	439744.00	3765355.00	0.00382
439749.00	3765355.00	0.00384	439774.00	3765355.00	0.00394
439779.00	3765355.00	0.00397	439784.00	3765355.00	0.00399
439789.00	3765355.00	0.00401	439794.00	3765355.00	0.00403
439839.00	3765355.00	0.00419	439844.00	3765355.00	0.00421
439849.00	3765355.00	0.00423	439854.00	3765355.00	0.00424

```
          439859.00    3765355.00         0.00426
439864.00    3765355.00         0.00427
          439869.00    3765355.00         0.00429
439874.00    3765355.00         0.00430
          439879.00    3765355.00         0.00431
439884.00    3765355.00         0.00432
          439674.00    3765360.00         0.00359
439679.00    3765360.00         0.00361
          439684.00    3765360.00         0.00363
439689.00    3765360.00         0.00365
          439694.00    3765360.00         0.00367
439699.00    3765360.00         0.00369
          439704.00    3765360.00         0.00371
439709.00    3765360.00         0.00373
          439714.00    3765360.00         0.00375
439719.00    3765360.00         0.00377
          439729.00    3765360.00         0.00381
439734.00    3765360.00         0.00383
          439739.00    3765360.00         0.00385
439744.00    3765360.00         0.00387
          439749.00    3765360.00         0.00389
439774.00    3765360.00         0.00400
          439779.00    3765360.00         0.00402
439784.00    3765360.00         0.00404
          439789.00    3765360.00         0.00406
439794.00    3765360.00         0.00408
          439799.00    3765360.00         0.00411
439804.00    3765360.00         0.00413
          439809.00    3765360.00         0.00415
439814.00    3765360.00         0.00417
          439839.00    3765360.00         0.00426
439844.00    3765360.00         0.00428
          439849.00    3765360.00         0.00430
439854.00    3765360.00         0.00431
          439859.00    3765360.00         0.00433
439864.00    3765360.00         0.00434
          439869.00    3765360.00         0.00436
439874.00    3765360.00         0.00437
          439879.00    3765360.00         0.00439
439884.00    3765360.00         0.00440
          439674.00    3765365.00         0.00364
439679.00    3765365.00         0.00365
          439684.00    3765365.00         0.00367
439689.00    3765365.00         0.00369
          439694.00    3765365.00         0.00371
439699.00    3765365.00         0.00373
          439704.00    3765365.00         0.00375
439709.00    3765365.00         0.00377
          439714.00    3765365.00         0.00379
439719.00    3765365.00         0.00382
          439729.00    3765365.00         0.00386
439734.00    3765365.00         0.00388
```

```
         439739.00    3765365.00        0.00390
439744.00    3765365.00        0.00392
         439749.00    3765365.00        0.00394
439774.00    3765365.00        0.00406
         439779.00    3765365.00        0.00408
439784.00    3765365.00        0.00410
         439789.00    3765365.00        0.00412
439794.00    3765365.00        0.00414
         439799.00    3765365.00        0.00417
439804.00    3765365.00        0.00419
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONOFFEXH ***
INCLUDING SOURCE(S):
A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , A0000029 , A0000030 , A0000031 , A0000032 , A0000033 , A0000034 , A0000035 ,
A0000036 , A0000037 , A0000038 , A0000039 , A0000040 , A0000041 , A0000042 , A0000043 ,
A0000044 , A0000045 , A0000046 , A0000047 , A0000048 , A0000049 , A0000050 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439809.00	3765365.00	0.00421	439814.00	3765365.00	0.00423
439839.00	3765365.00	0.00433	439844.00	3765365.00	0.00435
439849.00	3765365.00	0.00437	439854.00	3765365.00	0.00439
439859.00	3765365.00	0.00440	439864.00	3765365.00	0.00442
439869.00	3765365.00	0.00443	439874.00	3765365.00	0.00445
439879.00	3765365.00	0.00446	439884.00	3765365.00	0.00448
439674.00	3765370.00	0.00368	439679.00	3765370.00	0.00370
439684.00	3765370.00	0.00372	439689.00	3765370.00	0.00374
439694.00	3765370.00	0.00376	439699.00	3765370.00	0.00378

```
          439704.00    3765370.00         0.00380
439709.00    3765370.00         0.00382
          439714.00    3765370.00         0.00384
439719.00    3765370.00         0.00386
          439729.00    3765370.00         0.00391
439734.00    3765370.00         0.00393
          439739.00    3765370.00         0.00395
439744.00    3765370.00         0.00397
          439749.00    3765370.00         0.00400
439774.00    3765370.00         0.00411
          439779.00    3765370.00         0.00414
439784.00    3765370.00         0.00416
          439789.00    3765370.00         0.00418
439794.00    3765370.00         0.00420
          439799.00    3765370.00         0.00423
439804.00    3765370.00         0.00425
          439809.00    3765370.00         0.00427
439814.00    3765370.00         0.00429
          439839.00    3765370.00         0.00440
439844.00    3765370.00         0.00442
          439849.00    3765370.00         0.00444
439854.00    3765370.00         0.00446
          439859.00    3765370.00         0.00448
439864.00    3765370.00         0.00449
          439869.00    3765370.00         0.00451
439874.00    3765370.00         0.00453
          439879.00    3765370.00         0.00454
439884.00    3765370.00         0.00456
          439674.00    3765375.00         0.00373
439679.00    3765375.00         0.00375
          439684.00    3765375.00         0.00377
439689.00    3765375.00         0.00379
          439694.00    3765375.00         0.00381
439699.00    3765375.00         0.00383
          439704.00    3765375.00         0.00385
439709.00    3765375.00         0.00387
          439714.00    3765375.00         0.00389
439719.00    3765375.00         0.00391
          439729.00    3765375.00         0.00396
439734.00    3765375.00         0.00398
          439739.00    3765375.00         0.00400
439744.00    3765375.00         0.00403
          439749.00    3765375.00         0.00405
439754.00    3765375.00         0.00407
          439774.00    3765375.00         0.00417
439779.00    3765375.00         0.00419
          439784.00    3765375.00         0.00422
439789.00    3765375.00         0.00424
          439794.00    3765375.00         0.00427
439799.00    3765375.00         0.00429
          439804.00    3765375.00         0.00431
439809.00    3765375.00         0.00434
```

```
         439814.00    3765375.00        0.00436
439839.00    3765375.00        0.00447
         439844.00    3765375.00        0.00449
439849.00    3765375.00        0.00451
         439854.00    3765375.00        0.00453
439859.00    3765375.00        0.00455
         439864.00    3765375.00        0.00457
439869.00    3765375.00        0.00459
         439874.00    3765375.00        0.00461
439879.00    3765375.00        0.00462
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONOFFEXH ***
INCLUDING SOURCE(S):
A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , A0000029 , A0000030 , A0000031 , A0000032 , A0000033 , A0000034 , A0000035 ,
A0000036 , A0000037 , A0000038 , A0000039 , A0000040 , A0000041 , A0000042 , A0000043 ,
A0000044 , A0000045 , A0000046 , A0000047 , A0000048 , A0000049 , A0000050 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439884.00	3765375.00	0.00464	439774.00	3765380.00	0.00423
439779.00	3765380.00	0.00425	439784.00	3765380.00	0.00428
439789.00	3765380.00	0.00430	439794.00	3765380.00	0.00433
439799.00	3765380.00	0.00435	439804.00	3765380.00	0.00438
439809.00	3765380.00	0.00440	439814.00	3765380.00	0.00443
439769.00	3765385.00	0.00426	439819.00	3765385.00	0.00452
439769.00	3765400.00	0.00445	439844.00	3765400.00	0.00488
439849.00	3765400.00	0.00491	439674.00	3765405.00	0.00402
439714.00	3765405.00	0.00421	439719.00	3765405.00	0.00423

```
          439734.00    3765405.00        0.00431
439749.00    3765405.00        0.00439
          439754.00    3765405.00        0.00442
439774.00    3765405.00        0.00454
          439779.00    3765405.00        0.00457
439784.00    3765405.00        0.00460
          439789.00    3765405.00        0.00463
439794.00    3765405.00        0.00466
          439799.00    3765405.00        0.00469
439804.00    3765405.00        0.00472
          439809.00    3765405.00        0.00476
439814.00    3765405.00        0.00479
          439819.00    3765405.00        0.00482
439824.00    3765405.00        0.00485
          439829.00    3765405.00        0.00488
439834.00    3765405.00        0.00491
          439839.00    3765405.00        0.00494
439844.00    3765405.00        0.00497
          439849.00    3765405.00        0.00500
439854.00    3765405.00        0.00503
          439859.00    3765405.00        0.00505
439674.00    3765410.00        0.00408
          439679.00    3765410.00        0.00410
439684.00    3765410.00        0.00412
          439689.00    3765410.00        0.00414
439694.00    3765410.00        0.00417
          439699.00    3765410.00        0.00419
439704.00    3765410.00        0.00421
          439709.00    3765410.00        0.00424
439714.00    3765410.00        0.00426
          439719.00    3765410.00        0.00429
439729.00    3765410.00        0.00434
          439734.00    3765410.00        0.00437
439739.00    3765410.00        0.00440
          439744.00    3765410.00        0.00443
439749.00    3765410.00        0.00446
          439774.00    3765410.00        0.00461
439779.00    3765410.00        0.00464
          439784.00    3765410.00        0.00467
439789.00    3765410.00        0.00470
          439794.00    3765410.00        0.00473
439799.00    3765410.00        0.00477
          439804.00    3765410.00        0.00480
439809.00    3765410.00        0.00483
          439814.00    3765410.00        0.00486
439819.00    3765410.00        0.00490
          439824.00    3765410.00        0.00493
439829.00    3765410.00        0.00496
          439834.00    3765410.00        0.00499
439839.00    3765410.00        0.00502
          439844.00    3765410.00        0.00505
439849.00    3765410.00        0.00509
```

```
         439854.00    3765410.00        0.00512
439859.00    3765410.00        0.00515
         439674.00    3765415.00        0.00413
439679.00    3765415.00        0.00415
         439684.00    3765415.00        0.00418
439689.00    3765415.00        0.00420
         439694.00    3765415.00        0.00422
439699.00    3765415.00        0.00425
         439704.00    3765415.00        0.00427
439709.00    3765415.00        0.00430
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONOFFEXH ***
INCLUDING SOURCE(S):
A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , A0000029 , A0000030 , A0000031 , A0000032 , A0000033 , A0000034 , A0000035 ,
A0000036 , A0000037 , A0000038 , A0000039 , A0000040 , A0000041 , A0000042 , A0000043 ,
A0000044 , A0000045 , A0000046 , A0000047 , A0000048 , A0000049 , A0000050 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439714.00	3765415.00	0.00432	439719.00	3765415.00	0.00435
439729.00	3765415.00	0.00440	439734.00	3765415.00	0.00443
439739.00	3765415.00	0.00446	439744.00	3765415.00	0.00449
439749.00	3765415.00	0.00452	439774.00	3765415.00	0.00467
439779.00	3765415.00	0.00471	439784.00	3765415.00	0.00474
439789.00	3765415.00	0.00477	439794.00	3765415.00	0.00481
439799.00	3765415.00	0.00484	439804.00	3765415.00	0.00487
439809.00	3765415.00	0.00491	439814.00	3765415.00	0.00494
439819.00	3765415.00	0.00498	439824.00	3765415.00	0.00501

```
          439829.00    3765415.00        0.00504
439834.00    3765415.00        0.00508
          439839.00    3765415.00        0.00511
439844.00    3765415.00        0.00514
          439849.00    3765415.00        0.00518
439854.00    3765415.00        0.00521
          439859.00    3765415.00        0.00524
439674.00    3765420.00        0.00419
          439679.00    3765420.00        0.00421
439684.00    3765420.00        0.00423
          439689.00    3765420.00        0.00426
439694.00    3765420.00        0.00428
          439699.00    3765420.00        0.00430
439704.00    3765420.00        0.00433
          439709.00    3765420.00        0.00435
439714.00    3765420.00        0.00438
          439719.00    3765420.00        0.00441
439729.00    3765420.00        0.00446
          439734.00    3765420.00        0.00449
439739.00    3765420.00        0.00452
          439744.00    3765420.00        0.00455
439749.00    3765420.00        0.00458
          439774.00    3765420.00        0.00474
439779.00    3765420.00        0.00478
          439784.00    3765420.00        0.00481
439789.00    3765420.00        0.00484
          439794.00    3765420.00        0.00488
439799.00    3765420.00        0.00491
          439804.00    3765420.00        0.00495
439809.00    3765420.00        0.00498
          439814.00    3765420.00        0.00502
439819.00    3765420.00        0.00506
          439824.00    3765420.00        0.00509
439829.00    3765420.00        0.00513
          439834.00    3765420.00        0.00516
439839.00    3765420.00        0.00520
          439844.00    3765420.00        0.00523
439849.00    3765420.00        0.00527
          439854.00    3765420.00        0.00530
439859.00    3765420.00        0.00533
          439674.00    3765425.00        0.00424
439679.00    3765425.00        0.00427
          439684.00    3765425.00        0.00429
439689.00    3765425.00        0.00431
          439694.00    3765425.00        0.00434
439699.00    3765425.00        0.00436
          439704.00    3765425.00        0.00439
439709.00    3765425.00        0.00441
          439714.00    3765425.00        0.00444
439719.00    3765425.00        0.00447
          439729.00    3765425.00        0.00453
439734.00    3765425.00        0.00455
```

```
         439739.00    3765425.00        0.00458
439744.00    3765425.00        0.00461
         439749.00    3765425.00        0.00465
439774.00    3765425.00        0.00481
         439779.00    3765425.00        0.00485
439784.00    3765425.00        0.00488
         439789.00    3765425.00        0.00492
439794.00    3765425.00        0.00495
         439799.00    3765425.00        0.00499
439804.00    3765425.00        0.00503
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONOFFEXH ***
INCLUDING SOURCE(S):
A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , A0000029 , A0000030 , A0000031 , A0000032 , A0000033 , A0000034 , A0000035 ,
A0000036 , A0000037 , A0000038 , A0000039 , A0000040 , A0000041 , A0000042 , A0000043 ,
A0000044 , A0000045 , A0000046 , A0000047 , A0000048 , A0000049 , A0000050 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439809.00	3765425.00	0.00506	439814.00	3765425.00	0.00510
439819.00	3765425.00	0.00514	439824.00	3765425.00	0.00518
439829.00	3765425.00	0.00521	439834.00	3765425.00	0.00525
439839.00	3765425.00	0.00529	439844.00	3765425.00	0.00533
439849.00	3765425.00	0.00536	439854.00	3765425.00	0.00540
439859.00	3765425.00	0.00543	439674.00	3765430.00	0.00430
439679.00	3765430.00	0.00433	439684.00	3765430.00	0.00435
439689.00	3765430.00	0.00437	439694.00	3765430.00	0.00440
439699.00	3765430.00	0.00442	439704.00	3765430.00	0.00445

```
         439709.00    3765430.00        0.00448
439714.00    3765430.00        0.00450
         439719.00    3765430.00        0.00453
439729.00    3765430.00        0.00459
         439734.00    3765430.00        0.00462
439739.00    3765430.00        0.00465
         439744.00    3765430.00        0.00468
439749.00    3765430.00        0.00471
         439774.00    3765430.00        0.00488
439779.00    3765430.00        0.00492
         439784.00    3765430.00        0.00496
439789.00    3765430.00        0.00499
         439794.00    3765430.00        0.00503
439799.00    3765430.00        0.00507
         439804.00    3765430.00        0.00511
439809.00    3765430.00        0.00515
         439814.00    3765430.00        0.00519
439819.00    3765430.00        0.00522
         439824.00    3765430.00        0.00526
439829.00    3765430.00        0.00530
         439834.00    3765430.00        0.00534
439839.00    3765430.00        0.00538
         439844.00    3765430.00        0.00542
439849.00    3765430.00        0.00546
         439854.00    3765430.00        0.00550
439859.00    3765430.00        0.00553
         439674.00    3765435.00        0.00436
439679.00    3765435.00        0.00439
         439684.00    3765435.00        0.00441
439689.00    3765435.00        0.00443
         439694.00    3765435.00        0.00446
439699.00    3765435.00        0.00449
         439704.00    3765435.00        0.00451
439709.00    3765435.00        0.00454
         439714.00    3765435.00        0.00457
439719.00    3765435.00        0.00459
         439729.00    3765435.00        0.00465
439734.00    3765435.00        0.00468
         439739.00    3765435.00        0.00471
439744.00    3765435.00        0.00475
         439749.00    3765435.00        0.00478
439774.00    3765435.00        0.00496
         439779.00    3765435.00        0.00499
439784.00    3765435.00        0.00503
         439789.00    3765435.00        0.00507
439794.00    3765435.00        0.00511
         439799.00    3765435.00        0.00515
439804.00    3765435.00        0.00519
         439809.00    3765435.00        0.00523
439814.00    3765435.00        0.00527
         439819.00    3765435.00        0.00531
439824.00    3765435.00        0.00535
```

```
          439829.00    3765435.00        0.00539
439834.00    3765435.00        0.00544
          439839.00    3765435.00        0.00548
439844.00    3765435.00        0.00552
          439849.00    3765435.00        0.00556
439854.00    3765435.00        0.00560
          439859.00    3765435.00        0.00564
439674.00    3765440.00        0.00443
          439679.00    3765440.00        0.00445
439684.00    3765440.00        0.00447
```

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONOFFEXH ***
INCLUDING SOURCE(S):
A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , A0000029 , A0000030 , A0000031 , A0000032 , A0000033 , A0000034 , A0000035 ,
A0000036 , A0000037 , A0000038 , A0000039 , A0000040 , A0000041 , A0000042 , A0000043 ,
A0000044 , A0000045 , A0000046 , A0000047 , A0000048 , A0000049 , A0000050 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439689.00	3765440.00	0.00450	439694.00	3765440.00	0.00452
439699.00	3765440.00	0.00455	439704.00	3765440.00	0.00458
439709.00	3765440.00	0.00460	439714.00	3765440.00	0.00463
439719.00	3765440.00	0.00466	439729.00	3765440.00	0.00472
439734.00	3765440.00	0.00475	439739.00	3765440.00	0.00478
439744.00	3765440.00	0.00482	439749.00	3765440.00	0.00485
439774.00	3765440.00	0.00503	439779.00	3765440.00	0.00507
439784.00	3765440.00	0.00511	439789.00	3765440.00	0.00515
439794.00	3765440.00	0.00519	439799.00	3765440.00	0.00523

```
          439804.00    3765440.00         0.00527
439809.00    3765440.00         0.00531
          439814.00    3765440.00         0.00536
439819.00    3765440.00         0.00540
          439824.00    3765440.00         0.00544
439829.00    3765440.00         0.00549
          439834.00    3765440.00         0.00553
439839.00    3765440.00         0.00557
          439844.00    3765440.00         0.00562
439849.00    3765440.00         0.00566
          439854.00    3765440.00         0.00570
439859.00    3765440.00         0.00575
          439674.00    3765445.00         0.00449
439679.00    3765445.00         0.00451
          439684.00    3765445.00         0.00454
439689.00    3765445.00         0.00456
          439694.00    3765445.00         0.00459
439699.00    3765445.00         0.00461
          439704.00    3765445.00         0.00464
439709.00    3765445.00         0.00467
          439714.00    3765445.00         0.00470
439719.00    3765445.00         0.00473
          439729.00    3765445.00         0.00479
439734.00    3765445.00         0.00482
          439739.00    3765445.00         0.00485
439744.00    3765445.00         0.00489
          439749.00    3765445.00         0.00492
439774.00    3765445.00         0.00511
          439779.00    3765445.00         0.00515
439784.00    3765445.00         0.00519
          439789.00    3765445.00         0.00523
439794.00    3765445.00         0.00527
          439799.00    3765445.00         0.00531
439804.00    3765445.00         0.00536
          439809.00    3765445.00         0.00540
439814.00    3765445.00         0.00545
          439819.00    3765445.00         0.00549
439824.00    3765445.00         0.00554
          439829.00    3765445.00         0.00558
439834.00    3765445.00         0.00563
          439839.00    3765445.00         0.00567
439844.00    3765445.00         0.00572
          439849.00    3765445.00         0.00577
439854.00    3765445.00         0.00581
          439859.00    3765445.00         0.00586
439674.00    3765450.00         0.00456
          439679.00    3765450.00         0.00458
439684.00    3765450.00         0.00460
          439689.00    3765450.00         0.00463
439694.00    3765450.00         0.00465
          439699.00    3765450.00         0.00468
439704.00    3765450.00         0.00471
```

```
         439709.00    3765450.00        0.00474
439714.00    3765450.00        0.00476
         439719.00    3765450.00        0.00479
439729.00    3765450.00        0.00486
         439734.00    3765450.00        0.00489
439739.00    3765450.00        0.00492
         439744.00    3765450.00        0.00496
439749.00    3765450.00        0.00499
         439774.00    3765450.00        0.00518
439844.00    3765450.00        0.00582
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONOFFEXH ***
INCLUDING SOURCE(S):
A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , A0000029 , A0000030 , A0000031 , A0000032 , A0000033 , A0000034 , A0000035 ,
A0000036 , A0000037 , A0000038 , A0000039 , A0000040 , A0000041 , A0000042 , A0000043 ,
A0000044 , A0000045 , A0000046 , A0000047 , A0000048 , A0000049 , A0000050 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439849.00	3765450.00	0.00587	439854.00	3765450.00	0.00592
439859.00	3765450.00	0.00597	439674.00	3765455.00	0.00462
439679.00	3765455.00	0.00465	439684.00	3765455.00	0.00467
439689.00	3765455.00	0.00470	439694.00	3765455.00	0.00472
439699.00	3765455.00	0.00475	439704.00	3765455.00	0.00478
439709.00	3765455.00	0.00481	439714.00	3765455.00	0.00483
439719.00	3765455.00	0.00486	439729.00	3765455.00	0.00493
439734.00	3765455.00	0.00496	439739.00	3765455.00	0.00499
439744.00	3765455.00	0.00503	439749.00	3765455.00	0.00507

```
          439844.00    3765455.00         0.00593
439849.00    3765455.00         0.00598
          439854.00    3765455.00         0.00603
439859.00    3765455.00         0.00608
          439674.00    3765460.00         0.00469
439679.00    3765460.00         0.00472
          439684.00    3765460.00         0.00474
439689.00    3765460.00         0.00477
          439694.00    3765460.00         0.00479
439699.00    3765460.00         0.00482
          439704.00    3765460.00         0.00485
439709.00    3765460.00         0.00488
          439714.00    3765460.00         0.00491
439719.00    3765460.00         0.00494
          439729.00    3765460.00         0.00500
439734.00    3765460.00         0.00503
          439739.00    3765460.00         0.00507
439744.00    3765460.00         0.00510
          439749.00    3765460.00         0.00514
439789.00    3765460.00         0.00548
          439794.00    3765460.00         0.00552
439799.00    3765460.00         0.00557
          439804.00    3765460.00         0.00562
439809.00    3765460.00         0.00567
          439814.00    3765460.00         0.00572
439819.00    3765460.00         0.00578
          439824.00    3765460.00         0.00583
439829.00    3765460.00         0.00588
          439844.00    3765460.00         0.00604
439849.00    3765460.00         0.00610
          439854.00    3765460.00         0.00615
439859.00    3765460.00         0.00620
          439674.00    3765465.00         0.00477
439679.00    3765465.00         0.00479
          439684.00    3765465.00         0.00481
439689.00    3765465.00         0.00484
          439694.00    3765465.00         0.00487
439699.00    3765465.00         0.00489
          439704.00    3765465.00         0.00492
439709.00    3765465.00         0.00495
          439714.00    3765465.00         0.00498
439719.00    3765465.00         0.00501
          439729.00    3765465.00         0.00508
439734.00    3765465.00         0.00511
          439739.00    3765465.00         0.00515
439744.00    3765465.00         0.00518
          439749.00    3765465.00         0.00522
439789.00    3765465.00         0.00556
          439794.00    3765465.00         0.00561
439799.00    3765465.00         0.00566
          439804.00    3765465.00         0.00571
439809.00    3765465.00         0.00577
```

```
         439814.00    3765465.00        0.00582
439819.00    3765465.00        0.00587
         439824.00    3765465.00        0.00593
439829.00    3765465.00        0.00599
         439844.00    3765465.00        0.00616
439849.00    3765465.00        0.00621
         439854.00    3765465.00        0.00627
439859.00    3765465.00        0.00633
         439674.00    3765470.00        0.00484
439679.00    3765470.00        0.00487
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONOFFEXH ***
INCLUDING SOURCE(S):
A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , A0000029 , A0000030 , A0000031 , A0000032 , A0000033 , A0000034 , A0000035 ,
A0000036 , A0000037 , A0000038 , A0000039 , A0000040 , A0000041 , A0000042 , A0000043 ,
A0000044 , A0000045 , A0000046 , A0000047 , A0000048 , A0000049 , A0000050 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439684.00	3765470.00	0.00489	439689.00	3765470.00	0.00492
439694.00	3765470.00	0.00494	439699.00	3765470.00	0.00497
439704.00	3765470.00	0.00500	439709.00	3765470.00	0.00503
439714.00	3765470.00	0.00506	439719.00	3765470.00	0.00509
439729.00	3765470.00	0.00515	439734.00	3765470.00	0.00519
439739.00	3765470.00	0.00522	439744.00	3765470.00	0.00526
439749.00	3765470.00	0.00530	439789.00	3765470.00	0.00565
439794.00	3765470.00	0.00570	439799.00	3765470.00	0.00576
439804.00	3765470.00	0.00581	439809.00	3765470.00	0.00586

```
         439814.00    3765470.00        0.00592
439819.00    3765470.00        0.00598
         439824.00    3765470.00        0.00603
439829.00    3765470.00        0.00609
         439844.00    3765470.00        0.00627
439849.00    3765470.00        0.00633
         439854.00    3765470.00        0.00639
439859.00    3765470.00        0.00645
         439674.00    3765475.00        0.00492
439679.00    3765475.00        0.00494
         439684.00    3765475.00        0.00497
439689.00    3765475.00        0.00499
         439694.00    3765475.00        0.00502
439699.00    3765475.00        0.00505
         439704.00    3765475.00        0.00508
439709.00    3765475.00        0.00511
         439714.00    3765475.00        0.00514
439719.00    3765475.00        0.00517
         439729.00    3765475.00        0.00523
439734.00    3765475.00        0.00527
         439739.00    3765475.00        0.00530
439744.00    3765475.00        0.00534
         439749.00    3765475.00        0.00538
439754.00    3765475.00        0.00542
         439789.00    3765475.00        0.00574
439794.00    3765475.00        0.00580
         439799.00    3765475.00        0.00585
439804.00    3765475.00        0.00591
         439809.00    3765475.00        0.00596
439814.00    3765475.00        0.00602
         439819.00    3765475.00        0.00608
439824.00    3765475.00        0.00614
         439829.00    3765475.00        0.00620
439269.00    3764900.00        0.00118
         439369.00    3764900.00        0.00126
439469.00    3764900.00        0.00132
         439569.00    3764900.00        0.00136
439669.00    3764900.00        0.00138
         439769.00    3764900.00        0.00136
439869.00    3764900.00        0.00131
         439969.00    3764900.00        0.00123
440069.00    3764900.00        0.00113
         440169.00    3764900.00        0.00102
440269.00    3764900.00        0.00091
         439269.00    3765000.00        0.00134
439369.00    3765000.00        0.00145
         439469.00    3765000.00        0.00154
439569.00    3765000.00        0.00162
         439669.00    3765000.00        0.00166
439769.00    3765000.00        0.00167
         439869.00    3765000.00        0.00163
439969.00    3765000.00        0.00153
```

```
         440069.00    3765000.00        0.00141
440169.00    3765000.00        0.00126
         440269.00    3765000.00        0.00111
439269.00    3765100.00        0.00152
         439369.00    3765100.00        0.00167
439469.00    3765100.00        0.00180
         439569.00    3765100.00        0.00193
439669.00    3765100.00        0.00203
         439769.00    3765100.00        0.00208
439869.00    3765100.00        0.00206
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONOFFEXH ***
INCLUDING SOURCE(S):
A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , A0000029 , A0000030 , A0000031 , A0000032 , A0000033 , A0000034 , A0000035 ,
A0000036 , A0000037 , A0000038 , A0000039 , A0000040 , A0000041 , A0000042 , A0000043 ,
A0000044 , A0000045 , A0000046 , A0000047 , A0000048 , A0000049 , A0000050 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439969.00	3765100.00	0.00197	440069.00	3765100.00	0.00181
440169.00	3765100.00	0.00160	440269.00	3765100.00	0.00139
439269.00	3765200.00	0.00173	439369.00	3765200.00	0.00194
439469.00	3765200.00	0.00214	439569.00	3765200.00	0.00232
439669.00	3765200.00	0.00249	439769.00	3765200.00	0.00263
439869.00	3765200.00	0.00268	439969.00	3765200.00	0.00260
440069.00	3765200.00	0.00241	440169.00	3765200.00	0.00214
440269.00	3765200.00	0.00182	439269.00	3765300.00	0.00200
439369.00	3765300.00	0.00231	439469.00	3765300.00	0.00258

```
         439569.00    3765300.00        0.00283
439669.00    3765300.00        0.00311
         439769.00    3765300.00        0.00339
439869.00    3765300.00        0.00359
         439969.00    3765300.00        0.00360
440069.00    3765300.00        0.00340
         440169.00    3765300.00        0.00302
440269.00    3765300.00        0.00253
         439269.00    3765400.00        0.00233
439369.00    3765400.00        0.00282
         439469.00    3765400.00        0.00324
439569.00    3765400.00        0.00358
         439669.00    3765400.00        0.00395
439769.00    3765400.00        0.00445
         439869.00    3765400.00        0.00502
439969.00    3765400.00        0.00530
         440069.00    3765400.00        0.00515
440169.00    3765400.00        0.00464
         440269.00    3765400.00        0.00386
439269.00    3765500.00        0.00270
         439369.00    3765500.00        0.00362
439469.00    3765500.00        0.00441
         439569.00    3765500.00        0.00492
439669.00    3765500.00        0.00533
         439769.00    3765500.00        0.00602
439869.00    3765500.00        0.00747
         439969.00    3765500.00        0.00881
440069.00    3765500.00        0.00887
         440169.00    3765500.00        0.00817
440269.00    3765500.00        0.00691
         439269.00    3765600.00        0.00296
439369.00    3765600.00        0.00491
         439469.00    3765600.00        0.00709
439569.00    3765600.00        0.00822
         439669.00    3765600.00        0.00875
439769.00    3765600.00        0.00948
         439869.00    3765600.00        0.01214
439969.00    3765600.00        0.02207
         440069.00    3765600.00        0.02232
440169.00    3765600.00        0.02025
         440269.00    3765600.00        0.01743
439269.00    3765700.00        0.00274
         439369.00    3765700.00        0.00650
439469.00    3765700.00        0.02663
         439569.00    3765700.00        0.03295
439669.00    3765700.00        0.02769
         439769.00    3765700.00        0.02282
439869.00    3765700.00        0.01792
         439969.00    3765700.00        0.02173
440069.00    3765700.00        0.04260
         440169.00    3765700.00        0.06589
440269.00    3765700.00        0.10010
```

```
         439269.00    3765800.00        0.00200
439369.00    3765800.00        0.00359
         439469.00    3765800.00        0.01061
439569.00    3765800.00        0.02209
         439669.00    3765800.00        0.03178
439769.00    3765800.00        0.04688
         439869.00    3765800.00        0.07144
439969.00    3765800.00        0.03377
         440069.00    3765800.00        0.02516
440169.00    3765800.00        0.02279
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONOFFEXH ***
INCLUDING SOURCE(S):
A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , A0000029 , A0000030 , A0000031 , A0000032 , A0000033 , A0000034 , A0000035 ,
A0000036 , A0000037 , A0000038 , A0000039 , A0000040 , A0000041 , A0000042 , A0000043 ,
A0000044 , A0000045 , A0000046 , A0000047 , A0000048 , A0000049 , A0000050 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
440269.00	3765800.00	0.02315	439269.00	3765900.00	0.00137
439369.00	3765900.00	0.00190	439469.00	3765900.00	0.00287
439569.00	3765900.00	0.00458	439669.00	3765900.00	0.00681
439769.00	3765900.00	0.00906	439869.00	3765900.00	0.01100
439969.00	3765900.00	0.01163	440069.00	3765900.00	0.01070
440169.00	3765900.00	0.00994	440269.00	3765900.00	0.00973
439649.00	3765310.00	0.00312	439679.00	3765310.00	0.00321
439709.00	3765310.00	0.00330	439739.00	3765310.00	0.00339
439769.00	3765310.00	0.00348	439799.00	3765310.00	0.00356

```
          439829.00    3765310.00         0.00363
439859.00    3765310.00         0.00369
          439889.00    3765310.00         0.00373
439649.00    3765340.00         0.00334
          439679.00    3765340.00         0.00344
439709.00    3765340.00         0.00355
          439739.00    3765340.00         0.00366
439769.00    3765340.00         0.00377
          439799.00    3765340.00         0.00387
439829.00    3765340.00         0.00397
          439859.00    3765340.00         0.00405
439889.00    3765340.00         0.00412
          439649.00    3765370.00         0.00359
439679.00    3765370.00         0.00370
          439709.00    3765370.00         0.00382
439739.00    3765370.00         0.00395
          439769.00    3765370.00         0.00409
439799.00    3765370.00         0.00423
          439829.00    3765370.00         0.00436
439859.00    3765370.00         0.00448
          439889.00    3765370.00         0.00457
439649.00    3765400.00         0.00387
          439679.00    3765400.00         0.00399
439709.00    3765400.00         0.00413
          439739.00    3765400.00         0.00428
439769.00    3765400.00         0.00445
          439799.00    3765400.00         0.00462
439829.00    3765400.00         0.00480
          439859.00    3765400.00         0.00497
439889.00    3765400.00         0.00511
          439649.00    3765430.00         0.00419
439679.00    3765430.00         0.00433
          439709.00    3765430.00         0.00448
439739.00    3765430.00         0.00465
          439769.00    3765430.00         0.00485
439799.00    3765430.00         0.00507
          439829.00    3765430.00         0.00530
439859.00    3765430.00         0.00553
          439889.00    3765430.00         0.00574
439649.00    3765460.00         0.00458
          439679.00    3765460.00         0.00472
439709.00    3765460.00         0.00488
          439739.00    3765460.00         0.00507
439769.00    3765460.00         0.00530
          439799.00    3765460.00         0.00557
439829.00    3765460.00         0.00588
          439859.00    3765460.00         0.00620
439889.00    3765460.00         0.00651
          439649.00    3765490.00         0.00506
439679.00    3765490.00         0.00519
          439709.00    3765490.00         0.00536
439739.00    3765490.00         0.00556
```

```
         439769.00    3765490.00        0.00582
439799.00    3765490.00        0.00615
         439829.00    3765490.00        0.00655
439859.00    3765490.00        0.00700
         439889.00    3765490.00        0.00746
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439674.00	3765310.00	0.10334	439679.00	3765310.00	0.10335
439684.00	3765310.00	0.10335	439689.00	3765310.00	0.10335
439694.00	3765310.00	0.10335	439699.00	3765310.00	0.10335
439704.00	3765310.00	0.10334	439709.00	3765310.00	0.10334
439714.00	3765310.00	0.10333	439719.00	3765310.00	0.10332
439729.00	3765310.00	0.10330	439734.00	3765310.00	0.10329
439739.00	3765310.00	0.10327	439744.00	3765310.00	0.10325
439749.00	3765310.00	0.10324	439764.00	3765310.00	0.10317
439769.00	3765310.00	0.10314	439774.00	3765310.00	0.10312

```
         439779.00    3765310.00        0.10309
439784.00    3765310.00        0.10305
         439789.00    3765310.00        0.10302
439794.00    3765310.00        0.10298
         439799.00    3765310.00        0.10295
439804.00    3765310.00        0.10291
         439809.00    3765310.00        0.10286
439814.00    3765310.00        0.10282
         439819.00    3765310.00        0.10277
439824.00    3765310.00        0.10272
         439829.00    3765310.00        0.10267
439839.00    3765310.00        0.10256
         439844.00    3765310.00        0.10250
439849.00    3765310.00        0.10244
         439854.00    3765310.00        0.10238
439859.00    3765310.00        0.10231
         439864.00    3765310.00        0.10224
439869.00    3765310.00        0.10217
         439874.00    3765310.00        0.10209
439879.00    3765310.00        0.10202
         439884.00    3765310.00        0.10194
439674.00    3765315.00        0.10472
         439679.00    3765315.00        0.10472
439684.00    3765315.00        0.10473
         439689.00    3765315.00        0.10473
439694.00    3765315.00        0.10473
         439699.00    3765315.00        0.10473
439704.00    3765315.00        0.10473
         439709.00    3765315.00        0.10472
439714.00    3765315.00        0.10472
         439719.00    3765315.00        0.10471
439729.00    3765315.00        0.10469
         439734.00    3765315.00        0.10468
439739.00    3765315.00        0.10467
         439744.00    3765315.00        0.10465
439749.00    3765315.00        0.10464
         439764.00    3765315.00        0.10458
439769.00    3765315.00        0.10455
         439774.00    3765315.00        0.10453
439779.00    3765315.00        0.10450
         439784.00    3765315.00        0.10447
439789.00    3765315.00        0.10444
         439794.00    3765315.00        0.10440
439799.00    3765315.00        0.10437
         439804.00    3765315.00        0.10433
439809.00    3765315.00        0.10429
         439814.00    3765315.00        0.10424
439819.00    3765315.00        0.10420
         439824.00    3765315.00        0.10415
439829.00    3765315.00        0.10410
         439839.00    3765315.00        0.10400
439844.00    3765315.00        0.10394
```

```
         439849.00    3765315.00        0.10388
439854.00    3765315.00        0.10382
         439859.00    3765315.00        0.10375
439864.00    3765315.00        0.10368
         439869.00    3765315.00        0.10361
439874.00    3765315.00        0.10354
         439879.00    3765315.00        0.10346
439884.00    3765315.00        0.10339
         439674.00    3765320.00        0.10612
439679.00    3765320.00        0.10613
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439684.00	3765320.00	0.10614	439689.00	3765320.00	0.10614
439694.00	3765320.00	0.10614	439699.00	3765320.00	0.10614
439704.00	3765320.00	0.10614	439709.00	3765320.00	0.10614
439714.00	3765320.00	0.10614	439719.00	3765320.00	0.10613
439729.00	3765320.00	0.10612	439734.00	3765320.00	0.10611
439739.00	3765320.00	0.10610	439744.00	3765320.00	0.10609
439749.00	3765320.00	0.10607	439764.00	3765320.00	0.10602
439769.00	3765320.00	0.10599	439774.00	3765320.00	0.10597
439779.00	3765320.00	0.10594	439784.00	3765320.00	0.10592

```
          439789.00    3765320.00        0.10589
439794.00    3765320.00        0.10585
          439799.00    3765320.00        0.10582
439804.00    3765320.00        0.10578
          439809.00    3765320.00        0.10574
439814.00    3765320.00        0.10570
          439819.00    3765320.00        0.10566
439824.00    3765320.00        0.10561
          439829.00    3765320.00        0.10557
439839.00    3765320.00        0.10546
          439844.00    3765320.00        0.10541
439849.00    3765320.00        0.10535
          439854.00    3765320.00        0.10529
439859.00    3765320.00        0.10523
          439864.00    3765320.00        0.10516
439869.00    3765320.00        0.10509
          439874.00    3765320.00        0.10502
439879.00    3765320.00        0.10495
          439884.00    3765320.00        0.10487
439674.00    3765325.00        0.10756
          439679.00    3765325.00        0.10757
439684.00    3765325.00        0.10758
          439689.00    3765325.00        0.10758
439694.00    3765325.00        0.10759
          439699.00    3765325.00        0.10759
439704.00    3765325.00        0.10759
          439709.00    3765325.00        0.10760
439714.00    3765325.00        0.10759
          439719.00    3765325.00        0.10759
439729.00    3765325.00        0.10758
          439734.00    3765325.00        0.10757
439739.00    3765325.00        0.10756
          439744.00    3765325.00        0.10755
439749.00    3765325.00        0.10754
          439754.00    3765325.00        0.10752
439769.00    3765325.00        0.10747
          439774.00    3765325.00        0.10745
439779.00    3765325.00        0.10742
          439784.00    3765325.00        0.10740
439789.00    3765325.00        0.10737
          439794.00    3765325.00        0.10734
439799.00    3765325.00        0.10731
          439804.00    3765325.00        0.10727
439809.00    3765325.00        0.10724
          439814.00    3765325.00        0.10720
439819.00    3765325.00        0.10716
          439824.00    3765325.00        0.10711
439829.00    3765325.00        0.10707
          439839.00    3765325.00        0.10697
439844.00    3765325.00        0.10691
          439849.00    3765325.00        0.10686
439854.00    3765325.00        0.10680
```

```
         439859.00    3765325.00        0.10674
439864.00    3765325.00        0.10667
         439869.00    3765325.00        0.10661
439874.00    3765325.00        0.10654
         439879.00    3765325.00        0.10647
439884.00    3765325.00        0.10639
         439674.00    3765330.00        0.10903
439679.00    3765330.00        0.10905
         439684.00    3765330.00        0.10906
439689.00    3765330.00        0.10906
```

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439694.00	3765330.00	0.10907	439699.00	3765330.00	0.10908
439704.00	3765330.00	0.10908	439709.00	3765330.00	0.10908
439714.00	3765330.00	0.10908	439719.00	3765330.00	0.10908
439729.00	3765330.00	0.10908	439734.00	3765330.00	0.10907
439739.00	3765330.00	0.10906	439744.00	3765330.00	0.10905
439749.00	3765330.00	0.10904	439754.00	3765330.00	0.10903
439774.00	3765330.00	0.10896	439779.00	3765330.00	0.10894
439784.00	3765330.00	0.10891	439789.00	3765330.00	0.10889
439794.00	3765330.00	0.10886	439799.00	3765330.00	0.10883

```
          439804.00    3765330.00        0.10880
439809.00    3765330.00        0.10876
          439814.00    3765330.00        0.10873
439819.00    3765330.00        0.10869
          439824.00    3765330.00        0.10865
439829.00    3765330.00        0.10860
          439839.00    3765330.00        0.10851
439844.00    3765330.00        0.10846
          439849.00    3765330.00        0.10840
439854.00    3765330.00        0.10835
          439859.00    3765330.00        0.10829
439864.00    3765330.00        0.10822
          439869.00    3765330.00        0.10816
439874.00    3765330.00        0.10809
          439879.00    3765330.00        0.10802
439884.00    3765330.00        0.10795
          439674.00    3765335.00        0.11054
439679.00    3765335.00        0.11056
          439684.00    3765335.00        0.11057
439689.00    3765335.00        0.11058
          439694.00    3765335.00        0.11059
439699.00    3765335.00        0.11060
          439704.00    3765335.00        0.11060
439709.00    3765335.00        0.11061
          439714.00    3765335.00        0.11061
439719.00    3765335.00        0.11061
          439729.00    3765335.00        0.11061
439734.00    3765335.00        0.11060
          439739.00    3765335.00        0.11060
439744.00    3765335.00        0.11059
          439749.00    3765335.00        0.11058
439774.00    3765335.00        0.11051
          439779.00    3765335.00        0.11049
439784.00    3765335.00        0.11047
          439789.00    3765335.00        0.11044
439794.00    3765335.00        0.11042
          439839.00    3765335.00        0.11008
439844.00    3765335.00        0.11003
          439849.00    3765335.00        0.10998
439854.00    3765335.00        0.10993
          439859.00    3765335.00        0.10987
439864.00    3765335.00        0.10981
          439869.00    3765335.00        0.10975
439874.00    3765335.00        0.10968
          439879.00    3765335.00        0.10961
439884.00    3765335.00        0.10954
          439674.00    3765340.00        0.11209
439679.00    3765340.00        0.11211
          439684.00    3765340.00        0.11212
439689.00    3765340.00        0.11213
          439694.00    3765340.00        0.11214
439699.00    3765340.00        0.11215
```

```
         439704.00    3765340.00        0.11216
439709.00    3765340.00        0.11217
         439714.00    3765340.00        0.11217
439719.00    3765340.00        0.11217
         439729.00    3765340.00        0.11218
439734.00    3765340.00        0.11217
         439739.00    3765340.00        0.11217
439744.00    3765340.00        0.11217
         439749.00    3765340.00        0.11216
439774.00    3765340.00        0.11210
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439779.00	3765340.00	0.11208	439784.00	3765340.00	0.11206
439789.00	3765340.00	0.11204	439794.00	3765340.00	0.11202
439839.00	3765340.00	0.11170	439844.00	3765340.00	0.11165
439849.00	3765340.00	0.11160	439854.00	3765340.00	0.11155
439859.00	3765340.00	0.11150	439864.00	3765340.00	0.11144
439869.00	3765340.00	0.11138	439874.00	3765340.00	0.11131
439879.00	3765340.00	0.11125	439884.00	3765340.00	0.11118
439674.00	3765345.00	0.11368	439679.00	3765345.00	0.11369
439684.00	3765345.00	0.11371	439689.00	3765345.00	0.11372

```
          439694.00    3765345.00        0.11374
439699.00    3765345.00        0.11375
          439704.00    3765345.00        0.11376
439709.00    3765345.00        0.11377
          439714.00    3765345.00        0.11377
439719.00    3765345.00        0.11378
          439729.00    3765345.00        0.11378
439734.00    3765345.00        0.11378
          439739.00    3765345.00        0.11378
439744.00    3765345.00        0.11378
          439749.00    3765345.00        0.11378
439774.00    3765345.00        0.11373
          439779.00    3765345.00        0.11371
439784.00    3765345.00        0.11369
          439789.00    3765345.00        0.11367
439794.00    3765345.00        0.11365
          439839.00    3765345.00        0.11336
439844.00    3765345.00        0.11331
          439849.00    3765345.00        0.11327
439854.00    3765345.00        0.11322
          439859.00    3765345.00        0.11316
439864.00    3765345.00        0.11311
          439869.00    3765345.00        0.11305
439874.00    3765345.00        0.11299
          439879.00    3765345.00        0.11292
439884.00    3765345.00        0.11285
          439674.00    3765350.00        0.11530
439679.00    3765350.00        0.11532
          439684.00    3765350.00        0.11534
439689.00    3765350.00        0.11535
          439694.00    3765350.00        0.11537
439699.00    3765350.00        0.11538
          439704.00    3765350.00        0.11539
439709.00    3765350.00        0.11540
          439714.00    3765350.00        0.11541
439719.00    3765350.00        0.11542
          439729.00    3765350.00        0.11543
439734.00    3765350.00        0.11543
          439739.00    3765350.00        0.11544
439744.00    3765350.00        0.11543
          439749.00    3765350.00        0.11543
439774.00    3765350.00        0.11539
          439779.00    3765350.00        0.11538
439784.00    3765350.00        0.11537
          439789.00    3765350.00        0.11535
439794.00    3765350.00        0.11533
          439839.00    3765350.00        0.11506
439844.00    3765350.00        0.11501
          439849.00    3765350.00        0.11497
439854.00    3765350.00        0.11492
          439859.00    3765350.00        0.11487
439864.00    3765350.00        0.11482
```

```
         439869.00    3765350.00        0.11476
439874.00    3765350.00        0.11470
         439879.00    3765350.00        0.11464
439884.00    3765350.00        0.11457
         439674.00    3765355.00        0.11697
439679.00    3765355.00        0.11699
         439684.00    3765355.00        0.11701
439689.00    3765355.00        0.11703
         439694.00    3765355.00        0.11704
439699.00    3765355.00        0.11706
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439704.00	3765355.00	0.11707	439709.00	3765355.00	0.11709
439714.00	3765355.00	0.11710	439719.00	3765355.00	0.11711
439729.00	3765355.00	0.11712	439734.00	3765355.00	0.11713
439739.00	3765355.00	0.11713	439744.00	3765355.00	0.11713
439749.00	3765355.00	0.11713	439774.00	3765355.00	0.11711
439779.00	3765355.00	0.11710	439784.00	3765355.00	0.11708
439789.00	3765355.00	0.11707	439794.00	3765355.00	0.11705
439839.00	3765355.00	0.11680	439844.00	3765355.00	0.11676
439849.00	3765355.00	0.11672	439854.00	3765355.00	0.11667

```
          439859.00    3765355.00        0.11662
439864.00    3765355.00        0.11657
          439869.00    3765355.00        0.11652
439874.00    3765355.00        0.11646
          439879.00    3765355.00        0.11640
439884.00    3765355.00        0.11634
          439674.00    3765360.00        0.11868
439679.00    3765360.00        0.11870
          439684.00    3765360.00        0.11872
439689.00    3765360.00        0.11874
          439694.00    3765360.00        0.11876
439699.00    3765360.00        0.11878
          439704.00    3765360.00        0.11880
439709.00    3765360.00        0.11881
          439714.00    3765360.00        0.11883
439719.00    3765360.00        0.11884
          439729.00    3765360.00        0.11886
439734.00    3765360.00        0.11886
          439739.00    3765360.00        0.11887
439744.00    3765360.00        0.11887
          439749.00    3765360.00        0.11888
439774.00    3765360.00        0.11886
          439779.00    3765360.00        0.11885
439784.00    3765360.00        0.11884
          439789.00    3765360.00        0.11883
439794.00    3765360.00        0.11882
          439799.00    3765360.00        0.11880
439804.00    3765360.00        0.11878
          439809.00    3765360.00        0.11876
439814.00    3765360.00        0.11874
          439839.00    3765360.00        0.11859
439844.00    3765360.00        0.11855
          439849.00    3765360.00        0.11851
439854.00    3765360.00        0.11847
          439859.00    3765360.00        0.11842
439864.00    3765360.00        0.11837
          439869.00    3765360.00        0.11832
439874.00    3765360.00        0.11827
          439879.00    3765360.00        0.11821
439884.00    3765360.00        0.11815
          439674.00    3765365.00        0.12043
439679.00    3765365.00        0.12046
          439684.00    3765365.00        0.12048
439689.00    3765365.00        0.12051
          439694.00    3765365.00        0.12053
439699.00    3765365.00        0.12055
          439704.00    3765365.00        0.12057
439709.00    3765365.00        0.12058
          439714.00    3765365.00        0.12060
439719.00    3765365.00        0.12061
          439729.00    3765365.00        0.12064
439734.00    3765365.00        0.12065
```

```
         439739.00    3765365.00        0.12066
439744.00    3765365.00        0.12066
         439749.00    3765365.00        0.12067
439774.00    3765365.00        0.12066
         439779.00    3765365.00        0.12066
439784.00    3765365.00        0.12065
         439789.00    3765365.00        0.12064
439794.00    3765365.00        0.12063
         439799.00    3765365.00        0.12062
439804.00    3765365.00        0.12060
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439809.00	3765365.00	0.12058	439814.00	3765365.00	0.12056
439839.00	3765365.00	0.12042	439844.00	3765365.00	0.12039
439849.00	3765365.00	0.12035	439854.00	3765365.00	0.12031
439859.00	3765365.00	0.12027	439864.00	3765365.00	0.12022
439869.00	3765365.00	0.12017	439874.00	3765365.00	0.12012
439879.00	3765365.00	0.12006	439884.00	3765365.00	0.12001
439674.00	3765370.00	0.12224	439679.00	3765370.00	0.12226
439684.00	3765370.00	0.12229	439689.00	3765370.00	0.12232
439694.00	3765370.00	0.12234	439699.00	3765370.00	0.12236

```
          439704.00    3765370.00         0.12238
439709.00    3765370.00         0.12240
          439714.00    3765370.00         0.12242
439719.00    3765370.00         0.12244
          439729.00    3765370.00         0.12247
439734.00    3765370.00         0.12248
          439739.00    3765370.00         0.12249
439744.00    3765370.00         0.12250
          439749.00    3765370.00         0.12250
439774.00    3765370.00         0.12251
          439779.00    3765370.00         0.12251
439784.00    3765370.00         0.12251
          439789.00    3765370.00         0.12250
439794.00    3765370.00         0.12249
          439799.00    3765370.00         0.12248
439804.00    3765370.00         0.12247
          439809.00    3765370.00         0.12245
439814.00    3765370.00         0.12243
          439839.00    3765370.00         0.12231
439844.00    3765370.00         0.12228
          439849.00    3765370.00         0.12224
439854.00    3765370.00         0.12220
          439859.00    3765370.00         0.12216
439864.00    3765370.00         0.12212
          439869.00    3765370.00         0.12207
439874.00    3765370.00         0.12202
          439879.00    3765370.00         0.12197
439884.00    3765370.00         0.12191
          439674.00    3765375.00         0.12409
439679.00    3765375.00         0.12412
          439684.00    3765375.00         0.12415
439689.00    3765375.00         0.12417
          439694.00    3765375.00         0.12420
439699.00    3765375.00         0.12423
          439704.00    3765375.00         0.12425
439709.00    3765375.00         0.12427
          439714.00    3765375.00         0.12429
439719.00    3765375.00         0.12431
          439729.00    3765375.00         0.12434
439734.00    3765375.00         0.12436
          439739.00    3765375.00         0.12437
439744.00    3765375.00         0.12438
          439749.00    3765375.00         0.12439
439754.00    3765375.00         0.12440
          439774.00    3765375.00         0.12442
439779.00    3765375.00         0.12442
          439784.00    3765375.00         0.12441
439789.00    3765375.00         0.12441
          439794.00    3765375.00         0.12440
439799.00    3765375.00         0.12439
          439804.00    3765375.00         0.12438
439809.00    3765375.00         0.12437
```

```
         439814.00    3765375.00        0.12435
439839.00    3765375.00        0.12424
         439844.00    3765375.00        0.12421
439849.00    3765375.00        0.12418
         439854.00    3765375.00        0.12415
439859.00    3765375.00        0.12411
         439864.00    3765375.00        0.12407
439869.00    3765375.00        0.12402
         439874.00    3765375.00        0.12398
439879.00    3765375.00        0.12393
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439884.00	3765375.00	0.12388	439774.00	3765380.00	0.12637
439779.00	3765380.00	0.12637	439784.00	3765380.00	0.12637
439789.00	3765380.00	0.12637	439794.00	3765380.00	0.12637
439799.00	3765380.00	0.12636	439804.00	3765380.00	0.12635
439809.00	3765380.00	0.12634	439814.00	3765380.00	0.12633
439769.00	3765385.00	0.12837	439819.00	3765385.00	0.12835
439769.00	3765400.00	0.13474	439844.00	3765400.00	0.13476
439849.00	3765400.00	0.13475	439674.00	3765405.00	0.13636
439714.00	3765405.00	0.13668	439719.00	3765405.00	0.13672

```
          439734.00    3765405.00        0.13681
439749.00    3765405.00        0.13689
          439754.00    3765405.00        0.13692
439774.00    3765405.00        0.13700
          439779.00    3765405.00        0.13702
439784.00    3765405.00        0.13704
          439789.00    3765405.00        0.13705
439794.00    3765405.00        0.13706
          439799.00    3765405.00        0.13707
439804.00    3765405.00        0.13708
          439809.00    3765405.00        0.13709
439814.00    3765405.00        0.13709
          439819.00    3765405.00        0.13709
439824.00    3765405.00        0.13709
          439829.00    3765405.00        0.13709
439834.00    3765405.00        0.13708
          439839.00    3765405.00        0.13707
439844.00    3765405.00        0.13706
          439849.00    3765405.00        0.13705
439854.00    3765405.00        0.13703
          439859.00    3765405.00        0.13701
439674.00    3765410.00        0.13862
          439679.00    3765410.00        0.13867
439684.00    3765410.00        0.13872
          439689.00    3765410.00        0.13876
439694.00    3765410.00        0.13880
          439699.00    3765410.00        0.13885
439704.00    3765410.00        0.13889
          439709.00    3765410.00        0.13893
439714.00    3765410.00        0.13897
          439719.00    3765410.00        0.13900
439729.00    3765410.00        0.13907
          439734.00    3765410.00        0.13911
439739.00    3765410.00        0.13914
          439744.00    3765410.00        0.13917
439749.00    3765410.00        0.13920
          439774.00    3765410.00        0.13932
439779.00    3765410.00        0.13934
          439784.00    3765410.00        0.13936
439789.00    3765410.00        0.13938
          439794.00    3765410.00        0.13940
439799.00    3765410.00        0.13941
          439804.00    3765410.00        0.13942
439809.00    3765410.00        0.13943
          439814.00    3765410.00        0.13944
439819.00    3765410.00        0.13944
          439824.00    3765410.00        0.13944
439829.00    3765410.00        0.13944
          439834.00    3765410.00        0.13944
439839.00    3765410.00        0.13944
          439844.00    3765410.00        0.13943
439849.00    3765410.00        0.13942
```

```
         439854.00    3765410.00        0.13941
439859.00    3765410.00        0.13939
         439674.00    3765415.00        0.14095
439679.00    3765415.00        0.14100
         439684.00    3765415.00        0.14105
439689.00    3765415.00        0.14110
         439694.00    3765415.00        0.14115
439699.00    3765415.00        0.14119
         439704.00    3765415.00        0.14124
439709.00    3765415.00        0.14128
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439714.00	3765415.00	0.14132	439719.00	3765415.00	0.14136
439729.00	3765415.00	0.14144	439734.00	3765415.00	0.14147
439739.00	3765415.00	0.14151	439744.00	3765415.00	0.14154
439749.00	3765415.00	0.14158	439774.00	3765415.00	0.14172
439779.00	3765415.00	0.14174	439784.00	3765415.00	0.14176
439789.00	3765415.00	0.14178	439794.00	3765415.00	0.14180
439799.00	3765415.00	0.14182	439804.00	3765415.00	0.14183
439809.00	3765415.00	0.14185	439814.00	3765415.00	0.14186
439819.00	3765415.00	0.14186	439824.00	3765415.00	0.14187

```
          439829.00    3765415.00        0.14188
439834.00    3765415.00        0.14188
          439839.00    3765415.00        0.14188
439844.00    3765415.00        0.14187
          439849.00    3765415.00        0.14187
439854.00    3765415.00        0.14186
          439859.00    3765415.00        0.14185
439674.00    3765420.00        0.14336
          439679.00    3765420.00        0.14341
439684.00    3765420.00        0.14347
          439689.00    3765420.00        0.14352
439694.00    3765420.00        0.14357
          439699.00    3765420.00        0.14361
439704.00    3765420.00        0.14366
          439709.00    3765420.00        0.14371
439714.00    3765420.00        0.14375
          439719.00    3765420.00        0.14379
439729.00    3765420.00        0.14388
          439734.00    3765420.00        0.14392
439739.00    3765420.00        0.14395
          439744.00    3765420.00        0.14399
439749.00    3765420.00        0.14403
          439774.00    3765420.00        0.14418
439779.00    3765420.00        0.14421
          439784.00    3765420.00        0.14423
439789.00    3765420.00        0.14426
          439794.00    3765420.00        0.14428
439799.00    3765420.00        0.14430
          439804.00    3765420.00        0.14432
439809.00    3765420.00        0.14434
          439814.00    3765420.00        0.14435
439819.00    3765420.00        0.14436
          439824.00    3765420.00        0.14437
439829.00    3765420.00        0.14438
          439834.00    3765420.00        0.14439
439839.00    3765420.00        0.14439
          439844.00    3765420.00        0.14439
439849.00    3765420.00        0.14439
          439854.00    3765420.00        0.14439
439859.00    3765420.00        0.14438
          439674.00    3765425.00        0.14584
439679.00    3765425.00        0.14590
          439684.00    3765425.00        0.14596
439689.00    3765425.00        0.14601
          439694.00    3765425.00        0.14606
439699.00    3765425.00        0.14611
          439704.00    3765425.00        0.14616
439709.00    3765425.00        0.14621
          439714.00    3765425.00        0.14626
439719.00    3765425.00        0.14630
          439729.00    3765425.00        0.14639
439734.00    3765425.00        0.14643
```

```
         439739.00    3765425.00        0.14648
439744.00    3765425.00        0.14652
         439749.00    3765425.00        0.14656
439774.00    3765425.00        0.14673
         439779.00    3765425.00        0.14676
439784.00    3765425.00        0.14679
         439789.00    3765425.00        0.14682
439794.00    3765425.00        0.14684
         439799.00    3765425.00        0.14686
439804.00    3765425.00        0.14689
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439809.00	3765425.00	0.14691	439814.00	3765425.00	0.14693
439819.00	3765425.00	0.14694	439824.00	3765425.00	0.14696
439829.00	3765425.00	0.14697	439834.00	3765425.00	0.14698
439839.00	3765425.00	0.14699	439844.00	3765425.00	0.14699
439849.00	3765425.00	0.14699	439854.00	3765425.00	0.14699
439859.00	3765425.00	0.14699	439674.00	3765430.00	0.14841
439679.00	3765430.00	0.14847	439684.00	3765430.00	0.14853
439689.00	3765430.00	0.14858	439694.00	3765430.00	0.14864
439699.00	3765430.00	0.14869	439704.00	3765430.00	0.14874

```
          439709.00    3765430.00        0.14880
439714.00    3765430.00        0.14885
          439719.00    3765430.00        0.14890
439729.00    3765430.00        0.14899
          439734.00    3765430.00        0.14904
439739.00    3765430.00        0.14908
          439744.00    3765430.00        0.14912
439749.00    3765430.00        0.14917
          439774.00    3765430.00        0.14936
439779.00    3765430.00        0.14939
          439784.00    3765430.00        0.14942
439789.00    3765430.00        0.14945
          439794.00    3765430.00        0.14948
439799.00    3765430.00        0.14951
          439804.00    3765430.00        0.14954
439809.00    3765430.00        0.14956
          439814.00    3765430.00        0.14958
439819.00    3765430.00        0.14961
          439824.00    3765430.00        0.14962
439829.00    3765430.00        0.14964
          439834.00    3765430.00        0.14965
439839.00    3765430.00        0.14967
          439844.00    3765430.00        0.14967
439849.00    3765430.00        0.14968
          439854.00    3765430.00        0.14968
439859.00    3765430.00        0.14968
          439674.00    3765435.00        0.15106
439679.00    3765435.00        0.15112
          439684.00    3765435.00        0.15118
439689.00    3765435.00        0.15124
          439694.00    3765435.00        0.15130
439699.00    3765435.00        0.15136
          439704.00    3765435.00        0.15141
439709.00    3765435.00        0.15147
          439714.00    3765435.00        0.15152
439719.00    3765435.00        0.15158
          439729.00    3765435.00        0.15168
439734.00    3765435.00        0.15172
          439739.00    3765435.00        0.15177
439744.00    3765435.00        0.15182
          439749.00    3765435.00        0.15186
439774.00    3765435.00        0.15207
          439779.00    3765435.00        0.15211
439784.00    3765435.00        0.15215
          439789.00    3765435.00        0.15218
439794.00    3765435.00        0.15221
          439799.00    3765435.00        0.15225
439804.00    3765435.00        0.15228
          439809.00    3765435.00        0.15230
439814.00    3765435.00        0.15233
          439819.00    3765435.00        0.15236
439824.00    3765435.00        0.15238
```

```
         439829.00    3765435.00        0.15240
439834.00    3765435.00        0.15242
         439839.00    3765435.00        0.15243
439844.00    3765435.00        0.15245
         439849.00    3765435.00        0.15246
439854.00    3765435.00        0.15247
         439859.00    3765435.00        0.15247
439674.00    3765440.00        0.15380
         439679.00    3765440.00        0.15387
439684.00    3765440.00        0.15393
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439689.00	3765440.00	0.15399	439694.00	3765440.00	0.15406
439699.00	3765440.00	0.15412	439704.00	3765440.00	0.15417
439709.00	3765440.00	0.15423	439714.00	3765440.00	0.15429
439719.00	3765440.00	0.15434	439729.00	3765440.00	0.15445
439734.00	3765440.00	0.15450	439739.00	3765440.00	0.15455
439744.00	3765440.00	0.15460	439749.00	3765440.00	0.15465
439774.00	3765440.00	0.15488	439779.00	3765440.00	0.15492
439784.00	3765440.00	0.15496	439789.00	3765440.00	0.15500
439794.00	3765440.00	0.15504	439799.00	3765440.00	0.15507

```
          439804.00    3765440.00        0.15511
439809.00    3765440.00        0.15514
          439814.00    3765440.00        0.15517
439819.00    3765440.00        0.15520
          439824.00    3765440.00        0.15523
439829.00    3765440.00        0.15525
          439834.00    3765440.00        0.15527
439839.00    3765440.00        0.15529
          439844.00    3765440.00        0.15531
439849.00    3765440.00        0.15533
          439854.00    3765440.00        0.15534
439859.00    3765440.00        0.15535
          439674.00    3765445.00        0.15664
439679.00    3765445.00        0.15671
          439684.00    3765445.00        0.15677
439689.00    3765445.00        0.15684
          439694.00    3765445.00        0.15690
439699.00    3765445.00        0.15697
          439704.00    3765445.00        0.15703
439709.00    3765445.00        0.15709
          439714.00    3765445.00        0.15715
439719.00    3765445.00        0.15721
          439729.00    3765445.00        0.15732
439734.00    3765445.00        0.15738
          439739.00    3765445.00        0.15743
439744.00    3765445.00        0.15749
          439749.00    3765445.00        0.15754
439774.00    3765445.00        0.15778
          439779.00    3765445.00        0.15783
439784.00    3765445.00        0.15787
          439789.00    3765445.00        0.15791
439794.00    3765445.00        0.15795
          439799.00    3765445.00        0.15800
439804.00    3765445.00        0.15803
          439809.00    3765445.00        0.15807
439814.00    3765445.00        0.15810
          439819.00    3765445.00        0.15814
439824.00    3765445.00        0.15817
          439829.00    3765445.00        0.15820
439834.00    3765445.00        0.15823
          439839.00    3765445.00        0.15825
439844.00    3765445.00        0.15828
          439849.00    3765445.00        0.15830
439854.00    3765445.00        0.15831
          439859.00    3765445.00        0.15833
439674.00    3765450.00        0.15958
          439679.00    3765450.00        0.15965
439684.00    3765450.00        0.15972
          439689.00    3765450.00        0.15979
439694.00    3765450.00        0.15985
          439699.00    3765450.00        0.15992
439704.00    3765450.00        0.15999
```

```
         439709.00    3765450.00        0.16005
439714.00    3765450.00        0.16011
         439719.00    3765450.00        0.16017
439729.00    3765450.00        0.16030
         439734.00    3765450.00        0.16035
439739.00    3765450.00        0.16041
         439744.00    3765450.00        0.16047
439749.00    3765450.00        0.16052
         439774.00    3765450.00        0.16079
439844.00    3765450.00        0.16134
```

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439849.00	3765450.00	0.16137	439854.00	3765450.00	0.16139
439859.00	3765450.00	0.16141	439674.00	3765455.00	0.16262
439679.00	3765455.00	0.16269	439684.00	3765455.00	0.16277
439689.00	3765455.00	0.16284	439694.00	3765455.00	0.16291
439699.00	3765455.00	0.16298	439704.00	3765455.00	0.16305
439709.00	3765455.00	0.16311	439714.00	3765455.00	0.16318
439719.00	3765455.00	0.16325	439729.00	3765455.00	0.16337
439734.00	3765455.00	0.16344	439739.00	3765455.00	0.16350
439744.00	3765455.00	0.16356	439749.00	3765455.00	0.16362

```
          439844.00    3765455.00        0.16452
439849.00    3765455.00        0.16455
          439854.00    3765455.00        0.16458
439859.00    3765455.00        0.16460
          439674.00    3765460.00        0.16577
439679.00    3765460.00        0.16585
          439684.00    3765460.00        0.16593
439689.00    3765460.00        0.16600
          439694.00    3765460.00        0.16608
439699.00    3765460.00        0.16615
          439704.00    3765460.00        0.16622
439709.00    3765460.00        0.16629
          439714.00    3765460.00        0.16636
439719.00    3765460.00        0.16643
          439729.00    3765460.00        0.16656
439734.00    3765460.00        0.16663
          439739.00    3765460.00        0.16670
439744.00    3765460.00        0.16676
          439749.00    3765460.00        0.16682
439789.00    3765460.00        0.16729
          439794.00    3765460.00        0.16735
439799.00    3765460.00        0.16740
          439804.00    3765460.00        0.16745
439809.00    3765460.00        0.16750
          439814.00    3765460.00        0.16755
439819.00    3765460.00        0.16760
          439824.00    3765460.00        0.16764
439829.00    3765460.00        0.16769
          439844.00    3765460.00        0.16781
439849.00    3765460.00        0.16785
          439854.00    3765460.00        0.16788
439859.00    3765460.00        0.16791
          439674.00    3765465.00        0.16904
439679.00    3765465.00        0.16913
          439684.00    3765465.00        0.16921
439689.00    3765465.00        0.16928
          439694.00    3765465.00        0.16936
439699.00    3765465.00        0.16944
          439704.00    3765465.00        0.16951
439709.00    3765465.00        0.16959
          439714.00    3765465.00        0.16966
439719.00    3765465.00        0.16973
          439729.00    3765465.00        0.16988
439734.00    3765465.00        0.16994
          439739.00    3765465.00        0.17001
439744.00    3765465.00        0.17008
          439749.00    3765465.00        0.17015
439789.00    3765465.00        0.17065
          439794.00    3765465.00        0.17071
439799.00    3765465.00        0.17076
          439804.00    3765465.00        0.17082
439809.00    3765465.00        0.17088
```

```
         439814.00    3765465.00        0.17093
439819.00    3765465.00        0.17098
         439824.00    3765465.00        0.17104
439829.00    3765465.00        0.17109
         439844.00    3765465.00        0.17123
439849.00    3765465.00        0.17127
         439854.00    3765465.00        0.17131
439859.00    3765465.00        0.17134
         439674.00    3765470.00        0.17244
439679.00    3765470.00        0.17253
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439684.00	3765470.00	0.17261	439689.00	3765470.00	0.17269
439694.00	3765470.00	0.17277	439699.00	3765470.00	0.17285
439704.00	3765470.00	0.17293	439709.00	3765470.00	0.17301
439714.00	3765470.00	0.17309	439719.00	3765470.00	0.17316
439729.00	3765470.00	0.17331	439734.00	3765470.00	0.17338
439739.00	3765470.00	0.17346	439744.00	3765470.00	0.17353
439749.00	3765470.00	0.17360	439789.00	3765470.00	0.17413
439794.00	3765470.00	0.17420	439799.00	3765470.00	0.17426
439804.00	3765470.00	0.17432	439809.00	3765470.00	0.17438

```
          439814.00    3765470.00         0.17444
439819.00    3765470.00         0.17450
          439824.00    3765470.00         0.17456
439829.00    3765470.00         0.17461
          439844.00    3765470.00         0.17477
439849.00    3765470.00         0.17482
          439854.00    3765470.00         0.17486
439859.00    3765470.00         0.17491
          439674.00    3765475.00         0.17597
439679.00    3765475.00         0.17606
          439684.00    3765475.00         0.17615
439689.00    3765475.00         0.17623
          439694.00    3765475.00         0.17632
439699.00    3765475.00         0.17640
          439704.00    3765475.00         0.17648
439709.00    3765475.00         0.17656
          439714.00    3765475.00         0.17665
439719.00    3765475.00         0.17673
          439729.00    3765475.00         0.17688
439734.00    3765475.00         0.17696
          439739.00    3765475.00         0.17703
439744.00    3765475.00         0.17711
          439749.00    3765475.00         0.17718
439754.00    3765475.00         0.17726
          439789.00    3765475.00         0.17775
439794.00    3765475.00         0.17782
          439799.00    3765475.00         0.17789
439804.00    3765475.00         0.17795
          439809.00    3765475.00         0.17802
439814.00    3765475.00         0.17808
          439819.00    3765475.00         0.17815
439824.00    3765475.00         0.17821
          439829.00    3765475.00         0.17827
439269.00    3764900.00         0.04606
          439369.00    3764900.00         0.04642
439469.00    3764900.00         0.04639
          439569.00    3764900.00         0.04597
439669.00    3764900.00         0.04512
          439769.00    3764900.00         0.04385
439869.00    3764900.00         0.04214
          439969.00    3764900.00         0.04002
440069.00    3764900.00         0.03753
          440169.00    3764900.00         0.03475
440269.00    3764900.00         0.03183
          439269.00    3765000.00         0.05372
439369.00    3765000.00         0.05436
          439469.00    3765000.00         0.05456
439569.00    3765000.00         0.05430
          439669.00    3765000.00         0.05356
439769.00    3765000.00         0.05232
          439869.00    3765000.00         0.05055
439969.00    3765000.00         0.04821
```

```
         440069.00    3765000.00        0.04534
440169.00    3765000.00        0.04199
         440269.00    3765000.00        0.03833
439269.00    3765100.00        0.06359
         439369.00    3765100.00        0.06461
439469.00    3765100.00        0.06510
         439569.00    3765100.00        0.06509
439669.00    3765100.00        0.06456
         439769.00    3765100.00        0.06346
439869.00    3765100.00        0.06172
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
439969.00	3765100.00	0.05926	440069.00	3765100.00	0.05603
440169.00	3765100.00	0.05206	440269.00	3765100.00	0.04746
439269.00	3765200.00	0.07686	439369.00	3765200.00	0.07837
439469.00	3765200.00	0.07926	439569.00	3765200.00	0.07961
439669.00	3765200.00	0.07941	439769.00	3765200.00	0.07861
439869.00	3765200.00	0.07708	439969.00	3765200.00	0.07466
440069.00	3765200.00	0.07121	440169.00	3765200.00	0.06661
440269.00	3765200.00	0.06089	439269.00	3765300.00	0.09575
439369.00	3765300.00	0.09797	439469.00	3765300.00	0.09947

```
         439569.00    3765300.00        0.10035
439669.00    3765300.00        0.10068
         439769.00    3765300.00        0.10042
439869.00    3765300.00        0.09937
         439969.00    3765300.00        0.09727
440069.00    3765300.00        0.09384
         440169.00    3765300.00        0.08878
440269.00    3765300.00        0.08184
         439269.00    3765400.00        0.12516
439369.00    3765400.00        0.12859
         439469.00    3765400.00        0.13115
439569.00    3765400.00        0.13295
         439669.00    3765400.00        0.13412
439769.00    3765400.00        0.13474
         439869.00    3765400.00        0.13465
439969.00    3765400.00        0.13333
         440069.00    3765400.00        0.13031
440169.00    3765400.00        0.12517
         440269.00    3765400.00        0.11721
439269.00    3765500.00        0.17876
         439369.00    3765500.00        0.18478
439469.00    3765500.00        0.18961
         439569.00    3765500.00        0.19322
439669.00    3765500.00        0.19582
         439769.00    3765500.00        0.19781
439869.00    3765500.00        0.19964
         439969.00    3765500.00        0.20029
440069.00    3765500.00        0.19829
         440169.00    3765500.00        0.19359
440269.00    3765500.00        0.18527
         439269.00    3765600.00        0.31632
439369.00    3765600.00        0.32940
         439469.00    3765600.00        0.34044
439569.00    3765600.00        0.34849
         439669.00    3765600.00        0.35423
439769.00    3765600.00        0.35865
         439869.00    3765600.00        0.36362
439969.00    3765600.00        0.37453
         440069.00    3765600.00        0.37423
440169.00    3765600.00        0.36957
         440269.00    3765600.00        0.36104
439269.00    3765700.00        1.67000
         439369.00    3765700.00        1.75481
439469.00    3765700.00        1.85402
         439569.00    3765700.00        1.93748
439669.00    3765700.00        1.99410
         439769.00    3765700.00        2.03560
439869.00    3765700.00        2.05444
         439969.00    3765700.00        2.07937
440069.00    3765700.00        2.11887
         440169.00    3765700.00        2.14786
440269.00    3765700.00        2.18082
```

```
         439269.00    3765800.00        0.55059
439369.00    3765800.00        0.58078
         439469.00    3765800.00        0.60591
439569.00    3765800.00        0.62930
         439669.00    3765800.00        0.64728
439769.00    3765800.00        0.66861
         439869.00    3765800.00        0.69784
439969.00    3765800.00        0.66347
         440069.00    3765800.00        0.65659
440169.00    3765800.00        0.65426
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
440269.00	3765800.00	0.65258	439269.00	3765900.00	0.20138
439369.00	3765900.00	0.23137	439469.00	3765900.00	0.25454
439569.00	3765900.00	0.27290	439669.00	3765900.00	0.28770
439769.00	3765900.00	0.29954	439869.00	3765900.00	0.30880
439969.00	3765900.00	0.31495	440069.00	3765900.00	0.31797
440169.00	3765900.00	0.31964	440269.00	3765900.00	0.32025
439649.00	3765310.00	0.10330	439679.00	3765310.00	0.10335
439709.00	3765310.00	0.10334	439739.00	3765310.00	0.10327
439769.00	3765310.00	0.10314	439799.00	3765310.00	0.10295

```
          439829.00    3765310.00        0.10267
439859.00    3765310.00        0.10231
          439889.00    3765310.00        0.10185
439649.00    3765340.00        0.11199
          439679.00    3765340.00        0.11211
439709.00    3765340.00        0.11217
          439739.00    3765340.00        0.11217
439769.00    3765340.00        0.11211
          439799.00    3765340.00        0.11199
439829.00    3765340.00        0.11179
          439859.00    3765340.00        0.11150
439889.00    3765340.00        0.11111
          439649.00    3765370.00        0.12208
439679.00    3765370.00        0.12226
          439709.00    3765370.00        0.12240
439739.00    3765370.00        0.12249
          439769.00    3765370.00        0.12252
439799.00    3765370.00        0.12248
          439829.00    3765370.00        0.12237
439859.00    3765370.00        0.12216
          439889.00    3765370.00        0.12186
439649.00    3765400.00        0.13393
          439679.00    3765400.00        0.13420
439709.00    3765400.00        0.13443
          439739.00    3765400.00        0.13461
439769.00    3765400.00        0.13474
          439799.00    3765400.00        0.13480
439829.00    3765400.00        0.13480
          439859.00    3765400.00        0.13471
439889.00    3765400.00        0.13450
          439649.00    3765430.00        0.14810
439679.00    3765430.00        0.14847
          439709.00    3765430.00        0.14880
439739.00    3765430.00        0.14908
          439769.00    3765430.00        0.14932
439799.00    3765430.00        0.14951
          439829.00    3765430.00        0.14964
439859.00    3765430.00        0.14968
          439889.00    3765430.00        0.14962
439649.00    3765460.00        0.16536
          439679.00    3765460.00        0.16585
439709.00    3765460.00        0.16629
          439739.00    3765460.00        0.16670
439769.00    3765460.00        0.16706
          439799.00    3765460.00        0.16740
439829.00    3765460.00        0.16769
          439859.00    3765460.00        0.16791
439889.00    3765460.00        0.16803
          439649.00    3765490.00        0.18692
439679.00    3765490.00        0.18754
          439709.00    3765490.00        0.18812
439739.00    3765490.00        0.18865
```

```
         439769.00    3765490.00        0.18917
439799.00    3765490.00        0.18967
         439829.00    3765490.00        0.19015
439859.00    3765490.00        0.19061
         439889.00    3765490.00        0.19098
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: EXH ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439674.00	3765310.00	1.31612	(13120808)	439679.00	3765310.00	1.31670	(13120808)
439684.00	3765310.00	1.31705	(13120808)	439689.00	3765310.00	1.31782	(13120808)
439694.00	3765310.00	1.31803	(13120808)	439699.00	3765310.00	1.31894	(13120808)
439704.00	3765310.00	1.31920	(13120808)	439709.00	3765310.00	1.32027	(13120808)
439714.00	3765310.00	1.32024	(13120808)	439719.00	3765310.00	1.32148	(13120808)
439729.00	3765310.00	1.32258	(13120808)	439734.00	3765310.00	1.32296	(13120808)
439739.00	3765310.00	1.32370	(13120808)	439744.00	3765310.00	1.32434	(13120808)
439749.00	3765310.00	1.32490	(13120808)	439764.00	3765310.00	1.32726	(13120808)
439769.00	3765310.00	1.32752	(13120808)				

439774.00 3765310.00 1.32859 (13120808)
439779.00 3765310.00 1.32889 (13120808)
439784.00 3765310.00 1.32992 (13120808)
439789.00 3765310.00 1.33004 (13120808)
439794.00 3765310.00 1.33092 (13120808)
439799.00 3765310.00 1.33138 (13120808)
439804.00 3765310.00 1.33171 (13120808)
439809.00 3765310.00 1.33224 (13120808)
439814.00 3765310.00 1.33253 (13120808)
439819.00 3765310.00 1.33326 (13120808)
439824.00 3765310.00 1.33321 (13120808)
439829.00 3765310.00 1.33388 (13120808)
439839.00 3765310.00 1.33458 (13120808)
439844.00 3765310.00 1.33421 (13120808)
439849.00 3765310.00 1.33489 (13120808)
439854.00 3765310.00 1.33438 (13120808)
439859.00 3765310.00 1.33500 (13120808)
439864.00 3765310.00 1.33445 (13120808)
439869.00 3765310.00 1.33451 (13120808)
439874.00 3765310.00 1.33440 (13120808)
439879.00 3765310.00 1.33413 (13120808)
439884.00 3765310.00 1.33419 (13120808)
439674.00 3765315.00 1.32690 (13120808)
439679.00 3765315.00 1.32790 (13120808)
439684.00 3765315.00 1.32777 (13120808)
439689.00 3765315.00 1.32893 (13120808)
439694.00 3765315.00 1.32893 (13120808)
439699.00 3765315.00 1.32961 (13120808)
439704.00 3765315.00 1.33012 (13120808)
439709.00 3765315.00 1.33071 (13120808)
439714.00 3765315.00 1.33148 (13120808)
439719.00 3765315.00 1.33173 (13120808)
439729.00 3765315.00 1.33318 (13120808)
439734.00 3765315.00 1.33411 (13120808)
439739.00 3765315.00 1.33443 (13120808)
439744.00 3765315.00 1.33565 (13120808)
439749.00 3765315.00 1.33592 (13120808)
439764.00 3765315.00 1.33823 (13120808)
439769.00 3765315.00 1.33881 (13120808)
439774.00 3765315.00 1.33935 (13120808)
439779.00 3765315.00 1.34020 (13120808)
439784.00 3765315.00 1.34061 (13120808)
439789.00 3765315.00 1.34153 (13120808)
439794.00 3765315.00 1.34174 (13120808)
439799.00 3765315.00 1.34274 (13120808)
439804.00 3765315.00 1.34295 (13120808)
439809.00 3765315.00 1.34398 (13120808)
439814.00 3765315.00 1.34391 (13120808)
439819.00 3765315.00 1.34486 (13120808)
439824.00 3765315.00 1.34489 (13120808)
439829.00 3765315.00 1.34540 (13120808)
439839.00 3765315.00 1.34572 (13120808)

439844.00 3765315.00 1.34618 (13120808)
439849.00 3765315.00 1.34603 (13120808)
439854.00 3765315.00 1.34633 (13120808)
439859.00 3765315.00 1.34623 (13120808)
439864.00 3765315.00 1.34661 (13120808)
439869.00 3765315.00 1.34627 (13120808)
439874.00 3765315.00 1.34651 (13120808)
439879.00 3765315.00 1.34605 (13120808)
439884.00 3765315.00 1.34646 (13120808)
439674.00 3765320.00 1.33823 (13120808)
439679.00 3765320.00 1.33856 (13120808)

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: EXH ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439684.00	3765320.00	1.33904	(13120808)	439689.00	3765320.00	1.33944	(13120808)
439694.00	3765320.00	1.34029	(13120808)	439699.00	3765320.00	1.34055	(13120808)
439704.00	3765320.00	1.34142	(13120808)	439709.00	3765320.00	1.34158	(13120808)
439714.00	3765320.00	1.34294	(13120808)	439719.00	3765320.00	1.34292	(13120808)
439729.00	3765320.00	1.34427	(13120808)	439734.00	3765320.00	1.34523	(13120808)
439739.00	3765320.00	1.34572	(13120808)	439744.00	3765320.00	1.34643	(13120808)
439749.00	3765320.00	1.34715	(13120808)	439764.00	3765320.00	1.34917	(13120808)
439769.00	3765320.00	1.35023	(13120808)	439774.00	3765320.00	1.35066	(13120808)
439779.00	3765320.00	1.35174	(13120808)				

439784.00 3765320.00 1.35197 (13120808)
439789.00 3765320.00 1.35316 (13120808)
439794.00 3765320.00 1.35331 (13120808)
439799.00 3765320.00 1.35415 (13120808)
439804.00 3765320.00 1.35449 (13120808)
439809.00 3765320.00 1.35519 (13120808)
439814.00 3765320.00 1.35568 (13120808)
439819.00 3765320.00 1.35610 (13120808)
439824.00 3765320.00 1.35667 (13120808)
439829.00 3765320.00 1.35692 (13120808)
439839.00 3765320.00 1.35748 (13120808)
439844.00 3765320.00 1.35817 (13120808)
439849.00 3765320.00 1.35800 (13120808)
439854.00 3765320.00 1.35861 (13120808)
439859.00 3765320.00 1.35823 (13120808)
439864.00 3765320.00 1.35853 (13120808)
439869.00 3765320.00 1.35847 (13120808)
439874.00 3765320.00 1.35833 (13120808)
439879.00 3765320.00 1.35833 (13120808)
439884.00 3765320.00 1.35809 (13120808)
439674.00 3765325.00 1.34958 (13120808)
439679.00 3765325.00 1.34997 (13120808)
439684.00 3765325.00 1.35058 (13120808)
439689.00 3765325.00 1.35082 (13120808)
439694.00 3765325.00 1.35145 (13120808)
439699.00 3765325.00 1.35212 (13120808)
439704.00 3765325.00 1.35248 (13120808)
439709.00 3765325.00 1.35321 (13120808)
439714.00 3765325.00 1.35367 (13120808)
439719.00 3765325.00 1.35448 (13120808)
439729.00 3765325.00 1.35586 (13120808)
439734.00 3765325.00 1.35627 (13120808)
439739.00 3765325.00 1.35747 (13120808)
439744.00 3765325.00 1.35785 (13120808)
439749.00 3765325.00 1.35883 (13120808)
439754.00 3765325.00 1.35925 (13120808)
439769.00 3765325.00 1.36165 (13120808)
439774.00 3765325.00 1.36226 (13120808)
439779.00 3765325.00 1.36296 (13120808)
439784.00 3765325.00 1.36375 (13120808)
439789.00 3765325.00 1.36430 (13120808)
439794.00 3765325.00 1.36514 (13120808)
439799.00 3765325.00 1.36562 (13120808)
439804.00 3765325.00 1.36653 (13120808)
439809.00 3765325.00 1.36680 (13120808)
439814.00 3765325.00 1.36769 (13120808)
439819.00 3765325.00 1.36800 (13120808)
439824.00 3765325.00 1.36876 (13120808)
439829.00 3765325.00 1.36889 (13120808)
439839.00 3765325.00 1.36970 (13120808)
439844.00 3765325.00 1.36997 (13120808)
439849.00 3765325.00 1.37023 (13120808)

```
439854.00   3765325.00        1.37042  (13120808)
        439859.00   3765325.00        1.37062  (13120808)
439864.00   3765325.00        1.37059  (13120808)
        439869.00   3765325.00        1.37086  (13120808)
439874.00   3765325.00        1.37063  (13120808)
        439879.00   3765325.00        1.37093  (13120808)
439884.00   3765325.00        1.37041  (13120808)
        439674.00   3765330.00        1.36097  (13120808)
439679.00   3765330.00        1.36130  (13120808)
        439684.00   3765330.00        1.36198  (13120808)
439689.00   3765330.00        1.36246  (13120808)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: EXH ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439694.00	3765330.00	1.36278	(13120808)	439699.00	3765330.00	1.36353	(13120808)
439704.00	3765330.00	1.36396	(13120808)	439709.00	3765330.00	1.36499	(13120808)
439714.00	3765330.00	1.36520	(13120808)	439719.00	3765330.00	1.36616	(13120808)
439729.00	3765330.00	1.36754	(13120808)	439734.00	3765330.00	1.36805	(13120808)
439739.00	3765330.00	1.36870	(13120808)	439744.00	3765330.00	1.36958	(13120808)
439749.00	3765330.00	1.37026	(13120808)	439754.00	3765330.00	1.37112	(13120808)
439774.00	3765330.00	1.37429	(13120808)	439779.00	3765330.00	1.37461	(13120808)
439784.00	3765330.00	1.37595	(13120808)	439789.00	3765330.00	1.37618	(13120808)
439794.00	3765330.00	1.37722	(13120808)				

439799.00 3765330.00 1.37753 (13120808)
439804.00 3765330.00 1.37849 (13120808)
439809.00 3765330.00 1.37888 (13120808)
439814.00 3765330.00 1.37957 (13120808)
439819.00 3765330.00 1.38010 (13120808)
439824.00 3765330.00 1.38069 (13120808)
439829.00 3765330.00 1.38122 (13120808)
439839.00 3765330.00 1.38211 (13120808)
439844.00 3765330.00 1.38229 (13120808)
439849.00 3765330.00 1.38288 (13120808)
439854.00 3765330.00 1.38277 (13120808)
439859.00 3765330.00 1.38323 (13120808)
439864.00 3765330.00 1.38324 (13120808)
439869.00 3765330.00 1.38323 (13120808)
439874.00 3765330.00 1.38337 (13120808)
439879.00 3765330.00 1.38333 (13120808)
439884.00 3765330.00 1.38324 (13120808)
439674.00 3765335.00 1.37292 (13120808)
439679.00 3765335.00 1.37324 (13120808)
439684.00 3765335.00 1.37362 (13120808)
439689.00 3765335.00 1.37434 (13120808)
439694.00 3765335.00 1.37473 (13120808)
439699.00 3765335.00 1.37529 (13120808)
439704.00 3765335.00 1.37567 (13120808)
439709.00 3765335.00 1.37655 (13120808)
439714.00 3765335.00 1.37711 (13120808)
439719.00 3765335.00 1.37777 (13120808)
439729.00 3765335.00 1.37918 (13120808)
439734.00 3765335.00 1.38007 (13120808)
439739.00 3765335.00 1.38058 (13120808)
439744.00 3765335.00 1.38132 (13120808)
439749.00 3765335.00 1.38213 (13120808)
439774.00 3765335.00 1.38613 (13120808)
439779.00 3765335.00 1.38685 (13120808)
439784.00 3765335.00 1.38754 (13120808)
439789.00 3765335.00 1.38848 (13120808)
439794.00 3765335.00 1.38916 (13120808)
439839.00 3765335.00 1.39456 (13120808)
439844.00 3765335.00 1.39484 (13120808)
439849.00 3765335.00 1.39534 (13120808)
439854.00 3765335.00 1.39555 (13120808)
439859.00 3765335.00 1.39570 (13120808)
439864.00 3765335.00 1.39607 (13120808)
439869.00 3765335.00 1.39591 (13120808)
439874.00 3765335.00 1.39628 (13120808)
439879.00 3765335.00 1.39603 (13120808)
439884.00 3765335.00 1.39648 (13120808)
439674.00 3765340.00 1.38492 (13120808)
439679.00 3765340.00 1.38545 (13120808)
439684.00 3765340.00 1.38575 (13120808)
439689.00 3765340.00 1.38612 (13120808)
439694.00 3765340.00 1.38688 (13120808)

439699.00 3765340.00 1.38718 (13120808)
439704.00 3765340.00 1.38802 (13120808)
439709.00 3765340.00 1.38828 (13120808)
439714.00 3765340.00 1.38932 (13120808)
439719.00 3765340.00 1.38983 (13120808)
439729.00 3765340.00 1.39116 (13120808)
439734.00 3765340.00 1.39211 (13120808)
439739.00 3765340.00 1.39287 (13120808)
439744.00 3765340.00 1.39346 (13120808)
439749.00 3765340.00 1.39425 (13120808)
439774.00 3765340.00 1.39816 (13120808)

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: EXH ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439779.00	3765340.00	1.39948	(13120808)	439784.00	3765340.00	1.39982	(13120808)
439789.00	3765340.00	1.40080	(13120808)	439794.00	3765340.00	1.40141	(13120808)
439839.00	3765340.00	1.40723	(13120808)	439844.00	3765340.00	1.40792	(13120808)
439849.00	3765340.00	1.40814	(13120808)	439854.00	3765340.00	1.40867	(13120808)
439859.00	3765340.00	1.40874	(13120808)	439864.00	3765340.00	1.40913	(13120808)
439869.00	3765340.00	1.40916	(13120808)	439874.00	3765340.00	1.40939	(13120808)
439879.00	3765340.00	1.40915	(13120808)	439884.00	3765340.00	1.40940	(13120808)
439674.00	3765345.00	1.39736	(13120808)	439679.00	3765345.00	1.39767	(13120808)
439684.00	3765345.00	1.39832	(13120808)				

439689.00 3765345.00 1.39860 (13120808)
439694.00 3765345.00 1.39929 (13120808)
439699.00 3765345.00 1.39942 (13120808)
439704.00 3765345.00 1.40043 (13120808)
439709.00 3765345.00 1.40056 (13120808)
439714.00 3765345.00 1.40155 (13120808)
439719.00 3765345.00 1.40214 (13120808)
439729.00 3765345.00 1.40350 (13120808)
439734.00 3765345.00 1.40432 (13120808)
439739.00 3765345.00 1.40501 (13120808)
439744.00 3765345.00 1.40599 (13120808)
439749.00 3765345.00 1.40677 (13120808)
439774.00 3765345.00 1.41072 (13120808)
439779.00 3765345.00 1.41175 (13120808)
439784.00 3765345.00 1.41273 (13120808)
439789.00 3765345.00 1.41332 (13120808)
439794.00 3765345.00 1.41414 (13120808)
439839.00 3765345.00 1.42026 (13120808)
439844.00 3765345.00 1.42095 (13120808)
439849.00 3765345.00 1.42138 (13120808)
439854.00 3765345.00 1.42167 (13120808)
439859.00 3765345.00 1.42214 (13120808)
439864.00 3765345.00 1.42217 (13120808)
439869.00 3765345.00 1.42267 (13120808)
439874.00 3765345.00 1.42256 (13120808)
439879.00 3765345.00 1.42302 (13120808)
439884.00 3765345.00 1.42277 (13120808)
439674.00 3765350.00 1.41020 (13120808)
439679.00 3765350.00 1.41050 (13120808)
439684.00 3765350.00 1.41061 (13120808)
439689.00 3765350.00 1.41121 (13120808)
439694.00 3765350.00 1.41175 (13120808)
439699.00 3765350.00 1.41237 (13120808)
439704.00 3765350.00 1.41270 (13120808)
439709.00 3765350.00 1.41346 (13120808)
439714.00 3765350.00 1.41403 (13120808)
439719.00 3765350.00 1.41480 (13120808)
439729.00 3765350.00 1.41626 (13120808)
439734.00 3765350.00 1.41695 (13120808)
439739.00 3765350.00 1.41777 (13120808)
439744.00 3765350.00 1.41853 (13120808)
439749.00 3765350.00 1.41937 (13120808)
439774.00 3765350.00 1.42368 (13120808)
439779.00 3765350.00 1.42449 (13120808)
439784.00 3765350.00 1.42546 (13120808)
439789.00 3765350.00 1.42636 (13120808)
439794.00 3765350.00 1.42723 (13120808)
439839.00 3765350.00 1.43369 (13120808)
439844.00 3765350.00 1.43417 (13120808)
439849.00 3765350.00 1.43492 (13120808)
439854.00 3765350.00 1.43518 (13120808)
439859.00 3765350.00 1.43562 (13120808)

```
439864.00   3765350.00        1.43586  (13120808)
        439869.00   3765350.00        1.43637  (13120808)
439874.00   3765350.00        1.43611  (13120808)
        439879.00   3765350.00        1.43654  (13120808)
439884.00   3765350.00        1.43653  (13120808)
        439674.00   3765355.00        1.42294  (13120808)
439679.00   3765355.00        1.42365  (13120808)
        439684.00   3765355.00        1.42382  (13120808)
439689.00   3765355.00        1.42425  (13120808)
        439694.00   3765355.00        1.42441  (13120808)
439699.00   3765355.00        1.42554  (13120808)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: EXH ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439704.00	3765355.00	1.42553	(13120808)	439709.00	3765355.00	1.42624	(13120808)
439714.00	3765355.00	1.42691	(13120808)	439719.00	3765355.00	1.42775	(13120808)
439729.00	3765355.00	1.42894	(13120808)	439734.00	3765355.00	1.42972	(13120808)
439739.00	3765355.00	1.43066	(13120808)	439744.00	3765355.00	1.43159	(13120808)
439749.00	3765355.00	1.43222	(13120808)	439774.00	3765355.00	1.43686	(13120808)
439779.00	3765355.00	1.43768	(13120808)	439784.00	3765355.00	1.43864	(13120808)
439789.00	3765355.00	1.43951	(13120808)	439794.00	3765355.00	1.44054	(13120808)
439839.00	3765355.00	1.44730	(13120808)	439844.00	3765355.00	1.44779	(13120808)
439849.00	3765355.00	1.44849	(13120808)				

439854.00 3765355.00 1.44913 (13120808)
439859.00 3765355.00 1.44922 (13120808)
439864.00 3765355.00 1.44963 (13120808)
439869.00 3765355.00 1.45009 (13120808)
439874.00 3765355.00 1.45044 (13120808)
439879.00 3765355.00 1.45049 (13120808)
439884.00 3765355.00 1.45048 (13120808)
439674.00 3765360.00 1.43629 (13120808)
439679.00 3765360.00 1.43659 (13120808)
439684.00 3765360.00 1.43719 (13120808)
439689.00 3765360.00 1.43748 (13120808)
439694.00 3765360.00 1.43779 (13120808)
439699.00 3765360.00 1.43844 (13120808)
439704.00 3765360.00 1.43912 (13120808)
439709.00 3765360.00 1.43957 (13120808)
439714.00 3765360.00 1.43996 (13120808)
439719.00 3765360.00 1.44072 (13120808)
439729.00 3765360.00 1.44219 (13120808)
439734.00 3765360.00 1.44296 (13120808)
439739.00 3765360.00 1.44379 (13120808)
439744.00 3765360.00 1.44483 (13120808)
439749.00 3765360.00 1.44544 (13120808)
439774.00 3765360.00 1.45009 (13120808)
439779.00 3765360.00 1.45097 (13120808)
439784.00 3765360.00 1.45205 (13120808)
439789.00 3765360.00 1.45317 (13120808)
439794.00 3765360.00 1.45390 (13120808)
439799.00 3765360.00 1.45480 (13120808)
439804.00 3765360.00 1.45575 (13120808)
439809.00 3765360.00 1.45668 (13120808)
439814.00 3765360.00 1.45742 (13120808)
439839.00 3765360.00 1.46128 (13120808)
439844.00 3765360.00 1.46175 (13120808)
439849.00 3765360.00 1.46239 (13120808)
439854.00 3765360.00 1.46320 (13120808)
439859.00 3765360.00 1.46353 (13120808)
439864.00 3765360.00 1.46392 (13120808)
439869.00 3765360.00 1.46395 (13120808)
439874.00 3765360.00 1.46469 (13120808)
439879.00 3765360.00 1.46480 (13120808)
439884.00 3765360.00 1.46482 (13120808)
439674.00 3765365.00 1.44994 (13120808)
439679.00 3765365.00 1.45032 (13120808)
439684.00 3765365.00 1.45087 (13120808)
439689.00 3765365.00 1.45105 (13120808)
439694.00 3765365.00 1.45165 (13120808)
439699.00 3765365.00 1.45173 (13120808)
439704.00 3765365.00 1.45252 (13120808)
439709.00 3765365.00 1.45331 (13120808)
439714.00 3765365.00 1.45373 (13120808)
439719.00 3765365.00 1.45425 (13120808)
439729.00 3765365.00 1.45586 (13120808)

```
439734.00   3765365.00        1.45648  (13120808)
        439739.00   3765365.00        1.45730  (13120808)
439744.00   3765365.00        1.45806  (13120808)
        439749.00   3765365.00        1.45950  (14100607)
439774.00   3765365.00        1.46384  (13120808)
        439779.00   3765365.00        1.46480  (13120808)
439784.00   3765365.00        1.46567  (13120808)
        439789.00   3765365.00        1.46701  (13120808)
439794.00   3765365.00        1.46761  (13120808)
        439799.00   3765365.00        1.46870  (13120808)
439804.00   3765365.00        1.46959  (13120808)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: EXH ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439809.00	3765365.00	1.47059	(13120808)	439814.00	3765365.00	1.47152	(13120808)
439839.00	3765365.00	1.47547	(13120808)	439844.00	3765365.00	1.47616	(13120808)
439849.00	3765365.00	1.47669	(13120808)	439854.00	3765365.00	1.47734	(13120808)
439859.00	3765365.00	1.47785	(13120808)	439864.00	3765365.00	1.47843	(13120808)
439869.00	3765365.00	1.47859	(13120808)	439874.00	3765365.00	1.47913	(13120808)
439879.00	3765365.00	1.47931	(13120808)	439884.00	3765365.00	1.47971	(13120808)
439674.00	3765370.00	1.46394	(13120808)	439679.00	3765370.00	1.46419	(13120808)
439684.00	3765370.00	1.46471	(13120808)	439689.00	3765370.00	1.46498	(13120808)
439694.00	3765370.00	1.46552	(13120808)				

439699.00 3765370.00 1.46579 (13120808)
439704.00 3765370.00 1.46644 (13120808)
439709.00 3765370.00 1.46693 (13120808)
439714.00 3765370.00 1.46749 (13120808)
439719.00 3765370.00 1.46841 (13120808)
439729.00 3765370.00 1.46972 (13120808)
439734.00 3765370.00 1.47055 (13120808)
439739.00 3765370.00 1.47127 (13120808)
439744.00 3765370.00 1.47183 (13120808)
439749.00 3765370.00 1.47302 (13120808)
439774.00 3765370.00 1.47807 (14100607)
439779.00 3765370.00 1.47872 (13120808)
439784.00 3765370.00 1.47989 (13120808)
439789.00 3765370.00 1.48072 (13120808)
439794.00 3765370.00 1.48210 (13120808)
439799.00 3765370.00 1.48285 (13120808)
439804.00 3765370.00 1.48390 (13120808)
439809.00 3765370.00 1.48460 (13120808)
439814.00 3765370.00 1.48595 (13120808)
439839.00 3765370.00 1.49008 (13120808)
439844.00 3765370.00 1.49062 (13120808)
439849.00 3765370.00 1.49141 (13120808)
439854.00 3765370.00 1.49209 (13120808)
439859.00 3765370.00 1.49280 (13120808)
439864.00 3765370.00 1.49295 (13120808)
439869.00 3765370.00 1.49362 (13120808)
439874.00 3765370.00 1.49386 (13120808)
439879.00 3765370.00 1.49421 (13120808)
439884.00 3765370.00 1.49459 (13120808)
439674.00 3765375.00 1.47842 (13120808)
439679.00 3765375.00 1.47866 (13120808)
439684.00 3765375.00 1.47895 (13120808)
439689.00 3765375.00 1.47955 (13120808)
439694.00 3765375.00 1.47958 (13120808)
439699.00 3765375.00 1.48000 (13120808)
439704.00 3765375.00 1.48073 (13120808)
439709.00 3765375.00 1.48131 (13120808)
439714.00 3765375.00 1.48172 (13120808)
439719.00 3765375.00 1.48244 (13120808)
439729.00 3765375.00 1.48378 (13120808)
439734.00 3765375.00 1.48461 (13120808)
439739.00 3765375.00 1.48540 (13120808)
439744.00 3765375.00 1.48668 (14100607)
439749.00 3765375.00 1.48719 (13120808)
439754.00 3765375.00 1.48820 (14100607)
439774.00 3765375.00 1.49224 (13120808)
439779.00 3765375.00 1.49312 (13120808)
439784.00 3765375.00 1.49436 (13120808)
439789.00 3765375.00 1.49494 (13120808)
439794.00 3765375.00 1.49633 (13120808)
439799.00 3765375.00 1.49742 (13120808)
439804.00 3765375.00 1.49839 (13120808)

```
439809.00   3765375.00        1.49940  (13120808)
        439814.00   3765375.00        1.50043  (13120808)
439839.00   3765375.00        1.50515  (13120808)
        439844.00   3765375.00        1.50566  (13120808)
439849.00   3765375.00        1.50627  (13120808)
        439854.00   3765375.00        1.50687  (13120808)
439859.00   3765375.00        1.50789  (13120808)
        439864.00   3765375.00        1.50824  (13120808)
439869.00   3765375.00        1.50871  (13120808)
        439874.00   3765375.00        1.50905  (13120808)
439879.00   3765375.00        1.50969  (13120808)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: EXH ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439884.00	3765375.00	1.50995	(13120808)	439774.00	3765380.00	1.50673	(14100607)
439779.00	3765380.00	1.50818	(14100607)	439784.00	3765380.00	1.50884	(13120808)
439789.00	3765380.00	1.51031	(14100607)	439794.00	3765380.00	1.51106	(13120808)
439799.00	3765380.00	1.51214	(13120808)	439804.00	3765380.00	1.51314	(13120808)
439809.00	3765380.00	1.51442	(13120808)	439814.00	3765380.00	1.51528	(13120808)
439769.00	3765385.00	1.52073	(14100607)	439819.00	3765385.00	1.53170	(13120808)
439769.00	3765400.00	1.56826	(14100607)	439844.00	3765400.00	1.58582	(13120808)
439849.00	3765400.00	1.58694	(13120808)	439674.00	3765405.00	1.58403	(12011417)
439714.00	3765405.00	1.57955	(12011808)				

439719.00 3765405.00 1.57922 (12011808)
439734.00 3765405.00 1.57966 (12011808)
439749.00 3765405.00 1.58035 (13120808)
439754.00 3765405.00 1.58132 (13120808)
439774.00 3765405.00 1.58630 (14100607)
439779.00 3765405.00 1.58746 (14100607)
439784.00 3765405.00 1.58901 (14100607)
439789.00 3765405.00 1.59057 (14100607)
439794.00 3765405.00 1.59135 (14100607)
439799.00 3765405.00 1.59277 (14100607)
439804.00 3765405.00 1.59390 (14100607)
439809.00 3765405.00 1.59508 (14100607)
439814.00 3765405.00 1.59574 (13120808)
439819.00 3765405.00 1.59706 (13120808)
439824.00 3765405.00 1.59833 (13120808)
439829.00 3765405.00 1.59969 (13120808)
439834.00 3765405.00 1.60082 (13120808)
439839.00 3765405.00 1.60212 (13120808)
439844.00 3765405.00 1.60308 (13120808)
439849.00 3765405.00 1.60417 (13120808)
439854.00 3765405.00 1.60529 (13120808)
439859.00 3765405.00 1.60631 (13120808)
439674.00 3765410.00 1.60830 (12011417)
439679.00 3765410.00 1.60634 (12011417)
439684.00 3765410.00 1.60303 (12011417)
439689.00 3765410.00 1.60160 (12011417)
439694.00 3765410.00 1.59839 (12011417)
439699.00 3765410.00 1.59717 (12011808)
439704.00 3765410.00 1.59773 (12011808)
439709.00 3765410.00 1.59782 (12011808)
439714.00 3765410.00 1.59797 (12011808)
439719.00 3765410.00 1.59819 (12011808)
439729.00 3765410.00 1.59861 (12011808)
439734.00 3765410.00 1.59804 (12011808)
439739.00 3765410.00 1.59867 (12011808)
439744.00 3765410.00 1.59809 (12011808)
439749.00 3765410.00 1.59895 (12011808)
439774.00 3765410.00 1.60330 (14100607)
439779.00 3765410.00 1.60494 (14100607)
439784.00 3765410.00 1.60562 (14100607)
439789.00 3765410.00 1.60774 (14100607)
439794.00 3765410.00 1.60905 (14100607)
439799.00 3765410.00 1.61003 (14100607)
439804.00 3765410.00 1.61119 (14100607)
439809.00 3765410.00 1.61246 (14100607)
439814.00 3765410.00 1.61416 (14100607)
439819.00 3765410.00 1.61457 (14100607)
439824.00 3765410.00 1.61585 (14100607)
439829.00 3765410.00 1.61712 (13120808)
439834.00 3765410.00 1.61843 (13120808)
439839.00 3765410.00 1.61975 (13120808)
439844.00 3765410.00 1.62087 (13120808)

```
439849.00   3765410.00        1.62206  (13120808)
        439854.00   3765410.00        1.62304  (13120808)
439859.00   3765410.00        1.62411  (13120808)
        439674.00   3765415.00        1.63418  (12011417)
439679.00   3765415.00        1.63095  (12011417)
        439684.00   3765415.00        1.62937  (12011417)
439689.00   3765415.00        1.62579  (12011417)
        439694.00   3765415.00        1.62443  (12011417)
439699.00   3765415.00        1.62118  (12011417)
        439704.00   3765415.00        1.61906  (12011417)
439709.00   3765415.00        1.61685  (12011808)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: EXH ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439714.00	3765415.00	1.61659	(12011808)	439719.00	3765415.00	1.61727	(12011808)
439729.00	3765415.00	1.61737	(12011808)	439734.00	3765415.00	1.61765	(12011808)
439739.00	3765415.00	1.61771	(12011808)	439744.00	3765415.00	1.61800	(12011808)
439749.00	3765415.00	1.61777	(12011808)	439774.00	3765415.00	1.62103	(14100607)
439779.00	3765415.00	1.62219	(14100607)	439784.00	3765415.00	1.62400	(14100607)
439789.00	3765415.00	1.62461	(14100607)	439794.00	3765415.00	1.62651	(14100607)
439799.00	3765415.00	1.62796	(14100607)	439804.00	3765415.00	1.62938	(14100607)
439809.00	3765415.00	1.63035	(14100607)	439814.00	3765415.00	1.63155	(14100607)
439819.00	3765415.00	1.63324	(14100607)				

439824.00 3765415.00 1.63388 (14100607)
439829.00 3765415.00 1.63514 (13120808)
439834.00 3765415.00 1.63636 (13120808)
439839.00 3765415.00 1.63781 (13120808)
439844.00 3765415.00 1.63896 (13120808)
439849.00 3765415.00 1.64032 (13120808)
439854.00 3765415.00 1.64159 (13120808)
439859.00 3765415.00 1.64252 (13120808)
439674.00 3765420.00 1.65883 (12011417)
439679.00 3765420.00 1.65702 (12011417)
439684.00 3765420.00 1.65416 (12011417)
439689.00 3765420.00 1.65278 (12011417)
439694.00 3765420.00 1.64933 (12011417)
439699.00 3765420.00 1.64783 (12011417)
439704.00 3765420.00 1.64468 (12011417)
439709.00 3765420.00 1.64294 (12011417)
439714.00 3765420.00 1.63928 (12011417)
439719.00 3765420.00 1.63693 (12011417)
439729.00 3765420.00 1.63639 (12011808)
439734.00 3765420.00 1.63717 (12011808)
439739.00 3765420.00 1.63701 (12011808)
439744.00 3765420.00 1.63785 (12011808)
439749.00 3765420.00 1.63734 (12011808)
439774.00 3765420.00 1.63858 (14100607)
439779.00 3765420.00 1.64015 (14100607)
439784.00 3765420.00 1.64166 (14100607)
439789.00 3765420.00 1.64347 (14100607)
439794.00 3765420.00 1.64448 (14100607)
439799.00 3765420.00 1.64619 (14100607)
439804.00 3765420.00 1.64749 (14100607)
439809.00 3765420.00 1.64892 (14100607)
439814.00 3765420.00 1.64992 (14100607)
439819.00 3765420.00 1.65139 (14100607)
439824.00 3765420.00 1.65274 (14100607)
439829.00 3765420.00 1.65404 (14100607)
439834.00 3765420.00 1.65497 (14100607)
439839.00 3765420.00 1.65621 (13120808)
439844.00 3765420.00 1.65778 (13120808)
439849.00 3765420.00 1.65890 (13120808)
439854.00 3765420.00 1.66025 (13120808)
439859.00 3765420.00 1.66150 (13120808)
439674.00 3765425.00 1.68504 (12011417)
439679.00 3765425.00 1.68286 (12011417)
439684.00 3765425.00 1.68072 (12011417)
439689.00 3765425.00 1.67819 (12011417)
439694.00 3765425.00 1.67681 (12011417)
439699.00 3765425.00 1.67365 (12011417)
439704.00 3765425.00 1.67212 (12011417)
439709.00 3765425.00 1.66861 (12011417)
439714.00 3765425.00 1.66724 (12011417)
439719.00 3765425.00 1.66366 (12011417)
439729.00 3765425.00 1.65837 (12011417)

```
439734.00   3765425.00        1.65690  (12011808)
        439739.00   3765425.00        1.65766  (12011808)
439744.00   3765425.00        1.65728  (12011808)
        439749.00   3765425.00        1.65863  (12011808)
439774.00   3765425.00        1.65841  (12011808)
        439779.00   3765425.00        1.65888  (12011808)
439784.00   3765425.00        1.66011  (14100607)
        439789.00   3765425.00        1.66180  (14100607)
439794.00   3765425.00        1.66359  (14100607)
        439799.00   3765425.00        1.66482  (14100607)
439804.00   3765425.00        1.66634  (14100607)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: EXH ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439809.00	3765425.00	1.66760	(14100607)	439814.00	3765425.00	1.66956	(14100607)
439819.00	3765425.00	1.67041	(14100607)	439824.00	3765425.00	1.67198	(14100607)
439829.00	3765425.00	1.67291	(14100607)	439834.00	3765425.00	1.67452	(14100607)
439839.00	3765425.00	1.67540	(13120808)	439844.00	3765425.00	1.67694	(13120808)
439849.00	3765425.00	1.67820	(13120808)	439854.00	3765425.00	1.67962	(13120808)
439859.00	3765425.00	1.68086	(13120808)	439674.00	3765430.00	1.71166	(12011417)
439679.00	3765430.00	1.70940	(12011417)	439684.00	3765430.00	1.70752	(12011417)
439689.00	3765430.00	1.70522	(12011417)	439694.00	3765430.00	1.70285	(12011417)
439699.00	3765430.00	1.70128	(12011417)				

439704.00 3765430.00 1.69835 (12011417)
439709.00 3765430.00 1.69707 (12011417)
439714.00 3765430.00 1.69314 (12011417)
439719.00 3765430.00 1.69204 (12011417)
439729.00 3765430.00 1.68659 (12011417)
439734.00 3765430.00 1.68308 (12011417)
439739.00 3765430.00 1.68119 (12011417)
439744.00 3765430.00 1.67867 (12011808)
439749.00 3765430.00 1.67841 (12011808)
439774.00 3765430.00 1.68072 (12011808)
439779.00 3765430.00 1.67941 (12011808)
439784.00 3765430.00 1.68045 (12011808)
439789.00 3765430.00 1.68068 (14100607)
439794.00 3765430.00 1.68227 (14100607)
439799.00 3765430.00 1.68418 (14100607)
439804.00 3765430.00 1.68582 (14100607)
439809.00 3765430.00 1.68731 (14100607)
439814.00 3765430.00 1.68842 (14100607)
439819.00 3765430.00 1.69041 (14100607)
439824.00 3765430.00 1.69156 (14100607)
439829.00 3765430.00 1.69291 (14100607)
439834.00 3765430.00 1.69385 (14100607)
439839.00 3765430.00 1.69572 (14100607)
439844.00 3765430.00 1.69653 (13120808)
439849.00 3765430.00 1.69819 (13120808)
439854.00 3765430.00 1.69944 (13120808)
439859.00 3765430.00 1.70109 (13120808)
439674.00 3765435.00 1.73801 (12011417)
439679.00 3765435.00 1.73663 (12011417)
439684.00 3765435.00 1.73442 (12011417)
439689.00 3765435.00 1.73262 (12011417)
439694.00 3765435.00 1.73051 (12011417)
439699.00 3765435.00 1.72792 (12011417)
439704.00 3765435.00 1.72647 (12011417)
439709.00 3765435.00 1.72347 (12011417)
439714.00 3765435.00 1.72262 (12011417)
439719.00 3765435.00 1.71852 (12011417)
439729.00 3765435.00 1.71390 (12011417)
439734.00 3765435.00 1.71260 (12011417)
439739.00 3765435.00 1.70873 (12011417)
439744.00 3765435.00 1.70712 (12011417)
439749.00 3765435.00 1.70350 (12011417)
439774.00 3765435.00 1.70117 (12011808)
439779.00 3765435.00 1.70258 (12011808)
439784.00 3765435.00 1.70167 (12011808)
439789.00 3765435.00 1.70253 (12011808)
439794.00 3765435.00 1.70215 (14100607)
439799.00 3765435.00 1.70377 (14100607)
439804.00 3765435.00 1.70563 (14100607)
439809.00 3765435.00 1.70727 (14100607)
439814.00 3765435.00 1.70878 (14100607)
439819.00 3765435.00 1.71017 (14100607)

```
439824.00   3765435.00        1.71181  (14100607)
        439829.00   3765435.00        1.71352  (14100607)
439834.00   3765435.00        1.71479  (14100607)
        439839.00   3765435.00        1.71559  (14100607)
439844.00   3765435.00        1.71745  (14100607)
        439849.00   3765435.00        1.71842  (13120808)
439854.00   3765435.00        1.72000  (13120808)
        439859.00   3765435.00        1.72117  (13120808)
439674.00   3765440.00        1.76621  (12011417)
        439679.00   3765440.00        1.76348  (12011417)
439684.00   3765440.00        1.76245  (12011417)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: EXH ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439689.00	3765440.00	1.75977	(12011417)	439694.00	3765440.00	1.75838	(12011417)
439699.00	3765440.00	1.75638	(12011417)	439704.00	3765440.00	1.75389	(12011417)
439709.00	3765440.00	1.75229	(12011417)	439714.00	3765440.00	1.74953	(12011417)
439719.00	3765440.00	1.74876	(12011417)	439729.00	3765440.00	1.74398	(12011417)
439734.00	3765440.00	1.74010	(12011417)	439739.00	3765440.00	1.73916	(12011417)
439744.00	3765440.00	1.73489	(12011417)	439749.00	3765440.00	1.73362	(12011417)
439774.00	3765440.00	1.72363	(12011808)	439779.00	3765440.00	1.72400	(12011808)
439784.00	3765440.00	1.72475	(12011808)	439789.00	3765440.00	1.72472	(12011808)
439794.00	3765440.00	1.72524	(12011808)				

439799.00 3765440.00 1.72453 (12011808)
439804.00 3765440.00 1.72587 (12011808)
439809.00 3765440.00 1.72756 (14100607)
439814.00 3765440.00 1.72946 (14100607)
439819.00 3765440.00 1.73106 (14100607)
439824.00 3765440.00 1.73269 (14100607)
439829.00 3765440.00 1.73402 (14100607)
439834.00 3765440.00 1.73569 (14100607)
439839.00 3765440.00 1.73716 (14100607)
439844.00 3765440.00 1.73833 (14100607)
439849.00 3765440.00 1.73947 (14100607)
439854.00 3765440.00 1.74096 (13120808)
439859.00 3765440.00 1.74266 (13120808)
439674.00 3765445.00 1.79292 (12011417)
439679.00 3765445.00 1.79243 (12011417)
439684.00 3765445.00 1.78980 (12011417)
439689.00 3765445.00 1.78880 (12011417)
439694.00 3765445.00 1.78626 (12011417)
439699.00 3765445.00 1.78496 (12011417)
439704.00 3765445.00 1.78286 (12011417)
439709.00 3765445.00 1.78076 (12011417)
439714.00 3765445.00 1.77915 (12011417)
439719.00 3765445.00 1.77608 (12011417)
439729.00 3765445.00 1.77187 (12011417)
439734.00 3765445.00 1.77081 (12011417)
439739.00 3765445.00 1.76687 (12011417)
439744.00 3765445.00 1.76632 (12011417)
439749.00 3765445.00 1.76206 (12011417)
439774.00 3765445.00 1.74872 (12011417)
439779.00 3765445.00 1.74647 (12011808)
439784.00 3765445.00 1.74756 (12011808)
439789.00 3765445.00 1.74740 (12011808)
439794.00 3765445.00 1.74847 (12011808)
439799.00 3765445.00 1.74854 (12011808)
439804.00 3765445.00 1.74830 (12011808)
439809.00 3765445.00 1.74919 (12011808)
439814.00 3765445.00 1.75040 (14100607)
439819.00 3765445.00 1.75224 (14100607)
439824.00 3765445.00 1.75402 (14100607)
439829.00 3765445.00 1.75563 (14100607)
439834.00 3765445.00 1.75700 (14100607)
439839.00 3765445.00 1.75874 (14100607)
439844.00 3765445.00 1.76005 (14100607)
439849.00 3765445.00 1.76184 (14100607)
439854.00 3765445.00 1.76265 (13120808)
439859.00 3765445.00 1.76445 (13120808)
439674.00 3765450.00 1.82235 (12011417)
439679.00 3765450.00 1.81987 (12011417)
439684.00 3765450.00 1.81950 (12011417)
439689.00 3765450.00 1.81686 (12011417)
439694.00 3765450.00 1.81579 (12011417)
439699.00 3765450.00 1.81346 (12011417)

```
439704.00   3765450.00        1.81242  (12011417)
        439709.00   3765450.00        1.81005  (12011417)
439714.00   3765450.00        1.80806  (12011417)
        439719.00   3765450.00        1.80653  (12011417)
439729.00   3765450.00        1.80285  (12011417)
        439734.00   3765450.00        1.79944  (12011417)
439739.00   3765450.00        1.79865  (12011417)
        439744.00   3765450.00        1.79459  (12011417)
439749.00   3765450.00        1.79413  (12011417)
        439774.00   3765450.00        1.78012  (12011417)
439844.00   3765450.00        1.78274  (14100607)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: EXH ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439849.00	3765450.00	1.78406	(14100607)	439854.00	3765450.00	1.78545	(14100607)
439859.00	3765450.00	1.78648	(14100607)	439674.00	3765455.00	1.85042	(12011417)
439679.00	3765455.00	1.85012	(12011417)	439684.00	3765455.00	1.84763	(12011417)
439689.00	3765455.00	1.84713	(12011417)	439694.00	3765455.00	1.84468	(12011417)
439699.00	3765455.00	1.84366	(12011417)	439704.00	3765455.00	1.84145	(12011417)
439709.00	3765455.00	1.84017	(12011417)	439714.00	3765455.00	1.83815	(12011417)
439719.00	3765455.00	1.83610	(12011417)	439729.00	3765455.00	1.83192	(12011417)
439734.00	3765455.00	1.83127	(12011417)	439739.00	3765455.00	1.82790	(12011417)
439744.00	3765455.00	1.82713	(12011417)				

439749.00 3765455.00 1.82347 (12011417)
439844.00 3765455.00 1.80561 (14100607)
439849.00 3765455.00 1.80707 (14100607)
439854.00 3765455.00 1.80889 (14100607)
439859.00 3765455.00 1.81036 (14100607)
439674.00 3765460.00 1.88097 (12011417)
439679.00 3765460.00 1.87852 (12011417)
439684.00 3765460.00 1.87840 (12011417)
439689.00 3765460.00 1.87621 (12011417)
439694.00 3765460.00 1.87561 (12011417)
439699.00 3765460.00 1.87294 (12011417)
439704.00 3765460.00 1.87271 (12011417)
439709.00 3765460.00 1.87026 (12011417)
439714.00 3765460.00 1.86903 (12011417)
439719.00 3765460.00 1.86716 (12011417)
439729.00 3765460.00 1.86390 (12011417)
439734.00 3765460.00 1.86129 (12011417)
439739.00 3765460.00 1.86032 (12011417)
439744.00 3765460.00 1.85725 (12011417)
439749.00 3765460.00 1.85651 (12011417)
439789.00 3765460.00 1.83622 (12011417)
439794.00 3765460.00 1.83344 (12011417)
439799.00 3765460.00 1.82996 (12011417)
439804.00 3765460.00 1.82763 (12011417)
439809.00 3765460.00 1.82364 (12011417)
439814.00 3765460.00 1.82310 (12011808)
439819.00 3765460.00 1.82443 (12011808)
439824.00 3765460.00 1.82320 (12011808)
439829.00 3765460.00 1.82431 (12011808)
439844.00 3765460.00 1.82912 (14100607)
439849.00 3765460.00 1.83164 (14100607)
439854.00 3765460.00 1.83310 (14100607)
439859.00 3765460.00 1.83409 (14100607)
439674.00 3765465.00 1.91085 (12011417)
439679.00 3765465.00 1.91008 (12011417)
439684.00 3765465.00 1.90774 (12011417)
439689.00 3765465.00 1.90774 (12011417)
439694.00 3765465.00 1.90564 (12011417)
439699.00 3765465.00 1.90508 (12011417)
439704.00 3765465.00 1.90272 (12011417)
439709.00 3765465.00 1.90226 (12011417)
439714.00 3765465.00 1.89991 (12011417)
439719.00 3765465.00 1.89894 (12011417)
439729.00 3765465.00 1.89471 (12011417)
439734.00 3765465.00 1.89387 (12011417)
439739.00 3765465.00 1.89152 (12011417)
439744.00 3765465.00 1.89037 (12011417)
439749.00 3765465.00 1.88750 (12011417)
439789.00 3765465.00 1.86972 (12011417)
439794.00 3765465.00 1.86698 (12011417)
439799.00 3765465.00 1.86449 (12011417)
439804.00 3765465.00 1.86110 (12011417)

```
439809.00   3765465.00        1.85871  (12011417)
        439814.00   3765465.00        1.85455  (12011417)
439819.00   3765465.00        1.85252  (12011417)
        439824.00   3765465.00        1.85125  (12011808)
439829.00   3765465.00        1.85036  (12011808)
        439844.00   3765465.00        1.85435  (14100607)
439849.00   3765465.00        1.85569  (14100607)
        439854.00   3765465.00        1.85761  (14100607)
439859.00   3765465.00        1.85972  (14100607)
        439674.00   3765470.00        1.94250  (12011417)
439679.00   3765470.00        1.94058  (12011417)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: EXH ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439684.00	3765470.00	1.93994	(12011417)
439689.00	3765470.00	1.93815	(12011417)
439694.00	3765470.00	1.93787	(12011417)
439699.00	3765470.00	1.93591	(12011417)
439704.00	3765470.00	1.93538	(12011417)
439709.00	3765470.00	1.93304	(12011417)
439714.00	3765470.00	1.93276	(12011417)
439719.00	3765470.00	1.93045	(12011417)
439729.00	3765470.00	1.92778	(12011417)
439734.00	3765470.00	1.92561	(12011417)
439739.00	3765470.00	1.92467	(12011417)
439744.00	3765470.00	1.92253	(12011417)
439749.00	3765470.00	1.92150	(12011417)
439789.00	3765470.00	1.90425	(12011417)
439794.00	3765470.00	1.90157	(12011417)
439799.00	3765470.00	1.89872	(12011417)
439804.00	3765470.00	1.89660	(12011417)

439809.00 3765470.00 1.89286 (12011417)
439814.00 3765470.00 1.89066 (12011417)
439819.00 3765470.00 1.88695 (12011417)
439824.00 3765470.00 1.88465 (12011417)
439829.00 3765470.00 1.88045 (12011417)
439844.00 3765470.00 1.87916 (14100607)
439849.00 3765470.00 1.88121 (14100607)
439854.00 3765470.00 1.88322 (14100607)
439859.00 3765470.00 1.88545 (14100607)
439674.00 3765475.00 1.97380 (12011417)
439679.00 3765475.00 1.97335 (12011417)
439684.00 3765475.00 1.97137 (12011417)
439689.00 3765475.00 1.97123 (12011417)
439694.00 3765475.00 1.96926 (12011417)
439699.00 3765475.00 1.96920 (12011417)
439704.00 3765475.00 1.96705 (12011417)
439709.00 3765475.00 1.96659 (12011417)
439714.00 3765475.00 1.96460 (12011417)
439719.00 3765475.00 1.96409 (12011417)
439729.00 3765475.00 1.96099 (12011417)
439734.00 3765475.00 1.95936 (12011417)
439739.00 3765475.00 1.95751 (12011417)
439744.00 3765475.00 1.95664 (12011417)
439749.00 3765475.00 1.95449 (12011417)
439754.00 3765475.00 1.95348 (12011417)
439789.00 3765475.00 1.93922 (12011417)
439794.00 3765475.00 1.93712 (12011417)
439799.00 3765475.00 1.93433 (12011417)
439804.00 3765475.00 1.93159 (12011417)
439809.00 3765475.00 1.92962 (12011417)
439814.00 3765475.00 1.92596 (12011417)
439819.00 3765475.00 1.92369 (12011417)
439824.00 3765475.00 1.92022 (12011417)
439829.00 3765475.00 1.91807 (12011417)
439269.00 3764900.00 0.81860 (13120808)
439369.00 3764900.00 0.81738 (13120808)
439469.00 3764900.00 0.81421 (13120808)
439569.00 3764900.00 0.80580 (13120808)
439669.00 3764900.00 0.78696 (12010217)
439769.00 3764900.00 0.78488 (12010217)
439869.00 3764900.00 0.77825 (12010217)
439969.00 3764900.00 0.75971 (12010217)
440069.00 3764900.00 0.76638 (15010717)
440169.00 3764900.00 0.77186 (15010717)
440269.00 3764900.00 0.77514 (15010717)
439269.00 3765000.00 0.89521 (13120808)
439369.00 3765000.00 0.89461 (13120808)
439469.00 3765000.00 0.89407 (13120808)
439569.00 3765000.00 0.89240 (13120808)
439669.00 3765000.00 0.88376 (13120808)
439769.00 3765000.00 0.85967 (12010217)
439869.00 3765000.00 0.85734 (12010217)

```
439969.00   3765000.00        0.84706  (12010217)
        440069.00   3765000.00        0.84339  (15010717)
440169.00   3765000.00        0.84664  (15010717)
        440269.00   3765000.00        0.84848  (15010717)
439269.00   3765100.00        0.99136  (13120808)
        439369.00   3765100.00        0.99107  (13120808)
439469.00   3765100.00        0.99051  (13120808)
        439569.00   3765100.00        0.99203  (13120808)
439669.00   3765100.00        0.99228  (13120808)
        439769.00   3765100.00        0.98315  (13120808)
439869.00   3765100.00        0.95380  (13120808)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: EXH ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439969.00	3765100.00	0.94992	(12010217)	440069.00	3765100.00	0.93766	(15010717)
440169.00	3765100.00	0.93990	(15010717)	440269.00	3765100.00	0.94031	(15010717)
439269.00	3765200.00	1.11783	(13120808)	439369.00	3765200.00	1.11904	(13120808)
439469.00	3765200.00	1.11696	(13120808)	439569.00	3765200.00	1.11716	(13120808)
439669.00	3765200.00	1.12179	(13120808)	439769.00	3765200.00	1.12546	(13120808)
439869.00	3765200.00	1.11526	(13120808)	439969.00	3765200.00	1.07910	(13120808)
440069.00	3765200.00	1.07036	(12010217)	440169.00	3765200.00	1.06123	(15010717)
440269.00	3765200.00	1.06152	(15010717)	439269.00	3765300.00	1.33818	(12011417)
439369.00	3765300.00	1.30845	(12011417)				

439469.00 3765300.00 1.29458 (13120808)
439569.00 3765300.00 1.29112 (13120808)
439669.00 3765300.00 1.29474 (13120808)
439769.00 3765300.00 1.30661 (13120808)
439869.00 3765300.00 1.31146 (13120808)
439969.00 3765300.00 1.29756 (13120808)
440069.00 3765300.00 1.25571 (13120808)
440169.00 3765300.00 1.23672 (12010217)
440269.00 3765300.00 1.23086 (15010717)
439269.00 3765400.00 1.67154 (12011417)
439369.00 3765400.00 1.65476 (12011417)
439469.00 3765400.00 1.63212 (12011417)
439569.00 3765400.00 1.60324 (12011417)
439669.00 3765400.00 1.56211 (12011417)
439769.00 3765400.00 1.56826 (14100607)
439869.00 3765400.00 1.59038 (13120808)
439969.00 3765400.00 1.59150 (13120808)
440069.00 3765400.00 1.57499 (13120808)
440169.00 3765400.00 1.52549 (13120808)
440269.00 3765400.00 1.52387 (12011608)
439269.00 3765500.00 2.19780 (12011417)
439369.00 3765500.00 2.19361 (12011417)
439469.00 3765500.00 2.18060 (12011417)
439569.00 3765500.00 2.16371 (12011417)
439669.00 3765500.00 2.14880 (12011417)
439769.00 3765500.00 2.13312 (12011417)
439869.00 3765500.00 2.09228 (12011417)
439969.00 3765500.00 2.08853 (13120808)
440069.00 3765500.00 2.08038 (13120808)
440169.00 3765500.00 2.06199 (13120808)
440269.00 3765500.00 2.06692 (12011608)
439269.00 3765600.00 3.48269 (12101307)
439369.00 3765600.00 3.46847 (12101307)
439469.00 3765600.00 3.43151 (12101307)
439569.00 3765600.00 3.38714 (12011417)
439669.00 3765600.00 3.37011 (12011417)
439769.00 3765600.00 3.36283 (12011417)
439869.00 3765600.00 3.39883 (12011417)
439969.00 3765600.00 3.42312 (12011417)
440069.00 3765600.00 3.53049 (14101107)
440169.00 3765600.00 3.61368 (14101107)
440269.00 3765600.00 3.66595 (14101107)
439269.00 3765700.00 14.56472 (12101307)
439369.00 3765700.00 15.07590 (12101307)
439469.00 3765700.00 15.66274 (12101307)
439569.00 3765700.00 16.04418 (14101107)
439669.00 3765700.00 16.42742 (14101107)
439769.00 3765700.00 16.65484 (14101107)
439869.00 3765700.00 16.87478 (14101107)
439969.00 3765700.00 16.90265 (14101107)
440069.00 3765700.00 17.19848 (12101207)
440169.00 3765700.00 17.28501 (12101207)

```
440269.00   3765700.00       17.52593  (12101207)
        439269.00   3765800.00        4.32810  (12100707)
439369.00   3765800.00        4.36921  (12100707)
        439469.00   3765800.00        4.34561  (12100707)
439569.00   3765800.00        4.31596  (12100707)
        439669.00   3765800.00        4.30851  (12100707)
439769.00   3765800.00        4.31304  (12100707)
        439869.00   3765800.00        4.38199  (13111217)
439969.00   3765800.00        4.12393  (12011717)
        440069.00   3765800.00        4.06776  (12011717)
440169.00   3765800.00        4.06044  (12011717)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: EXH ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
440269.00	3765800.00	4.07663	(12011717)	439269.00	3765900.00	2.49048	(12100707)
439369.00	3765900.00	2.44857	(12100707)	439469.00	3765900.00	2.39490	(12100707)
439569.00	3765900.00	2.32766	(12100707)	439669.00	3765900.00	2.34570	(13111217)
439769.00	3765900.00	2.39147	(13111217)	439869.00	3765900.00	2.42311	(13111217)
439969.00	3765900.00	2.42579	(13111217)	440069.00	3765900.00	2.39105	(13111217)
440169.00	3765900.00	2.38063	(13111217)	440269.00	3765900.00	2.39922	(12011717)
439649.00	3765310.00	1.31420	(13120808)	439679.00	3765310.00	1.31670	(13120808)
439709.00	3765310.00	1.32027	(13120808)	439739.00	3765310.00	1.32370	(13120808)
439769.00	3765310.00	1.32752	(13120808)				

439799.00 3765310.00 1.33138 (13120808)
439829.00 3765310.00 1.33388 (13120808)
439859.00 3765310.00 1.33500 (13120808)
439889.00 3765310.00 1.33348 (13120808)
439649.00 3765340.00 1.38371 (13120808)
439679.00 3765340.00 1.38545 (13120808)
439709.00 3765340.00 1.38828 (13120808)
439739.00 3765340.00 1.39287 (13120808)
439769.00 3765340.00 1.39757 (13120808)
439799.00 3765340.00 1.40256 (13120808)
439829.00 3765340.00 1.40612 (13120808)
439859.00 3765340.00 1.40874 (13120808)
439889.00 3765340.00 1.40931 (13120808)
439649.00 3765370.00 1.46317 (13120808)
439679.00 3765370.00 1.46419 (13120808)
439709.00 3765370.00 1.46693 (13120808)
439739.00 3765370.00 1.47127 (13120808)
439769.00 3765370.00 1.47678 (13120808)
439799.00 3765370.00 1.48285 (13120808)
439829.00 3765370.00 1.48834 (13120808)
439859.00 3765370.00 1.49280 (13120808)
439889.00 3765370.00 1.49469 (13120808)
439649.00 3765400.00 1.57213 (12011417)
439679.00 3765400.00 1.56119 (12011808)
439709.00 3765400.00 1.56142 (12011808)
439739.00 3765400.00 1.56204 (13120808)
439769.00 3765400.00 1.56826 (14100607)
439799.00 3765400.00 1.57546 (14100607)
439829.00 3765400.00 1.58255 (13120808)
439859.00 3765400.00 1.58877 (13120808)
439889.00 3765400.00 1.59279 (13120808)
439649.00 3765430.00 1.71989 (12011417)
439679.00 3765430.00 1.70940 (12011417)
439709.00 3765430.00 1.69707 (12011417)
439739.00 3765430.00 1.68119 (12011417)
439769.00 3765430.00 1.67905 (12011808)
439799.00 3765430.00 1.68418 (14100607)
439829.00 3765430.00 1.69291 (14100607)
439859.00 3765430.00 1.70109 (13120808)
439889.00 3765430.00 1.70744 (13120808)
439649.00 3765460.00 1.88705 (12011417)
439679.00 3765460.00 1.87852 (12011417)
439709.00 3765460.00 1.87026 (12011417)
439739.00 3765460.00 1.86032 (12011417)
439769.00 3765460.00 1.84734 (12011417)
439799.00 3765460.00 1.82996 (12011417)
439829.00 3765460.00 1.82431 (12011808)
439859.00 3765460.00 1.83409 (14100607)
439889.00 3765460.00 1.84365 (13120808)
439649.00 3765490.00 2.08024 (12011417)
439679.00 3765490.00 2.07413 (12011417)
439709.00 3765490.00 2.06936 (12011417)

```
439739.00   3765490.00        2.06333  (12011417)
        439769.00   3765490.00        2.05619  (12011417)
439799.00   3765490.00        2.04596  (12011417)
        439829.00   3765490.00        2.03231  (12011417)
439859.00   3765490.00        2.01424  (12011417)
        439889.00   3765490.00        2.01037  (13120808)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: FREEEXH ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439674.00	3765310.00	1.27030	(13120808)
439679.00	3765310.00	1.27044	(13120808)
439684.00	3765310.00	1.27032	(13120808)
439689.00	3765310.00	1.27059	(13120808)
439694.00	3765310.00	1.27028	(13120808)
439699.00	3765310.00	1.27063	(13120808)
439704.00	3765310.00	1.27034	(13120808)
439709.00	3765310.00	1.27081	(13120808)
439714.00	3765310.00	1.27017	(13120808)
439719.00	3765310.00	1.27079	(13120808)
439729.00	3765310.00	1.27058	(13120808)
439734.00	3765310.00	1.27029	(13120808)
439739.00	3765310.00	1.27035	(13120808)
439744.00	3765310.00	1.27030	(13120808)
439749.00	3765310.00	1.27016	(13120808)
439764.00	3765310.00	1.27046	(13120808)
439769.00	3765310.00	1.27002	(13120808)
439774.00	3765310.00	1.27043	(13120808)
439779.00	3765310.00	1.27006	(13120808)

```
439784.00   3765310.00        1.27045  (13120808)
        439789.00   3765310.00        1.26993  (13120808)
439794.00   3765310.00        1.27020  (13120808)
        439799.00   3765310.00        1.27007  (13120808)
439804.00   3765310.00        1.26984  (13120808)
        439809.00   3765310.00        1.26982  (13120808)
439814.00   3765310.00        1.26960  (13120808)
        439819.00   3765310.00        1.26985  (13120808)
439824.00   3765310.00        1.26937  (13120808)
        439829.00   3765310.00        1.26960  (13120808)
439839.00   3765310.00        1.26959  (13120808)
        439844.00   3765310.00        1.26891  (13120808)
439849.00   3765310.00        1.26933  (13120808)
        439854.00   3765310.00        1.26858  (13120808)
439859.00   3765310.00        1.26901  (13120808)
        439864.00   3765310.00        1.26831  (13120808)
439869.00   3765310.00        1.26826  (13120808)
        439874.00   3765310.00        1.26806  (13120808)
439879.00   3765310.00        1.26775  (13120808)
        439884.00   3765310.00        1.26781  (13120808)
439674.00   3765315.00        1.28111  (13120808)
        439679.00   3765315.00        1.28166  (13120808)
439684.00   3765315.00        1.28109  (13120808)
        439689.00   3765315.00        1.28173  (13120808)
439694.00   3765315.00        1.28122  (13120808)
        439699.00   3765315.00        1.28136  (13120808)
439704.00   3765315.00        1.28128  (13120808)
        439709.00   3765315.00        1.28129  (13120808)
439714.00   3765315.00        1.28144  (13120808)
        439719.00   3765315.00        1.28106  (13120808)
439729.00   3765315.00        1.28119  (13120808)
        439734.00   3765315.00        1.28142  (13120808)
439739.00   3765315.00        1.28105  (13120808)
        439744.00   3765315.00        1.28157  (13120808)
439749.00   3765315.00        1.28112  (13120808)
        439764.00   3765315.00        1.28129  (13120808)
439769.00   3765315.00        1.28116  (13120808)
        439774.00   3765315.00        1.28100  (13120808)
439779.00   3765315.00        1.28117  (13120808)
        439784.00   3765315.00        1.28090  (13120808)
439789.00   3765315.00        1.28117  (13120808)
        439794.00   3765315.00        1.28072  (13120808)
439799.00   3765315.00        1.28111  (13120808)
        439804.00   3765315.00        1.28071  (13120808)
439809.00   3765315.00        1.28118  (13120808)
        439814.00   3765315.00        1.28057  (13120808)
439819.00   3765315.00        1.28101  (13120808)
        439824.00   3765315.00        1.28057  (13120808)
439829.00   3765315.00        1.28062  (13120808)
        439839.00   3765315.00        1.28015  (13120808)
439844.00   3765315.00        1.28030  (13120808)
        439849.00   3765315.00        1.27984  (13120808)
```

```
439854.00   3765315.00        1.27989  (13120808)
        439859.00   3765315.00        1.27957  (13120808)
439864.00   3765315.00        1.27976  (13120808)
        439869.00   3765315.00        1.27930  (13120808)
439874.00   3765315.00        1.27943  (13120808)
        439879.00   3765315.00        1.27890  (13120808)
439884.00   3765315.00        1.27929  (13120808)
        439674.00   3765320.00        1.29245  (13120808)
439679.00   3765320.00        1.29235  (13120808)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: FREEEXH ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439684.00	3765320.00	1.29237	(13120808)
439689.00	3765320.00	1.29228	(13120808)
439694.00	3765320.00	1.29262	(13120808)
439699.00	3765320.00	1.29234	(13120808)
439704.00	3765320.00	1.29263	(13120808)
439709.00	3765320.00	1.29220	(13120808)
439714.00	3765320.00	1.29293	(13120808)
439719.00	3765320.00	1.29227	(13120808)
439729.00	3765320.00	1.29228	(13120808)
439734.00	3765320.00	1.29254	(13120808)
439739.00	3765320.00	1.29232	(13120808)
439744.00	3765320.00	1.29232	(13120808)
439749.00	3765320.00	1.29232	(13120808)
439764.00	3765320.00	1.29212	(13120808)
439769.00	3765320.00	1.29244	(13120808)
439774.00	3765320.00	1.29215	(13120808)
439779.00	3765320.00	1.29251	(13120808)
439784.00	3765320.00	1.29204	(13120808)
439789.00	3765320.00	1.29254	(13120808)

439794.00 3765320.00 1.29202 (13120808)
439799.00 3765320.00 1.29220 (13120808)
439804.00 3765320.00 1.29191 (13120808)
439809.00 3765320.00 1.29201 (13120808)
439814.00 3765320.00 1.29192 (13120808)
439819.00 3765320.00 1.29181 (13120808)
439824.00 3765320.00 1.29185 (13120808)
439829.00 3765320.00 1.29165 (13120808)
439839.00 3765320.00 1.29136 (13120808)
439844.00 3765320.00 1.29169 (13120808)
439849.00 3765320.00 1.29119 (13120808)
439854.00 3765320.00 1.29151 (13120808)
439859.00 3765320.00 1.29088 (13120808)
439864.00 3765320.00 1.29098 (13120808)
439869.00 3765320.00 1.29076 (13120808)
439874.00 3765320.00 1.29049 (13120808)
439879.00 3765320.00 1.29041 (13120808)
439884.00 3765320.00 1.29013 (13120808)
439674.00 3765325.00 1.30382 (13120808)
439679.00 3765325.00 1.30377 (13120808)
439684.00 3765325.00 1.30394 (13120808)
439689.00 3765325.00 1.30371 (13120808)
439694.00 3765325.00 1.30382 (13120808)
439699.00 3765325.00 1.30395 (13120808)
439704.00 3765325.00 1.30374 (13120808)
439709.00 3765325.00 1.30387 (13120808)
439714.00 3765325.00 1.30371 (13120808)
439719.00 3765325.00 1.30388 (13120808)
439729.00 3765325.00 1.30390 (13120808)
439734.00 3765325.00 1.30360 (13120808)
439739.00 3765325.00 1.30406 (13120808)
439744.00 3765325.00 1.30372 (13120808)
439749.00 3765325.00 1.30394 (13120808)
439754.00 3765325.00 1.30362 (13120808)
439769.00 3765325.00 1.30374 (13120808)
439774.00 3765325.00 1.30360 (13120808)
439779.00 3765325.00 1.30355 (13120808)
439784.00 3765325.00 1.30361 (13120808)
439789.00 3765325.00 1.30344 (13120808)
439794.00 3765325.00 1.30358 (13120808)
439799.00 3765325.00 1.30338 (13120808)
439804.00 3765325.00 1.30363 (13120808)
439809.00 3765325.00 1.30325 (13120808)
439814.00 3765325.00 1.30355 (13120808)
439819.00 3765325.00 1.30328 (13120808)
439824.00 3765325.00 1.30349 (13120808)
439829.00 3765325.00 1.30312 (13120808)
439839.00 3765325.00 1.30302 (13120808)
439844.00 3765325.00 1.30289 (13120808)
439849.00 3765325.00 1.30280 (13120808)
439854.00 3765325.00 1.30267 (13120808)
439859.00 3765325.00 1.30259 (13120808)

```
439864.00   3765325.00        1.30234  (13120808)
        439869.00   3765325.00        1.30241  (13120808)
439874.00   3765325.00        1.30204  (13120808)
        439879.00   3765325.00        1.30223  (13120808)
439884.00   3765325.00        1.30165  (13120808)
        439674.00   3765330.00        1.31522  (13120808)
439679.00   3765330.00        1.31515  (13120808)
        439684.00   3765330.00        1.31537  (13120808)
439689.00   3765330.00        1.31538  (13120808)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: FREEEXH ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439694.00	3765330.00	1.31519	(13120808)
439699.00	3765330.00	1.31541	(13120808)
439704.00	3765330.00	1.31527	(13120808)
439709.00	3765330.00	1.31569	(13120808)
439714.00	3765330.00	1.31530	(13120808)
439719.00	3765330.00	1.31559	(13120808)
439729.00	3765330.00	1.31562	(13120808)
439734.00	3765330.00	1.31540	(13120808)
439739.00	3765330.00	1.31532	(13120808)
439744.00	3765330.00	1.31544	(13120808)
439749.00	3765330.00	1.31537	(13120808)
439754.00	3765330.00	1.31544	(13120808)
439774.00	3765330.00	1.31549	(13120808)
439779.00	3765330.00	1.31504	(13120808)
439784.00	3765330.00	1.31561	(13120808)
439789.00	3765330.00	1.31511	(13120808)
439794.00	3765330.00	1.31540	(13120808)
439799.00	3765330.00	1.31501	(13120808)
439804.00	3765330.00	1.31527	(13120808)

```
439809.00   3765330.00        1.31499  (13120808)
        439814.00   3765330.00        1.31503  (13120808)
439819.00   3765330.00        1.31494  (13120808)
        439824.00   3765330.00        1.31497  (13120808)
439829.00   3765330.00        1.31494  (13120808)
        439839.00   3765330.00        1.31487  (13120808)
439844.00   3765330.00        1.31461  (13120808)
        439849.00   3765330.00        1.31483  (13120808)
439854.00   3765330.00        1.31437  (13120808)
        439859.00   3765330.00        1.31452  (13120808)
439864.00   3765330.00        1.31429  (13120808)
        439869.00   3765330.00        1.31404  (13120808)
439874.00   3765330.00        1.31402  (13120808)
        439879.00   3765330.00        1.31384  (13120808)
439884.00   3765330.00        1.31365  (13120808)
        439674.00   3765335.00        1.32717  (13120808)
439679.00   3765335.00        1.32710  (13120808)
        439684.00   3765335.00        1.32705  (13120808)
439689.00   3765335.00        1.32731  (13120808)
        439694.00   3765335.00        1.32720  (13120808)
439699.00   3765335.00        1.32722  (13120808)
        439704.00   3765335.00        1.32705  (13120808)
439709.00   3765335.00        1.32731  (13120808)
        439714.00   3765335.00        1.32725  (13120808)
439719.00   3765335.00        1.32727  (13120808)
        439729.00   3765335.00        1.32730  (13120808)
439734.00   3765335.00        1.32745  (13120808)
        439739.00   3765335.00        1.32722  (13120808)
439744.00   3765335.00        1.32720  (13120808)
        439749.00   3765335.00        1.32724  (13120808)
439774.00   3765335.00        1.32721  (13120808)
        439779.00   3765335.00        1.32713  (13120808)
439784.00   3765335.00        1.32703  (13120808)
        439789.00   3765335.00        1.32719  (13120808)
439794.00   3765335.00        1.32710  (13120808)
        439839.00   3765335.00        1.32675  (13120808)
439844.00   3765335.00        1.32658  (13120808)
        439849.00   3765335.00        1.32666  (13120808)
439854.00   3765335.00        1.32649  (13120808)
        439859.00   3765335.00        1.32632  (13120808)
439864.00   3765335.00        1.32638  (13120808)
        439869.00   3765335.00        1.32599  (13120808)
439874.00   3765335.00        1.32617  (13120808)
        439879.00   3765335.00        1.32575  (13120808)
439884.00   3765335.00        1.32608  (13120808)
        439674.00   3765340.00        1.33918  (13120808)
439679.00   3765340.00        1.33932  (13120808)
        439684.00   3765340.00        1.33922  (13120808)
439689.00   3765340.00        1.33911  (13120808)
        439694.00   3765340.00        1.33940  (13120808)
439699.00   3765340.00        1.33917  (13120808)
        439704.00   3765340.00        1.33945  (13120808)
```

439709.00   3765340.00   1.33913 (13120808)
        439714.00   3765340.00   1.33952 (13120808)
439719.00   3765340.00   1.33939 (13120808)
        439729.00   3765340.00   1.33932 (13120808)
439734.00   3765340.00   1.33954 (13120808)
        439739.00   3765340.00   1.33954 (13120808)
439744.00   3765340.00   1.33936 (13120808)
        439749.00   3765340.00   1.33934 (13120808)
439774.00   3765340.00   1.33915 (13120808)

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: FREEEXH ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439779.00	3765340.00	1.33963	(13120808)
439784.00	3765340.00	1.33916	(13120808)
439789.00	3765340.00	1.33930	(13120808)
439794.00	3765340.00	1.33914	(13120808)
439839.00	3765340.00	1.33889	(13120808)
439844.00	3765340.00	1.33907	(13120808)
439849.00	3765340.00	1.33883	(13120808)
439854.00	3765340.00	1.33896	(13120808)
439859.00	3765340.00	1.33866	(13120808)
439864.00	3765340.00	1.33873	(13120808)
439869.00	3765340.00	1.33851	(13120808)
439874.00	3765340.00	1.33849	(13120808)
439879.00	3765340.00	1.33808	(13120808)
439884.00	3765340.00	1.33819	(13120808)
439674.00	3765345.00	1.35163	(13120808)
439679.00	3765345.00	1.35156	(13120808)
439684.00	3765345.00	1.35180	(13120808)
439689.00	3765345.00	1.35164	(13120808)
439694.00	3765345.00	1.35184	(13120808)

439699.00 3765345.00 1.35147 (13120808)
439704.00 3765345.00 1.35191 (13120808)
439709.00 3765345.00 1.35147 (13120808)
439714.00 3765345.00 1.35183 (13120808)
439719.00 3765345.00 1.35177 (13120808)
439729.00 3765345.00 1.35172 (13120808)
439734.00 3765345.00 1.35182 (13120808)
439739.00 3765345.00 1.35173 (13120808)
439744.00 3765345.00 1.35193 (13120808)
439749.00 3765345.00 1.35189 (13120808)
439774.00 3765345.00 1.35162 (13120808)
439779.00 3765345.00 1.35179 (13120808)
439784.00 3765345.00 1.35192 (13120808)
439789.00 3765345.00 1.35166 (13120808)
439794.00 3765345.00 1.35164 (13120808)
439839.00 3765345.00 1.35137 (13120808)
439844.00 3765345.00 1.35151 (13120808)
439849.00 3765345.00 1.35147 (13120808)
439854.00 3765345.00 1.35131 (13120808)
439859.00 3765345.00 1.35137 (13120808)
439864.00 3765345.00 1.35106 (13120808)
439869.00 3765345.00 1.35125 (13120808)
439874.00 3765345.00 1.35089 (13120808)
439879.00 3765345.00 1.35113 (13120808)
439884.00 3765345.00 1.35073 (13120808)
439674.00 3765350.00 1.36445 (13120808)
439679.00 3765350.00 1.36440 (13120808)
439684.00 3765350.00 1.36411 (13120808)
439689.00 3765350.00 1.36431 (13120808)
439694.00 3765350.00 1.36435 (13120808)
439699.00 3765350.00 1.36447 (13120808)
439704.00 3765350.00 1.36426 (13120808)
439709.00 3765350.00 1.36442 (13120808)
439714.00 3765350.00 1.36439 (13120808)
439719.00 3765350.00 1.36450 (13120808)
439729.00 3765350.00 1.36456 (13120808)
439734.00 3765350.00 1.36451 (13120808)
439739.00 3765350.00 1.36455 (13120808)
439744.00 3765350.00 1.36452 (13120808)
439749.00 3765350.00 1.36453 (13120808)
439774.00 3765350.00 1.36450 (13120808)
439779.00 3765350.00 1.36444 (13120808)
439784.00 3765350.00 1.36451 (13120808)
439789.00 3765350.00 1.36455 (13120808)
439794.00 3765350.00 1.36453 (13120808)
439839.00 3765350.00 1.36424 (13120808)
439844.00 3765350.00 1.36416 (13120808)
439849.00 3765350.00 1.36439 (13120808)
439854.00 3765350.00 1.36415 (13120808)
439859.00 3765350.00 1.36416 (13120808)
439864.00 3765350.00 1.36402 (13120808)
439869.00 3765350.00 1.36419 (13120808)

```
439874.00   3765350.00        1.36366  (13120808)
        439879.00   3765350.00        1.36384  (13120808)
439884.00   3765350.00        1.36364  (13120808)
        439674.00   3765355.00        1.37717  (13120808)
439679.00   3765355.00        1.37754  (13120808)
        439684.00   3765355.00        1.37735  (13120808)
439689.00   3765355.00        1.37735  (13120808)
        439694.00   3765355.00        1.37707  (13120808)
439699.00   3765355.00        1.37769  (13120808)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: FREEEXH ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439704.00	3765355.00	1.37716	(13120808)
439709.00	3765355.00	1.37728	(13120808)
439714.00	3765355.00	1.37736	(13120808)
439719.00	3765355.00	1.37753	(13120808)
439729.00	3765355.00	1.37732	(13120808)
439734.00	3765355.00	1.37734	(13120808)
439739.00	3765355.00	1.37751	(13120808)
439744.00	3765355.00	1.37763	(13120808)
439749.00	3765355.00	1.37744	(13120808)
439774.00	3765355.00	1.37763	(13120808)
439779.00	3765355.00	1.37754	(13120808)
439784.00	3765355.00	1.37759	(13120808)
439789.00	3765355.00	1.37755	(13120808)
439794.00	3765355.00	1.37768	(13120808)
439839.00	3765355.00	1.37731	(13120808)
439844.00	3765355.00	1.37721	(13120808)
439849.00	3765355.00	1.37733	(13120808)
439854.00	3765355.00	1.37745	(13120808)
439859.00	3765355.00	1.37708	(13120808)

439864.00 3765355.00 1.37707 (13120808)
439869.00 3765355.00 1.37715 (13120808)
439874.00 3765355.00 1.37718 (13120808)
439879.00 3765355.00 1.37697 (13120808)
439884.00 3765355.00 1.37674 (13120808)
439674.00 3765360.00 1.39051 (13120808)
439679.00 3765360.00 1.39049 (13120808)
439684.00 3765360.00 1.39073 (13120808)
439689.00 3765360.00 1.39061 (13120808)
439694.00 3765360.00 1.39049 (13120808)
439699.00 3765360.00 1.39064 (13120808)
439704.00 3765360.00 1.39080 (13120808)
439709.00 3765360.00 1.39069 (13120808)
439714.00 3765360.00 1.39047 (13120808)
439719.00 3765360.00 1.39060 (13120808)
439729.00 3765360.00 1.39067 (13120808)
439734.00 3765360.00 1.39068 (13120808)
439739.00 3765360.00 1.39073 (13120808)
439744.00 3765360.00 1.39094 (13120808)
439749.00 3765360.00 1.39071 (13120808)
439774.00 3765360.00 1.39083 (13120808)
439779.00 3765360.00 1.39077 (13120808)
439784.00 3765360.00 1.39090 (13120808)
439789.00 3765360.00 1.39108 (13120808)
439794.00 3765360.00 1.39087 (13120808)
439799.00 3765360.00 1.39084 (13120808)
439804.00 3765360.00 1.39089 (13120808)
439809.00 3765360.00 1.39092 (13120808)
439814.00 3765360.00 1.39080 (13120808)
439839.00 3765360.00 1.39078 (13120808)
439844.00 3765360.00 1.39060 (13120808)
439849.00 3765360.00 1.39062 (13120808)
439854.00 3765360.00 1.39088 (13120808)
439859.00 3765360.00 1.39069 (13120808)
439864.00 3765360.00 1.39062 (13120808)
439869.00 3765360.00 1.39026 (13120808)
439874.00 3765360.00 1.39064 (13120808)
439879.00 3765360.00 1.39044 (13120808)
439884.00 3765360.00 1.39022 (13120808)
439674.00 3765365.00 1.40410 (13120808)
439679.00 3765365.00 1.40419 (13120808)
439684.00 3765365.00 1.40441 (13120808)
439689.00 3765365.00 1.40421 (13120808)
439694.00 3765365.00 1.40438 (13120808)
439699.00 3765365.00 1.40400 (13120808)
439704.00 3765365.00 1.40427 (13120808)
439709.00 3765365.00 1.40450 (13120808)
439714.00 3765365.00 1.40433 (13120808)
439719.00 3765365.00 1.40421 (13120808)
439729.00 3765365.00 1.40443 (13120808)
439734.00 3765365.00 1.40430 (13120808)
439739.00 3765365.00 1.40433 (13120808)

```
439744.00   3765365.00        1.40427  (13120808)
        439749.00   3765365.00        1.40471  (13120808)
439774.00   3765365.00        1.40457  (13120808)
        439779.00   3765365.00        1.40455  (13120808)
439784.00   3765365.00        1.40445  (13120808)
        439789.00   3765365.00        1.40481  (13120808)
439794.00   3765365.00        1.40445  (13120808)
        439799.00   3765365.00        1.40457  (13120808)
439804.00   3765365.00        1.40451  (13120808)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: FREEEXH ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439809.00	3765365.00	1.40457	(13120808)
439814.00	3765365.00	1.40461	(13120808)
439839.00	3765365.00	1.40446	(13120808)
439844.00	3765365.00	1.40443	(13120808)
439849.00	3765365.00	1.40433	(13120808)
439854.00	3765365.00	1.40436	(13120808)
439859.00	3765365.00	1.40433	(13120808)
439864.00	3765365.00	1.40441	(13120808)
439869.00	3765365.00	1.40413	(13120808)
439874.00	3765365.00	1.40427	(13120808)
439879.00	3765365.00	1.40413	(13120808)
439884.00	3765365.00	1.40423	(13120808)
439674.00	3765370.00	1.41804	(13120808)
439679.00	3765370.00	1.41803	(13120808)
439684.00	3765370.00	1.41824	(13120808)
439689.00	3765370.00	1.41815	(13120808)
439694.00	3765370.00	1.41828	(13120808)
439699.00	3765370.00	1.41812	(13120808)
439704.00	3765370.00	1.41827	(13120808)

439709.00 3765370.00 1.41822 (13120808)
439714.00 3765370.00 1.41819 (13120808)
439719.00 3765370.00 1.41846 (13120808)
439729.00 3765370.00 1.41839 (13120808)
439734.00 3765370.00 1.41848 (13120808)
439739.00 3765370.00 1.41839 (13120808)
439744.00 3765370.00 1.41813 (13120808)
439749.00 3765370.00 1.41845 (13120808)
439774.00 3765370.00 1.41862 (13120808)
439779.00 3765370.00 1.41844 (13120808)
439784.00 3765370.00 1.41862 (13120808)
439789.00 3765370.00 1.41843 (13120808)
439794.00 3765370.00 1.41881 (13120808)
439799.00 3765370.00 1.41856 (13120808)
439804.00 3765370.00 1.41862 (13120808)
439809.00 3765370.00 1.41835 (13120808)
439814.00 3765370.00 1.41874 (13120808)
439839.00 3765370.00 1.41855 (13120808)
439844.00 3765370.00 1.41835 (13120808)
439849.00 3765370.00 1.41845 (13120808)
439854.00 3765370.00 1.41846 (13120808)
439859.00 3765370.00 1.41858 (13120808)
439864.00 3765370.00 1.41820 (13120808)
439869.00 3765370.00 1.41838 (13120808)
439874.00 3765370.00 1.41819 (13120808)
439879.00 3765370.00 1.41817 (13120808)
439884.00 3765370.00 1.41825 (13120808)
439674.00 3765375.00 1.43247 (13120808)
439679.00 3765375.00 1.43247 (13120808)
439684.00 3765375.00 1.43246 (13120808)
439689.00 3765375.00 1.43273 (13120808)
439694.00 3765375.00 1.43236 (13120808)
439699.00 3765375.00 1.43236 (13120808)
439704.00 3765375.00 1.43261 (13120808)
439709.00 3765375.00 1.43267 (13120808)
439714.00 3765375.00 1.43250 (13120808)
439719.00 3765375.00 1.43261 (13120808)
439729.00 3765375.00 1.43257 (13120808)
439734.00 3765375.00 1.43265 (13120808)
439739.00 3765375.00 1.43264 (13120808)
439744.00 3765375.00 1.43282 (13120808)
439749.00 3765375.00 1.43272 (13120808)
439754.00 3765375.00 1.43276 (13120808)
439774.00 3765375.00 1.43299 (13120808)
439779.00 3765375.00 1.43285 (13120808)
439784.00 3765375.00 1.43305 (13120808)
439789.00 3765375.00 1.43260 (13120808)
439794.00 3765375.00 1.43294 (13120808)
439799.00 3765375.00 1.43298 (13120808)
439804.00 3765375.00 1.43293 (13120808)
439809.00 3765375.00 1.43292 (13120808)
439814.00 3765375.00 1.43297 (13120808)

```
439839.00   3765375.00        1.43311  (13120808)
        439844.00   3765375.00        1.43284  (13120808)
439849.00   3765375.00        1.43269  (13120808)
        439854.00   3765375.00        1.43261  (13120808)
439859.00   3765375.00        1.43299  (13120808)
        439864.00   3765375.00        1.43275  (13120808)
439869.00   3765375.00        1.43270  (13120808)
        439874.00   3765375.00        1.43258  (13120808)
439879.00   3765375.00        1.43280  (13120808)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: FREEEXH ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439884.00	3765375.00	1.43271	(13120808)
439774.00	3765380.00	1.44738	(13120808)
439779.00	3765380.00	1.44767	(13120808)
439784.00	3765380.00	1.44752	(13120808)
439789.00	3765380.00	1.44772	(13120808)
439794.00	3765380.00	1.44758	(13120808)
439799.00	3765380.00	1.44761	(13120808)
439804.00	3765380.00	1.44752	(13120808)
439809.00	3765380.00	1.44774	(13120808)
439814.00	3765380.00	1.44756	(13120808)
439769.00	3765385.00	1.46255	(13120808)
439819.00	3765385.00	1.46269	(13120808)
439769.00	3765400.00	1.51022	(13120808)
439844.00	3765400.00	1.51040	(13120808)
439849.00	3765400.00	1.51051	(13120808)
439674.00	3765405.00	1.53776	(12011417)
439714.00	3765405.00	1.52661	(13120808)
439719.00	3765405.00	1.52665	(13120808)
439734.00	3765405.00	1.52664	(13120808)

439749.00 3765405.00 1.52678 (13120808)
439754.00 3765405.00 1.52681 (13120808)
439774.00 3765405.00 1.52702 (13120808)
439779.00 3765405.00 1.52698 (13120808)
439784.00 3765405.00 1.52692 (13120808)
439789.00 3765405.00 1.52695 (13120808)
439794.00 3765405.00 1.52709 (13120808)
439799.00 3765405.00 1.52699 (13120808)
439804.00 3765405.00 1.52704 (13120808)
439809.00 3765405.00 1.52717 (13120808)
439814.00 3765405.00 1.52712 (13120808)
439819.00 3765405.00 1.52717 (13120808)
439824.00 3765405.00 1.52718 (13120808)
439829.00 3765405.00 1.52731 (13120808)
439834.00 3765405.00 1.52723 (13120808)
439839.00 3765405.00 1.52734 (13120808)
439844.00 3765405.00 1.52719 (13120808)
439849.00 3765405.00 1.52721 (13120808)
439854.00 3765405.00 1.52728 (13120808)
439859.00 3765405.00 1.52735 (13120808)
439674.00 3765410.00 1.56145 (12011417)
439679.00 3765410.00 1.55928 (12011417)
439684.00 3765410.00 1.55579 (12011417)
439689.00 3765410.00 1.55419 (12011417)
439694.00 3765410.00 1.55079 (12011417)
439699.00 3765410.00 1.54803 (12011417)
439704.00 3765410.00 1.54483 (12011417)
439709.00 3765410.00 1.54384 (13120808)
439714.00 3765410.00 1.54397 (13120808)
439719.00 3765410.00 1.54380 (13120808)
439729.00 3765410.00 1.54405 (13120808)
439734.00 3765410.00 1.54398 (13120808)
439739.00 3765410.00 1.54390 (13120808)
439744.00 3765410.00 1.54415 (13120808)
439749.00 3765410.00 1.54403 (13120808)
439774.00 3765410.00 1.54423 (13120808)
439779.00 3765410.00 1.54422 (13120808)
439784.00 3765410.00 1.54401 (13120808)
439789.00 3765410.00 1.54430 (13120808)
439794.00 3765410.00 1.54426 (13120808)
439799.00 3765410.00 1.54429 (13120808)
439804.00 3765410.00 1.54416 (13120808)
439809.00 3765410.00 1.54449 (13120808)
439814.00 3765410.00 1.54432 (13120808)
439819.00 3765410.00 1.54437 (13120808)
439824.00 3765410.00 1.54429 (13120808)
439829.00 3765410.00 1.54447 (13120808)
439834.00 3765410.00 1.54450 (13120808)
439839.00 3765410.00 1.54460 (13120808)
439844.00 3765410.00 1.54451 (13120808)
439849.00 3765410.00 1.54457 (13120808)
439854.00 3765410.00 1.54445 (13120808)

```
439859.00   3765410.00        1.54450  (13120808)
        439674.00   3765415.00        1.58675  (12011417)
439679.00   3765415.00        1.58330  (12011417)
        439684.00   3765415.00        1.58151  (12011417)
439689.00   3765415.00        1.57771  (12011417)
        439694.00   3765415.00        1.57617  (12011417)
439699.00   3765415.00        1.57272  (12011417)
        439704.00   3765415.00        1.57043  (12011417)
439709.00   3765415.00        1.56685  (12011417)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: FREEEXH ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439714.00	3765415.00	1.56426	(12011417)
439719.00	3765415.00	1.56176	(13120808)
439729.00	3765415.00	1.56172	(13120808)
439734.00	3765415.00	1.56165	(13120808)
439739.00	3765415.00	1.56195	(13120808)
439744.00	3765415.00	1.56154	(13120808)
439749.00	3765415.00	1.56183	(13120808)
439774.00	3765415.00	1.56190	(13120808)
439779.00	3765415.00	1.56188	(13120808)
439784.00	3765415.00	1.56192	(13120808)
439789.00	3765415.00	1.56203	(13120808)
439794.00	3765415.00	1.56198	(13120808)
439799.00	3765415.00	1.56200	(13120808)
439804.00	3765415.00	1.56224	(13120808)
439809.00	3765415.00	1.56183	(13120808)
439814.00	3765415.00	1.56215	(13120808)
439819.00	3765415.00	1.56221	(13120808)
439824.00	3765415.00	1.56203	(13120808)
439829.00	3765415.00	1.56223	(13120808)

439834.00 3765415.00 1.56213 (13120808)
439839.00 3765415.00 1.56227 (13120808)
439844.00 3765415.00 1.56216 (13120808)
439849.00 3765415.00 1.56231 (13120808)
439854.00 3765415.00 1.56243 (13120808)
439859.00 3765415.00 1.56224 (13120808)
439674.00 3765420.00 1.61088 (12011417)
439679.00 3765420.00 1.60882 (12011417)
439684.00 3765420.00 1.60571 (12011417)
439689.00 3765420.00 1.60409 (12011417)
439694.00 3765420.00 1.60040 (12011417)
439699.00 3765420.00 1.59870 (12011417)
439704.00 3765420.00 1.59533 (12011417)
439709.00 3765420.00 1.59341 (12011417)
439714.00 3765420.00 1.58957 (12011417)
439719.00 3765420.00 1.58705 (12011417)
439729.00 3765420.00 1.58111 (12011417)
439734.00 3765420.00 1.58012 (13120808)
439739.00 3765420.00 1.57977 (13120808)
439744.00 3765420.00 1.58009 (13120808)
439749.00 3765420.00 1.58005 (13120808)
439774.00 3765420.00 1.58002 (13120808)
439779.00 3765420.00 1.58010 (13120808)
439784.00 3765420.00 1.58026 (13120808)
439789.00 3765420.00 1.58019 (13120808)
439794.00 3765420.00 1.58015 (13120808)
439799.00 3765420.00 1.58039 (13120808)
439804.00 3765420.00 1.58017 (13120808)
439809.00 3765420.00 1.58045 (13120808)
439814.00 3765420.00 1.58022 (13120808)
439819.00 3765420.00 1.58049 (13120808)
439824.00 3765420.00 1.58029 (13120808)
439829.00 3765420.00 1.58033 (13120808)
439834.00 3765420.00 1.58041 (13120808)
439839.00 3765420.00 1.58032 (13120808)
439844.00 3765420.00 1.58057 (13120808)
439849.00 3765420.00 1.58040 (13120808)
439854.00 3765420.00 1.58051 (13120808)
439859.00 3765420.00 1.58060 (13120808)
439674.00 3765425.00 1.63656 (12011417)
439679.00 3765425.00 1.63412 (12011417)
439684.00 3765425.00 1.63171 (12011417)
439689.00 3765425.00 1.62891 (12011417)
439694.00 3765425.00 1.62727 (12011417)
439699.00 3765425.00 1.62386 (12011417)
439704.00 3765425.00 1.62209 (12011417)
439709.00 3765425.00 1.61835 (12011417)
439714.00 3765425.00 1.61677 (12011417)
439719.00 3765425.00 1.61300 (12011417)
439729.00 3765425.00 1.60737 (12011417)
439734.00 3765425.00 1.60471 (12011417)
439739.00 3765425.00 1.60150 (12011417)

```
439744.00   3765425.00        1.59861  (13120808)
        439749.00   3765425.00        1.59894  (13120808)
439774.00   3765425.00        1.59892  (13120808)
        439779.00   3765425.00        1.59917  (13120808)
439784.00   3765425.00        1.59871  (13120808)
        439789.00   3765425.00        1.59890  (13120808)
439794.00   3765425.00        1.59908  (13120808)
        439799.00   3765425.00        1.59903  (13120808)
439804.00   3765425.00        1.59907  (13120808)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: FREEEXH ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439809.00	3765425.00	1.59888	(13120808)
439814.00	3765425.00	1.59939	(13120808)
439819.00	3765425.00	1.59897	(13120808)
439824.00	3765425.00	1.59955	(13120808)
439829.00	3765425.00	1.59904	(13120808)
439834.00	3765425.00	1.59956	(13120808)
439839.00	3765425.00	1.59920	(13120808)
439844.00	3765425.00	1.59932	(13120808)
439849.00	3765425.00	1.59922	(13120808)
439854.00	3765425.00	1.59934	(13120808)
439859.00	3765425.00	1.59933	(13120808)
439674.00	3765430.00	1.66271	(12011417)
439679.00	3765430.00	1.66013	(12011417)
439684.00	3765430.00	1.65797	(12011417)
439689.00	3765430.00	1.65538	(12011417)
439694.00	3765430.00	1.65272	(12011417)
439699.00	3765430.00	1.65087	(12011417)
439704.00	3765430.00	1.64767	(12011417)
439709.00	3765430.00	1.64612	(12011417)

439714.00 3765430.00 1.64195 (12011417)
439719.00 3765430.00 1.64060 (12011417)
439729.00 3765430.00 1.63474 (12011417)
439734.00 3765430.00 1.63106 (12011417)
439739.00 3765430.00 1.62900 (12011417)
439744.00 3765430.00 1.62561 (12011417)
439749.00 3765430.00 1.62250 (12011417)
439774.00 3765430.00 1.61832 (13120808)
439779.00 3765430.00 1.61825 (13120808)
439784.00 3765430.00 1.61859 (13120808)
439789.00 3765430.00 1.61819 (13120808)
439794.00 3765430.00 1.61858 (13120808)
439799.00 3765430.00 1.61813 (13120808)
439804.00 3765430.00 1.61844 (13120808)
439809.00 3765430.00 1.61837 (13120808)
439814.00 3765430.00 1.61822 (13120808)
439819.00 3765430.00 1.61858 (13120808)
439824.00 3765430.00 1.61832 (13120808)
439829.00 3765430.00 1.61868 (13120808)
439834.00 3765430.00 1.61826 (13120808)
439839.00 3765430.00 1.61885 (13120808)
439844.00 3765430.00 1.61853 (13120808)
439849.00 3765430.00 1.61877 (13120808)
439854.00 3765430.00 1.61863 (13120808)
439859.00 3765430.00 1.61893 (13120808)
439674.00 3765435.00 1.68860 (12011417)
439679.00 3765435.00 1.68691 (12011417)
439684.00 3765435.00 1.68435 (12011417)
439689.00 3765435.00 1.68222 (12011417)
439694.00 3765435.00 1.67981 (12011417)
439699.00 3765435.00 1.67690 (12011417)
439704.00 3765435.00 1.67516 (12011417)
439709.00 3765435.00 1.67187 (12011417)
439714.00 3765435.00 1.67073 (12011417)
439719.00 3765435.00 1.66636 (12011417)
439729.00 3765435.00 1.66124 (12011417)
439734.00 3765435.00 1.65972 (12011417)
439739.00 3765435.00 1.65565 (12011417)
439744.00 3765435.00 1.65386 (12011417)
439749.00 3765435.00 1.65008 (12011417)
439774.00 3765435.00 1.63818 (13120808)
439779.00 3765435.00 1.63818 (13120808)
439784.00 3765435.00 1.63816 (13120808)
439789.00 3765435.00 1.63858 (13120808)
439794.00 3765435.00 1.63794 (13120808)
439799.00 3765435.00 1.63847 (13120808)
439804.00 3765435.00 1.63809 (13120808)
439809.00 3765435.00 1.63856 (13120808)
439814.00 3765435.00 1.63820 (13120808)
439819.00 3765435.00 1.63844 (13120808)
439824.00 3765435.00 1.63832 (13120808)
439829.00 3765435.00 1.63855 (13120808)

```
439834.00   3765435.00        1.63850  (13120808)
        439839.00   3765435.00        1.63829  (13120808)
439844.00   3765435.00        1.63867  (13120808)
        439849.00   3765435.00        1.63857  (13120808)
439854.00   3765435.00        1.63866  (13120808)
        439859.00   3765435.00        1.63844  (13120808)
439674.00   3765440.00        1.71639  (12011417)
        439679.00   3765440.00        1.71329  (12011417)
439684.00   3765440.00        1.71193  (12011417)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: FREEEXH ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439689.00	3765440.00	1.70889	(12011417)
439694.00	3765440.00	1.70714	(12011417)
439699.00	3765440.00	1.70480	(12011417)
439704.00	3765440.00	1.70197	(12011417)
439709.00	3765440.00	1.70005	(12011417)
439714.00	3765440.00	1.69698	(12011417)
439719.00	3765440.00	1.69590	(12011417)
439729.00	3765440.00	1.69053	(12011417)
439734.00	3765440.00	1.68639	(12011417)
439739.00	3765440.00	1.68521	(12011417)
439744.00	3765440.00	1.68071	(12011417)
439749.00	3765440.00	1.67925	(12011417)
439774.00	3765440.00	1.66336	(12011417)
439779.00	3765440.00	1.65986	(12011417)
439784.00	3765440.00	1.65869	(13120808)
439789.00	3765440.00	1.65858	(13120808)
439794.00	3765440.00	1.65901	(13120808)
439799.00	3765440.00	1.65864	(13120808)
439804.00	3765440.00	1.65894	(13120808)

439809.00 3765440.00 1.65854 (13120808)
439814.00 3765440.00 1.65943 (13120808)
439819.00 3765440.00 1.65869 (13120808)
439824.00 3765440.00 1.65921 (13120808)
439829.00 3765440.00 1.65885 (13120808)
439834.00 3765440.00 1.65925 (13120808)
439839.00 3765440.00 1.65910 (13120808)
439844.00 3765440.00 1.65898 (13120808)
439849.00 3765440.00 1.65912 (13120808)
439854.00 3765440.00 1.65914 (13120808)
439859.00 3765440.00 1.65935 (13120808)
439674.00 3765445.00 1.74269 (12011417)
439679.00 3765445.00 1.74183 (12011417)
439684.00 3765445.00 1.73882 (12011417)
439689.00 3765445.00 1.73744 (12011417)
439694.00 3765445.00 1.73453 (12011417)
439699.00 3765445.00 1.73285 (12011417)
439704.00 3765445.00 1.73039 (12011417)
439709.00 3765445.00 1.72793 (12011417)
439714.00 3765445.00 1.72594 (12011417)
439719.00 3765445.00 1.72255 (12011417)
439729.00 3765445.00 1.71768 (12011417)
439734.00 3765445.00 1.71632 (12011417)
439739.00 3765445.00 1.71209 (12011417)
439744.00 3765445.00 1.71127 (12011417)
439749.00 3765445.00 1.70676 (12011417)
439774.00 3765445.00 1.69257 (12011417)
439779.00 3765445.00 1.68972 (12011417)
439784.00 3765445.00 1.68617 (12011417)
439789.00 3765445.00 1.68339 (12011417)
439794.00 3765445.00 1.68012 (13120808)
439799.00 3765445.00 1.68015 (13120808)
439804.00 3765445.00 1.67988 (13120808)
439809.00 3765445.00 1.68027 (13120808)
439814.00 3765445.00 1.67988 (13120808)
439819.00 3765445.00 1.68066 (13120808)
439824.00 3765445.00 1.67997 (13120808)
439829.00 3765445.00 1.68050 (13120808)
439834.00 3765445.00 1.68005 (13120808)
439839.00 3765445.00 1.68053 (13120808)
439844.00 3765445.00 1.68030 (13120808)
439849.00 3765445.00 1.68031 (13120808)
439854.00 3765445.00 1.68038 (13120808)
439859.00 3765445.00 1.68058 (13120808)
439674.00 3765450.00 1.77178 (12011417)
439679.00 3765450.00 1.76888 (12011417)
439684.00 3765450.00 1.76811 (12011417)
439689.00 3765450.00 1.76506 (12011417)
439694.00 3765450.00 1.76359 (12011417)
439699.00 3765450.00 1.76087 (12011417)
439704.00 3765450.00 1.75942 (12011417)
439709.00 3765450.00 1.75665 (12011417)

```
439714.00   3765450.00        1.75428  (12011417)
        439719.00   3765450.00        1.75235  (12011417)
439729.00   3765450.00        1.74793  (12011417)
        439734.00   3765450.00        1.74419  (12011417)
439739.00   3765450.00        1.74306  (12011417)
        439744.00   3765450.00        1.73869  (12011417)
439749.00   3765450.00        1.73794  (12011417)
        439774.00   3765450.00        1.72282  (12011417)
439844.00   3765450.00        1.70274  (13120808)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: FREEEXH ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439849.00	3765450.00	1.70212	(13120808)
439854.00	3765450.00	1.70258	(13120808)
439859.00	3765450.00	1.70205	(13120808)
439674.00	3765455.00	1.79951	(12011417)
439679.00	3765455.00	1.79879	(12011417)
439684.00	3765455.00	1.79587	(12011417)
439689.00	3765455.00	1.79494	(12011417)
439694.00	3765455.00	1.79206	(12011417)
439699.00	3765455.00	1.79059	(12011417)
439704.00	3765455.00	1.78796	(12011417)
439709.00	3765455.00	1.78625	(12011417)
439714.00	3765455.00	1.78380	(12011417)
439719.00	3765455.00	1.78133	(12011417)
439729.00	3765455.00	1.77634	(12011417)
439734.00	3765455.00	1.77528	(12011417)
439739.00	3765455.00	1.77153	(12011417)
439744.00	3765455.00	1.77040	(12011417)
439749.00	3765455.00	1.76641	(12011417)
439844.00	3765455.00	1.72468	(13120808)

439849.00 3765455.00 1.72524 (13120808)
439854.00 3765455.00 1.72463 (13120808)
439859.00 3765455.00 1.72535 (13120808)
439674.00 3765460.00 1.82975 (12011417)
439679.00 3765460.00 1.82686 (12011417)
439684.00 3765460.00 1.82631 (12011417)
439689.00 3765460.00 1.82366 (12011417)
439694.00 3765460.00 1.82259 (12011417)
439699.00 3765460.00 1.81948 (12011417)
439704.00 3765460.00 1.81877 (12011417)
439709.00 3765460.00 1.81585 (12011417)
439714.00 3765460.00 1.81415 (12011417)
439719.00 3765460.00 1.81182 (12011417)
439729.00 3765460.00 1.80768 (12011417)
439734.00 3765460.00 1.80464 (12011417)
439739.00 3765460.00 1.80324 (12011417)
439744.00 3765460.00 1.79975 (12011417)
439749.00 3765460.00 1.79862 (12011417)
439789.00 3765460.00 1.77609 (12011417)
439794.00 3765460.00 1.77317 (12011417)
439799.00 3765460.00 1.76960 (12011417)
439804.00 3765460.00 1.76722 (12011417)
439809.00 3765460.00 1.76321 (12011417)
439814.00 3765460.00 1.76074 (12011417)
439819.00 3765460.00 1.75654 (12011417)
439824.00 3765460.00 1.75421 (12011417)
439829.00 3765460.00 1.74959 (12011417)
439844.00 3765460.00 1.74834 (13120808)
439849.00 3765460.00 1.74829 (13120808)
439854.00 3765460.00 1.74857 (13120808)
439859.00 3765460.00 1.74824 (13120808)
439674.00 3765465.00 1.85937 (12011417)
439679.00 3765465.00 1.85814 (12011417)
439684.00 3765465.00 1.85534 (12011417)
439689.00 3765465.00 1.85485 (12011417)
439694.00 3765465.00 1.85228 (12011417)
439699.00 3765465.00 1.85122 (12011417)
439704.00 3765465.00 1.84837 (12011417)
439709.00 3765465.00 1.84741 (12011417)
439714.00 3765465.00 1.84456 (12011417)
439719.00 3765465.00 1.84309 (12011417)
439729.00 3765465.00 1.83787 (12011417)
439734.00 3765465.00 1.83657 (12011417)
439739.00 3765465.00 1.83375 (12011417)
439744.00 3765465.00 1.83214 (12011417)
439749.00 3765465.00 1.82883 (12011417)
439789.00 3765465.00 1.80835 (12011417)
439794.00 3765465.00 1.80542 (12011417)
439799.00 3765465.00 1.80277 (12011417)
439804.00 3765465.00 1.79927 (12011417)
439809.00 3765465.00 1.79681 (12011417)
439814.00 3765465.00 1.79261 (12011417)

```
439819.00   3765465.00        1.79061  (12011417)
        439824.00   3765465.00        1.78637  (12011417)
439829.00   3765465.00        1.78397  (12011417)
        439844.00   3765465.00        1.77247  (13120808)
439849.00   3765465.00        1.77263  (13120808)
        439854.00   3765465.00        1.77285  (13120808)
439859.00   3765465.00        1.77249  (13120808)
        439674.00   3765470.00        1.89079  (12011417)
439679.00   3765470.00        1.88839  (12011417)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: FREEEXH ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439684.00	3765470.00	1.88727	(12011417)
439689.00	3765470.00	1.88498	(12011417)
439694.00	3765470.00	1.88419	(12011417)
439699.00	3765470.00	1.88171	(12011417)
439704.00	3765470.00	1.88066	(12011417)
439709.00	3765470.00	1.87779	(12011417)
439714.00	3765470.00	1.87698	(12011417)
439719.00	3765470.00	1.87414	(12011417)
439729.00	3765470.00	1.87040	(12011417)
439734.00	3765470.00	1.86770	(12011417)
439739.00	3765470.00	1.86625	(12011417)
439744.00	3765470.00	1.86360	(12011417)
439749.00	3765470.00	1.86208	(12011417)
439789.00	3765470.00	1.84168	(12011417)
439794.00	3765470.00	1.83872	(12011417)
439799.00	3765470.00	1.83566	(12011417)
439804.00	3765470.00	1.83336	(12011417)
439809.00	3765470.00	1.82949	(12011417)
439814.00	3765470.00	1.82719	(12011417)

```
439819.00   3765470.00        1.82345  (12011417)
        439824.00   3765470.00        1.82116  (12011417)
439829.00   3765470.00        1.81703  (12011417)
        439844.00   3765470.00        1.80770  (12011417)
439849.00   3765470.00        1.80347  (12011417)
        439854.00   3765470.00        1.79979  (12011417)
439859.00   3765470.00        1.79817  (13120808)
        439674.00   3765475.00        1.92187  (12011417)
439679.00   3765475.00        1.92094  (12011417)
        439684.00   3765475.00        1.91846  (12011417)
439689.00   3765475.00        1.91780  (12011417)
        439694.00   3765475.00        1.91531  (12011417)
439699.00   3765475.00        1.91471  (12011417)
        439704.00   3765475.00        1.91201  (12011417)
439709.00   3765475.00        1.91098  (12011417)
        439714.00   3765475.00        1.90843  (12011417)
439719.00   3765475.00        1.90735  (12011417)
        439729.00   3765475.00        1.90311  (12011417)
439734.00   3765475.00        1.90092  (12011417)
        439739.00   3765475.00        1.89850  (12011417)
439744.00   3765475.00        1.89707  (12011417)
        439749.00   3765475.00        1.89437  (12011417)
439754.00   3765475.00        1.89283  (12011417)
        439789.00   3765475.00        1.87544  (12011417)
439794.00   3765475.00        1.87303  (12011417)
        439799.00   3765475.00        1.86995  (12011417)
439804.00   3765475.00        1.86697  (12011417)
        439809.00   3765475.00        1.86481  (12011417)
439814.00   3765475.00        1.86098  (12011417)
        439819.00   3765475.00        1.85860  (12011417)
439824.00   3765475.00        1.85508  (12011417)
        439829.00   3765475.00        1.85293  (12011417)
439269.00   3764900.00        0.78813  (13120808)
        439369.00   3764900.00        0.78646  (13120808)
439469.00   3764900.00        0.78208  (13120808)
        439569.00   3764900.00        0.77259  (13120808)
439669.00   3764900.00        0.76251  (12010217)
        439769.00   3764900.00        0.76045  (12010217)
439869.00   3764900.00        0.75431  (12010217)
        439969.00   3764900.00        0.74042  (15010717)
440069.00   3764900.00        0.74611  (15010717)
        440169.00   3764900.00        0.74873  (15010717)
440269.00   3764900.00        0.75012  (15010717)
        439269.00   3765000.00        0.86208  (13120808)
439369.00   3765000.00        0.86170  (13120808)
        439469.00   3765000.00        0.86017  (13120808)
439569.00   3765000.00        0.85612  (13120808)
        439669.00   3765000.00        0.84593  (13120808)
439769.00   3765000.00        0.83292  (12010217)
        439869.00   3765000.00        0.83019  (12010217)
439969.00   3765000.00        0.82132  (12010217)
        440069.00   3765000.00        0.81870  (15010717)
```

```
440169.00   3765000.00        0.81959  (15010717)
        440269.00   3765000.00        0.81998  (15010717)
439269.00   3765100.00        0.95439  (13120808)
        439369.00   3765100.00        0.95497  (13120808)
439469.00   3765100.00        0.95482  (13120808)
        439569.00   3765100.00        0.95385  (13120808)
439669.00   3765100.00        0.94988  (13120808)
        439769.00   3765100.00        0.93927  (13120808)
439869.00   3765100.00        0.92313  (12010217)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: FREEEXH ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439969.00	3765100.00	0.91944	(12010217)
440069.00	3765100.00	0.90805	(15010717)
440169.00	3765100.00	0.90855	(15010717)
440269.00	3765100.00	0.90788	(15010717)
439269.00	3765200.00	1.07590	(13120808)
439369.00	3765200.00	1.07742	(13120808)
439469.00	3765200.00	1.07788	(13120808)
439569.00	3765200.00	1.07775	(13120808)
439669.00	3765200.00	1.07676	(13120808)
439769.00	3765200.00	1.07388	(13120808)
439869.00	3765200.00	1.06394	(13120808)
439969.00	3765200.00	1.04234	(12010217)
440069.00	3765200.00	1.03689	(12010217)
440169.00	3765200.00	1.02482	(15010717)
440269.00	3765200.00	1.02428	(15010717)
439269.00	3765300.00	1.30206	(12011417)
439369.00	3765300.00	1.27438	(12011417)
439469.00	3765300.00	1.24816	(13120808)
439569.00	3765300.00	1.24873	(13120808)

439669.00 3765300.00 1.24931 (13120808)
439769.00 3765300.00 1.24946 (13120808)
439869.00 3765300.00 1.24665 (13120808)
439969.00 3765300.00 1.23741 (13120808)
440069.00 3765300.00 1.20925 (12010217)
440169.00 3765300.00 1.20108 (12010217)
440269.00 3765300.00 1.18723 (15010717)
439269.00 3765400.00 1.62294 (12011417)
439369.00 3765400.00 1.61087 (12011417)
439469.00 3765400.00 1.59119 (12011417)
439569.00 3765400.00 1.56135 (12011417)
439669.00 3765400.00 1.51660 (12011417)
439769.00 3765400.00 1.51022 (13120808)
439869.00 3765400.00 1.51047 (13120808)
439969.00 3765400.00 1.50924 (13120808)
440069.00 3765400.00 1.50243 (13120808)
440169.00 3765400.00 1.47151 (13120808)
440269.00 3765400.00 1.47451 (12011608)
439269.00 3765500.00 2.12851 (12011417)
439369.00 3765500.00 2.12831 (12011417)
439469.00 3765500.00 2.12447 (12011417)
439569.00 3765500.00 2.11418 (12011417)
439669.00 3765500.00 2.09663 (12011417)
439769.00 3765500.00 2.06718 (12011417)
439869.00 3765500.00 2.01795 (12011417)
439969.00 3765500.00 1.96994 (13120808)
440069.00 3765500.00 1.97016 (13120808)
440169.00 3765500.00 1.96703 (13120808)
440269.00 3765500.00 1.97582 (12011608)
439269.00 3765600.00 3.38216 (12101307)
439369.00 3765600.00 3.35982 (12101307)
439469.00 3765600.00 3.32827 (12101307)
439569.00 3765600.00 3.30321 (12011417)
439669.00 3765600.00 3.30542 (12011417)
439769.00 3765600.00 3.29868 (12011417)
439869.00 3765600.00 3.28666 (12011417)
439969.00 3765600.00 3.29213 (14101107)
440069.00 3765600.00 3.36797 (14101107)
440169.00 3765600.00 3.43126 (14101107)
440269.00 3765600.00 3.48360 (14101107)
439269.00 3765700.00 14.46400 (12101307)
439369.00 3765700.00 14.87799 (12101307)
439469.00 3765700.00 15.29784 (12101307)
439569.00 3765700.00 15.87124 (14101107)
439669.00 3765700.00 16.25774 (14101107)
439769.00 3765700.00 16.50261 (14101107)
439869.00 3765700.00 16.73890 (14101107)
439969.00 3765700.00 16.78309 (14101107)
440069.00 3765700.00 17.07709 (12101207)
440169.00 3765700.00 17.08460 (12101207)
440269.00 3765700.00 17.12930 (12101207)
439269.00 3765800.00 4.21408 (12100707)

```
439369.00   3765800.00        4.16890  (12100707)
        439469.00   3765800.00        4.12125  (12100707)
439569.00   3765800.00        4.07404  (12100707)
        439669.00   3765800.00        4.02035  (12100707)
439769.00   3765800.00        3.95669  (12100707)
        439869.00   3765800.00        3.88241  (12011717)
439969.00   3765800.00        3.91066  (12011717)
        440069.00   3765800.00        3.93224  (12011717)
440169.00   3765800.00        3.94773  (12011717)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: FREEEXH ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
440269.00	3765800.00	3.95991	(12011717)
439269.00	3765900.00	2.38141	(12100707)
439369.00	3765900.00	2.33400	(12100707)
439469.00	3765900.00	2.27911	(12100707)
439569.00	3765900.00	2.25388	(13111217)
439669.00	3765900.00	2.28003	(13111217)
439769.00	3765900.00	2.29606	(13111217)
439869.00	3765900.00	2.30377	(13111217)
439969.00	3765900.00	2.31008	(13111217)
440069.00	3765900.00	2.31386	(13111217)
440169.00	3765900.00	2.31703	(13111217)
440269.00	3765900.00	2.33252	(12011717)
439649.00	3765310.00	1.27016	(13120808)
439679.00	3765310.00	1.27044	(13120808)
439709.00	3765310.00	1.27081	(13120808)
439739.00	3765310.00	1.27035	(13120808)
439769.00	3765310.00	1.27002	(13120808)
439799.00	3765310.00	1.27007	(13120808)
439829.00	3765310.00	1.26960	(13120808)

```
439859.00   3765310.00        1.26901  (13120808)
        439889.00   3765310.00        1.26713  (13120808)
439649.00   3765340.00        1.33934  (13120808)
        439679.00   3765340.00        1.33932  (13120808)
439709.00   3765340.00        1.33913  (13120808)
        439739.00   3765340.00        1.33954  (13120808)
439769.00   3765340.00        1.33938  (13120808)
        439799.00   3765340.00        1.33949  (13120808)
439829.00   3765340.00        1.33888  (13120808)
        439859.00   3765340.00        1.33866  (13120808)
439889.00   3765340.00        1.33800  (13120808)
        439649.00   3765370.00        1.41799  (13120808)
439679.00   3765370.00        1.41803  (13120808)
        439709.00   3765370.00        1.41822  (13120808)
439739.00   3765370.00        1.41839  (13120808)
        439769.00   3765370.00        1.41847  (13120808)
439799.00   3765370.00        1.41856  (13120808)
        439829.00   3765370.00        1.41842  (13120808)
439859.00   3765370.00        1.41858  (13120808)
        439889.00   3765370.00        1.41807  (13120808)
439649.00   3765400.00        1.52731  (12011417)
        439679.00   3765400.00        1.51137  (12011417)
439709.00   3765400.00        1.50984  (13120808)
        439739.00   3765400.00        1.50998  (13120808)
439769.00   3765400.00        1.51022  (13120808)
        439799.00   3765400.00        1.51040  (13120808)
439829.00   3765400.00        1.51045  (13120808)
        439859.00   3765400.00        1.51046  (13120808)
439889.00   3765400.00        1.51049  (13120808)
        439649.00   3765430.00        1.67246  (12011417)
439679.00   3765430.00        1.66013  (12011417)
        439709.00   3765430.00        1.64612  (12011417)
439739.00   3765430.00        1.62900  (12011417)
        439769.00   3765430.00        1.61798  (13120808)
439799.00   3765430.00        1.61813  (13120808)
        439829.00   3765430.00        1.61868  (13120808)
439859.00   3765430.00        1.61893  (13120808)
        439889.00   3765430.00        1.61897  (13120808)
439649.00   3765460.00        1.83786  (12011417)
        439679.00   3765460.00        1.82686  (12011417)
439709.00   3765460.00        1.81585  (12011417)
        439739.00   3765460.00        1.80324  (12011417)
439769.00   3765460.00        1.78812  (12011417)
        439799.00   3765460.00        1.76960  (12011417)
439829.00   3765460.00        1.74959  (12011417)
        439859.00   3765460.00        1.74824  (13120808)
439889.00   3765460.00        1.74855  (13120808)
        439649.00   3765490.00        2.02994  (12011417)
439679.00   3765490.00        2.02121  (12011417)
        439709.00   3765490.00        2.01295  (12011417)
439739.00   3765490.00        2.00287  (12011417)
        439769.00   3765490.00        1.99158  (12011417)
```

```
439799.00   3765490.00        1.97783  (12011417)
        439829.00   3765490.00        1.96204  (12011417)
439859.00   3765490.00        1.94396  (12011417)
        439889.00   3765490.00        1.92300  (12011417)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONOFFEXH ***
INCLUDING SOURCE(S):
A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , A0000029 , A0000030 , A0000031 , A0000032 , A0000033 , A0000034 , A0000035 ,
A0000036 , A0000037 , A0000038 , A0000039 , A0000040 , A0000041 , A0000042 , A0000043 ,
A0000044 , A0000045 , A0000046 , A0000047 , A0000048 , A0000049 , A0000050 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439674.00	3765310.00	0.05503	(13101107)	439679.00	3765310.00	0.05563	(14100607)
439684.00	3765310.00	0.05634	(14100607)	439689.00	3765310.00	0.05708	(14100607)
439694.00	3765310.00	0.05781	(14100607)	439699.00	3765310.00	0.05854	(14100607)
439704.00	3765310.00	0.05926	(14100607)	439709.00	3765310.00	0.06000	(14100607)
439714.00	3765310.00	0.06071	(14100607)	439719.00	3765310.00	0.06142	(14100607)
439729.00	3765310.00	0.06279	(14100607)	439734.00	3765310.00	0.06346	(14100607)
439739.00	3765310.00	0.06410	(14100607)	439744.00	3765310.00	0.06474	(14100607)
439749.00	3765310.00	0.06532	(14100607)	439764.00	3765310.00	0.06698	(14100607)
439769.00	3765310.00	0.06745	(14100607)				

439774.00 3765310.00 0.06790 (14100607)
439779.00 3765310.00 0.06831 (14100607)
439784.00 3765310.00 0.06870 (14100607)
439789.00 3765310.00 0.06903 (14100607)
439794.00 3765310.00 0.06932 (14100607)
439799.00 3765310.00 0.06959 (14100607)
439804.00 3765310.00 0.06980 (14100607)
439809.00 3765310.00 0.07000 (14100607)
439814.00 3765310.00 0.07011 (14100607)
439819.00 3765310.00 0.07022 (14100607)
439824.00 3765310.00 0.07027 (14100607)
439829.00 3765310.00 0.07029 (14100607)
439839.00 3765310.00 0.07019 (14100607)
439844.00 3765310.00 0.07009 (14100607)
439849.00 3765310.00 0.06996 (14100607)
439854.00 3765310.00 0.06978 (14100607)
439859.00 3765310.00 0.06954 (14100607)
439864.00 3765310.00 0.06931 (14100607)
439869.00 3765310.00 0.06903 (14100607)
439874.00 3765310.00 0.06873 (14100607)
439879.00 3765310.00 0.06839 (14100607)
439884.00 3765310.00 0.06802 (14100607)
439674.00 3765315.00 0.05554 (13101107)
439679.00 3765315.00 0.05577 (13101107)
439684.00 3765315.00 0.05629 (14100607)
439689.00 3765315.00 0.05702 (14100607)
439694.00 3765315.00 0.05778 (14100607)
439699.00 3765315.00 0.05854 (14100607)
439704.00 3765315.00 0.05930 (14100607)
439709.00 3765315.00 0.06004 (14100607)
439714.00 3765315.00 0.06079 (14100607)
439719.00 3765315.00 0.06152 (14100607)
439729.00 3765315.00 0.06295 (14100607)
439734.00 3765315.00 0.06366 (14100607)
439739.00 3765315.00 0.06433 (14100607)
439744.00 3765315.00 0.06500 (14100607)
439749.00 3765315.00 0.06564 (14100607)
439764.00 3765315.00 0.06738 (14100607)
439769.00 3765315.00 0.06791 (14100607)
439774.00 3765315.00 0.06840 (14100607)
439779.00 3765315.00 0.06884 (14100607)
439784.00 3765315.00 0.06926 (14100607)
439789.00 3765315.00 0.06964 (14100607)
439794.00 3765315.00 0.06999 (14100607)
439799.00 3765315.00 0.07027 (14100607)
439804.00 3765315.00 0.07053 (14100607)
439809.00 3765315.00 0.07074 (14100607)
439814.00 3765315.00 0.07092 (14100607)
439819.00 3765315.00 0.07104 (14100607)
439824.00 3765315.00 0.07112 (14100607)
439829.00 3765315.00 0.07116 (14100607)
439839.00 3765315.00 0.07113 (14100607)

```
439844.00   3765315.00        0.07105  (14100607)
        439849.00   3765315.00        0.07093  (14100607)
439854.00   3765315.00        0.07078  (14100607)
        439859.00   3765315.00        0.07059  (14100607)
439864.00   3765315.00        0.07036  (14100607)
        439869.00   3765315.00        0.07009  (14100607)
439874.00   3765315.00        0.06981  (14100607)
        439879.00   3765315.00        0.06949  (14100607)
439884.00   3765315.00        0.06913  (14100607)
        439674.00   3765320.00        0.05604  (13101107)
439679.00   3765320.00        0.05629  (13101107)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONOFFEXH ***
INCLUDING SOURCE(S):
A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , A0000029 , A0000030 , A0000031 , A0000032 , A0000033 , A0000034 , A0000035 ,
A0000036 , A0000037 , A0000038 , A0000039 , A0000040 , A0000041 , A0000042 , A0000043 ,
A0000044 , A0000045 , A0000046 , A0000047 , A0000048 , A0000049 , A0000050 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439684.00	3765320.00	0.05654	(13101107)	439689.00	3765320.00	0.05697	(14100607)
439694.00	3765320.00	0.05774	(14100607)	439699.00	3765320.00	0.05851	(14100607)
439704.00	3765320.00	0.05929	(14100607)	439709.00	3765320.00	0.06007	(14100607)
439714.00	3765320.00	0.06084	(14100607)	439719.00	3765320.00	0.06160	(14100607)
439729.00	3765320.00	0.06312	(14100607)	439734.00	3765320.00	0.06383	(14100607)
439739.00	3765320.00	0.06456	(14100607)	439744.00	3765320.00	0.06524	(14100607)
439749.00	3765320.00	0.06593	(14100607)	439764.00	3765320.00	0.06778	(14100607)
439769.00	3765320.00	0.06835	(14100607)	439774.00	3765320.00	0.06887	(14100607)
439779.00	3765320.00	0.06939	(14100607)				

439784.00 3765320.00 0.06982 (14100607)
439789.00 3765320.00 0.07024 (14100607)
439794.00 3765320.00 0.07062 (14100607)
439799.00 3765320.00 0.07095 (14100607)
439804.00 3765320.00 0.07125 (14100607)
439809.00 3765320.00 0.07148 (14100607)
439814.00 3765320.00 0.07170 (14100607)
439819.00 3765320.00 0.07185 (14100607)
439824.00 3765320.00 0.07198 (14100607)
439829.00 3765320.00 0.07204 (14100607)
439839.00 3765320.00 0.07207 (14100607)
439844.00 3765320.00 0.07202 (14100607)
439849.00 3765320.00 0.07192 (14100607)
439854.00 3765320.00 0.07179 (14100607)
439859.00 3765320.00 0.07162 (14100607)
439864.00 3765320.00 0.07141 (14100607)
439869.00 3765320.00 0.07117 (14100607)
439874.00 3765320.00 0.07088 (14100607)
439879.00 3765320.00 0.07059 (14100607)
439884.00 3765320.00 0.07026 (14100607)
439674.00 3765325.00 0.05652 (13101107)
439679.00 3765325.00 0.05681 (13101107)
439684.00 3765325.00 0.05706 (13101107)
439689.00 3765325.00 0.05732 (13101107)
439694.00 3765325.00 0.05767 (14100607)
439699.00 3765325.00 0.05847 (14100607)
439704.00 3765325.00 0.05927 (14100607)
439709.00 3765325.00 0.06008 (14100607)
439714.00 3765325.00 0.06087 (14100607)
439719.00 3765325.00 0.06167 (14100607)
439729.00 3765325.00 0.06322 (14100607)
439734.00 3765325.00 0.06399 (14100607)
439739.00 3765325.00 0.06474 (14100607)
439744.00 3765325.00 0.06548 (14100607)
439749.00 3765325.00 0.06618 (14100607)
439754.00 3765325.00 0.06688 (14100607)
439769.00 3765325.00 0.06876 (14100607)
439774.00 3765325.00 0.06934 (14100607)
439779.00 3765325.00 0.06987 (14100607)
439784.00 3765325.00 0.07038 (14100607)
439789.00 3765325.00 0.07082 (14100607)
439794.00 3765325.00 0.07124 (14100607)
439799.00 3765325.00 0.07162 (14100607)
439804.00 3765325.00 0.07195 (14100607)
439809.00 3765325.00 0.07224 (14100607)
439814.00 3765325.00 0.07246 (14100607)
439819.00 3765325.00 0.07267 (14100607)
439824.00 3765325.00 0.07282 (14100607)
439829.00 3765325.00 0.07293 (14100607)
439839.00 3765325.00 0.07300 (14100607)
439844.00 3765325.00 0.07298 (14100607)
439849.00 3765325.00 0.07293 (14100607)

```
439854.00   3765325.00        0.07281  (14100607)
        439859.00   3765325.00        0.07266  (14100607)
439864.00   3765325.00        0.07248  (14100607)
        439869.00   3765325.00        0.07226  (14100607)
439874.00   3765325.00        0.07201  (14100607)
        439879.00   3765325.00        0.07170  (14100607)
439884.00   3765325.00        0.07139  (14100607)
        439674.00   3765330.00        0.05708  (15102007)
439679.00   3765330.00        0.05729  (13101107)
        439684.00   3765330.00        0.05760  (13101107)
439689.00   3765330.00        0.05786  (13101107)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONOFFEXH ***
INCLUDING SOURCE(S):
A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , A0000029 , A0000030 , A0000031 , A0000032 , A0000033 , A0000034 , A0000035 ,
A0000036 , A0000037 , A0000038 , A0000039 , A0000040 , A0000041 , A0000042 , A0000043 ,
A0000044 , A0000045 , A0000046 , A0000047 , A0000048 , A0000049 , A0000050 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439694.00	3765330.00	0.05813	(13101107)	439699.00	3765330.00	0.05840	(14100607)
439704.00	3765330.00	0.05923	(14100607)	439709.00	3765330.00	0.06004	(14100607)
439714.00	3765330.00	0.06089	(14100607)	439719.00	3765330.00	0.06169	(14100607)
439729.00	3765330.00	0.06331	(14100607)	439734.00	3765330.00	0.06413	(14100607)
439739.00	3765330.00	0.06490	(14100607)	439744.00	3765330.00	0.06568	(14100607)
439749.00	3765330.00	0.06642	(14100607)	439754.00	3765330.00	0.06715	(14100607)
439774.00	3765330.00	0.06979	(14100607)	439779.00	3765330.00	0.07035	(14100607)
439784.00	3765330.00	0.07090	(14100607)	439789.00	3765330.00	0.07139	(14100607)
439794.00	3765330.00	0.07186	(14100607)				

439799.00 3765330.00 0.07226 (14100607)
439804.00 3765330.00 0.07264 (14100607)
439809.00 3765330.00 0.07296 (14100607)
439814.00 3765330.00 0.07324 (14100607)
439819.00 3765330.00 0.07349 (14100607)
439824.00 3765330.00 0.07366 (14100607)
439829.00 3765330.00 0.07380 (14100607)
439839.00 3765330.00 0.07394 (14100607)
439844.00 3765330.00 0.07395 (14100607)
439849.00 3765330.00 0.07391 (14100607)
439854.00 3765330.00 0.07384 (14100607)
439859.00 3765330.00 0.07372 (14100607)
439864.00 3765330.00 0.07355 (14100607)
439869.00 3765330.00 0.07333 (14100607)
439874.00 3765330.00 0.07311 (14100607)
439879.00 3765330.00 0.07285 (14100607)
439884.00 3765330.00 0.07253 (14100607)
439674.00 3765335.00 0.05787 (15102007)
439679.00 3765335.00 0.05795 (15102007)
439684.00 3765335.00 0.05807 (13101107)
439689.00 3765335.00 0.05840 (13101107)
439694.00 3765335.00 0.05868 (13101107)
439699.00 3765335.00 0.05896 (13101107)
439704.00 3765335.00 0.05920 (13101107)
439709.00 3765335.00 0.06000 (14100607)
439714.00 3765335.00 0.06085 (14100607)
439719.00 3765335.00 0.06171 (14100607)
439729.00 3765335.00 0.06341 (14100607)
439734.00 3765335.00 0.06423 (14100607)
439739.00 3765335.00 0.06505 (14100607)
439744.00 3765335.00 0.06585 (14100607)
439749.00 3765335.00 0.06664 (14100607)
439774.00 3765335.00 0.07020 (14100607)
439779.00 3765335.00 0.07084 (14100607)
439784.00 3765335.00 0.07139 (14100607)
439789.00 3765335.00 0.07195 (14100607)
439794.00 3765335.00 0.07245 (14100607)
439839.00 3765335.00 0.07489 (14100607)
439844.00 3765335.00 0.07494 (14100607)
439849.00 3765335.00 0.07491 (14100607)
439854.00 3765335.00 0.07487 (14100607)
439859.00 3765335.00 0.07477 (14100607)
439864.00 3765335.00 0.07463 (14100607)
439869.00 3765335.00 0.07445 (14100607)
439874.00 3765335.00 0.07423 (14100607)
439879.00 3765335.00 0.07398 (14100607)
439884.00 3765335.00 0.07370 (14100607)
439674.00 3765340.00 0.05864 (15102007)
439679.00 3765340.00 0.05877 (15102007)
439684.00 3765340.00 0.05886 (15102007)
439689.00 3765340.00 0.05894 (15102007)
439694.00 3765340.00 0.05922 (13101107)

```
439699.00   3765340.00        0.05952  (13101107)
        439704.00   3765340.00        0.05982  (13101107)
439709.00   3765340.00        0.06006  (13101107)
        439714.00   3765340.00        0.06081  (14100607)
439719.00   3765340.00        0.06170  (14100607)
        439729.00   3765340.00        0.06344  (14100607)
439734.00   3765340.00        0.06430  (14100607)
        439739.00   3765340.00        0.06516  (14100607)
439744.00   3765340.00        0.06600  (14100607)
        439749.00   3765340.00        0.06682  (14100607)
439774.00   3765340.00        0.07060  (14100607)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONOFFEXH ***
INCLUDING SOURCE(S):
A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , A0000029 , A0000030 , A0000031 , A0000032 , A0000033 , A0000034 , A0000035 ,
A0000036 , A0000037 , A0000038 , A0000039 , A0000040 , A0000041 , A0000042 , A0000043 ,
A0000044 , A0000045 , A0000046 , A0000047 , A0000048 , A0000049 , A0000050 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439779.00	3765340.00	0.07127	(14100607)	439784.00	3765340.00	0.07191	(14100607)
439789.00	3765340.00	0.07249	(14100607)	439794.00	3765340.00	0.07303	(14100607)
439839.00	3765340.00	0.07583	(14100607)	439844.00	3765340.00	0.07589	(14100607)
439849.00	3765340.00	0.07594	(14100607)	439854.00	3765340.00	0.07590	(14100607)
439859.00	3765340.00	0.07583	(14100607)	439864.00	3765340.00	0.07572	(14100607)
439869.00	3765340.00	0.07557	(14100607)	439874.00	3765340.00	0.07536	(14100607)
439879.00	3765340.00	0.07513	(14100607)	439884.00	3765340.00	0.07486	(14100607)
439674.00	3765345.00	0.05939	(15102007)	439679.00	3765345.00	0.05955	(15102007)
439684.00	3765345.00	0.05969	(15102007)				

439689.00 3765345.00 0.05979 (15102007)
439694.00 3765345.00 0.05988 (15102007)
439699.00 3765345.00 0.06006 (13101107)
439704.00 3765345.00 0.06039 (13101107)
439709.00 3765345.00 0.06070 (13101107)
439714.00 3765345.00 0.06095 (13101107)
439719.00 3765345.00 0.06165 (14100607)
439729.00 3765345.00 0.06346 (14100607)
439734.00 3765345.00 0.06436 (14100607)
439739.00 3765345.00 0.06524 (14100607)
439744.00 3765345.00 0.06613 (14100607)
439749.00 3765345.00 0.06699 (14100607)
439774.00 3765345.00 0.07100 (14100607)
439779.00 3765345.00 0.07168 (14100607)
439784.00 3765345.00 0.07238 (14100607)
439789.00 3765345.00 0.07300 (14100607)
439794.00 3765345.00 0.07361 (14100607)
439839.00 3765345.00 0.07678 (14100607)
439844.00 3765345.00 0.07687 (14100607)
439849.00 3765345.00 0.07694 (14100607)
439854.00 3765345.00 0.07695 (14100607)
439859.00 3765345.00 0.07690 (14100607)
439864.00 3765345.00 0.07682 (14100607)
439869.00 3765345.00 0.07668 (14100607)
439874.00 3765345.00 0.07651 (14100607)
439879.00 3765345.00 0.07630 (14100607)
439884.00 3765345.00 0.07605 (14100607)
439674.00 3765350.00 0.06010 (15102007)
439679.00 3765350.00 0.06030 (15102007)
439684.00 3765350.00 0.06047 (15102007)
439689.00 3765350.00 0.06064 (15102007)
439694.00 3765350.00 0.06074 (15102007)
439699.00 3765350.00 0.06085 (15102007)
439704.00 3765350.00 0.06093 (13101107)
439709.00 3765350.00 0.06127 (13101107)
439714.00 3765350.00 0.06160 (13101107)
439719.00 3765350.00 0.06187 (13101107)
439729.00 3765350.00 0.06346 (14100607)
439734.00 3765350.00 0.06438 (14100607)
439739.00 3765350.00 0.06530 (14100607)
439744.00 3765350.00 0.06622 (14100607)
439749.00 3765350.00 0.06713 (14100607)
439774.00 3765350.00 0.07134 (14100607)
439779.00 3765350.00 0.07211 (14100607)
439784.00 3765350.00 0.07281 (14100607)
439789.00 3765350.00 0.07350 (14100607)
439794.00 3765350.00 0.07414 (14100607)
439839.00 3765350.00 0.07773 (14100607)
439844.00 3765350.00 0.07788 (14100607)
439849.00 3765350.00 0.07794 (14100607)
439854.00 3765350.00 0.07799 (14100607)
439859.00 3765350.00 0.07798 (14100607)

```
439864.00   3765350.00        0.07792  (14100607)
        439869.00   3765350.00        0.07781  (14100607)
439874.00   3765350.00        0.07767  (14100607)
        439879.00   3765350.00        0.07747  (14100607)
439884.00   3765350.00        0.07725  (14100607)
        439674.00   3765355.00        0.06079  (15102007)
439679.00   3765355.00        0.06103  (15102007)
        439684.00   3765355.00        0.06123  (15102007)
439689.00   3765355.00        0.06142  (15102007)
        439694.00   3765355.00        0.06160  (15102007)
439699.00   3765355.00        0.06173  (15102007)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONOFFEXH ***
INCLUDING SOURCE(S):
A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , A0000029 , A0000030 , A0000031 , A0000032 , A0000033 , A0000034 , A0000035 ,
A0000036 , A0000037 , A0000038 , A0000039 , A0000040 , A0000041 , A0000042 , A0000043 ,
A0000044 , A0000045 , A0000046 , A0000047 , A0000048 , A0000049 , A0000050 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439704.00	3765355.00	0.06185	(15102007)	439709.00	3765355.00	0.06192	(15102007)
439714.00	3765355.00	0.06218	(13101107)	439719.00	3765355.00	0.06252	(13101107)
439729.00	3765355.00	0.06340	(14100607)	439734.00	3765355.00	0.06438	(14100607)
439739.00	3765355.00	0.06533	(14100607)	439744.00	3765355.00	0.06629	(14100607)
439749.00	3765355.00	0.06723	(14100607)	439774.00	3765355.00	0.07166	(14100607)
439779.00	3765355.00	0.07247	(14100607)	439784.00	3765355.00	0.07324	(14100607)
439789.00	3765355.00	0.07398	(14100607)	439794.00	3765355.00	0.07465	(14100607)
439839.00	3765355.00	0.07867	(14100607)	439844.00	3765355.00	0.07884	(14100607)
439849.00	3765355.00	0.07898	(14100607)				

```
439854.00   3765355.00        0.07905  (14100607)
        439859.00   3765355.00        0.07906  (14100607)
439864.00   3765355.00        0.07904  (14100607)
        439869.00   3765355.00        0.07897  (14100607)
439874.00   3765355.00        0.07883  (14100607)
        439879.00   3765355.00        0.07867  (14100607)
439884.00   3765355.00        0.07845  (14100607)
        439674.00   3765360.00        0.06148  (15102007)
439679.00   3765360.00        0.06173  (15102007)
        439684.00   3765360.00        0.06198  (15102007)
439689.00   3765360.00        0.06220  (15102007)
        439694.00   3765360.00        0.06240  (15102007)
439699.00   3765360.00        0.06259  (15102007)
        439704.00   3765360.00        0.06274  (15102007)
439709.00   3765360.00        0.06288  (15102007)
        439714.00   3765360.00        0.06296  (15102007)
439719.00   3765360.00        0.06313  (13101107)
        439729.00   3765360.00        0.06378  (13101107)
439734.00   3765360.00        0.06434  (14100607)
        439739.00   3765360.00        0.06533  (14100607)
439744.00   3765360.00        0.06632  (14100607)
        439749.00   3765360.00        0.06731  (14100607)
439774.00   3765360.00        0.07197  (14100607)
        439779.00   3765360.00        0.07282  (14100607)
439784.00   3765360.00        0.07365  (14100607)
        439789.00   3765360.00        0.07442  (14100607)
439794.00   3765360.00        0.07518  (14100607)
        439799.00   3765360.00        0.07586  (14100607)
439804.00   3765360.00        0.07652  (14100607)
        439809.00   3765360.00        0.07712  (14100607)
439814.00   3765360.00        0.07768  (14100607)
        439839.00   3765360.00        0.07962  (14100607)
439844.00   3765360.00        0.07982  (14100607)
        439849.00   3765360.00        0.08000  (14100607)
439854.00   3765360.00        0.08010  (14100607)
        439859.00   3765360.00        0.08016  (14100607)
439864.00   3765360.00        0.08016  (14100607)
        439869.00   3765360.00        0.08012  (14100607)
439874.00   3765360.00        0.08001  (14100607)
        439879.00   3765360.00        0.07987  (14100607)
439884.00   3765360.00        0.07968  (14100607)
        439674.00   3765365.00        0.06209  (15102007)
439679.00   3765365.00        0.06242  (15102007)
        439684.00   3765365.00        0.06270  (15102007)
439689.00   3765365.00        0.06296  (15102007)
        439694.00   3765365.00        0.06320  (15102007)
439699.00   3765365.00        0.06340  (15102007)
        439704.00   3765365.00        0.06361  (15102007)
439709.00   3765365.00        0.06377  (15102007)
        439714.00   3765365.00        0.06392  (15102007)
439719.00   3765365.00        0.06403  (15102007)
        439729.00   3765365.00        0.06444  (13101107)
```

```
439734.00   3765365.00        0.06479  (13101107)
        439739.00   3765365.00        0.06531  (14100607)
439744.00   3765365.00        0.06632  (14100607)
        439749.00   3765365.00        0.06736  (14100607)
439774.00   3765365.00        0.07224  (14100607)
        439779.00   3765365.00        0.07315  (14100607)
439784.00   3765365.00        0.07401  (14100607)
        439789.00   3765365.00        0.07486  (14100607)
439794.00   3765365.00        0.07565  (14100607)
        439799.00   3765365.00        0.07640  (14100607)
439804.00   3765365.00        0.07711  (14100607)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONOFFEXH ***
INCLUDING SOURCE(S):
A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , A0000029 , A0000030 , A0000031 , A0000032 , A0000033 , A0000034 , A0000035 ,
A0000036 , A0000037 , A0000038 , A0000039 , A0000040 , A0000041 , A0000042 , A0000043 ,
A0000044 , A0000045 , A0000046 , A0000047 , A0000048 , A0000049 , A0000050 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439809.00	3765365.00	0.07776	(14100607)	439814.00	3765365.00	0.07838	(14100607)
439839.00	3765365.00	0.08056	(14100607)	439844.00	3765365.00	0.08082	(14100607)
439849.00	3765365.00	0.08101	(14100607)	439854.00	3765365.00	0.08116	(14100607)
439859.00	3765365.00	0.08126	(14100607)	439864.00	3765365.00	0.08130	(14100607)
439869.00	3765365.00	0.08127	(14100607)	439874.00	3765365.00	0.08121	(14100607)
439879.00	3765365.00	0.08108	(14100607)	439884.00	3765365.00	0.08093	(14100607)
439674.00	3765370.00	0.06270	(15102007)	439679.00	3765370.00	0.06304	(15102007)
439684.00	3765370.00	0.06338	(15102007)	439689.00	3765370.00	0.06368	(15102007)
439694.00	3765370.00	0.06397	(15102007)				

```
439699.00   3765370.00        0.06422  (15102007)
        439704.00   3765370.00        0.06445  (15102007)
439709.00   3765370.00        0.06466  (15102007)
        439714.00   3765370.00        0.06483  (15102007)
439719.00   3765370.00        0.06500  (15102007)
        439729.00   3765370.00        0.06521  (15102007)
439734.00   3765370.00        0.06545  (13101107)
        439739.00   3765370.00        0.06581  (13101107)
439744.00   3765370.00        0.06631  (14100607)
        439749.00   3765370.00        0.06734  (14100607)
439774.00   3765370.00        0.07249  (14100607)
        439779.00   3765370.00        0.07344  (14100607)
439784.00   3765370.00        0.07436  (14100607)
        439789.00   3765370.00        0.07526  (14100607)
439794.00   3765370.00        0.07610  (14100607)
        439799.00   3765370.00        0.07692  (14100607)
439804.00   3765370.00        0.07767  (14100607)
        439809.00   3765370.00        0.07840  (14100607)
439814.00   3765370.00        0.07905  (14100607)
        439839.00   3765370.00        0.08150  (14100607)
439844.00   3765370.00        0.08180  (14100607)
        439849.00   3765370.00        0.08204  (14100607)
439854.00   3765370.00        0.08224  (14100607)
        439859.00   3765370.00        0.08236  (14100607)
439864.00   3765370.00        0.08244  (14100607)
        439869.00   3765370.00        0.08245  (14100607)
439874.00   3765370.00        0.08243  (14100607)
        439879.00   3765370.00        0.08232  (14100607)
439884.00   3765370.00        0.08218  (14100607)
        439674.00   3765375.00        0.06328  (15102007)
439679.00   3765375.00        0.06366  (15102007)
        439684.00   3765375.00        0.06402  (15102007)
439689.00   3765375.00        0.06437  (15102007)
        439694.00   3765375.00        0.06469  (15102007)
439699.00   3765375.00        0.06500  (15102007)
        439704.00   3765375.00        0.06528  (15102007)
439709.00   3765375.00        0.06552  (15102007)
        439714.00   3765375.00        0.06575  (15102007)
439719.00   3765375.00        0.06592  (15102007)
        439729.00   3765375.00        0.06623  (15102007)
439734.00   3765375.00        0.06635  (15102007)
        439739.00   3765375.00        0.06651  (13101107)
439744.00   3765375.00        0.06687  (13101107)
        439749.00   3765375.00        0.06734  (14100607)
439754.00   3765375.00        0.06842  (14100607)
        439774.00   3765375.00        0.07268  (14100607)
439779.00   3765375.00        0.07369  (14100607)
        439784.00   3765375.00        0.07469  (14100607)
439789.00   3765375.00        0.07562  (14100607)
        439794.00   3765375.00        0.07654  (14100607)
439799.00   3765375.00        0.07740  (14100607)
        439804.00   3765375.00        0.07823  (14100607)
```

```
439809.00   3765375.00        0.07899  (14100607)
        439814.00   3765375.00        0.07970  (14100607)
439839.00   3765375.00        0.08242  (14100607)
        439844.00   3765375.00        0.08278  (14100607)
439849.00   3765375.00        0.08308  (14100607)
        439854.00   3765375.00        0.08330  (14100607)
439859.00   3765375.00        0.08347  (14100607)
        439864.00   3765375.00        0.08359  (14100607)
439869.00   3765375.00        0.08364  (14100607)
        439874.00   3765375.00        0.08363  (14100607)
439879.00   3765375.00        0.08358  (14100607)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONOFFEXH ***
INCLUDING SOURCE(S):
A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , A0000029 , A0000030 , A0000031 , A0000032 , A0000033 , A0000034 , A0000035 ,
A0000036 , A0000037 , A0000038 , A0000039 , A0000040 , A0000041 , A0000042 , A0000043 ,
A0000044 , A0000045 , A0000046 , A0000047 , A0000048 , A0000049 , A0000050 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439884.00	3765375.00	0.08345	(14100607)	439774.00	3765380.00	0.07286	(14100607)
439779.00	3765380.00	0.07394	(14100607)	439784.00	3765380.00	0.07496	(14100607)
439789.00	3765380.00	0.07597	(14100607)	439794.00	3765380.00	0.07694	(14100607)
439799.00	3765380.00	0.07785	(14100607)	439804.00	3765380.00	0.07875	(14100607)
439809.00	3765380.00	0.07956	(14100607)	439814.00	3765380.00	0.08037	(14100607)
439769.00	3765385.00	0.07185	(14100607)	439819.00	3765385.00	0.08175	(14100607)
439769.00	3765400.00	0.07277	(15102007)	439844.00	3765400.00	0.08761	(14100607)
439849.00	3765400.00	0.08819	(14100607)	439674.00	3765405.00	0.06587	(15102007)
439714.00	3765405.00	0.07048	(15102007)				

439719.00 3765405.00 0.07097 (15102007)
439734.00 3765405.00 0.07229 (15102007)
439749.00 3765405.00 0.07328 (15102007)
439754.00 3765405.00 0.07355 (15102007)
439774.00 3765405.00 0.07415 (15102007)
439779.00 3765405.00 0.07450 (14100607)
439784.00 3765405.00 0.07582 (14100607)
439789.00 3765405.00 0.07716 (14100607)
439794.00 3765405.00 0.07842 (14100607)
439799.00 3765405.00 0.07968 (14100607)
439804.00 3765405.00 0.08089 (14100607)
439809.00 3765405.00 0.08206 (14100607)
439814.00 3765405.00 0.08319 (14100607)
439819.00 3765405.00 0.08425 (14100607)
439824.00 3765405.00 0.08524 (14100607)
439829.00 3765405.00 0.08619 (14100607)
439834.00 3765405.00 0.08706 (14100607)
439839.00 3765405.00 0.08784 (14100607)
439844.00 3765405.00 0.08858 (14100607)
439849.00 3765405.00 0.08921 (14100607)
439854.00 3765405.00 0.08977 (14100607)
439859.00 3765405.00 0.09024 (14100607)
439674.00 3765410.00 0.06614 (15102007)
439679.00 3765410.00 0.06681 (15102007)
439684.00 3765410.00 0.06746 (15102007)
439689.00 3765410.00 0.06811 (15102007)
439694.00 3765410.00 0.06874 (15102007)
439699.00 3765410.00 0.06936 (15102007)
439704.00 3765410.00 0.06998 (15102007)
439709.00 3765410.00 0.07056 (15102007)
439714.00 3765410.00 0.07114 (15102007)
439719.00 3765410.00 0.07167 (15102007)
439729.00 3765410.00 0.07268 (15102007)
439734.00 3765410.00 0.07315 (15102007)
439739.00 3765410.00 0.07359 (15102007)
439744.00 3765410.00 0.07399 (15102007)
439749.00 3765410.00 0.07434 (15102007)
439774.00 3765410.00 0.07552 (15102007)
439779.00 3765410.00 0.07561 (15102007)
439784.00 3765410.00 0.07588 (14100607)
439789.00 3765410.00 0.07725 (14100607)
439794.00 3765410.00 0.07861 (14100607)
439799.00 3765410.00 0.07994 (14100607)
439804.00 3765410.00 0.08120 (14100607)
439809.00 3765410.00 0.08246 (14100607)
439814.00 3765410.00 0.08366 (14100607)
439819.00 3765410.00 0.08479 (14100607)
439824.00 3765410.00 0.08589 (14100607)
439829.00 3765410.00 0.08689 (14100607)
439834.00 3765410.00 0.08784 (14100607)
439839.00 3765410.00 0.08871 (14100607)
439844.00 3765410.00 0.08951 (14100607)

```
439849.00   3765410.00        0.09021  (14100607)
        439854.00   3765410.00        0.09084  (14100607)
439859.00   3765410.00        0.09140  (14100607)
        439674.00   3765415.00        0.06694  (13032007)
439679.00   3765415.00        0.06707  (15102007)
        439684.00   3765415.00        0.06778  (15102007)
439689.00   3765415.00        0.06846  (15102007)
        439694.00   3765415.00        0.06914  (15102007)
439699.00   3765415.00        0.06981  (15102007)
        439704.00   3765415.00        0.07046  (15102007)
439709.00   3765415.00        0.07111  (15102007)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONOFFEXH ***
INCLUDING SOURCE(S):
A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , A0000029 , A0000030 , A0000031 , A0000032 , A0000033 , A0000034 , A0000035 ,
A0000036 , A0000037 , A0000038 , A0000039 , A0000040 , A0000041 , A0000042 , A0000043 ,
A0000044 , A0000045 , A0000046 , A0000047 , A0000048 , A0000049 , A0000050 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439714.00	3765415.00	0.07172	(15102007)	439719.00	3765415.00	0.07234	(15102007)
439729.00	3765415.00	0.07346	(15102007)	439734.00	3765415.00	0.07398	(15102007)
439739.00	3765415.00	0.07446	(15102007)	439744.00	3765415.00	0.07493	(15102007)
439749.00	3765415.00	0.07535	(15102007)	439774.00	3765415.00	0.07683	(15102007)
439779.00	3765415.00	0.07700	(15102007)	439784.00	3765415.00	0.07711	(15102007)
439789.00	3765415.00	0.07732	(14100607)	439794.00	3765415.00	0.07876	(14100607)
439799.00	3765415.00	0.08012	(14100607)	439804.00	3765415.00	0.08150	(14100607)
439809.00	3765415.00	0.08282	(14100607)	439814.00	3765415.00	0.08409	(14100607)
439819.00	3765415.00	0.08532	(14100607)				

439824.00 3765415.00 0.08648 (14100607)
439829.00 3765415.00 0.08758 (14100607)
439834.00 3765415.00 0.08861 (14100607)
439839.00 3765415.00 0.08955 (14100607)
439844.00 3765415.00 0.09041 (14100607)
439849.00 3765415.00 0.09123 (14100607)
439854.00 3765415.00 0.09192 (14100607)
439859.00 3765415.00 0.09253 (14100607)
439674.00 3765420.00 0.06828 (13032007)
439679.00 3765420.00 0.06840 (13032007)
439684.00 3765420.00 0.06851 (13032007)
439689.00 3765420.00 0.06877 (15102007)
439694.00 3765420.00 0.06949 (15102007)
439699.00 3765420.00 0.07021 (15102007)
439704.00 3765420.00 0.07092 (15102007)
439709.00 3765420.00 0.07159 (15102007)
439714.00 3765420.00 0.07228 (15102007)
439719.00 3765420.00 0.07292 (15102007)
439729.00 3765420.00 0.07418 (15102007)
439734.00 3765420.00 0.07477 (15102007)
439739.00 3765420.00 0.07532 (15102007)
439744.00 3765420.00 0.07583 (15102007)
439749.00 3765420.00 0.07632 (15102007)
439774.00 3765420.00 0.07813 (15102007)
439779.00 3765420.00 0.07834 (15102007)
439784.00 3765420.00 0.07853 (15102007)
439789.00 3765420.00 0.07865 (15102007)
439794.00 3765420.00 0.07882 (14100607)
439799.00 3765420.00 0.08032 (14100607)
439804.00 3765420.00 0.08172 (14100607)
439809.00 3765420.00 0.08313 (14100607)
439814.00 3765420.00 0.08449 (14100607)
439819.00 3765420.00 0.08580 (14100607)
439824.00 3765420.00 0.08705 (14100607)
439829.00 3765420.00 0.08824 (14100607)
439834.00 3765420.00 0.08933 (14100607)
439839.00 3765420.00 0.09038 (14100607)
439844.00 3765420.00 0.09134 (14100607)
439849.00 3765420.00 0.09220 (14100607)
439854.00 3765420.00 0.09298 (14100607)
439859.00 3765420.00 0.09367 (14100607)
439674.00 3765425.00 0.06957 (13032007)
439679.00 3765425.00 0.06976 (13032007)
439684.00 3765425.00 0.06990 (13032007)
439689.00 3765425.00 0.07004 (13032007)
439694.00 3765425.00 0.07013 (13032007)
439699.00 3765425.00 0.07054 (15102007)
439704.00 3765425.00 0.07130 (15102007)
439709.00 3765425.00 0.07205 (15102007)
439714.00 3765425.00 0.07276 (15102007)
439719.00 3765425.00 0.07349 (15102007)
439729.00 3765425.00 0.07485 (15102007)

```
439734.00   3765425.00        0.07549  (15102007)
        439739.00   3765425.00        0.07612  (15102007)
439744.00   3765425.00        0.07671  (15102007)
        439749.00   3765425.00        0.07725  (15102007)
439774.00   3765425.00        0.07941  (15102007)
        439779.00   3765425.00        0.07970  (15102007)
439784.00   3765425.00        0.07992  (15102007)
        439789.00   3765425.00        0.08012  (15102007)
439794.00   3765425.00        0.08025  (15102007)
        439799.00   3765425.00        0.08040  (14100607)
439804.00   3765425.00        0.08192  (14100607)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONOFFEXH ***
INCLUDING SOURCE(S):
A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , A0000029 , A0000030 , A0000031 , A0000032 , A0000033 , A0000034 , A0000035 ,
A0000036 , A0000037 , A0000038 , A0000039 , A0000040 , A0000041 , A0000042 , A0000043 ,
A0000044 , A0000045 , A0000046 , A0000047 , A0000048 , A0000049 , A0000050 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439809.00	3765425.00	0.08340	(14100607)	439814.00	3765425.00	0.08483	(14100607)
439819.00	3765425.00	0.08624	(14100607)	439824.00	3765425.00	0.08757	(14100607)
439829.00	3765425.00	0.08884	(14100607)	439834.00	3765425.00	0.09006	(14100607)
439839.00	3765425.00	0.09118	(14100607)	439844.00	3765425.00	0.09221	(14100607)
439849.00	3765425.00	0.09317	(14100607)	439854.00	3765425.00	0.09405	(14100607)
439859.00	3765425.00	0.09481	(14100607)	439674.00	3765430.00	0.07082	(13032007)
439679.00	3765430.00	0.07104	(13032007)	439684.00	3765430.00	0.07127	(13032007)
439689.00	3765430.00	0.07143	(13032007)	439694.00	3765430.00	0.07160	(13032007)
439699.00	3765430.00	0.07174	(13032007)				

```
439704.00   3765430.00        0.07182  (13032007)
        439709.00   3765430.00        0.07242  (15102007)
439714.00   3765430.00        0.07322  (15102007)
        439719.00   3765430.00        0.07397  (15102007)
439729.00   3765430.00        0.07545  (15102007)
        439734.00   3765430.00        0.07616  (15102007)
439739.00   3765430.00        0.07684  (15102007)
        439744.00   3765430.00        0.07750  (15102007)
439749.00   3765430.00        0.07814  (15102007)
        439774.00   3765430.00        0.08064  (15102007)
439779.00   3765430.00        0.08100  (15102007)
        439784.00   3765430.00        0.08133  (15102007)
439789.00   3765430.00        0.08157  (15102007)
        439794.00   3765430.00        0.08177  (15102007)
439799.00   3765430.00        0.08191  (15102007)
        439804.00   3765430.00        0.08206  (14100607)
439809.00   3765430.00        0.08361  (14100607)
        439814.00   3765430.00        0.08516  (14100607)
439819.00   3765430.00        0.08662  (14100607)
        439824.00   3765430.00        0.08805  (14100607)
439829.00   3765430.00        0.08944  (14100607)
        439834.00   3765430.00        0.09072  (14100607)
439839.00   3765430.00        0.09194  (14100607)
        439844.00   3765430.00        0.09308  (14100607)
439849.00   3765430.00        0.09414  (14100607)
        439854.00   3765430.00        0.09508  (14100607)
439859.00   3765430.00        0.09594  (14100607)
        439674.00   3765435.00        0.07205  (13032007)
439679.00   3765435.00        0.07233  (13032007)
        439684.00   3765435.00        0.07256  (13032007)
439689.00   3765435.00        0.07281  (13032007)
        439694.00   3765435.00        0.07302  (13032007)
439699.00   3765435.00        0.07320  (13032007)
        439704.00   3765435.00        0.07338  (13032007)
439709.00   3765435.00        0.07350  (13032007)
        439714.00   3765435.00        0.07361  (13032007)
439719.00   3765435.00        0.07441  (15102007)
        439729.00   3765435.00        0.07602  (15102007)
439734.00   3765435.00        0.07678  (15102007)
        439739.00   3765435.00        0.07753  (15102007)
439744.00   3765435.00        0.07825  (15102007)
        439749.00   3765435.00        0.07894  (15102007)
439774.00   3765435.00        0.08182  (15102007)
        439779.00   3765435.00        0.08227  (15102007)
439784.00   3765435.00        0.08265  (15102007)
        439789.00   3765435.00        0.08300  (15102007)
439794.00   3765435.00        0.08328  (15102007)
        439799.00   3765435.00        0.08350  (15102007)
439804.00   3765435.00        0.08364  (15102007)
        439809.00   3765435.00        0.08379  (14100607)
439814.00   3765435.00        0.08539  (14100607)
        439819.00   3765435.00        0.08698  (14100607)
```

```
439824.00   3765435.00        0.08851  (14100607)
        439829.00   3765435.00        0.08996  (14100607)
439834.00   3765435.00        0.09135  (14100607)
        439839.00   3765435.00        0.09269  (14100607)
439844.00   3765435.00        0.09393  (14100607)
        439849.00   3765435.00        0.09506  (14100607)
439854.00   3765435.00        0.09611  (14100607)
        439859.00   3765435.00        0.09707  (14100607)
439674.00   3765440.00        0.07322  (13032007)
        439679.00   3765440.00        0.07355  (13032007)
439684.00   3765440.00        0.07387  (13032007)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONOFFEXH ***
INCLUDING SOURCE(S):
A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , A0000029 , A0000030 , A0000031 , A0000032 , A0000033 , A0000034 , A0000035 ,
A0000036 , A0000037 , A0000038 , A0000039 , A0000040 , A0000041 , A0000042 , A0000043 ,
A0000044 , A0000045 , A0000046 , A0000047 , A0000048 , A0000049 , A0000050 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439689.00	3765440.00	0.07414	(13032007)	439694.00	3765440.00	0.07440	(13032007)
439699.00	3765440.00	0.07466	(13032007)	439704.00	3765440.00	0.07486	(13032007)
439709.00	3765440.00	0.07507	(13032007)	439714.00	3765440.00	0.07522	(13032007)
439719.00	3765440.00	0.07536	(13032007)	439729.00	3765440.00	0.07649	(15102007)
439734.00	3765440.00	0.07733	(15102007)	439739.00	3765440.00	0.07815	(15102007)
439744.00	3765440.00	0.07895	(15102007)	439749.00	3765440.00	0.07971	(15102007)
439774.00	3765440.00	0.08300	(15102007)	439779.00	3765440.00	0.08350	(15102007)
439784.00	3765440.00	0.08397	(15102007)	439789.00	3765440.00	0.08438	(15102007)
439794.00	3765440.00	0.08474	(15102007)				

439799.00 3765440.00 0.08504 (15102007)
439804.00 3765440.00 0.08528 (15102007)
439809.00 3765440.00 0.08545 (15102007)
439814.00 3765440.00 0.08560 (14100607)
439819.00 3765440.00 0.08727 (14100607)
439824.00 3765440.00 0.08889 (14100607)
439829.00 3765440.00 0.09046 (14100607)
439834.00 3765440.00 0.09198 (14100607)
439839.00 3765440.00 0.09338 (14100607)
439844.00 3765440.00 0.09472 (14100607)
439849.00 3765440.00 0.09598 (14100607)
439854.00 3765440.00 0.09714 (14100607)
439859.00 3765440.00 0.09817 (14100607)
439674.00 3765445.00 0.07433 (13032007)
439679.00 3765445.00 0.07473 (13032007)
439684.00 3765445.00 0.07508 (13032007)
439689.00 3765445.00 0.07545 (13032007)
439694.00 3765445.00 0.07577 (13032007)
439699.00 3765445.00 0.07606 (13032007)
439704.00 3765445.00 0.07634 (13032007)
439709.00 3765445.00 0.07658 (13032007)
439714.00 3765445.00 0.07680 (13032007)
439719.00 3765445.00 0.07700 (13032007)
439729.00 3765445.00 0.07731 (13032007)
439734.00 3765445.00 0.07782 (15102007)
439739.00 3765445.00 0.07870 (15102007)
439744.00 3765445.00 0.07957 (15102007)
439749.00 3765445.00 0.08041 (15102007)
439774.00 3765445.00 0.08408 (15102007)
439779.00 3765445.00 0.08470 (15102007)
439784.00 3765445.00 0.08525 (15102007)
439789.00 3765445.00 0.08575 (15102007)
439794.00 3765445.00 0.08618 (15102007)
439799.00 3765445.00 0.08656 (15102007)
439804.00 3765445.00 0.08687 (15102007)
439809.00 3765445.00 0.08712 (15102007)
439814.00 3765445.00 0.08732 (15102007)
439819.00 3765445.00 0.08750 (14100607)
439824.00 3765445.00 0.08923 (14100607)
439829.00 3765445.00 0.09090 (14100607)
439834.00 3765445.00 0.09250 (14100607)
439839.00 3765445.00 0.09405 (14100607)
439844.00 3765445.00 0.09551 (14100607)
439849.00 3765445.00 0.09687 (14100607)
439854.00 3765445.00 0.09811 (14100607)
439859.00 3765445.00 0.09928 (14100607)
439674.00 3765450.00 0.07541 (13032007)
439679.00 3765450.00 0.07583 (13032007)
439684.00 3765450.00 0.07627 (13032007)
439689.00 3765450.00 0.07666 (13032007)
439694.00 3765450.00 0.07705 (13032007)
439699.00 3765450.00 0.07744 (13032007)

```
439704.00   3765450.00        0.07776  (13032007)
        439709.00   3765450.00        0.07809  (13032007)
439714.00   3765450.00        0.07837  (13032007)
        439719.00   3765450.00        0.07861  (13032007)
439729.00   3765450.00        0.07902  (13032007)
        439734.00   3765450.00        0.07920  (13032007)
439739.00   3765450.00        0.07932  (13032007)
        439744.00   3765450.00        0.08012  (15102007)
439749.00   3765450.00        0.08104  (15102007)
        439774.00   3765450.00        0.08513  (15102007)
439844.00   3765450.00        0.09623  (14100607)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONOFFEXH ***
INCLUDING SOURCE(S):
A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , A0000029 , A0000030 , A0000031 , A0000032 , A0000033 , A0000034 , A0000035 ,
A0000036 , A0000037 , A0000038 , A0000039 , A0000040 , A0000041 , A0000042 , A0000043 ,
A0000044 , A0000045 , A0000046 , A0000047 , A0000048 , A0000049 , A0000050 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439849.00	3765450.00	0.09771	(14100607)	439854.00	3765450.00	0.09909	(14100607)
439859.00	3765450.00	0.10035	(14100607)	439674.00	3765455.00	0.07644	(13032007)
439679.00	3765455.00	0.07694	(13032007)	439684.00	3765455.00	0.07740	(13032007)
439689.00	3765455.00	0.07786	(13032007)	439694.00	3765455.00	0.07831	(13032007)
439699.00	3765455.00	0.07871	(13032007)	439704.00	3765455.00	0.07914	(13032007)
439709.00	3765455.00	0.07951	(13032007)	439714.00	3765455.00	0.07987	(13032007)
439719.00	3765455.00	0.08021	(13032007)	439729.00	3765455.00	0.08076	(13032007)
439734.00	3765455.00	0.08097	(13032007)	439739.00	3765455.00	0.08118	(13032007)
439744.00	3765455.00	0.08133	(13032007)				

439749.00 3765455.00 0.08159 (15102007)
439844.00 3765455.00 0.09694 (14100607)
439849.00 3765455.00 0.09853 (14100607)
439854.00 3765455.00 0.10003 (14100607)
439859.00 3765455.00 0.10141 (14100607)
439674.00 3765460.00 0.07739 (13032007)
439679.00 3765460.00 0.07792 (13032007)
439684.00 3765460.00 0.07848 (13032007)
439689.00 3765460.00 0.07901 (13032007)
439694.00 3765460.00 0.07950 (13032007)
439699.00 3765460.00 0.08000 (13032007)
439704.00 3765460.00 0.08044 (13032007)
439709.00 3765460.00 0.08089 (13032007)
439714.00 3765460.00 0.08132 (13032007)
439719.00 3765460.00 0.08171 (13032007)
439729.00 3765460.00 0.08242 (13032007)
439734.00 3765460.00 0.08274 (13032007)
439739.00 3765460.00 0.08301 (13032007)
439744.00 3765460.00 0.08322 (13032007)
439749.00 3765460.00 0.08342 (13032007)
439789.00 3765460.00 0.08952 (15102007)
439794.00 3765460.00 0.09025 (15102007)
439799.00 3765460.00 0.09089 (15102007)
439804.00 3765460.00 0.09149 (15102007)
439809.00 3765460.00 0.09203 (15102007)
439814.00 3765460.00 0.09248 (15102007)
439819.00 3765460.00 0.09288 (15102007)
439824.00 3765460.00 0.09316 (15102007)
439829.00 3765460.00 0.09337 (15102007)
439844.00 3765460.00 0.09756 (14100607)
439849.00 3765460.00 0.09930 (14100607)
439854.00 3765460.00 0.10093 (14100607)
439859.00 3765460.00 0.10246 (14100607)
439674.00 3765465.00 0.07827 (13032007)
439679.00 3765465.00 0.07888 (13032007)
439684.00 3765465.00 0.07946 (13032007)
439689.00 3765465.00 0.08004 (13032007)
439694.00 3765465.00 0.08063 (13032007)
439699.00 3765465.00 0.08117 (13032007)
439704.00 3765465.00 0.08172 (13032007)
439709.00 3765465.00 0.08224 (13032007)
439714.00 3765465.00 0.08271 (13032007)
439719.00 3765465.00 0.08319 (13032007)
439729.00 3765465.00 0.08404 (13032007)
439734.00 3765465.00 0.08442 (13032007)
439739.00 3765465.00 0.08477 (13032007)
439744.00 3765465.00 0.08510 (13032007)
439749.00 3765465.00 0.08536 (13032007)
439789.00 3765465.00 0.09065 (15102007)
439794.00 3765465.00 0.09148 (15102007)
439799.00 3765465.00 0.09227 (15102007)
439804.00 3765465.00 0.09295 (15102007)

```
439809.00   3765465.00        0.09359  (15102007)
        439814.00   3765465.00        0.09415  (15102007)
439819.00   3765465.00        0.09461  (15102007)
        439824.00   3765465.00        0.09504  (15102007)
439829.00   3765465.00        0.09536  (15102007)
        439844.00   3765465.00        0.09816  (14100607)
439849.00   3765465.00        0.10003  (14100607)
        439854.00   3765465.00        0.10180  (14100607)
439859.00   3765465.00        0.10345  (14100607)
        439674.00   3765470.00        0.07927  (12093007)
439679.00   3765470.00        0.07978  (12093007)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONOFFEXH ***
INCLUDING SOURCE(S):
A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , A0000029 , A0000030 , A0000031 , A0000032 , A0000033 , A0000034 , A0000035 ,
A0000036 , A0000037 , A0000038 , A0000039 , A0000040 , A0000041 , A0000042 , A0000043 ,
A0000044 , A0000045 , A0000046 , A0000047 , A0000048 , A0000049 , A0000050 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439684.00	3765470.00	0.08041	(13032007)	439689.00	3765470.00	0.08105	(13032007)
439694.00	3765470.00	0.08166	(13032007)	439699.00	3765470.00	0.08229	(13032007)
439704.00	3765470.00	0.08289	(13032007)	439709.00	3765470.00	0.08348	(13032007)
439714.00	3765470.00	0.08407	(13032007)	439719.00	3765470.00	0.08460	(13032007)
439729.00	3765470.00	0.08561	(13032007)	439734.00	3765470.00	0.08605	(13032007)
439739.00	3765470.00	0.08649	(13032007)	439744.00	3765470.00	0.08688	(13032007)
439749.00	3765470.00	0.08725	(13032007)	439789.00	3765470.00	0.09172	(15102007)
439794.00	3765470.00	0.09265	(15102007)	439799.00	3765470.00	0.09352	(15102007)
439804.00	3765470.00	0.09437	(15102007)				

```
439809.00   3765470.00        0.09511  (15102007)
        439814.00   3765470.00        0.09578  (15102007)
439819.00   3765470.00        0.09637  (15102007)
        439824.00   3765470.00        0.09686  (15102007)
439829.00   3765470.00        0.09730  (15102007)
        439844.00   3765470.00        0.09866  (14100607)
439849.00   3765470.00        0.10069  (14100607)
        439854.00   3765470.00        0.10261  (14100607)
439859.00   3765470.00        0.10442  (14100607)
        439674.00   3765475.00        0.08038  (12093007)
439679.00   3765475.00        0.08094  (12093007)
        439684.00   3765475.00        0.08151  (12093007)
439689.00   3765475.00        0.08204  (12093007)
        439694.00   3765475.00        0.08268  (13032007)
439699.00   3765475.00        0.08334  (13032007)
        439704.00   3765475.00        0.08400  (13032007)
439709.00   3765475.00        0.08467  (13032007)
        439714.00   3765475.00        0.08529  (13032007)
439719.00   3765475.00        0.08593  (13032007)
        439729.00   3765475.00        0.08710  (13032007)
439734.00   3765475.00        0.08767  (13032007)
        439739.00   3765475.00        0.08815  (13032007)
439744.00   3765475.00        0.08865  (13032007)
        439749.00   3765475.00        0.08908  (13032007)
439754.00   3765475.00        0.08949  (13032007)
        439789.00   3765475.00        0.09271  (15102007)
439794.00   3765475.00        0.09377  (15102007)
        439799.00   3765475.00        0.09474  (15102007)
439804.00   3765475.00        0.09568  (15102007)
        439809.00   3765475.00        0.09656  (15102007)
439814.00   3765475.00        0.09736  (15102007)
        439819.00   3765475.00        0.09808  (15102007)
439824.00   3765475.00        0.09870  (15102007)
        439829.00   3765475.00        0.09922  (15102007)
439269.00   3764900.00        0.03146  (14100607)
        439369.00   3764900.00        0.03301  (14100607)
439469.00   3764900.00        0.03382  (14100607)
        439569.00   3764900.00        0.03321  (13120808)
439669.00   3764900.00        0.03222  (13120808)
        439769.00   3764900.00        0.03135  (13102607)
439869.00   3764900.00        0.03325  (13101207)
        439969.00   3764900.00        0.03552  (13101207)
440069.00   3764900.00        0.03508  (12032207)
        440169.00   3764900.00        0.03293  (13102707)
440269.00   3764900.00        0.03378  (14102507)
        439269.00   3765000.00        0.03313  (13120808)
439369.00   3765000.00        0.03469  (14100607)
        439469.00   3765000.00        0.03734  (14100607)
439569.00   3765000.00        0.03875  (14100607)
        439669.00   3765000.00        0.03783  (13120808)
439769.00   3765000.00        0.03571  (13032507)
        439869.00   3765000.00        0.03625  (13102607)
```

```
439969.00   3765000.00        0.03961  (13101207)
        440069.00   3765000.00        0.03988  (12032207)
440169.00   3765000.00        0.03699  (13102707)
        440269.00   3765000.00        0.03789  (14102507)
439269.00   3765100.00        0.03697  (13120808)
        439369.00   3765100.00        0.03610  (13120808)
439469.00   3765100.00        0.03891  (14100607)
        439569.00   3765100.00        0.04339  (14100607)
439669.00   3765100.00        0.04543  (14100607)
        439769.00   3765100.00        0.04388  (13120808)
439869.00   3765100.00        0.04104  (13102607)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONOFFEXH ***
INCLUDING SOURCE(S):
A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , A0000029 , A0000030 , A0000031 , A0000032 , A0000033 , A0000034 , A0000035 ,
A0000036 , A0000037 , A0000038 , A0000039 , A0000040 , A0000041 , A0000042 , A0000043 ,
A0000044 , A0000045 , A0000046 , A0000047 , A0000048 , A0000049 , A0000050 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439969.00	3765100.00	0.04453	(13101207)	440069.00	3765100.00	0.04572	(12032207)
440169.00	3765100.00	0.04211	(13102707)	440269.00	3765100.00	0.04302	(14102507)
439269.00	3765200.00	0.04193	(13120808)	439369.00	3765200.00	0.04163	(13120808)
439469.00	3765200.00	0.04052	(12011808)	439569.00	3765200.00	0.04490	(14100607)
439669.00	3765200.00	0.05236	(14100607)	439769.00	3765200.00	0.05456	(14100607)
439869.00	3765200.00	0.05132	(13120808)	439969.00	3765200.00	0.05083	(13101207)
440069.00	3765200.00	0.05338	(13101207)	440169.00	3765200.00	0.04989	(12032207)
440269.00	3765200.00	0.04954	(14102507)	439269.00	3765300.00	0.04692	(13120808)
439369.00	3765300.00	0.05023	(13120808)				

439469.00 3765300.00 0.04642 (13120808)
439569.00 3765300.00 0.05031 (15102007)
439669.00 3765300.00 0.05436 (14100607)
439769.00 3765300.00 0.06648 (14100607)
439869.00 3765300.00 0.06693 (14100607)
439969.00 3765300.00 0.06015 (13120808)
440069.00 3765300.00 0.06393 (13101207)
440169.00 3765300.00 0.06060 (12032207)
440269.00 3765300.00 0.05822 (14102507)
439269.00 3765400.00 0.05650 (12011808)
439369.00 3765400.00 0.06175 (13120808)
439469.00 3765400.00 0.06005 (13120808)
439569.00 3765400.00 0.05996 (13032007)
439669.00 3765400.00 0.06494 (15102007)
439769.00 3765400.00 0.07277 (15102007)
439869.00 3765400.00 0.08972 (14100607)
439969.00 3765400.00 0.08425 (14100607)
440069.00 3765400.00 0.07999 (13101207)
440169.00 3765400.00 0.07678 (13101207)
440269.00 3765400.00 0.07111 (14102507)
439269.00 3765500.00 0.07304 (12112508)
439369.00 3765500.00 0.07668 (12011808)
439469.00 3765500.00 0.08196 (13120808)
439569.00 3765500.00 0.07458 (13120808)
439669.00 3765500.00 0.08631 (13092507)
439769.00 3765500.00 0.10069 (13032007)
439869.00 3765500.00 0.11446 (14100607)
439969.00 3765500.00 0.12770 (14100607)
440069.00 3765500.00 0.11493 (14100607)
440169.00 3765500.00 0.10491 (13101207)
440269.00 3765500.00 0.09865 (14012707)
439269.00 3765600.00 0.10053 (12101307)
439369.00 3765600.00 0.11445 (12112508)
439469.00 3765600.00 0.12197 (13120808)
439569.00 3765600.00 0.12010 (13120808)
439669.00 3765600.00 0.10585 (13120808)
439769.00 3765600.00 0.13404 (12101307)
439869.00 3765600.00 0.21237 (13092507)
439969.00 3765600.00 0.26503 (14100607)
440069.00 3765600.00 0.22845 (14100607)
440169.00 3765600.00 0.19644 (14100607)
440269.00 3765600.00 0.18235 (14101107)
439269.00 3765700.00 0.15311 (14012908)
439369.00 3765700.00 0.22285 (14012908)
439469.00 3765700.00 0.36489 (12101307)
439569.00 3765700.00 0.22139 (12101307)
439669.00 3765700.00 0.18334 (13120808)
439769.00 3765700.00 0.15224 (14101107)
439869.00 3765700.00 0.17982 (14101007)
439969.00 3765700.00 0.25248 (12100707)
440069.00 3765700.00 0.30579 (12100707)
440169.00 3765700.00 0.39705 (12100707)

```
440269.00   3765700.00        0.56725  (12100707)
        439269.00   3765800.00        0.14001  (13021408)
439369.00   3765800.00        0.20031  (12100707)
        439469.00   3765800.00        0.22437  (12100707)
439569.00   3765800.00        0.24192  (12100707)
        439669.00   3765800.00        0.28816  (12100707)
439769.00   3765800.00        0.35635  (12100707)
        439869.00   3765800.00        0.51964  (13111217)
439969.00   3765800.00        0.23629  (12100707)
        440069.00   3765800.00        0.17804  (12092507)
440169.00   3765800.00        0.17697  (15033007)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONOFFEXH ***
INCLUDING SOURCE(S):
A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , A0000029 , A0000030 , A0000031 , A0000032 , A0000033 , A0000034 , A0000035 ,
A0000036 , A0000037 , A0000038 , A0000039 , A0000040 , A0000041 , A0000042 , A0000043 ,
A0000044 , A0000045 , A0000046 , A0000047 , A0000048 , A0000049 , A0000050 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
440269.00	3765800.00	0.18035	(15033007)	439269.00	3765900.00	0.10907	(12100707)
439369.00	3765900.00	0.11457	(12100707)	439469.00	3765900.00	0.11579	(12100707)
439569.00	3765900.00	0.11814	(12011908)	439669.00	3765900.00	0.11436	(12011908)
439769.00	3765900.00	0.10787	(15110207)	439869.00	3765900.00	0.11934	(13111217)
439969.00	3765900.00	0.11572	(13111217)	440069.00	3765900.00	0.09870	(12092507)
440169.00	3765900.00	0.09981	(12092507)	440269.00	3765900.00	0.10581	(15033007)
439649.00	3765310.00	0.05378	(13101107)	439679.00	3765310.00	0.05563	(14100607)
439709.00	3765310.00	0.06000	(14100607)	439739.00	3765310.00	0.06410	(14100607)
439769.00	3765310.00	0.06745	(14100607)				

439799.00 3765310.00 0.06959 (14100607)
439829.00 3765310.00 0.07029 (14100607)
439859.00 3765310.00 0.06954 (14100607)
439889.00 3765310.00 0.06763 (14100607)
439649.00 3765340.00 0.05771 (15102007)
439679.00 3765340.00 0.05877 (15102007)
439709.00 3765340.00 0.06006 (13101107)
439739.00 3765340.00 0.06516 (14100607)
439769.00 3765340.00 0.06991 (14100607)
439799.00 3765340.00 0.07354 (14100607)
439829.00 3765340.00 0.07556 (14100607)
439859.00 3765340.00 0.07583 (14100607)
439889.00 3765340.00 0.07457 (14100607)
439649.00 3765370.00 0.06074 (15102007)
439679.00 3765370.00 0.06304 (15102007)
439709.00 3765370.00 0.06466 (15102007)
439739.00 3765370.00 0.06581 (13101107)
439769.00 3765370.00 0.07148 (14100607)
439799.00 3765370.00 0.07692 (14100607)
439829.00 3765370.00 0.08069 (14100607)
439859.00 3765370.00 0.08236 (14100607)
439889.00 3765370.00 0.08201 (14100607)
439649.00 3765400.00 0.06272 (13032007)
439679.00 3765400.00 0.06613 (15102007)
439709.00 3765400.00 0.06932 (15102007)
439739.00 3765400.00 0.07168 (15102007)
439769.00 3765400.00 0.07277 (15102007)
439799.00 3765400.00 0.07938 (14100607)
439829.00 3765400.00 0.08545 (14100607)
439859.00 3765400.00 0.08910 (14100607)
439889.00 3765400.00 0.09009 (14100607)
439649.00 3765430.00 0.06943 (13032007)
439679.00 3765430.00 0.07104 (13032007)
439709.00 3765430.00 0.07242 (15102007)
439739.00 3765430.00 0.07684 (15102007)
439769.00 3765430.00 0.08022 (15102007)
439799.00 3765430.00 0.08191 (15102007)
439829.00 3765430.00 0.08944 (14100607)
439859.00 3765430.00 0.09594 (14100607)
439889.00 3765430.00 0.09896 (14100607)
439649.00 3765460.00 0.07469 (12093007)
439679.00 3765460.00 0.07792 (13032007)
439709.00 3765460.00 0.08089 (13032007)
439739.00 3765460.00 0.08301 (13032007)
439769.00 3765460.00 0.08610 (15102007)
439799.00 3765460.00 0.09089 (15102007)
439829.00 3765460.00 0.09337 (15102007)
439859.00 3765460.00 0.10246 (14100607)
439889.00 3765460.00 0.10880 (14100607)
439649.00 3765490.00 0.08148 (13092507)
439679.00 3765490.00 0.08482 (13092507)
439709.00 3765490.00 0.08835 (12093007)

```
439739.00   3765490.00        0.09271  (13032007)
        439769.00   3765490.00        0.09680  (13032007)
439799.00   3765490.00        0.09915  (13032007)
        439829.00   3765490.00        0.10480  (15102007)
439859.00   3765490.00        0.10821  (15102007)
        439889.00   3765490.00        0.11962  (14100607)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439674.00	3765310.00	1.31612	(13120808)	439679.00	3765310.00	1.31670	(13120808)
439684.00	3765310.00	1.31705	(13120808)	439689.00	3765310.00	1.31782	(13120808)
439694.00	3765310.00	1.31803	(13120808)	439699.00	3765310.00	1.31894	(13120808)
439704.00	3765310.00	1.31920	(13120808)	439709.00	3765310.00	1.32027	(13120808)
439714.00	3765310.00	1.32024	(13120808)	439719.00	3765310.00	1.32148	(13120808)
439729.00	3765310.00	1.32258	(13120808)	439734.00	3765310.00	1.32296	(13120808)
439739.00	3765310.00	1.32370	(13120808)	439744.00	3765310.00	1.32434	(13120808)
439749.00	3765310.00	1.32490	(13120808)	439764.00	3765310.00	1.32726	(13120808)
439769.00	3765310.00	1.32752	(13120808)				

```
439774.00   3765310.00        1.32859  (13120808)
        439779.00   3765310.00        1.32889  (13120808)
439784.00   3765310.00        1.32992  (13120808)
        439789.00   3765310.00        1.33004  (13120808)
439794.00   3765310.00        1.33092  (13120808)
        439799.00   3765310.00        1.33138  (13120808)
439804.00   3765310.00        1.33171  (13120808)
        439809.00   3765310.00        1.33224  (13120808)
439814.00   3765310.00        1.33253  (13120808)
        439819.00   3765310.00        1.33326  (13120808)
439824.00   3765310.00        1.33321  (13120808)
        439829.00   3765310.00        1.33388  (13120808)
439839.00   3765310.00        1.33458  (13120808)
        439844.00   3765310.00        1.33421  (13120808)
439849.00   3765310.00        1.33489  (13120808)
        439854.00   3765310.00        1.33438  (13120808)
439859.00   3765310.00        1.33500  (13120808)
        439864.00   3765310.00        1.33445  (13120808)
439869.00   3765310.00        1.33451  (13120808)
        439874.00   3765310.00        1.33440  (13120808)
439879.00   3765310.00        1.33413  (13120808)
        439884.00   3765310.00        1.33419  (13120808)
439674.00   3765315.00        1.32690  (13120808)
        439679.00   3765315.00        1.32790  (13120808)
439684.00   3765315.00        1.32777  (13120808)
        439689.00   3765315.00        1.32893  (13120808)
439694.00   3765315.00        1.32893  (13120808)
        439699.00   3765315.00        1.32961  (13120808)
439704.00   3765315.00        1.33012  (13120808)
        439709.00   3765315.00        1.33071  (13120808)
439714.00   3765315.00        1.33148  (13120808)
        439719.00   3765315.00        1.33173  (13120808)
439729.00   3765315.00        1.33318  (13120808)
        439734.00   3765315.00        1.33411  (13120808)
439739.00   3765315.00        1.33443  (13120808)
        439744.00   3765315.00        1.33565  (13120808)
439749.00   3765315.00        1.33592  (13120808)
        439764.00   3765315.00        1.33823  (13120808)
439769.00   3765315.00        1.33881  (13120808)
        439774.00   3765315.00        1.33935  (13120808)
439779.00   3765315.00        1.34020  (13120808)
        439784.00   3765315.00        1.34061  (13120808)
439789.00   3765315.00        1.34153  (13120808)
        439794.00   3765315.00        1.34174  (13120808)
439799.00   3765315.00        1.34274  (13120808)
        439804.00   3765315.00        1.34295  (13120808)
439809.00   3765315.00        1.34398  (13120808)
        439814.00   3765315.00        1.34391  (13120808)
439819.00   3765315.00        1.34486  (13120808)
        439824.00   3765315.00        1.34489  (13120808)
439829.00   3765315.00        1.34540  (13120808)
        439839.00   3765315.00        1.34572  (13120808)
```

```
439844.00   3765315.00        1.34618  (13120808)
        439849.00   3765315.00        1.34603  (13120808)
439854.00   3765315.00        1.34633  (13120808)
        439859.00   3765315.00        1.34623  (13120808)
439864.00   3765315.00        1.34661  (13120808)
        439869.00   3765315.00        1.34627  (13120808)
439874.00   3765315.00        1.34651  (13120808)
        439879.00   3765315.00        1.34605  (13120808)
439884.00   3765315.00        1.34646  (13120808)
        439674.00   3765320.00        1.33823  (13120808)
439679.00   3765320.00        1.33856  (13120808)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439684.00	3765320.00	1.33904	(13120808)	439689.00	3765320.00	1.33944	(13120808)
439694.00	3765320.00	1.34029	(13120808)	439699.00	3765320.00	1.34055	(13120808)
439704.00	3765320.00	1.34142	(13120808)	439709.00	3765320.00	1.34158	(13120808)
439714.00	3765320.00	1.34294	(13120808)	439719.00	3765320.00	1.34292	(13120808)
439729.00	3765320.00	1.34427	(13120808)	439734.00	3765320.00	1.34523	(13120808)
439739.00	3765320.00	1.34572	(13120808)	439744.00	3765320.00	1.34643	(13120808)
439749.00	3765320.00	1.34715	(13120808)	439764.00	3765320.00	1.34917	(13120808)
439769.00	3765320.00	1.35023	(13120808)	439774.00	3765320.00	1.35066	(13120808)
439779.00	3765320.00	1.35174	(13120808)				

439784.00 3765320.00 1.35197 (13120808)
439789.00 3765320.00 1.35316 (13120808)
439794.00 3765320.00 1.35331 (13120808)
439799.00 3765320.00 1.35415 (13120808)
439804.00 3765320.00 1.35449 (13120808)
439809.00 3765320.00 1.35519 (13120808)
439814.00 3765320.00 1.35568 (13120808)
439819.00 3765320.00 1.35610 (13120808)
439824.00 3765320.00 1.35667 (13120808)
439829.00 3765320.00 1.35692 (13120808)
439839.00 3765320.00 1.35748 (13120808)
439844.00 3765320.00 1.35817 (13120808)
439849.00 3765320.00 1.35800 (13120808)
439854.00 3765320.00 1.35861 (13120808)
439859.00 3765320.00 1.35823 (13120808)
439864.00 3765320.00 1.35853 (13120808)
439869.00 3765320.00 1.35847 (13120808)
439874.00 3765320.00 1.35833 (13120808)
439879.00 3765320.00 1.35833 (13120808)
439884.00 3765320.00 1.35809 (13120808)
439674.00 3765325.00 1.34958 (13120808)
439679.00 3765325.00 1.34997 (13120808)
439684.00 3765325.00 1.35058 (13120808)
439689.00 3765325.00 1.35082 (13120808)
439694.00 3765325.00 1.35145 (13120808)
439699.00 3765325.00 1.35212 (13120808)
439704.00 3765325.00 1.35248 (13120808)
439709.00 3765325.00 1.35321 (13120808)
439714.00 3765325.00 1.35367 (13120808)
439719.00 3765325.00 1.35448 (13120808)
439729.00 3765325.00 1.35586 (13120808)
439734.00 3765325.00 1.35627 (13120808)
439739.00 3765325.00 1.35747 (13120808)
439744.00 3765325.00 1.35785 (13120808)
439749.00 3765325.00 1.35883 (13120808)
439754.00 3765325.00 1.35925 (13120808)
439769.00 3765325.00 1.36165 (13120808)
439774.00 3765325.00 1.36226 (13120808)
439779.00 3765325.00 1.36296 (13120808)
439784.00 3765325.00 1.36375 (13120808)
439789.00 3765325.00 1.36430 (13120808)
439794.00 3765325.00 1.36514 (13120808)
439799.00 3765325.00 1.36562 (13120808)
439804.00 3765325.00 1.36653 (13120808)
439809.00 3765325.00 1.36680 (13120808)
439814.00 3765325.00 1.36769 (13120808)
439819.00 3765325.00 1.36800 (13120808)
439824.00 3765325.00 1.36876 (13120808)
439829.00 3765325.00 1.36889 (13120808)
439839.00 3765325.00 1.36970 (13120808)
439844.00 3765325.00 1.36997 (13120808)
439849.00 3765325.00 1.37023 (13120808)

```
439854.00   3765325.00        1.37042  (13120808)
        439859.00   3765325.00        1.37062  (13120808)
439864.00   3765325.00        1.37059  (13120808)
        439869.00   3765325.00        1.37086  (13120808)
439874.00   3765325.00        1.37063  (13120808)
        439879.00   3765325.00        1.37093  (13120808)
439884.00   3765325.00        1.37041  (13120808)
        439674.00   3765330.00        1.36097  (13120808)
439679.00   3765330.00        1.36130  (13120808)
        439684.00   3765330.00        1.36198  (13120808)
439689.00   3765330.00        1.36246  (13120808)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439694.00	3765330.00	1.36278	(13120808)	439699.00	3765330.00	1.36353	(13120808)
439704.00	3765330.00	1.36396	(13120808)	439709.00	3765330.00	1.36499	(13120808)
439714.00	3765330.00	1.36520	(13120808)	439719.00	3765330.00	1.36616	(13120808)
439729.00	3765330.00	1.36754	(13120808)	439734.00	3765330.00	1.36805	(13120808)
439739.00	3765330.00	1.36870	(13120808)	439744.00	3765330.00	1.36958	(13120808)
439749.00	3765330.00	1.37026	(13120808)	439754.00	3765330.00	1.37112	(13120808)
439774.00	3765330.00	1.37429	(13120808)	439779.00	3765330.00	1.37461	(13120808)
439784.00	3765330.00	1.37595	(13120808)	439789.00	3765330.00	1.37618	(13120808)
439794.00	3765330.00	1.37722	(13120808)				

439799.00 3765330.00 1.37753 (13120808)
439804.00 3765330.00 1.37849 (13120808)
439809.00 3765330.00 1.37888 (13120808)
439814.00 3765330.00 1.37957 (13120808)
439819.00 3765330.00 1.38010 (13120808)
439824.00 3765330.00 1.38069 (13120808)
439829.00 3765330.00 1.38122 (13120808)
439839.00 3765330.00 1.38211 (13120808)
439844.00 3765330.00 1.38229 (13120808)
439849.00 3765330.00 1.38288 (13120808)
439854.00 3765330.00 1.38277 (13120808)
439859.00 3765330.00 1.38323 (13120808)
439864.00 3765330.00 1.38324 (13120808)
439869.00 3765330.00 1.38323 (13120808)
439874.00 3765330.00 1.38337 (13120808)
439879.00 3765330.00 1.38333 (13120808)
439884.00 3765330.00 1.38324 (13120808)
439674.00 3765335.00 1.37292 (13120808)
439679.00 3765335.00 1.37324 (13120808)
439684.00 3765335.00 1.37362 (13120808)
439689.00 3765335.00 1.37434 (13120808)
439694.00 3765335.00 1.37473 (13120808)
439699.00 3765335.00 1.37529 (13120808)
439704.00 3765335.00 1.37567 (13120808)
439709.00 3765335.00 1.37655 (13120808)
439714.00 3765335.00 1.37711 (13120808)
439719.00 3765335.00 1.37777 (13120808)
439729.00 3765335.00 1.37918 (13120808)
439734.00 3765335.00 1.38007 (13120808)
439739.00 3765335.00 1.38058 (13120808)
439744.00 3765335.00 1.38132 (13120808)
439749.00 3765335.00 1.38213 (13120808)
439774.00 3765335.00 1.38613 (13120808)
439779.00 3765335.00 1.38685 (13120808)
439784.00 3765335.00 1.38754 (13120808)
439789.00 3765335.00 1.38848 (13120808)
439794.00 3765335.00 1.38916 (13120808)
439839.00 3765335.00 1.39456 (13120808)
439844.00 3765335.00 1.39484 (13120808)
439849.00 3765335.00 1.39534 (13120808)
439854.00 3765335.00 1.39555 (13120808)
439859.00 3765335.00 1.39570 (13120808)
439864.00 3765335.00 1.39607 (13120808)
439869.00 3765335.00 1.39591 (13120808)
439874.00 3765335.00 1.39628 (13120808)
439879.00 3765335.00 1.39603 (13120808)
439884.00 3765335.00 1.39648 (13120808)
439674.00 3765340.00 1.38492 (13120808)
439679.00 3765340.00 1.38545 (13120808)
439684.00 3765340.00 1.38575 (13120808)
439689.00 3765340.00 1.38612 (13120808)
439694.00 3765340.00 1.38688 (13120808)

```
439699.00   3765340.00        1.38718  (13120808)
        439704.00   3765340.00        1.38802  (13120808)
439709.00   3765340.00        1.38828  (13120808)
        439714.00   3765340.00        1.38932  (13120808)
439719.00   3765340.00        1.38983  (13120808)
        439729.00   3765340.00        1.39116  (13120808)
439734.00   3765340.00        1.39211  (13120808)
        439739.00   3765340.00        1.39287  (13120808)
439744.00   3765340.00        1.39346  (13120808)
        439749.00   3765340.00        1.39425  (13120808)
439774.00   3765340.00        1.39816  (13120808)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439779.00	3765340.00	1.39948	(13120808)	439784.00	3765340.00	1.39982	(13120808)
439789.00	3765340.00	1.40080	(13120808)	439794.00	3765340.00	1.40141	(13120808)
439839.00	3765340.00	1.40723	(13120808)	439844.00	3765340.00	1.40792	(13120808)
439849.00	3765340.00	1.40814	(13120808)	439854.00	3765340.00	1.40867	(13120808)
439859.00	3765340.00	1.40874	(13120808)	439864.00	3765340.00	1.40913	(13120808)
439869.00	3765340.00	1.40916	(13120808)	439874.00	3765340.00	1.40939	(13120808)
439879.00	3765340.00	1.40915	(13120808)	439884.00	3765340.00	1.40940	(13120808)
439674.00	3765345.00	1.39736	(13120808)	439679.00	3765345.00	1.39767	(13120808)
439684.00	3765345.00	1.39832	(13120808)				

439689.00 3765345.00 1.39860 (13120808)
439694.00 3765345.00 1.39929 (13120808)
439699.00 3765345.00 1.39942 (13120808)
439704.00 3765345.00 1.40043 (13120808)
439709.00 3765345.00 1.40056 (13120808)
439714.00 3765345.00 1.40155 (13120808)
439719.00 3765345.00 1.40214 (13120808)
439729.00 3765345.00 1.40350 (13120808)
439734.00 3765345.00 1.40432 (13120808)
439739.00 3765345.00 1.40501 (13120808)
439744.00 3765345.00 1.40599 (13120808)
439749.00 3765345.00 1.40677 (13120808)
439774.00 3765345.00 1.41072 (13120808)
439779.00 3765345.00 1.41175 (13120808)
439784.00 3765345.00 1.41273 (13120808)
439789.00 3765345.00 1.41332 (13120808)
439794.00 3765345.00 1.41414 (13120808)
439839.00 3765345.00 1.42026 (13120808)
439844.00 3765345.00 1.42095 (13120808)
439849.00 3765345.00 1.42138 (13120808)
439854.00 3765345.00 1.42167 (13120808)
439859.00 3765345.00 1.42214 (13120808)
439864.00 3765345.00 1.42217 (13120808)
439869.00 3765345.00 1.42267 (13120808)
439874.00 3765345.00 1.42256 (13120808)
439879.00 3765345.00 1.42302 (13120808)
439884.00 3765345.00 1.42277 (13120808)
439674.00 3765350.00 1.41020 (13120808)
439679.00 3765350.00 1.41050 (13120808)
439684.00 3765350.00 1.41061 (13120808)
439689.00 3765350.00 1.41121 (13120808)
439694.00 3765350.00 1.41175 (13120808)
439699.00 3765350.00 1.41237 (13120808)
439704.00 3765350.00 1.41270 (13120808)
439709.00 3765350.00 1.41346 (13120808)
439714.00 3765350.00 1.41403 (13120808)
439719.00 3765350.00 1.41480 (13120808)
439729.00 3765350.00 1.41626 (13120808)
439734.00 3765350.00 1.41695 (13120808)
439739.00 3765350.00 1.41777 (13120808)
439744.00 3765350.00 1.41853 (13120808)
439749.00 3765350.00 1.41937 (13120808)
439774.00 3765350.00 1.42368 (13120808)
439779.00 3765350.00 1.42449 (13120808)
439784.00 3765350.00 1.42546 (13120808)
439789.00 3765350.00 1.42636 (13120808)
439794.00 3765350.00 1.42723 (13120808)
439839.00 3765350.00 1.43369 (13120808)
439844.00 3765350.00 1.43417 (13120808)
439849.00 3765350.00 1.43492 (13120808)
439854.00 3765350.00 1.43518 (13120808)
439859.00 3765350.00 1.43562 (13120808)

```
439864.00   3765350.00        1.43586  (13120808)
        439869.00   3765350.00        1.43637  (13120808)
439874.00   3765350.00        1.43611  (13120808)
        439879.00   3765350.00        1.43654  (13120808)
439884.00   3765350.00        1.43653  (13120808)
        439674.00   3765355.00        1.42294  (13120808)
439679.00   3765355.00        1.42365  (13120808)
        439684.00   3765355.00        1.42382  (13120808)
439689.00   3765355.00        1.42425  (13120808)
        439694.00   3765355.00        1.42441  (13120808)
439699.00   3765355.00        1.42554  (13120808)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439704.00	3765355.00	1.42553	(13120808)	439709.00	3765355.00	1.42624	(13120808)
439714.00	3765355.00	1.42691	(13120808)	439719.00	3765355.00	1.42775	(13120808)
439729.00	3765355.00	1.42894	(13120808)	439734.00	3765355.00	1.42972	(13120808)
439739.00	3765355.00	1.43066	(13120808)	439744.00	3765355.00	1.43159	(13120808)
439749.00	3765355.00	1.43222	(13120808)	439774.00	3765355.00	1.43686	(13120808)
439779.00	3765355.00	1.43768	(13120808)	439784.00	3765355.00	1.43864	(13120808)
439789.00	3765355.00	1.43951	(13120808)	439794.00	3765355.00	1.44054	(13120808)
439839.00	3765355.00	1.44730	(13120808)	439844.00	3765355.00	1.44779	(13120808)
439849.00	3765355.00	1.44849	(13120808)				

439854.00 3765355.00 1.44913 (13120808)
439859.00 3765355.00 1.44922 (13120808)
439864.00 3765355.00 1.44963 (13120808)
439869.00 3765355.00 1.45009 (13120808)
439874.00 3765355.00 1.45044 (13120808)
439879.00 3765355.00 1.45049 (13120808)
439884.00 3765355.00 1.45048 (13120808)
439674.00 3765360.00 1.43629 (13120808)
439679.00 3765360.00 1.43659 (13120808)
439684.00 3765360.00 1.43719 (13120808)
439689.00 3765360.00 1.43748 (13120808)
439694.00 3765360.00 1.43779 (13120808)
439699.00 3765360.00 1.43844 (13120808)
439704.00 3765360.00 1.43912 (13120808)
439709.00 3765360.00 1.43957 (13120808)
439714.00 3765360.00 1.43996 (13120808)
439719.00 3765360.00 1.44072 (13120808)
439729.00 3765360.00 1.44219 (13120808)
439734.00 3765360.00 1.44296 (13120808)
439739.00 3765360.00 1.44379 (13120808)
439744.00 3765360.00 1.44483 (13120808)
439749.00 3765360.00 1.44544 (13120808)
439774.00 3765360.00 1.45009 (13120808)
439779.00 3765360.00 1.45097 (13120808)
439784.00 3765360.00 1.45205 (13120808)
439789.00 3765360.00 1.45317 (13120808)
439794.00 3765360.00 1.45390 (13120808)
439799.00 3765360.00 1.45480 (13120808)
439804.00 3765360.00 1.45575 (13120808)
439809.00 3765360.00 1.45668 (13120808)
439814.00 3765360.00 1.45742 (13120808)
439839.00 3765360.00 1.46128 (13120808)
439844.00 3765360.00 1.46175 (13120808)
439849.00 3765360.00 1.46239 (13120808)
439854.00 3765360.00 1.46320 (13120808)
439859.00 3765360.00 1.46353 (13120808)
439864.00 3765360.00 1.46392 (13120808)
439869.00 3765360.00 1.46395 (13120808)
439874.00 3765360.00 1.46469 (13120808)
439879.00 3765360.00 1.46480 (13120808)
439884.00 3765360.00 1.46482 (13120808)
439674.00 3765365.00 1.44994 (13120808)
439679.00 3765365.00 1.45032 (13120808)
439684.00 3765365.00 1.45087 (13120808)
439689.00 3765365.00 1.45105 (13120808)
439694.00 3765365.00 1.45165 (13120808)
439699.00 3765365.00 1.45173 (13120808)
439704.00 3765365.00 1.45252 (13120808)
439709.00 3765365.00 1.45331 (13120808)
439714.00 3765365.00 1.45373 (13120808)
439719.00 3765365.00 1.45425 (13120808)
439729.00 3765365.00 1.45586 (13120808)

```
439734.00   3765365.00        1.45648  (13120808)
        439739.00   3765365.00        1.45730  (13120808)
439744.00   3765365.00        1.45806  (13120808)
        439749.00   3765365.00        1.45950  (14100607)
439774.00   3765365.00        1.46384  (13120808)
        439779.00   3765365.00        1.46480  (13120808)
439784.00   3765365.00        1.46567  (13120808)
        439789.00   3765365.00        1.46701  (13120808)
439794.00   3765365.00        1.46761  (13120808)
        439799.00   3765365.00        1.46870  (13120808)
439804.00   3765365.00        1.46959  (13120808)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439809.00	3765365.00	1.47059	(13120808)	439814.00	3765365.00	1.47152	(13120808)
439839.00	3765365.00	1.47547	(13120808)	439844.00	3765365.00	1.47616	(13120808)
439849.00	3765365.00	1.47669	(13120808)	439854.00	3765365.00	1.47734	(13120808)
439859.00	3765365.00	1.47785	(13120808)	439864.00	3765365.00	1.47843	(13120808)
439869.00	3765365.00	1.47859	(13120808)	439874.00	3765365.00	1.47913	(13120808)
439879.00	3765365.00	1.47931	(13120808)	439884.00	3765365.00	1.47971	(13120808)
439674.00	3765370.00	1.46394	(13120808)	439679.00	3765370.00	1.46419	(13120808)
439684.00	3765370.00	1.46471	(13120808)	439689.00	3765370.00	1.46498	(13120808)
439694.00	3765370.00	1.46552	(13120808)				

439699.00 3765370.00 1.46579 (13120808)
439704.00 3765370.00 1.46644 (13120808)
439709.00 3765370.00 1.46693 (13120808)
439714.00 3765370.00 1.46749 (13120808)
439719.00 3765370.00 1.46841 (13120808)
439729.00 3765370.00 1.46972 (13120808)
439734.00 3765370.00 1.47055 (13120808)
439739.00 3765370.00 1.47127 (13120808)
439744.00 3765370.00 1.47183 (13120808)
439749.00 3765370.00 1.47302 (13120808)
439774.00 3765370.00 1.47807 (14100607)
439779.00 3765370.00 1.47872 (13120808)
439784.00 3765370.00 1.47989 (13120808)
439789.00 3765370.00 1.48072 (13120808)
439794.00 3765370.00 1.48210 (13120808)
439799.00 3765370.00 1.48285 (13120808)
439804.00 3765370.00 1.48390 (13120808)
439809.00 3765370.00 1.48460 (13120808)
439814.00 3765370.00 1.48595 (13120808)
439839.00 3765370.00 1.49008 (13120808)
439844.00 3765370.00 1.49062 (13120808)
439849.00 3765370.00 1.49141 (13120808)
439854.00 3765370.00 1.49209 (13120808)
439859.00 3765370.00 1.49280 (13120808)
439864.00 3765370.00 1.49295 (13120808)
439869.00 3765370.00 1.49362 (13120808)
439874.00 3765370.00 1.49386 (13120808)
439879.00 3765370.00 1.49421 (13120808)
439884.00 3765370.00 1.49459 (13120808)
439674.00 3765375.00 1.47842 (13120808)
439679.00 3765375.00 1.47866 (13120808)
439684.00 3765375.00 1.47895 (13120808)
439689.00 3765375.00 1.47955 (13120808)
439694.00 3765375.00 1.47958 (13120808)
439699.00 3765375.00 1.48000 (13120808)
439704.00 3765375.00 1.48073 (13120808)
439709.00 3765375.00 1.48131 (13120808)
439714.00 3765375.00 1.48172 (13120808)
439719.00 3765375.00 1.48244 (13120808)
439729.00 3765375.00 1.48378 (13120808)
439734.00 3765375.00 1.48461 (13120808)
439739.00 3765375.00 1.48540 (13120808)
439744.00 3765375.00 1.48668 (14100607)
439749.00 3765375.00 1.48719 (13120808)
439754.00 3765375.00 1.48820 (14100607)
439774.00 3765375.00 1.49224 (13120808)
439779.00 3765375.00 1.49312 (13120808)
439784.00 3765375.00 1.49436 (13120808)
439789.00 3765375.00 1.49494 (13120808)
439794.00 3765375.00 1.49633 (13120808)
439799.00 3765375.00 1.49742 (13120808)
439804.00 3765375.00 1.49839 (13120808)

```
439809.00   3765375.00        1.49940  (13120808)
        439814.00   3765375.00        1.50043  (13120808)
439839.00   3765375.00        1.50515  (13120808)
        439844.00   3765375.00        1.50566  (13120808)
439849.00   3765375.00        1.50627  (13120808)
        439854.00   3765375.00        1.50687  (13120808)
439859.00   3765375.00        1.50789  (13120808)
        439864.00   3765375.00        1.50824  (13120808)
439869.00   3765375.00        1.50871  (13120808)
        439874.00   3765375.00        1.50905  (13120808)
439879.00   3765375.00        1.50969  (13120808)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439884.00	3765375.00	1.50995	(13120808)	439774.00	3765380.00	1.50673	(14100607)
439779.00	3765380.00	1.50818	(14100607)	439784.00	3765380.00	1.50884	(13120808)
439789.00	3765380.00	1.51031	(14100607)	439794.00	3765380.00	1.51106	(13120808)
439799.00	3765380.00	1.51214	(13120808)	439804.00	3765380.00	1.51314	(13120808)
439809.00	3765380.00	1.51442	(13120808)	439814.00	3765380.00	1.51528	(13120808)
439769.00	3765385.00	1.52073	(14100607)	439819.00	3765385.00	1.53170	(13120808)
439769.00	3765400.00	1.56826	(14100607)	439844.00	3765400.00	1.58582	(13120808)
439849.00	3765400.00	1.58694	(13120808)	439674.00	3765405.00	1.58403	(12011417)
439714.00	3765405.00	1.57955	(12011808)				

439719.00 3765405.00 1.57922 (12011808)
439734.00 3765405.00 1.57966 (12011808)
439749.00 3765405.00 1.58035 (13120808)
439754.00 3765405.00 1.58132 (13120808)
439774.00 3765405.00 1.58630 (14100607)
439779.00 3765405.00 1.58746 (14100607)
439784.00 3765405.00 1.58901 (14100607)
439789.00 3765405.00 1.59057 (14100607)
439794.00 3765405.00 1.59135 (14100607)
439799.00 3765405.00 1.59277 (14100607)
439804.00 3765405.00 1.59390 (14100607)
439809.00 3765405.00 1.59508 (14100607)
439814.00 3765405.00 1.59574 (13120808)
439819.00 3765405.00 1.59706 (13120808)
439824.00 3765405.00 1.59833 (13120808)
439829.00 3765405.00 1.59969 (13120808)
439834.00 3765405.00 1.60082 (13120808)
439839.00 3765405.00 1.60212 (13120808)
439844.00 3765405.00 1.60308 (13120808)
439849.00 3765405.00 1.60417 (13120808)
439854.00 3765405.00 1.60529 (13120808)
439859.00 3765405.00 1.60631 (13120808)
439674.00 3765410.00 1.60830 (12011417)
439679.00 3765410.00 1.60634 (12011417)
439684.00 3765410.00 1.60303 (12011417)
439689.00 3765410.00 1.60160 (12011417)
439694.00 3765410.00 1.59839 (12011417)
439699.00 3765410.00 1.59717 (12011808)
439704.00 3765410.00 1.59773 (12011808)
439709.00 3765410.00 1.59782 (12011808)
439714.00 3765410.00 1.59797 (12011808)
439719.00 3765410.00 1.59819 (12011808)
439729.00 3765410.00 1.59861 (12011808)
439734.00 3765410.00 1.59804 (12011808)
439739.00 3765410.00 1.59867 (12011808)
439744.00 3765410.00 1.59809 (12011808)
439749.00 3765410.00 1.59895 (12011808)
439774.00 3765410.00 1.60330 (14100607)
439779.00 3765410.00 1.60494 (14100607)
439784.00 3765410.00 1.60562 (14100607)
439789.00 3765410.00 1.60774 (14100607)
439794.00 3765410.00 1.60905 (14100607)
439799.00 3765410.00 1.61003 (14100607)
439804.00 3765410.00 1.61119 (14100607)
439809.00 3765410.00 1.61246 (14100607)
439814.00 3765410.00 1.61416 (14100607)
439819.00 3765410.00 1.61457 (14100607)
439824.00 3765410.00 1.61585 (14100607)
439829.00 3765410.00 1.61712 (13120808)
439834.00 3765410.00 1.61843 (13120808)
439839.00 3765410.00 1.61975 (13120808)
439844.00 3765410.00 1.62087 (13120808)

```
439849.00   3765410.00        1.62206  (13120808)
        439854.00   3765410.00        1.62304  (13120808)
439859.00   3765410.00        1.62411  (13120808)
        439674.00   3765415.00        1.63418  (12011417)
439679.00   3765415.00        1.63095  (12011417)
        439684.00   3765415.00        1.62937  (12011417)
439689.00   3765415.00        1.62579  (12011417)
        439694.00   3765415.00        1.62443  (12011417)
439699.00   3765415.00        1.62118  (12011417)
        439704.00   3765415.00        1.61906  (12011417)
439709.00   3765415.00        1.61685  (12011808)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439714.00	3765415.00	1.61659	(12011808)	439719.00	3765415.00	1.61727	(12011808)
439729.00	3765415.00	1.61737	(12011808)	439734.00	3765415.00	1.61765	(12011808)
439739.00	3765415.00	1.61771	(12011808)	439744.00	3765415.00	1.61800	(12011808)
439749.00	3765415.00	1.61777	(12011808)	439774.00	3765415.00	1.62103	(14100607)
439779.00	3765415.00	1.62219	(14100607)	439784.00	3765415.00	1.62400	(14100607)
439789.00	3765415.00	1.62461	(14100607)	439794.00	3765415.00	1.62651	(14100607)
439799.00	3765415.00	1.62796	(14100607)	439804.00	3765415.00	1.62938	(14100607)
439809.00	3765415.00	1.63035	(14100607)	439814.00	3765415.00	1.63155	(14100607)
439819.00	3765415.00	1.63324	(14100607)				

439824.00 3765415.00 1.63388 (14100607)
439829.00 3765415.00 1.63514 (13120808)
439834.00 3765415.00 1.63636 (13120808)
439839.00 3765415.00 1.63781 (13120808)
439844.00 3765415.00 1.63896 (13120808)
439849.00 3765415.00 1.64032 (13120808)
439854.00 3765415.00 1.64159 (13120808)
439859.00 3765415.00 1.64252 (13120808)
439674.00 3765420.00 1.65883 (12011417)
439679.00 3765420.00 1.65702 (12011417)
439684.00 3765420.00 1.65416 (12011417)
439689.00 3765420.00 1.65278 (12011417)
439694.00 3765420.00 1.64933 (12011417)
439699.00 3765420.00 1.64783 (12011417)
439704.00 3765420.00 1.64468 (12011417)
439709.00 3765420.00 1.64294 (12011417)
439714.00 3765420.00 1.63928 (12011417)
439719.00 3765420.00 1.63693 (12011417)
439729.00 3765420.00 1.63639 (12011808)
439734.00 3765420.00 1.63717 (12011808)
439739.00 3765420.00 1.63701 (12011808)
439744.00 3765420.00 1.63785 (12011808)
439749.00 3765420.00 1.63734 (12011808)
439774.00 3765420.00 1.63858 (14100607)
439779.00 3765420.00 1.64015 (14100607)
439784.00 3765420.00 1.64166 (14100607)
439789.00 3765420.00 1.64347 (14100607)
439794.00 3765420.00 1.64448 (14100607)
439799.00 3765420.00 1.64619 (14100607)
439804.00 3765420.00 1.64749 (14100607)
439809.00 3765420.00 1.64892 (14100607)
439814.00 3765420.00 1.64992 (14100607)
439819.00 3765420.00 1.65139 (14100607)
439824.00 3765420.00 1.65274 (14100607)
439829.00 3765420.00 1.65404 (14100607)
439834.00 3765420.00 1.65497 (14100607)
439839.00 3765420.00 1.65621 (13120808)
439844.00 3765420.00 1.65778 (13120808)
439849.00 3765420.00 1.65890 (13120808)
439854.00 3765420.00 1.66025 (13120808)
439859.00 3765420.00 1.66150 (13120808)
439674.00 3765425.00 1.68504 (12011417)
439679.00 3765425.00 1.68286 (12011417)
439684.00 3765425.00 1.68072 (12011417)
439689.00 3765425.00 1.67819 (12011417)
439694.00 3765425.00 1.67681 (12011417)
439699.00 3765425.00 1.67365 (12011417)
439704.00 3765425.00 1.67212 (12011417)
439709.00 3765425.00 1.66861 (12011417)
439714.00 3765425.00 1.66724 (12011417)
439719.00 3765425.00 1.66366 (12011417)
439729.00 3765425.00 1.65837 (12011417)

```
439734.00   3765425.00        1.65690  (12011808)
        439739.00   3765425.00        1.65766  (12011808)
439744.00   3765425.00        1.65728  (12011808)
        439749.00   3765425.00        1.65863  (12011808)
439774.00   3765425.00        1.65841  (12011808)
        439779.00   3765425.00        1.65888  (12011808)
439784.00   3765425.00        1.66011  (14100607)
        439789.00   3765425.00        1.66180  (14100607)
439794.00   3765425.00        1.66359  (14100607)
        439799.00   3765425.00        1.66482  (14100607)
439804.00   3765425.00        1.66634  (14100607)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439809.00	3765425.00	1.66760	(14100607)	439814.00	3765425.00	1.66956	(14100607)
439819.00	3765425.00	1.67041	(14100607)	439824.00	3765425.00	1.67198	(14100607)
439829.00	3765425.00	1.67291	(14100607)	439834.00	3765425.00	1.67452	(14100607)
439839.00	3765425.00	1.67540	(13120808)	439844.00	3765425.00	1.67694	(13120808)
439849.00	3765425.00	1.67820	(13120808)	439854.00	3765425.00	1.67962	(13120808)
439859.00	3765425.00	1.68086	(13120808)	439674.00	3765430.00	1.71166	(12011417)
439679.00	3765430.00	1.70940	(12011417)	439684.00	3765430.00	1.70752	(12011417)
439689.00	3765430.00	1.70522	(12011417)	439694.00	3765430.00	1.70285	(12011417)
439699.00	3765430.00	1.70128	(12011417)				

439704.00 3765430.00 1.69835 (12011417)
439709.00 3765430.00 1.69707 (12011417)
439714.00 3765430.00 1.69314 (12011417)
439719.00 3765430.00 1.69204 (12011417)
439729.00 3765430.00 1.68659 (12011417)
439734.00 3765430.00 1.68308 (12011417)
439739.00 3765430.00 1.68119 (12011417)
439744.00 3765430.00 1.67867 (12011808)
439749.00 3765430.00 1.67841 (12011808)
439774.00 3765430.00 1.68072 (12011808)
439779.00 3765430.00 1.67941 (12011808)
439784.00 3765430.00 1.68045 (12011808)
439789.00 3765430.00 1.68068 (14100607)
439794.00 3765430.00 1.68227 (14100607)
439799.00 3765430.00 1.68418 (14100607)
439804.00 3765430.00 1.68582 (14100607)
439809.00 3765430.00 1.68731 (14100607)
439814.00 3765430.00 1.68842 (14100607)
439819.00 3765430.00 1.69041 (14100607)
439824.00 3765430.00 1.69156 (14100607)
439829.00 3765430.00 1.69291 (14100607)
439834.00 3765430.00 1.69385 (14100607)
439839.00 3765430.00 1.69572 (14100607)
439844.00 3765430.00 1.69653 (13120808)
439849.00 3765430.00 1.69819 (13120808)
439854.00 3765430.00 1.69944 (13120808)
439859.00 3765430.00 1.70109 (13120808)
439674.00 3765435.00 1.73801 (12011417)
439679.00 3765435.00 1.73663 (12011417)
439684.00 3765435.00 1.73442 (12011417)
439689.00 3765435.00 1.73262 (12011417)
439694.00 3765435.00 1.73051 (12011417)
439699.00 3765435.00 1.72792 (12011417)
439704.00 3765435.00 1.72647 (12011417)
439709.00 3765435.00 1.72347 (12011417)
439714.00 3765435.00 1.72262 (12011417)
439719.00 3765435.00 1.71852 (12011417)
439729.00 3765435.00 1.71390 (12011417)
439734.00 3765435.00 1.71260 (12011417)
439739.00 3765435.00 1.70873 (12011417)
439744.00 3765435.00 1.70712 (12011417)
439749.00 3765435.00 1.70350 (12011417)
439774.00 3765435.00 1.70117 (12011808)
439779.00 3765435.00 1.70258 (12011808)
439784.00 3765435.00 1.70167 (12011808)
439789.00 3765435.00 1.70253 (12011808)
439794.00 3765435.00 1.70215 (14100607)
439799.00 3765435.00 1.70377 (14100607)
439804.00 3765435.00 1.70563 (14100607)
439809.00 3765435.00 1.70727 (14100607)
439814.00 3765435.00 1.70878 (14100607)
439819.00 3765435.00 1.71017 (14100607)

```
439824.00   3765435.00        1.71181  (14100607)
        439829.00   3765435.00        1.71352  (14100607)
439834.00   3765435.00        1.71479  (14100607)
        439839.00   3765435.00        1.71559  (14100607)
439844.00   3765435.00        1.71745  (14100607)
        439849.00   3765435.00        1.71842  (13120808)
439854.00   3765435.00        1.72000  (13120808)
        439859.00   3765435.00        1.72117  (13120808)
439674.00   3765440.00        1.76621  (12011417)
        439679.00   3765440.00        1.76348  (12011417)
439684.00   3765440.00        1.76245  (12011417)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439689.00	3765440.00	1.75977	(12011417)	439694.00	3765440.00	1.75838	(12011417)
439699.00	3765440.00	1.75638	(12011417)	439704.00	3765440.00	1.75389	(12011417)
439709.00	3765440.00	1.75229	(12011417)	439714.00	3765440.00	1.74953	(12011417)
439719.00	3765440.00	1.74876	(12011417)	439729.00	3765440.00	1.74398	(12011417)
439734.00	3765440.00	1.74010	(12011417)	439739.00	3765440.00	1.73916	(12011417)
439744.00	3765440.00	1.73489	(12011417)	439749.00	3765440.00	1.73362	(12011417)
439774.00	3765440.00	1.72363	(12011808)	439779.00	3765440.00	1.72400	(12011808)
439784.00	3765440.00	1.72475	(12011808)	439789.00	3765440.00	1.72472	(12011808)
439794.00	3765440.00	1.72524	(12011808)				

439799.00 3765440.00 1.72453 (12011808)
439804.00 3765440.00 1.72587 (12011808)
439809.00 3765440.00 1.72756 (14100607)
439814.00 3765440.00 1.72946 (14100607)
439819.00 3765440.00 1.73106 (14100607)
439824.00 3765440.00 1.73269 (14100607)
439829.00 3765440.00 1.73402 (14100607)
439834.00 3765440.00 1.73569 (14100607)
439839.00 3765440.00 1.73716 (14100607)
439844.00 3765440.00 1.73833 (14100607)
439849.00 3765440.00 1.73947 (14100607)
439854.00 3765440.00 1.74096 (13120808)
439859.00 3765440.00 1.74266 (13120808)
439674.00 3765445.00 1.79292 (12011417)
439679.00 3765445.00 1.79243 (12011417)
439684.00 3765445.00 1.78980 (12011417)
439689.00 3765445.00 1.78880 (12011417)
439694.00 3765445.00 1.78626 (12011417)
439699.00 3765445.00 1.78496 (12011417)
439704.00 3765445.00 1.78286 (12011417)
439709.00 3765445.00 1.78076 (12011417)
439714.00 3765445.00 1.77915 (12011417)
439719.00 3765445.00 1.77608 (12011417)
439729.00 3765445.00 1.77187 (12011417)
439734.00 3765445.00 1.77081 (12011417)
439739.00 3765445.00 1.76687 (12011417)
439744.00 3765445.00 1.76632 (12011417)
439749.00 3765445.00 1.76206 (12011417)
439774.00 3765445.00 1.74872 (12011417)
439779.00 3765445.00 1.74647 (12011808)
439784.00 3765445.00 1.74756 (12011808)
439789.00 3765445.00 1.74740 (12011808)
439794.00 3765445.00 1.74847 (12011808)
439799.00 3765445.00 1.74854 (12011808)
439804.00 3765445.00 1.74830 (12011808)
439809.00 3765445.00 1.74919 (12011808)
439814.00 3765445.00 1.75040 (14100607)
439819.00 3765445.00 1.75224 (14100607)
439824.00 3765445.00 1.75402 (14100607)
439829.00 3765445.00 1.75563 (14100607)
439834.00 3765445.00 1.75700 (14100607)
439839.00 3765445.00 1.75874 (14100607)
439844.00 3765445.00 1.76005 (14100607)
439849.00 3765445.00 1.76184 (14100607)
439854.00 3765445.00 1.76265 (13120808)
439859.00 3765445.00 1.76445 (13120808)
439674.00 3765450.00 1.82235 (12011417)
439679.00 3765450.00 1.81987 (12011417)
439684.00 3765450.00 1.81950 (12011417)
439689.00 3765450.00 1.81686 (12011417)
439694.00 3765450.00 1.81579 (12011417)
439699.00 3765450.00 1.81346 (12011417)

439704.00 3765450.00 1.81242 (12011417)
439709.00 3765450.00 1.81005 (12011417)
439714.00 3765450.00 1.80806 (12011417)
439719.00 3765450.00 1.80653 (12011417)
439729.00 3765450.00 1.80285 (12011417)
439734.00 3765450.00 1.79944 (12011417)
439739.00 3765450.00 1.79865 (12011417)
439744.00 3765450.00 1.79459 (12011417)
439749.00 3765450.00 1.79413 (12011417)
439774.00 3765450.00 1.78012 (12011417)
439844.00 3765450.00 1.78274 (14100607)

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439849.00	3765450.00	1.78406	(14100607)	439854.00	3765450.00	1.78545	(14100607)
439859.00	3765450.00	1.78648	(14100607)	439674.00	3765455.00	1.85042	(12011417)
439679.00	3765455.00	1.85012	(12011417)	439684.00	3765455.00	1.84763	(12011417)
439689.00	3765455.00	1.84713	(12011417)	439694.00	3765455.00	1.84468	(12011417)
439699.00	3765455.00	1.84366	(12011417)	439704.00	3765455.00	1.84145	(12011417)
439709.00	3765455.00	1.84017	(12011417)	439714.00	3765455.00	1.83815	(12011417)
439719.00	3765455.00	1.83610	(12011417)	439729.00	3765455.00	1.83192	(12011417)
439734.00	3765455.00	1.83127	(12011417)	439739.00	3765455.00	1.82790	(12011417)
439744.00	3765455.00	1.82713	(12011417)				

439749.00 3765455.00 1.82347 (12011417)
439844.00 3765455.00 1.80561 (14100607)
439849.00 3765455.00 1.80707 (14100607)
439854.00 3765455.00 1.80889 (14100607)
439859.00 3765455.00 1.81036 (14100607)
439674.00 3765460.00 1.88097 (12011417)
439679.00 3765460.00 1.87852 (12011417)
439684.00 3765460.00 1.87840 (12011417)
439689.00 3765460.00 1.87621 (12011417)
439694.00 3765460.00 1.87561 (12011417)
439699.00 3765460.00 1.87294 (12011417)
439704.00 3765460.00 1.87271 (12011417)
439709.00 3765460.00 1.87026 (12011417)
439714.00 3765460.00 1.86903 (12011417)
439719.00 3765460.00 1.86716 (12011417)
439729.00 3765460.00 1.86390 (12011417)
439734.00 3765460.00 1.86129 (12011417)
439739.00 3765460.00 1.86032 (12011417)
439744.00 3765460.00 1.85725 (12011417)
439749.00 3765460.00 1.85651 (12011417)
439789.00 3765460.00 1.83622 (12011417)
439794.00 3765460.00 1.83344 (12011417)
439799.00 3765460.00 1.82996 (12011417)
439804.00 3765460.00 1.82763 (12011417)
439809.00 3765460.00 1.82364 (12011417)
439814.00 3765460.00 1.82310 (12011808)
439819.00 3765460.00 1.82443 (12011808)
439824.00 3765460.00 1.82320 (12011808)
439829.00 3765460.00 1.82431 (12011808)
439844.00 3765460.00 1.82912 (14100607)
439849.00 3765460.00 1.83164 (14100607)
439854.00 3765460.00 1.83310 (14100607)
439859.00 3765460.00 1.83409 (14100607)
439674.00 3765465.00 1.91085 (12011417)
439679.00 3765465.00 1.91008 (12011417)
439684.00 3765465.00 1.90774 (12011417)
439689.00 3765465.00 1.90774 (12011417)
439694.00 3765465.00 1.90564 (12011417)
439699.00 3765465.00 1.90508 (12011417)
439704.00 3765465.00 1.90272 (12011417)
439709.00 3765465.00 1.90226 (12011417)
439714.00 3765465.00 1.89991 (12011417)
439719.00 3765465.00 1.89894 (12011417)
439729.00 3765465.00 1.89471 (12011417)
439734.00 3765465.00 1.89387 (12011417)
439739.00 3765465.00 1.89152 (12011417)
439744.00 3765465.00 1.89037 (12011417)
439749.00 3765465.00 1.88750 (12011417)
439789.00 3765465.00 1.86972 (12011417)
439794.00 3765465.00 1.86698 (12011417)
439799.00 3765465.00 1.86449 (12011417)
439804.00 3765465.00 1.86110 (12011417)

```
439809.00   3765465.00        1.85871  (12011417)
        439814.00   3765465.00        1.85455  (12011417)
439819.00   3765465.00        1.85252  (12011417)
        439824.00   3765465.00        1.85125  (12011808)
439829.00   3765465.00        1.85036  (12011808)
        439844.00   3765465.00        1.85435  (14100607)
439849.00   3765465.00        1.85569  (14100607)
        439854.00   3765465.00        1.85761  (14100607)
439859.00   3765465.00        1.85972  (14100607)
        439674.00   3765470.00        1.94250  (12011417)
439679.00   3765470.00        1.94058  (12011417)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439684.00	3765470.00	1.93994	(12011417)	439689.00	3765470.00	1.93815	(12011417)
439694.00	3765470.00	1.93787	(12011417)	439699.00	3765470.00	1.93591	(12011417)
439704.00	3765470.00	1.93538	(12011417)	439709.00	3765470.00	1.93304	(12011417)
439714.00	3765470.00	1.93276	(12011417)	439719.00	3765470.00	1.93045	(12011417)
439729.00	3765470.00	1.92778	(12011417)	439734.00	3765470.00	1.92561	(12011417)
439739.00	3765470.00	1.92467	(12011417)	439744.00	3765470.00	1.92253	(12011417)
439749.00	3765470.00	1.92150	(12011417)	439789.00	3765470.00	1.90425	(12011417)
439794.00	3765470.00	1.90157	(12011417)	439799.00	3765470.00	1.89872	(12011417)
439804.00	3765470.00	1.89660	(12011417)				

```
439809.00   3765470.00        1.89286  (12011417)
        439814.00   3765470.00        1.89066  (12011417)
439819.00   3765470.00        1.88695  (12011417)
        439824.00   3765470.00        1.88465  (12011417)
439829.00   3765470.00        1.88045  (12011417)
        439844.00   3765470.00        1.87916  (14100607)
439849.00   3765470.00        1.88121  (14100607)
        439854.00   3765470.00        1.88322  (14100607)
439859.00   3765470.00        1.88545  (14100607)
        439674.00   3765475.00        1.97380  (12011417)
439679.00   3765475.00        1.97335  (12011417)
        439684.00   3765475.00        1.97137  (12011417)
439689.00   3765475.00        1.97123  (12011417)
        439694.00   3765475.00        1.96926  (12011417)
439699.00   3765475.00        1.96920  (12011417)
        439704.00   3765475.00        1.96705  (12011417)
439709.00   3765475.00        1.96659  (12011417)
        439714.00   3765475.00        1.96460  (12011417)
439719.00   3765475.00        1.96409  (12011417)
        439729.00   3765475.00        1.96099  (12011417)
439734.00   3765475.00        1.95936  (12011417)
        439739.00   3765475.00        1.95751  (12011417)
439744.00   3765475.00        1.95664  (12011417)
        439749.00   3765475.00        1.95449  (12011417)
439754.00   3765475.00        1.95348  (12011417)
        439789.00   3765475.00        1.93922  (12011417)
439794.00   3765475.00        1.93712  (12011417)
        439799.00   3765475.00        1.93433  (12011417)
439804.00   3765475.00        1.93159  (12011417)
        439809.00   3765475.00        1.92962  (12011417)
439814.00   3765475.00        1.92596  (12011417)
        439819.00   3765475.00        1.92369  (12011417)
439824.00   3765475.00        1.92022  (12011417)
        439829.00   3765475.00        1.91807  (12011417)
439269.00   3764900.00        0.81860  (13120808)
        439369.00   3764900.00        0.81738  (13120808)
439469.00   3764900.00        0.81421  (13120808)
        439569.00   3764900.00        0.80580  (13120808)
439669.00   3764900.00        0.78696  (12010217)
        439769.00   3764900.00        0.78488  (12010217)
439869.00   3764900.00        0.77825  (12010217)
        439969.00   3764900.00        0.75971  (12010217)
440069.00   3764900.00        0.76638  (15010717)
        440169.00   3764900.00        0.77186  (15010717)
440269.00   3764900.00        0.77514  (15010717)
        439269.00   3765000.00        0.89521  (13120808)
439369.00   3765000.00        0.89461  (13120808)
        439469.00   3765000.00        0.89407  (13120808)
439569.00   3765000.00        0.89240  (13120808)
        439669.00   3765000.00        0.88376  (13120808)
439769.00   3765000.00        0.85967  (12010217)
        439869.00   3765000.00        0.85734  (12010217)
```

```
439969.00   3765000.00        0.84706  (12010217)
        440069.00   3765000.00        0.84339  (15010717)
440169.00   3765000.00        0.84664  (15010717)
        440269.00   3765000.00        0.84848  (15010717)
439269.00   3765100.00        0.99136  (13120808)
        439369.00   3765100.00        0.99107  (13120808)
439469.00   3765100.00        0.99051  (13120808)
        439569.00   3765100.00        0.99203  (13120808)
439669.00   3765100.00        0.99228  (13120808)
        439769.00   3765100.00        0.98315  (13120808)
439869.00   3765100.00        0.95380  (13120808)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
439969.00	3765100.00	0.94992	(12010217)	440069.00	3765100.00	0.93766	(15010717)
440169.00	3765100.00	0.93990	(15010717)	440269.00	3765100.00	0.94031	(15010717)
439269.00	3765200.00	1.11783	(13120808)	439369.00	3765200.00	1.11904	(13120808)
439469.00	3765200.00	1.11696	(13120808)	439569.00	3765200.00	1.11716	(13120808)
439669.00	3765200.00	1.12179	(13120808)	439769.00	3765200.00	1.12546	(13120808)
439869.00	3765200.00	1.11526	(13120808)	439969.00	3765200.00	1.07910	(13120808)
440069.00	3765200.00	1.07036	(12010217)	440169.00	3765200.00	1.06123	(15010717)
440269.00	3765200.00	1.06152	(15010717)	439269.00	3765300.00	1.33818	(12011417)
439369.00	3765300.00	1.30845	(12011417)				

439469.00 3765300.00 1.29458 (13120808)
439569.00 3765300.00 1.29112 (13120808)
439669.00 3765300.00 1.29474 (13120808)
439769.00 3765300.00 1.30661 (13120808)
439869.00 3765300.00 1.31146 (13120808)
439969.00 3765300.00 1.29756 (13120808)
440069.00 3765300.00 1.25571 (13120808)
440169.00 3765300.00 1.23672 (12010217)
440269.00 3765300.00 1.23086 (15010717)
439269.00 3765400.00 1.67154 (12011417)
439369.00 3765400.00 1.65476 (12011417)
439469.00 3765400.00 1.63212 (12011417)
439569.00 3765400.00 1.60324 (12011417)
439669.00 3765400.00 1.56211 (12011417)
439769.00 3765400.00 1.56826 (14100607)
439869.00 3765400.00 1.59038 (13120808)
439969.00 3765400.00 1.59150 (13120808)
440069.00 3765400.00 1.57499 (13120808)
440169.00 3765400.00 1.52549 (13120808)
440269.00 3765400.00 1.52387 (12011608)
439269.00 3765500.00 2.19780 (12011417)
439369.00 3765500.00 2.19361 (12011417)
439469.00 3765500.00 2.18060 (12011417)
439569.00 3765500.00 2.16371 (12011417)
439669.00 3765500.00 2.14880 (12011417)
439769.00 3765500.00 2.13312 (12011417)
439869.00 3765500.00 2.09228 (12011417)
439969.00 3765500.00 2.08853 (13120808)
440069.00 3765500.00 2.08038 (13120808)
440169.00 3765500.00 2.06199 (13120808)
440269.00 3765500.00 2.06692 (12011608)
439269.00 3765600.00 3.48269 (12101307)
439369.00 3765600.00 3.46847 (12101307)
439469.00 3765600.00 3.43151 (12101307)
439569.00 3765600.00 3.38714 (12011417)
439669.00 3765600.00 3.37011 (12011417)
439769.00 3765600.00 3.36283 (12011417)
439869.00 3765600.00 3.39883 (12011417)
439969.00 3765600.00 3.42312 (12011417)
440069.00 3765600.00 3.53049 (14101107)
440169.00 3765600.00 3.61368 (14101107)
440269.00 3765600.00 3.66595 (14101107)
439269.00 3765700.00 14.56472 (12101307)
439369.00 3765700.00 15.07590 (12101307)
439469.00 3765700.00 15.66274 (12101307)
439569.00 3765700.00 16.04418 (14101107)
439669.00 3765700.00 16.42742 (14101107)
439769.00 3765700.00 16.65484 (14101107)
439869.00 3765700.00 16.87478 (14101107)
439969.00 3765700.00 16.90265 (14101107)
440069.00 3765700.00 17.19848 (12101207)
440169.00 3765700.00 17.28501 (12101207)

```
440269.00   3765700.00       17.52593  (12101207)
        439269.00   3765800.00        4.32810  (12100707)
439369.00   3765800.00        4.36921  (12100707)
        439469.00   3765800.00        4.34561  (12100707)
439569.00   3765800.00        4.31596  (12100707)
        439669.00   3765800.00        4.30851  (12100707)
439769.00   3765800.00        4.31304  (12100707)
        439869.00   3765800.00        4.38199  (13111217)
439969.00   3765800.00        4.12393  (12011717)
        440069.00   3765800.00        4.06776  (12011717)
440169.00   3765800.00        4.06044  (12011717)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S):
A0000012 , A0000013 , A0000014 , A0000015 , A0000016 ,
A0000017 , A0000018 , A0000019 , A0000020 , A0000021 , A0000022 , A0000001 , A0000002 ,
A0000003 , A0000004 , A0000005 , A0000006 , A0000007 , A0000008 , A0000009 , A0000010 ,
A0000011 , A0000023 , A0000024 , A0000025 , A0000026 , A0000027 ,
A0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
440269.00	3765800.00	4.07663	(12011717)	439269.00	3765900.00	2.49048	(12100707)
439369.00	3765900.00	2.44857	(12100707)	439469.00	3765900.00	2.39490	(12100707)
439569.00	3765900.00	2.32766	(12100707)	439669.00	3765900.00	2.34570	(13111217)
439769.00	3765900.00	2.39147	(13111217)	439869.00	3765900.00	2.42311	(13111217)
439969.00	3765900.00	2.42579	(13111217)	440069.00	3765900.00	2.39105	(13111217)
440169.00	3765900.00	2.38063	(13111217)	440269.00	3765900.00	2.39922	(12011717)
439649.00	3765310.00	1.31420	(13120808)	439679.00	3765310.00	1.31670	(13120808)
439709.00	3765310.00	1.32027	(13120808)	439739.00	3765310.00	1.32370	(13120808)
439769.00	3765310.00	1.32752	(13120808)				

```
439799.00   3765310.00        1.33138  (13120808)
        439829.00   3765310.00        1.33388  (13120808)
439859.00   3765310.00        1.33500  (13120808)
        439889.00   3765310.00        1.33348  (13120808)
439649.00   3765340.00        1.38371  (13120808)
        439679.00   3765340.00        1.38545  (13120808)
439709.00   3765340.00        1.38828  (13120808)
        439739.00   3765340.00        1.39287  (13120808)
439769.00   3765340.00        1.39757  (13120808)
        439799.00   3765340.00        1.40256  (13120808)
439829.00   3765340.00        1.40612  (13120808)
        439859.00   3765340.00        1.40874  (13120808)
439889.00   3765340.00        1.40931  (13120808)
        439649.00   3765370.00        1.46317  (13120808)
439679.00   3765370.00        1.46419  (13120808)
        439709.00   3765370.00        1.46693  (13120808)
439739.00   3765370.00        1.47127  (13120808)
        439769.00   3765370.00        1.47678  (13120808)
439799.00   3765370.00        1.48285  (13120808)
        439829.00   3765370.00        1.48834  (13120808)
439859.00   3765370.00        1.49280  (13120808)
        439889.00   3765370.00        1.49469  (13120808)
439649.00   3765400.00        1.57213  (12011417)
        439679.00   3765400.00        1.56119  (12011808)
439709.00   3765400.00        1.56142  (12011808)
        439739.00   3765400.00        1.56204  (13120808)
439769.00   3765400.00        1.56826  (14100607)
        439799.00   3765400.00        1.57546  (14100607)
439829.00   3765400.00        1.58255  (13120808)
        439859.00   3765400.00        1.58877  (13120808)
439889.00   3765400.00        1.59279  (13120808)
        439649.00   3765430.00        1.71989  (12011417)
439679.00   3765430.00        1.70940  (12011417)
        439709.00   3765430.00        1.69707  (12011417)
439739.00   3765430.00        1.68119  (12011417)
        439769.00   3765430.00        1.67905  (12011808)
439799.00   3765430.00        1.68418  (14100607)
        439829.00   3765430.00        1.69291  (14100607)
439859.00   3765430.00        1.70109  (13120808)
        439889.00   3765430.00        1.70744  (13120808)
439649.00   3765460.00        1.88705  (12011417)
        439679.00   3765460.00        1.87852  (12011417)
439709.00   3765460.00        1.87026  (12011417)
        439739.00   3765460.00        1.86032  (12011417)
439769.00   3765460.00        1.84734  (12011417)
        439799.00   3765460.00        1.82996  (12011417)
439829.00   3765460.00        1.82431  (12011808)
        439859.00   3765460.00        1.83409  (14100607)
439889.00   3765460.00        1.84365  (13120808)
        439649.00   3765490.00        2.08024  (12011417)
439679.00   3765490.00        2.07413  (12011417)
        439709.00   3765490.00        2.06936  (12011417)
```

```
439739.00   3765490.00        2.06333  (12011417)
        439769.00   3765490.00        2.05619  (12011417)
439799.00   3765490.00        2.04596  (12011417)
        439829.00   3765490.00        2.03231  (12011417)
439859.00   3765490.00        2.01424  (12011417)
        439889.00   3765490.00        2.01037  (13120808)
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE SUMMARY OF MAXIMUM PERIOD (43848 HRS) RESULTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

NETWORK GROUP ID	AVERAGE CONC	RECEPTOR (XR, YR, ZELEV, ZHILL, ZFLAG)	OF TYPE	GRID-ID
EXH	1ST HIGHEST VALUE IS	2.18082	AT (440269.00, 3765700.00, 289.00, 289.00, 0.00)	DC
	2ND HIGHEST VALUE IS	2.14786	AT (440169.00, 3765700.00, 289.00, 289.00, 0.00)	DC
	3RD HIGHEST VALUE IS	2.11887	AT (440069.00, 3765700.00, 289.00, 289.00, 0.00)	DC
	4TH HIGHEST VALUE IS	2.07937	AT (439969.00, 3765700.00, 289.00, 289.00, 0.00)	DC
	5TH HIGHEST VALUE IS	2.05444	AT (439869.00, 3765700.00, 289.00, 289.00, 0.00)	DC
	6TH HIGHEST VALUE IS	2.03560	AT (439769.00, 3765700.00, 289.00, 289.00, 0.00)	DC
	7TH HIGHEST VALUE IS	1.99410	AT (439669.00, 3765700.00, 289.00, 289.00, 0.00)	DC
	8TH HIGHEST VALUE IS	1.93748	AT (439569.00, 3765700.00, 289.00, 289.00, 0.00)	DC
	9TH HIGHEST VALUE IS	1.85402	AT (439469.00, 3765700.00, 289.00, 289.00, 0.00)	DC
	10TH HIGHEST VALUE IS	1.75481	AT (439369.00, 3765700.00, 289.00, 289.00, 0.00)	DC
FREEEXH	1ST HIGHEST VALUE IS	2.08198	AT (440169.00, 3765700.00, 289.00, 289.00, 0.00)	DC
	2ND HIGHEST VALUE IS	2.08072	AT (440269.00, 3765700.00, 289.00, 289.00, 0.00)	DC
	3RD HIGHEST VALUE IS	2.07627	AT (440069.00, 3765700.00, 289.00, 289.00, 0.00)	DC
	4TH HIGHEST VALUE IS	2.05764	AT (439969.00, 3765700.00, 289.00, 289.00, 0.00)	DC

```
          5TH HIGHEST VALUE IS       2.03652 AT (  439869.00,
3765700.00,   289.00,   289.00,    0.00)  DC
          6TH HIGHEST VALUE IS       2.01278 AT (  439769.00,
3765700.00,   289.00,   289.00,    0.00)  DC
          7TH HIGHEST VALUE IS       1.96641 AT (  439669.00,
3765700.00,   289.00,   289.00,    0.00)  DC
          8TH HIGHEST VALUE IS       1.90454 AT (  439569.00,
3765700.00,   289.00,   289.00,    0.00)  DC
          9TH HIGHEST VALUE IS       1.82739 AT (  439469.00,
3765700.00,   289.00,   289.00,    0.00)  DC
         10TH HIGHEST VALUE IS       1.74831 AT (  439369.00,
3765700.00,   289.00,   289.00,    0.00)  DC

ONOFFEXH  1ST HIGHEST VALUE IS       0.10010 AT (  440269.00,
3765700.00,   289.00,   289.00,    0.00)  DC
          2ND HIGHEST VALUE IS       0.07144 AT (  439869.00,
3765800.00,   289.00,   289.00,    0.00)  DC
          3RD HIGHEST VALUE IS       0.06589 AT (  440169.00,
3765700.00,   289.00,   289.00,    0.00)  DC
          4TH HIGHEST VALUE IS       0.04688 AT (  439769.00,
3765800.00,   289.00,   289.00,    0.00)  DC
          5TH HIGHEST VALUE IS       0.04260 AT (  440069.00,
3765700.00,   289.00,   289.00,    0.00)  DC
          6TH HIGHEST VALUE IS       0.03377 AT (  439969.00,
3765800.00,   289.00,   289.00,    0.00)  DC
          7TH HIGHEST VALUE IS       0.03295 AT (  439569.00,
3765700.00,   289.00,   289.00,    0.00)  DC
          8TH HIGHEST VALUE IS       0.03178 AT (  439669.00,
3765800.00,   289.00,   289.00,    0.00)  DC
          9TH HIGHEST VALUE IS       0.02769 AT (  439669.00,
3765700.00,   289.00,   289.00,    0.00)  DC
         10TH HIGHEST VALUE IS       0.02663 AT (  439469.00,
3765700.00,   289.00,   289.00,    0.00)  DC

ALL       1ST HIGHEST VALUE IS       2.18082 AT (  440269.00,
3765700.00,   289.00,   289.00,    0.00)  DC
          2ND HIGHEST VALUE IS       2.14786 AT (  440169.00,
3765700.00,   289.00,   289.00,    0.00)  DC
          3RD HIGHEST VALUE IS       2.11887 AT (  440069.00,
3765700.00,   289.00,   289.00,    0.00)  DC
          4TH HIGHEST VALUE IS       2.07937 AT (  439969.00,
3765700.00,   289.00,   289.00,    0.00)  DC
          5TH HIGHEST VALUE IS       2.05444 AT (  439869.00,
3765700.00,   289.00,   289.00,    0.00)  DC
          6TH HIGHEST VALUE IS       2.03560 AT (  439769.00,
3765700.00,   289.00,   289.00,    0.00)  DC
          7TH HIGHEST VALUE IS       1.99410 AT (  439669.00,
3765700.00,   289.00,   289.00,    0.00)  DC
          8TH HIGHEST VALUE IS       1.93748 AT (  439569.00,
3765700.00,   289.00,   289.00,    0.00)  DC
          9TH HIGHEST VALUE IS       1.85402 AT (  439469.00,
3765700.00,   289.00,   289.00,    0.00)  DC
```

```
         10TH HIGHEST VALUE IS       1.75481 AT (  439369.00,
3765700.00,   289.00,   289.00,    0.00)  DC


 *** RECEPTOR TYPES:  GC = GRIDCART
                      GP = GRIDPOLR
                      DC = DISCCART
                      DP = DISCPOLR
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE SUMMARY OF HIGHEST 1-HR RESULTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

NETWORK GROUP ID	AVERAGE CONC	DATE (YYMMDDHH)	RECEPTOR (XR, YR, ZELEV, ZHILL, ZFLAG)	OF TYPE	GRID-ID
EXH HIGH 1ST HIGH VALUE IS	17.52593	ON 12101207:	AT (440269.00, 3765700.00, 289.00, 289.00, 0.00)	DC	
FREEEXH HIGH 1ST HIGH VALUE IS	17.12930	ON 12101207:	AT (440269.00, 3765700.00, 289.00, 289.00, 0.00)	DC	
ONOFFEXH HIGH 1ST HIGH VALUE IS	0.56725	ON 12100707:	AT (440269.00, 3765700.00, 289.00, 289.00, 0.00)	DC	
ALL HIGH 1ST HIGH VALUE IS	17.52593	ON 12101207:	AT (440269.00, 3765700.00, 289.00, 289.00, 0.00)	DC	

*** RECEPTOR TYPES: GC = GRIDCART
GP = GRIDPOLR
DC = DISCCART
DP = DISCPOLR

```
 *** AERMOD - VERSION 21112  ***   *** C:\Lakes\Ontario_PUD-
Legacy_Ops-HRA_20221004\Ontario_PUD-Legacy_Ops- ***
10/05/22
 *** AERMET - VERSION  16216 ***   ***
***        12:31:02

PAGE 150
 *** MODELOPTs:    NonDFAULT  CONC  FLAT  URBAN  ADJ_U*

 *** Message Summary : AERMOD Model Execution ***

  --------- Summary of Total Messages --------

 A Total of            0 Fatal Error Message(s)
 A Total of            2 Warning Message(s)
 A Total of         1628 Informational Message(s)

 A Total of        43848 Hours Were Processed

 A Total of         1278 Calm Hours Identified

 A Total of          350 Missing Hours Identified (  0.80
Percent)


    ******** FATAL ERROR MESSAGES ********
               ***  NONE  ***


    ********   WARNING MESSAGES   ********
 ME W186    1734       MEOPEN: THRESH_1MIN 1-min ASOS wind speed
threshold used           0.50
 ME W187    1734       MEOPEN: ADJ_U* Option for Stable Low Winds
used in AERMET

    ************************************
    *** AERMOD Finishes Successfully ***
    ************************************
```

ORDINANCE NO._____

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF ONTARIO, CALIFORNIA, APPROVING FILE NO. PUD22-004, THE EUCLID WALNUT PLANNED UNIT DEVELOPMENT, ESTABLISHING DEVELOPMENT STANDARDS AND DESIGN GUIDELINES FOR A 10.6-ACRE PROJECT SITE GENERALLY LOCATED AT THE NORTHWEST CORNER OF EUCLID AVENUE AND WALNUT STREET, AND MAKING FINDINGS IN SUPPORT THEREOF— APNS: 1051-271-67, 1051-271-06, AND 1051-271-66.

WHEREAS, LEGACY/COLLIER RESIDENTIAL LLC (hereinafter referred to as "Applicant") has filed an Application for the approval of the Euclid Walnut Planned Unit Development ("PUD"), File No. PUD22-004, as described in the title of this Resolution (hereinafter referred to as "Application" or "Project"); and

WHEREAS, the Application applies to 10.6 acres of land generally located at the northwest corner of Euclid Avenue and Walnut Street, within the Mixed Use – Neighborhood Hub 8e – Euclid and Walnut (MU-NH 8e) zoning district, as well as the Euclid Avenue (EA) Overlay district, and is presently improved with commercial development; and

WHEREAS, the properties to the north of the Project site are within the Medium-Density Residential (MDR-18) and the MU-NH 8e zoning districts, and the EA Overlay district, and are developed with multi-family residential units, single-family dwellings, and commercial land uses. The properties to the east are within the Neighborhood Commercial (CN) zoning and EA Overlay districts, and are developed with commercial land uses. The properties to the south are within the Low-Density Residential (LDR-5) zoning district and the EA Overlay district, and are developed with single-family dwellings. The properties to the west are within the MDR-18 zoning district, and are developed with multi-family residential units; and

WHEREAS, the Project was submitted in conjunction with a Development Plan (File No. PDEV22-027) to construct the first phase of development, and a Certificate of Appropriateness (File No. PHP22-015) to determine whether the Project site is an historic resource and facilitate said development; and

WHEREAS, the PUD establishes the development standards and design guidelines for the Project site to facilitate its two phases of development. Phase 1 is comprised of 9.4 acres of the PUD site (everything except for the existing Carl's Jr. drive-thru restaurant site) and will require the demolition of a combined 100,950 square feet of commercial/retail buildings and related site improvements. Phase 1 will be redeveloped with two four-story and six three-story buildings, providing a combined total of 346 dwelling units, 5,400 square feet of ground floor commercial space, associated on-site parking for both land uses, recreational amenities for the residential land use and landscaping. Phase 2 will finish implementation of the total build-out of the area within the PUD project by demolishing the Carl's Jr. restaurant building and related site

improvements and replacing them with additional vertical mixed-use development. Completion of the second phase would provide up to an additional 23 dwelling units, 6,600 square feet of ground-floor commercial space and the associated site improvements. Overall, the PUD will facilitate development of a maximum of 369 dwelling units and up to 12,000 square feet of commercial land uses; and

WHEREAS, the PUD outlines the Project's (a) objectives, including its consistency with The Ontario Plan 2050 and the EA Overlay district; (b) land use plan, including zoning, phasing and build-out, and permitted land uses; (c) development regulations, including intensity and density, building envelope, vehicle access and parking facilities, parking supply and design, residential open space and common amenities, service facilities, signs, landscape and hardscape, fences and walls, public right-of-way improvements, infrastructure, and overall development standards; (d) design criteria, including those for building orientation, access and parking facilities, service facilities, pedestrian linkages, architectural character, massing and scale, articulation and fenestration, architectural details, storefronts, materials and colors, roofs and rooftop equipment, non-residential outdoor dining areas, residential outdoor space and common recreation amenities, and landscape/hardscape elements; and (e) administration, including items not addressed in the PUD, requirements for Development Plans and other applications, and administrative exceptions; and

WHEREAS, Project approval is contingent on Planning Commission approval of the related Certificate of Appropriateness and Development Plan applications, and City Council approval of the Euclid Walnut PUD. Issuance of the Project's Building Permits is contingent upon approval of the related Lot Line Adjustment/Lot Merger application, pursuant to Engineering Department requirements and requests; and

WHEREAS, The Ontario Plan 2050 Supplemental Environmental Impact Report (State Clearinghouse No. 2021070364) was certified on August 16, 2022, (hereinafter referred to as "Certified SEIR"), in which development and use of the Project site was discussed; and

WHEREAS, the Planning Director of the City of Ontario prepared and approved for attachment to the Certified SEIR, an Addendum to the Certified SEIR (hereinafter referred to as "SEIR Addendum") in accordance with the requirements of the California Environmental Quality Act of 1970, together with State and local guidelines implementing said Act, all as amended to date (collectively referred to as "CEQA"); and

WHEREAS, the environmental impacts of this project were thoroughly analyzed in the SEIR Addendum, which concluded that implementation of the Project could result in a number of significant effects on the environment that were previously analyzed in the Certified SEIR, and that the Certified SEIR identified mitigation measures that would reduce each of those significant effects to a less-than-significant level; and

WHEREAS, the City's "Local Guidelines for the Implementation of the California Environmental Quality Act (CEQA)" provide for the use of a single environmental assessment in situations where the impacts of subsequent projects are adequately analyzed; and

WHEREAS, the Application is a project pursuant to the California Environmental Quality Act — Public Resources Code Section 21000 et seq. — (hereinafter referred to as "CEQA") and an SEIR Addendum has been prepared to determine possible environmental impacts; and

WHEREAS, Ontario Development Code Table 2.02-1 (Review Matrix) grants the City Council the authority to review and act on the subject Application; and

WHEREAS, the Project has been reviewed for consistency with the Housing Element of the Policy Plan component of The Ontario Plan 2050, as State Housing Element law (as prescribed in Government Code Sections 65580 through 65589.8) requires that development projects must be consistent with the Housing Element, if upon consideration of all its aspects, it is found to further the purposes, principals, goals, and policies of the Housing Element; and

WHEREAS, the Project is located within the Airport Influence Area of Ontario International Airport, which encompasses lands within parts of San Bernardino, Riverside, and Los Angeles Counties, and is subject to, and must be consistent with, the policies and criteria set forth in the Ontario International Airport Land Use Compatibility Plan (hereinafter referred to as "ALUCP"), which applies only to jurisdictions within San Bernardino County, and addresses the noise, safety, airspace protection, and overflight impacts of current and future airport activity; and

WHEREAS, City of Ontario Development Code Division 2.03 (Public Hearings) prescribes the manner in which public notification shall be provided and hearing procedures to be followed, and all such notifications and procedures have been completed; and

WHEREAS, on August 22, 2023, the Planning Commission of the City of Ontario voted to continue the item to the September 26, 2023, hearing date; and

WHEREAS, as the first action on the Project, on September 26, 2023, the Planning Commission voted to issue Resolution No. PC23-074 recommending the City Council adopt the SEIR Addendum, finding that the proposed Project introduces no new significant environmental impacts and applying all previously adopted mitigation measures to the Project, which were incorporated by reference; and

WHEREAS, on September 26, 2023, the Planning Commission of the City of Ontario conducted a hearing to consider the Project, voting to issue Resolution No. PC23- 075 recommending the City Council approve the Application and concluded said hearing on that date; and

WHEREAS, on October 17, 2023, the City Council of the City of Ontario conducted a hearing to consider the Addendum and the Project, and concluded said hearing on that date; and

WHEREAS, as the first action on the Project, on October 17, 2023, the City Council approved a resolution adopting an Addendum to a previous Certified SEIR prepared

pursuant to CEQA, the State CEQA Guidelines and the City of Ontario Local CEQA Guidelines, which indicated that all potential environmental impacts from the Project were less than significant or could be mitigated to a level of significance; and

WHEREAS, all legal prerequisites to the adoption of this Ordinance have occurred.

NOW, THEREFORE, IT IS HEREBY FOUND, DETERMINED, AND ORDAINED by the City Council of the City of Ontario, as follows:

SECTION 1. ***Environmental Determination and Findings.*** As the decision-making body for the Project, the City Council has reviewed and considered the information contained in the previous Certified SEIR and supporting documentation. Based upon the facts and information contained in the previous Certified SEIR and supporting documentation, the City Council finds as follows:

(1) The environmental impacts of the Project were reviewed in conjunction with an Addendum to The Ontario Plan 2050 Supplemental Environmental Impact Report (State Clearinghouse No. 2021070364), certified by the Ontario City Council on August 16, 2022, in conjunction with File No. PGPA20-002.

(2) The Addendum and administrative record have been completed in compliance with CEQA, the State CEQA Guidelines, and the City of Ontario Local CEQA Guidelines; and

(3) The City's "Guidelines for the Implementation of the California Environmental Quality Act (CEQA)" provide for the use of a single environmental assessment in situations where the impacts of subsequent projects are adequately analyzed. This Application introduces no new significant environmental impacts; and

(4) The Addendum contains a complete and accurate reporting of the environmental impacts associated with the Project, and reflects the independent judgment of the City Council; and

(5) There is no substantial evidence in the administrative record supporting a fair argument that the project may result in significant environmental impacts; and

(6) The proposed project will introduce no new significant environmental impacts beyond those previously analyzed in the Certified SEIR, and all mitigation measures previously adopted by the Certified SEIR, are incorporated herein by this reference.

SECTION 2. ***Additional Environmental Review Not Required.*** Based on the Addendum, all related information presented to the City Council, and the specific findings set forth in Section 1, above, the City Council finds that the preparation of a subsequent or supplemental Certified SEIR is not required for the Project, as the Project:

(1) Does not constitute substantial changes to the Certified SEIR that will require major revisions to the Certified SEIR due to the involvement of new significant

environmental effects or a substantial increase in the severity of previously identified significant effects; and

(2) Does not constitute substantial changes with respect to the circumstances under which the Certified SEIR was prepared, that will require major revisions to the Certified SEIR due to the involvement of new significant environmental effects or a substantial increase in the severity of the previously identified significant effects; and

(3) Does not contain new information of substantial importance that was not known and could not have been known with the exercise of reasonable diligence at the time the Certified SEIR was certified/adopted, that shows any of the following:

(a) The project will have one or more significant effects not discussed in the Certified SEIR; or

(b) Significant effects previously examined will be substantially more severe than shown in the Certified SEIR; or

(c) Mitigation measures or alternatives previously found not to be feasible would in fact be feasible and would substantially reduce one or more significant effects of the Project, but the City declined to adopt such measures; or

(d) Mitigation measures or alternatives considerably different from those analyzed in the Certified SEIR would substantially reduce one or more significant effects on the environment, but which the City declined to adopt.

SECTION 3. ***Airport Land Use Compatibility Plan ("ALUCP") Compliance.*** The California State Aeronautics Act (Public Utilities Code Section 21670 et seq.) requires that an Airport Land Use Compatibility Plan be prepared for all public use airports in the State; and requires that local land use plans and individual development proposals must be consistent with the policies set forth in the adopted Airport Land Use Compatibility Plan.

On April 19, 2011, the City Council of the City of Ontario approved and adopted the Ontario International Airport Land use Compatibility Plan, establishing the Airport Influence Area for Ontario International Airport, which encompasses lands within parts of San Bernardino, Riverside, and Los Angeles Counties, and limits future land uses and development within the Airport Influence Area, as they relate to noise, safety, airspace protection, and overflight impacts of current and future airport activity. As the decision-making body for the Project, the City Council has reviewed and considered the facts and information contained in the Application and supporting documentation against the ONT ALUCP compatibility factors, including [1] Safety Criteria (ONT ALUCP Table 2-2) and Safety Zones (ONT ALUCP Map 2-2), [2] Noise Criteria (ONT ALUCP Table 2-3) and Noise Impact Zones (ONT ALUCP Map 2-3), [3] Airspace protection Zones (ONT ALUCP Map 2-4), and [4] Overflight Notification Zones (ONT ALUCP Map 2-5). As a result, the City Council, therefore, finds and determines that the Project, when implemented in conjunction with the conditions of approval, will be consistent with the policies and criteria set forth within the ONT ALUCP; and

SECTION 4. ***Housing Element Compliance.*** Pursuant to the requirements of California Government Code Chapter 3, Article 10.6, commencing with Section 65580, as the decision-making body for the Project, the City Council finds that based upon the facts and information contained in the Application and supporting documentation, at the time of Project implementation, the project is consistent with the Housing Element of the Policy Plan (General Plan) component of The Ontario Plan 2050, as the project site is not one of the properties in the Housing Element Sites Inventory contained in Tables B-1 and B-2 of the Housing Element Technical Report.

SECTION 5. ***Concluding Facts and Reasons.*** Based upon the substantial evidence presented to the City Council during the above-referenced hearing, and upon the specific findings set forth in Section 1 through 4, above, the City Council hereby concludes as follows:

(1) ***The proposed PUD, or amendment thereto, is consistent with the goals, policies, plans and exhibits of the Vision, Policy Plan (General Plan), and City Council Priorities components of The Ontario Plan.*** The Project is consistent with the Vision, Policy Plan (General Plan), and City Council Priorities components of The Ontario Plan in that the mixed-use standards and guidelines specified in the PUD align with The Ontario Plan. Section 2.1 of the Euclid Walnut Planned Unit Development ("PUD"), titled "Consistency with The Ontario Plan", describes how the PUD complies with the Policy Plan goals, policies, and plans.

(2) ***The proposed PUD, or amendment thereto, would not be detrimental to the public interest, health, safety, convenience, or general welfare of the City.*** The City Council has required certain safeguards through conditions of approval, which have been established to ensure that: [i] the purposes of the Planned Unit Development are maintained; [ii] the project will not endanger the public health, safety or general welfare; [iii] the project will not result in any significant environmental impacts; [iv] the project will be in harmony with the area in which it is located; and [v] the project will be in full conformity with the Vision, City Council Priorities and Policy Plan components of The Ontario Plan.

(3) ***In the case of an application affecting specific property(ies), the proposed PUD, or amendment thereto, will not adversely affect the harmonious relationship with adjacent properties and land uses.*** While the PUD Project area is situated on the Euclid Avenue (EA) Overlay district, it is located 0.4-mile south of the locally- and nationally-recognized landmark and historic cultural landscape corridor, and 3 miles south of the City's Downtown Historic District; therefore, the Project is outside of and does not contain any historic resources. The adjacent neighborhood consists of existing single- and multiple-family dwellings and commercial development, which also do not qualify as historic resources. The PUD has ensured that on-site development is sensitive to and complementary of the surrounding development, and the surrounding development is compatible with the proposed residential and commercial mixed-use development. Therefore, the Project does not affect the harmonious relationship with adjacent properties and land uses.

(4) ***In the case of an application affecting specific property(ies), the subject site is physically suitable, including, but not limited to, parcel size, shape, access, and availability of utilities, for the request and anticipated development.*** In preparing the PUD, a thorough review and analysis of the proposed Project and the subject site's physical suitability for the Project was completed, including analysis of the Project size and shape, intensity of development, building height and setbacks, site access, site landscaping and drainage, fences and walls, vehicle and pedestrian circulation, availability of mass transit, necessary street dedication and easements, public right-of-way improvements, availability of utilities and other infrastructure needs, off-street parking, building orientation and streetscapes, architectural character, building materials and character, and site signage. Based upon this review and analysis, the subject site has been deemed physically suitable, including but not limited to parcel size, shape, access, and availability of utilities for the proposed PUD and proposed development.

(5) ***The proposed PUD is superior to that which could be obtained through the application of the Development Code or a specific plan.*** The PUD will establish minimum building setbacks, parking and open space requirements, private storage provisions, a planting palette, allowable land uses preferable to support the proposed development and the surrounding community, and more. These standards will facilitate the development of up to 369 dwelling units and 12,000 square feet of commercial space and accompanying improvements. The proposed PUD will allow for subsequent development that is superior to that which could be obtained through the application of the Development Code by itself, by means of facilitating the development of high-density apartments, restaurants, retail shops, and other commercial services that will serve to achieve the City's goals of economic revitalization and aesthetic enhancements along an underutilized portion of the Euclid Avenue corridor. Lastly, the PUD will further serve to implement the vision of the EA Overlay district, the Mixed Use – Neighborhood Hub 8e – Euclid and Walnut (MU-NH 8e) zoning district, and the Mixed Use - Neighborhood Activity Hub: 20.0 to 75.0 du/ac; 1.0 FAR office/retail (MU-NH) land use district of the Policy Plan by allowing for this vibrant and well-designed mixed-use development.

SECTION 6. ***City Council Action.*** Based upon the findings and conclusions set forth in Sections 1 through 5, above, the City Council hereby APPROVES the herein described Euclid Walnut Planned Unit Development, attached hereto as "Attachment A,", and subject to the Project conditions of approval, attached hereto as "Attachment B,", and incorporated herein by this reference.

SECTION 7. ***Indemnification.*** The Applicant shall agree to defend, indemnify and hold harmless, the City of Ontario or its agents, officers, and employees from any claim, action or proceeding against the City of Ontario or its agents, officers or employees to attack, set aside, void, or annul this approval. The City of Ontario shall promptly notify the applicant of any such claim, action, or proceeding, and the City of Ontario shall cooperate fully in the defense.

SECTION 8. ***Custodian of Records.*** The documents and materials that constitute the record of proceedings on which these findings have been based are located at the City of Ontario City Hall, 303 East "B" Street, Ontario, California 91764. The custodian for these records is the City Clerk of the City of Ontario.

SECTION 9. ***Severability.*** If any section, sentence, clause or phrase of this Ordinance or the application thereof to any entity, person or circumstance is held for any reason to be invalid or unconstitutional, such invalidity or unconstitutionality shall not affect other provisions or applications of this Ordinance which can be given effect without the invalid provision or application, and to this end the provisions of this Ordinance are severable. The People of the City of Ontario hereby declare that they would have adopted this Ordinance and each section, sentence, clause or phrase thereof, irrespective of the fact that any one or more section, subsections, sentences, clauses or phrases be declared invalid or unconstitutional.

SECTION 10. ***Effective Date.*** This Ordinance shall become effective 30 days following its adoption.

SECTION 11. ***Publication and Posting.*** The Mayor shall sign this Ordinance and the City Clerk shall certify as to the adoption and shall cause a summary thereof to be published at least once, in a newspaper of general circulation in the City of Ontario, California within 15 days following the adoption. The City Clerk shall post a certified copy of this ordinance, including the vote for and against the same, in the Office of the City Clerk, in accordance with Government Code Section 36933.

PASSED, APPROVED, AND ADOPTED this 17th day of October 2023.

_____
PAUL S. LEON, MAYOR

ATTEST:

_____
SHEILA MAUTZ, CITY CLERK

APPROVED AS TO FORM:

_____
BEST BEST & KRIEGER LLP
CITY ATTORNEY

STATE OF CALIFORNIA)
COUNTY OF SAN BERNARDINO)
CITY OF ONTARIO)

I, SHEILA MAUTZ, City Clerk of the City of Ontario, DO HEREBY CERTIFY that foregoing Ordinance No. was duly introduced at a regular meeting of the City Council of the City of Ontario held _____ and adopted at the regular meeting held October 17, 2023, by the following roll call vote, to wit:

AYES: COUNCIL MEMBERS:

NOES: COUNCIL MEMBERS:

ABSENT: COUNCIL MEMBERS:

_____
SHEILA MAUTZ, CITY CLERK

(SEAL)

I hereby certify that the foregoing is the original of Ordinance No. duly passed and adopted by the Ontario City Council at their regular meeting held October 17, 2023, and that Summaries of the Ordinance were published on _____ and _____, in the Inland Valley Daily Bulletin newspaper.

_____
SHEILA MAUTZ, CITY CLERK

(SEAL)

<u>ATTACHMENT A</u>:

File No. PUD22-004;
Euclid Walnut Planned Unit Development

(Document follows this page)



City of Ontario
PUD 22-004

Euclid Walnut

Planned Unit Development

A Project by Legacy Partners

CITY OF ONTARIO SOUTHERN CALIFORNIA

5198

Euclid/Walnut

Planned Unit Development

City of Ontario
PUD 22-004
City Council Approval Date - TBD
City Council Ordinance No. TBD

303 E. B Street
Ontario, CA 91764
(909) 395-2000
ontarioca.gov

Applicant:

Legacy Partners
5141 California Avenue
Suite 100
Irvine, CA 92617

Table of Contents

Chapter 1: Introduction 7

Chapter 2: Objectives 11
- 2.1 Consistency with The Ontario Plan 11
- 2.2 Euclid Avenue (EA) Overlay District and Historic Resources 18
- 2.3 Euclid/Walnut PUD Objectives 19

Chapter 3: Land Use Plan 21
- 3.1 Land Use and Zoning 21
- 3.2 Phasing and Build-Out 22
- 3.3 Permitted Uses 24

Chapter 4: Development Regulations 27
- 4.1 Intensity 28
- 4.2 Density 28
- 4.3 Building Envelope 28
- 4.4 Vehicle Access 28
- 4.5 Parking Facilities, Supply and Design 29
- 4.6 Residential Open Space and Common Amenities 29
- 4.7 Service Facilities 30
- 4.8 Signs 30
- 4.9 Landscape/Hardscape 30
- 4.10 Fences and Walls 31
- 4.11 Public Right-of-Way Improvements 31
- 4.12 Infrastructure 31
- 4.13 Summary of Development Standards 32

Chapter 5: Design Criteria 35
- 5.1 Building Orientation 36
- 5.2 Access and Parking Facilities 36
- 5.3 Service Facilities 36
- 5.4 Pedestrian Linkages 37
- 5.5 Architectural Character 37
- 5.6 Massing & Scale 37
- 5.7 Articulation & Fenestration 37
- 5.8 Architectural Details 37
- 5.9 Storefronts 41
- 5.10 Material & Colors 41
- 5.11 Roofs/Rooftop Equipment 41
- 5.12 Non-Residential Outdoor Dining Areas 41
- 5.13 Residential Outdoor Space, Common Recreational Amenities 41
- 5.14 Landscape/Hardscape Elements 42

Chapter 6: Administration 47
- 6.1 Items Not Addressed in PUD 47
- 6.2 Development Plan and Other Applications 48
- 6.3 Administrative Exceptions 48

Exhibits

Exhibit 1-1: PUD Location Map 8

Exhibit 3-1: Land Use/Zoning Map 22

Exhibit 3-2: Phase 1 Conceptual Site Plan 23

Exhibit 5-1: Architectural Character — Vertical Mixed-Use 38

Exhibit 5-2: Architectural Character — Three-Story Residential 39

Exhibit 5-3: Architectural Character — Four-Story Residential 40

Exhibit 5-4: Typical Common Recreational Amenity 41

Exhibit 5-5: Typical Courtyard 41

Exhibit 5-6: Fence/Wall Concepts 44

Tables

Table 3-1: Permitted Uses 24

Table 4-1: Summary of Development Standards 32

Table 5-1: Master Plant Palette 42

1 Introduction

The Euclid/Walnut Planned Unit Development (PUD) functions as a set of planning and design principles, development regulations, and performance standards to guide and govern the redevelopment of a commercial shopping center into a mixed-use development. The project site comprises three parcels located on the northwest corner of Euclid Avenue and Walnut Street, as shown on Exhibit 1-1: PUD Location Map. This PUD will facilitate development of high-density apartments, restaurants, retail shops, and other commercial services that will achieve the City's goals to economically revitalize and aesthetically enhance an underutilized parcel on the Euclid Avenue corridor.

Exhibit 1-1: PUD Location Map



This document is organized to fulfill the requirements for a PUD, as set forth in the Ontario Development Code (ODC). The Euclid/Walnut PUD replaces the existing zoning district designation and ODC regulations applicable to the affected properties. The properties also lie within the "EA – Euclid Avenue Overlay" district. Any applicable requirements of the overlay district shall remain in full force and effect. Unless otherwise defined or stated herein, definitions and interpretations contained in the ODC shall apply. City staff and private developers will rely on this PUD to determine whether precise plans for development ("Development Plans") adequately meet the City's land use and design objectives of The Ontario Plan (TOP) 2050.

This page was intentionally left blank.

2 Objectives

2.1 Consistency with The Ontario Plan

The Ontario Plan (TOP), the City's comprehensive plan, has undergone a significant update to shape the Ontario community through 2050. TOP 2050 has three policy level components: the Vision, a Governance Manual, and the Policy Plan (General Plan).

The Ontario Vision – adopted by the City Council envisioning "A sustained, community-wide prosperity which continuously adds value and yields benefits." Value is comprehensive in this regard and is expressed in land, revenues, infrastructure, businesses, education, employment, health, community services, recreation, etc. In particular, Ontario is committed to being "A Premier Community by Design." One of the foundations to accomplish this is described in the Vision as ensuring that development is "distinctive." The Euclid/Walnut PUD helps the City realize specific "Points of Vision" as outlined for "Distinctive Development" as follows:

- A system of vibrant retail, town, and neighborhood centers responsive to market demands and woven into the fabric of the community.
- A demonstrated ability to attract housing in pursuit of our acknowledged responsibility to balance housing with the job growth that drives our quality of life.
- Superior quality and design of the built environment and open spaces through careful attention to detail at every scale, including public and private spaces and structures.

The Governance Manual – institutionalizes Ontario's approach to governance and provides a business plan for the City. Ontario believes the City has the obligation to create, maintain, and grow economic value. The Manual guides the City's leadership and ensures that TOP 2050 is integrated into daily operations and provides for effective administration. The Euclid/Walnut PUD is established in conformance with the City's requirements and includes an administrative section consistent with provisions contained in the ODC for consideration of "Development Plans."

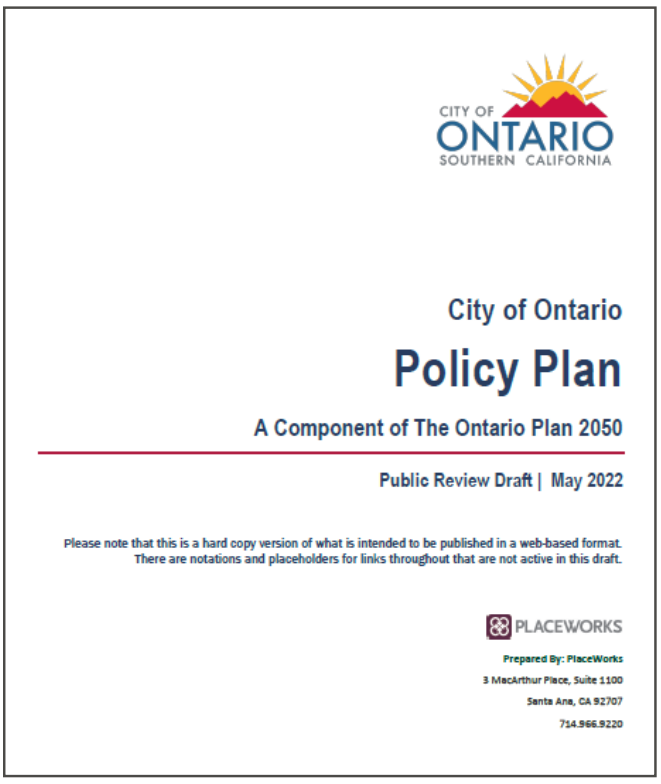
The Policy Plan (General Plan) – includes the Land Use Element, which designates the subject parcels within the Euclid/Walnut PUD as "MU - Mixed Use." Generally, these properties are developed with a mix of uses that, when concentrated, create focal points for community activity and facilitate walking, biking, and transit use The MU – Mixed Use land use category accommodates a horizontal and/or vertical mix of retail, service, office, restaurant, entertainment, cultural, and residential uses. The densities and intensities of the MU – Mixed Use designation represent the intended level of anticipated development; however, individual projects may vary depending upon an approved master plan, such as a specific plan or planned unit development.

Within the Land Use Element, the MU – Mixed Use designation is broken down into unique sub-categories to further refine the type of mixed-use development desired by the City. The parcels comprising the Euclid/Walnut PUD are part of a sub-area categorized as MU-NH – Mixed Use Neighborhood Activity Hub. This specific designation envisions low-rise (three to five stories) buildings, with a mix of retail and residential uses that will create identity and place, and serve surrounding residents. This category allows for residential densities ranging from 20 to 75 dwelling units per acre and non-residential intensity of 1.00 floor area ratio (FAR). Five locations within the City have the MU-NH land use designation. The Future Build-out Projections Table of the Land Use Element provides details for each of these five MU-NH sub-areas. The build-out of the 16-acre "MU-NH (Euclid & Walnut)" sub-area is projected to be 369 dwelling units and 142,840 square feet of non-residential development.

This PUD regulates the redevelopment of 10.6 acres of this sub-area to create a mixed-use project providing a total of 369 dwelling units and 12,000 non-residential square feet. The other 5.4 acres of the sub-area is located north of the PUD boundary and currently developed with 15 single family dwelling units, and approximately 28,000 square feet of non-residential development. There is a nominal increase to the total build-out projection for the number of residential dwelling units within this sub-area resulting from the combination of existing to remain and construction of new within the boundaries of this PUD. However,

it is offset by a significant reduction in the build-out of non-residential square footage should the existing uses/buildings remain unchanged on the 5.4-acre portion. Implementation of this PUD would still allow for redevelopment of the 5.4 acre portion of the sub-area of up to 130,000 of non-residential square footage, consistent with the TOP 2050 build-out projections for this sub-area.

In addition to the requirements of the Land Use Element, all mixed-use development is subject to specific "Place Types" as defined in the Community Design Element, which represent the intended outcome and character for each area. The Euclid/Walnut PUD falls within Place Type 8 (a-e). Properties with this Place Type are considered "Neighborhood Center – Infill" development where commercial and residential parcels were largely developed in an incremental manner prior to 2020. The Community Design Element acknowledges that many properties in this Place Type range in size, complexity, and relationships with surrounding streets and neighborhoods, and that redevelopment could result in horizontal or vertical mixed use. However, all of these centers are envisioned to incorporate site design that prioritizes safe, attractive, and well-shaded pedestrian access on site, from the public rights-of-way, and from the adjacent neighborhoods.


CITY OF ONTARIO SOUTHERN CALIFORNIA

City of Ontario

Policy Plan

A Component of The Ontario Plan 2050

Public Review Draft | May 2022

Please note that this is a hard copy version of what is intended to be published in a web-based format. There are notations and placeholders for links throughout that are not active in this draft.

PLACEWORKS

Prepared By: PlaceWorks
3 MacArthur Place, Suite 1100
Santa Ana, CA 92707
714.966.9220

Implementation of the Euclid/Walnut PUD will achieve many City goals and policies outlined in The Policy Plan (General Plan). Those specific goals and polices are as follows.

Land Use Element

Goal LU-1 Balance

A community that has a spectrum of housing types and price ranges that match the jobs in the City and that make it possible for people to live and work in Ontario and maintain a quality of life.

- LU-1.1 Strategic Growth. We concentrate growth in strategic locations that help create place and identity, maximize available and planned infrastructure, foster the development of transit, and support the expansion of the active and multimodal transportation networks throughout the City.
- LU-1.5 Jobs-Housing Balance. We coordinate land use, infrastructure, and transportation planning and analysis with regional, county, and other local agencies to further regional and subregional goals for jobs-housing balance.
- LU-1.6 Complete Community. We incorporate a variety of land uses and building types in our land use planning efforts that result in a complete community where residents at all stages of life, employers, workers, and visitors have a wide spectrum of choices of where they can live, work, shop and recreate within Ontario.

Goal LU-2 Compatibility

Compatibility between a wide range of uses and resultant urban patterns and forms.

- LU-2.1 Land Use Decisions. We minimize adverse impacts on adjacent properties when considering land use and zoning requests.
- LU-2.2 Buffers. We require new uses to provide mitigation or buffers between existing uses where potential adverse impacts could occur. Additional mitigation is required when new uses could negatively impact environmental justice areas.

Goal LU-4 Phased Growth

Development that provides short-term value only when the opportunity to achieve our Vision can be preserved.

- LU-4.2 Interim Development. We allow development in urban, mixed use, and transit-oriented Place Types that is not immediately reflective of our ultimate Vision for the Place Type, provided it can be modified or replaced when circumstances are right to support development aligned with the Place Type Vision. We will not allow development that impedes, precludes, or compromises our ability to achieve our Vision.
- LU-4.3 Infrastructure Timing. We require that the necessary infrastructure and services be in place prior to or concurrently with development.
- LU-4.4 Shared Infrastructure. We encourage and facilitate the use of shared infrastructure (including shared or managed parking) in urban, mixed use, and transit-oriented Place Types.

Housing Element

Goal H-2 Housing Supply & Diversity

Diversity of types of quality housing that are affordable to a range of household income levels, accommodate changing demographics, and support and reinforce the economic sustainability of Ontario.

- H-2.1 Corridor Housing. We revitalize transportation corridors by encouraging the production of higher density residential and mixed-uses that are architecturally, functionally, and aesthetically suited to corridors.
- H-2.5 Housing Design. We require architectural excellence through adherence to City design guidelines, thoughtful site planning, environmentally sustainable practices, and other best practices.
- H-2.6 Infill Development. We support the revitalization of neighborhoods through the construction of higher-density residential developments on underutilized residential and commercial sites.

Goal H-3 Governmental Regulations

A City regulatory environment that balances the need for creativity and excellence in residential design, flexibility and predictability in the project approval process, and the provision of an adequate supply and prices of housing.

- H-3.2 Flexible Standards. We allow flexibility in the application of residential and mixed-use development standards in order to gain benefits such as exceptional design quality, economic advantages, sustainability, or other benefits that would otherwise be unrealized.

Environmental Resources Element

Goal ER-1 Water & Wastewater

A reliable and cost-effective system that permits the City to manage its diverse water resources and needs.

- ER-1.4 Supply-Demand Balance. We require that available water supply and demands be balanced.
- ER-1.6 Urban Run-off Quantity. We encourage the use of low impact development strategies, including green infrastructure, to intercept run-off, slow the discharge rate, increase infiltration, and ultimately reduce discharge volumes to traditional storm drain systems.
- ER-1.7 Urban Run-off Quality. We require the control and management of urban run-off, consistent with Regional Water Quality Control Board regulations.
- ER-1.8 Wastewater Management. We require the management of wastewater discharge and collection consistent with waste discharge requirements adopted by the Regional Water

Quality Control Board.

Goal ER-3 Energy

Cost-effective and reliable energy system sustained through a combination of low impact buildings, site and neighborhood energy conservation, and diverse sources of energy generation that collectively helps to minimize the region's carbon footprint.

- ER-3.3 Building and Site Design. We require new construction to incorporate energy efficient building and site design strategies, which could include appropriate solar orientation, maximum use of natural daylight, passive solar, and natural ventilation.

Goal ER-4 Air Quality

Improved indoor and outdoor air quality and reduced locally generated pollutant emissions.

- ER-4.1 Land Use. We reduce GHG and other local pollutant emissions through compact, mixed use, and transit-oriented development and development that improves the regional jobs-housing balance.

Community Economics Element

Goal CE-1 Complete Community

A complete community that provides for all incomes and stages of life.

- CE-1.6 Diversity of Housing. We collaborate with residents, housing providers, and the development community to provide housing opportunities for every stage of life; we plan for a variety of housing types and price points to encourage the development of housing supportive of our efforts to attract business in growing sectors of the community while being respectful of existing viable uses.
- CE-1.7 Retail Goods and Services. We seek to ensure a mix of retail businesses that provide the full continuum of goods and services for the community.

Goal CE-2 Placemaking

A City of distinctive neighborhoods, districts, corridors, and centers where people choose to be.

- CE-2.1 Development Projects. We require new development and redevelopment to create unique, high-quality places that add value to the community.
- CE-2.2 Development Review. We require those proposing new development and redevelopment to demonstrate how their projects will create appropriately unique, functional, and sustainable places that will compete well with their competition within the region.

Safety Element

Goal S-1 Seismic & Geologic Hazards

Minimized risk of injury, loss of life, property damage, and economic and social disruption caused by earthquake-induced and other geologic hazards.

- S-1.1 Implementation of Regulations and Standards. We require that all new habitable structures be designed in accordance with the most recent California Building Code adopted by the City, including provisions regarding lateral forces and grading.
- S-1.2 Entitlement and Permitting Process. We follow state guidelines and the California Building Code to determine when development proposals must conduct geotechnical and geological investigations.

Goal S-2 Flood Hazards

Minimized risk of injury, loss of life, property damage and economic and social disruption caused by flooding and inundation hazards.

- S-2.5 Stormwater Management. We maintain the storm drain system to convey a 100-year storm, when feasible, and encourage environmental site design practices to minimize flooding and increase groundwater recharge, including natural drainage, green infrastructure, and permeable ground surfaces.

Goal S-3 Fire & Rescue Hazards

Reduced risk of death, injury, property damage and economic loss due to fires, accidents and normal everyday occurrences through prompt

and capable emergency response.

- S-3.1 Prevention Services. We proactively mitigate or reduce the negative effects of fire, hazardous materials release, and structural collapse by implementing the regularly adopted California Fire Code and California Building Code.
- S-3.8 Fire Prevention through Environmental Design. We require new development to incorporate fire prevention consideration in the design of streetscapes, sites, open spaces, and buildings.

Goal S-4 Noise Hazards

An environment where noise does not adversely affect the public's health, safety, and welfare.

- S-4.1 Noise Mitigation. We utilize the City's Noise Ordinance, building codes, and subdivision and development codes to mitigate noise impacts.

Goal S-5 Wind-Related Hazards

Minimize the risk of injury, property damage, and economic loss resulting from windstorms and wind-related hazards.

- S-5.1 Dust Control Measures. We require the implementation of Best Management Practices for dust control at all excavation and grading projects.

Goal S-7 Law Enforcement

Residential neighborhoods, commercial areas, and industrial districts that are kept safe through a multi-faceted approach of prevention, suppression, and community involvement in public safety.

- S-7.4 Crime Prevention through Environmental Design (CPTED). We require new development to incorporate CPTED in the design of streetscapes, sites, open spaces, and buildings.

Community Design Element

Goal CD-1 Image & Identity

A dynamic, progressive city containing distinct and complete places that foster a positive sense of identity and belonging among residents, visitors, and businesses.

- CD-1.2 Place Types. We establish Place Types in urban, mixed use, and transit-oriented areas to foster the City's identity as a premier community and require new development within each Place Type to incorporate prescribed urban patterns, forms, and placemaking priorities.

Goal CD-2 Design Quality

A high level of design quality resulting in neighborhoods, commercial areas, public spaces, parks, and streetscapes that are attractive, safe, functional, human- scale, and distinct.

- CD-2.1 Quality Building Design and Architecture. We encourage all development projects to convey visual interest and character through:
  1. Building volume, massing, and height to provide context-appropriate scale and proportion;
  2. A true architectural style which is carried out in plan, section, and elevation through all aspects of the building and site design and appropriate for its setting; and
  3. Exterior building materials that are articulated, high quality, durable, and appropriate for the architectural style.
- CD-2.4 Urban, Mixed Use, and Transit-oriented Areas. We establish Place Types to require mixed use, urban, and transit-oriented areas to be designed and developed as pedestrian oriented areas that are integrated with adjacent neighborhoods and promote a vibrant, comfortable, and functional environment, as defined for each Place Type.
- CD-2.7 Sustainability. We collaborate with the development community to design and build neighborhoods, streetscapes, sites, outdoor spaces, landscaping, and buildings to reduce energy demand through solar orientation, maximum use of natural daylight, passive solar and natural ventilation, building form, mechanical and structural systems, building materials, and construction techniques.

- CD-2.8 Safe Design. We incorporate defensible space design into new and existing developments to ensure the maximum safe travel and visibility on pathways, corridors, and open space and at building entrances and parking areas by avoiding physically and visually isolated spaces, maintaining visibility and accessibility, and using lighting.
- CD-2.9 Landscape Design. We encourage durable, sustainable, and drought-tolerant landscaping materials and designs that enhance the aesthetics of structures, create and define public and private spaces, and provide shade and environmental benefits.
- CD-2.13 Entitlement Process. We work collaboratively with all stakeholders to ensure a high degree of certainty in the efficient review and timely processing of all development plans and permits.

Goal CD-3 Urban, Mixed Use, and Transit-Oriented Place Types

Vibrant urban environments that are organized around intense buildings, pedestrian and transit areas, public plazas, and linkages between and within developments that are conveniently located, visually appealing and safe during all hours.

- CD-3.1 Unique Identity. We promote development that heightens the unique character and identity of each Place Type by requiring compatible land uses and land planning, site design, and building design that promotes an active public realm.
- CD-3.4 Context-Aware and Appropriate Design. We require appropriate building and site design that complements existing development, respects the intent and identity of the Place Type, and provides appropriate transitions and connections between adjacent uses to ensure compatibility of scale, maintain an appropriate level of privacy for each use, and minimize potential conflicts.
- CD-3.5 Active Frontages. We create lively pedestrian streetscapes by requiring primary building, business, and residential entrances, outdoor dining, and storefronts be located on ground floors adjacent to sidewalks or public spaces and designed to maximize

CD-3.1 Unique Identity



CD-3.4 Context Aware and Appropriate Building Design



CD-3.5 Active Frontages



CD-3.6 Managed Infrastructure



2.2 Euclid Avenue (EA) Overlay District and Historic Resources

The EA Overlay zoning district was established to recognize, protect, and enhance the visual character and quality of Euclid Avenue as a major scenic and historic resource in Ontario as well as its position on the National Register of Historic Places. Properties located within the EA require approval of a Certificate of Appropriateness to ensure no adverse impacts to designated historic resources occur as a result of new development and buildings. This PUD includes design criteria within Chapter 5 for site and building design that strengthen the overall character of Euclid Avenue.

The public right-of-way of Euclid Avenue from Philadelphia Street northward to the Interstate 10 was designated as Local Landmark No. 67 on January 16, 2001 by the Ontario City Council. On August 10, 2005, the public right-of-way of Euclid Avenue from Philadelphia Street in Ontario northward to 24th Street in Upland was listed on the National Register of Historic Places as a significant cultural landscape. One contributing character defining-feature of the right-of way is the 60-foot-wide median separating the north/southbound vehicular lanes of Euclid Avenue. This PUD does not propose to alter or affect this character-defining feature.

Although the parcels within this PUD have Euclid Avenue frontage, the location of this PUD is separated from the southern boundary (Philadelphia Street) of this Local Landmark/National Register of Historic Places designation by a distance of approximately 0.4 miles. The extended view of the Euclid Avenue corridor, when viewed northward from the parcels or southward towards the parcels of this PUD, is also visually disrupted within the immediate foreground view as a result of the Pomona Freeway (SR-60), which is elevated above Euclid Avenue. Additionally, this PUD is separated from the closest boundary of an historic district, the Downtown Historic District, by a distance of approximately three miles. Based upon the City's Historic Preservation records, there are no potential or proposed historic resources within the immediate surrounding area of the parcels within this PUD.



Historic Euclid Avenue

2.3 Euclid / Walnut PUD Objectives

The Euclid/Walnut PUD establishes a set of planning and design principles, development regulations, and performance standards to guide and govern the development of a defined project site. This PUD will facilitate redevelopment of the project site with structures and related improvements that support residential and non-residential land uses within the same project site. In addition to facilitating achievement of many City goals and policies as outlined herein, this PUD has the following objectives:

- Develop and provide new, high-quality rental housing combined with a mixed-use component.
- Provide transition between new mixed-use development and surrounding residential neighborhoods and commercial properties.
- Provide areas of private and passive open space for each residential unit, as well as community gathering and active open spaces.
- Promote development that is consistent with the MU-NH – Mixed Use Neighborhood Activity Hub land use designation.
- Promote revitalization of commercial uses on the project site by establishing new ground-floor retail and similar uses that serve on-site residents and those in surrounding neighborhoods.
- Provide outdoor gathering places adjacent to commercial storefronts, such as outdoor patio or bench seating with inviting/attractive landscape elements.
- Orient non-residential, ground-floor uses towards Euclid Avenue.
- Incorporate site design solutions to allow for phased development.
- Satisfy the build-out projections for residential dwelling units within the MU-NH (Euclid-Walnut) sub-area, as defined in TOP 2050.

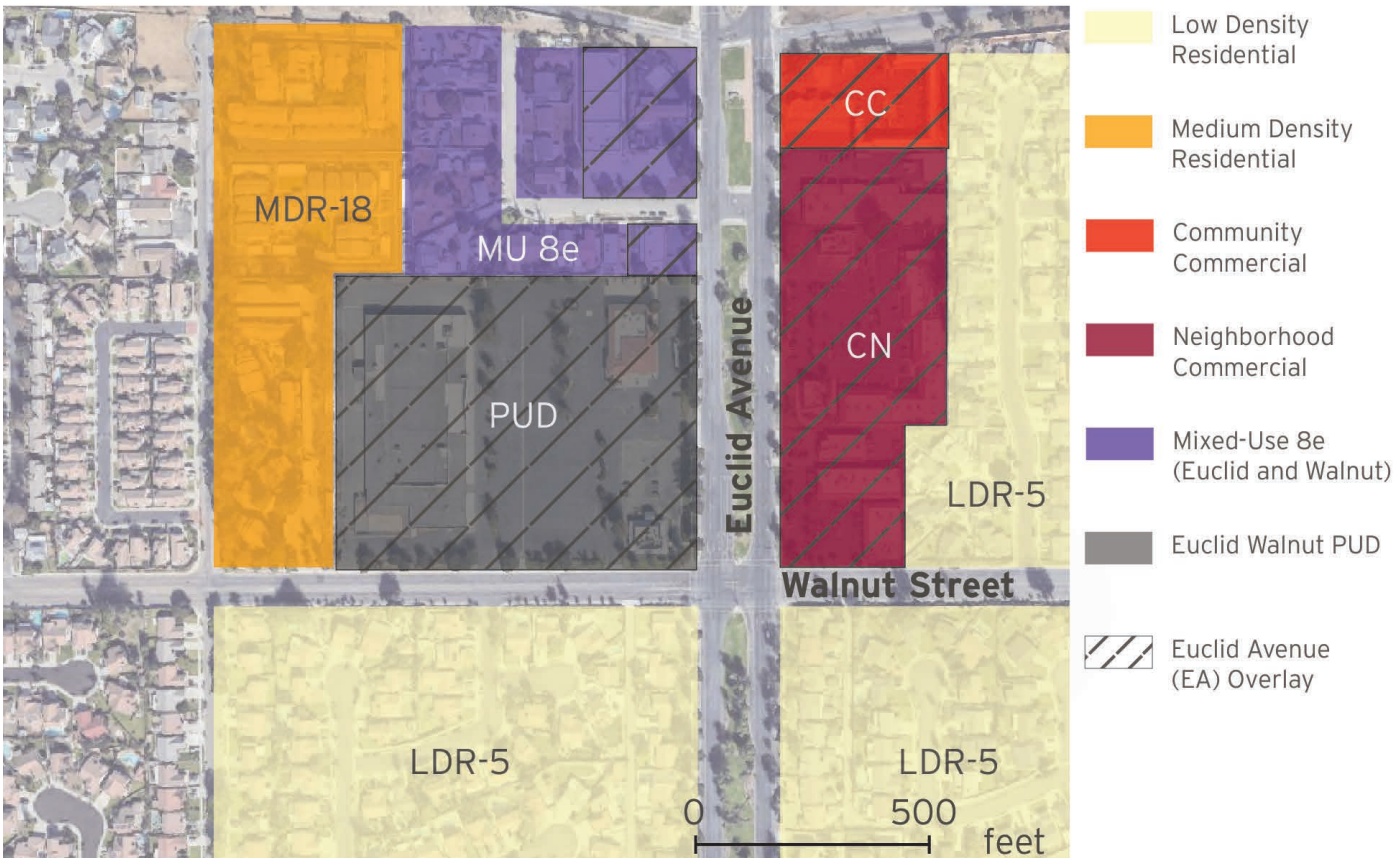


3 Land Use Plan

3.1 Land Use and Zoning

The Euclid/Walnut PUD applies to the parcels shown on Exhibit 3-1: Land Use/Zoning Map. The map establishes a single zoning district of PUD - Planned Unit Development providing for a mix of commercial and residential uses consistent with TOP 2050 MU-NH land use designation. This PUD allows both horizontal and vertical mixed-use development in buildings of three and four stories. Buildings with direct Euclid Avenue frontage will contain ground-floor commercial uses and residential units directly above. All other buildings will contain residential units on all floor levels. A combination of garages, tandem spaces, carports, and surface parking spaces will be provided, with gated access limited to residents and residents' guests. Unrestricted access to surface-level parking will serve the commercial uses and provide additional resident guest parking spaces. Residents will enjoy a low-maintenance, urban lifestyle with conveniently located shopping, dining, and personal service businesses in combination with convenient access to established transportation routes and employment hubs.

Exhibit 3-1: Land Use/Zoning Map



3.2 Phasing and Building Out

Implementation of the land use plan and the build-out allowable under this PUD will be achieved through two redevelopment phases. Exhibit 3-2: Phase 1 Conceptual Site Plan illustrates the development plan for the initial phase.

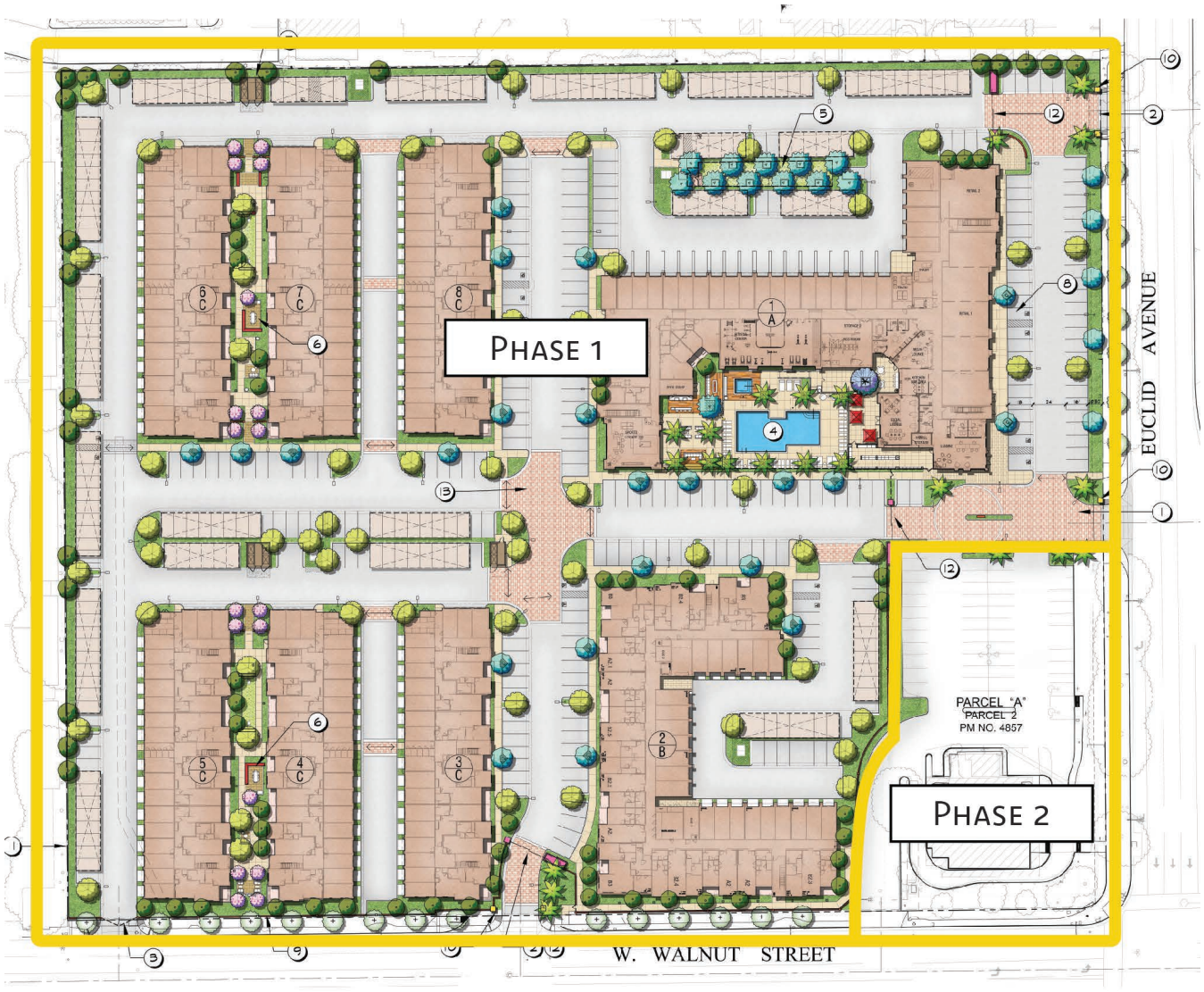
The first phase will retain the fast-food, drive-through restaurant use, occupying an approximately 4,100-square-foot building and its related site improvements. The remaining area within the boundaries of this PUD will be developed with two four-story buildings and six three-story buildings, providing a combined total of 346 dwelling units, 5,400 square feet of ground-floor commercial space, associated on-site parking areas for both residential and non-residential land uses, and landscaping and recreational amenities for residents[1].

The second phase will implement the full build-out of the PUD area with demolition of the restaurant and related site improvements; replacing them with an additional mixed-use, four-story building. Completion of the second phase will provide up to an additional 23 dwelling units and up to an additional 6,600 square feet of ground-floor commercial space, plus associated site improvements.

This PUD, inclusive of all development standards and requirements, applies to both phases. Ultimate build-out will result in a maximum of 369 dwelling units and approximately 12,000 square feet of commercial land uses.

1. Demolition of approximately 100,950 square feet of older commercial buildings will occur before project construction proceeds.

Exhibit 3-2: Phase 1 Conceptual Site Plan



3.3 Permitted Uses

Table 3-1: Permitted Uses lists the allowable land use, activity, or facility permitted within this PUD. A land use that is not listed shall be considered a prohibited land use unless otherwise allowed by the Zoning Administrator in accordance with the requirements and procedures outlined in the ODC. The land uses established in this table are consistent with those listed uses and land use definitions of the ODC. The ODC relies upon the North American Industry Classification System (NAICS) for non-residential land uses, utilizing the NAICS website definitions for each business establishment classification. The "Notes or ODC Regulations" column provides reference to the location of any specific regulations, operating conditions, and/or development standards applicable to the corresponding land use, activity, or facility; as well as exception to any standards or requirement as modified within this PUD. The "Permit Type" column symbols shall have the same meaning and utilize the same permit type, process, and approvals as contained in the ODC.

Table 3-1: Permitted Uses		
Land Uses, Activities, and Facilities	Permit Type "P" – Permitted by Right "C" – Conditional Use Permit "A" – Administrative Use Permit	Notes or ODC Regulations
Residential		
Accessory Dwelling Units	P	ODC Section 5.03.010
Animal Keeping (accessory) Household Pets - 4 or fewer pets	P	
Community Gardens (accessory)	A	ODC Section 5.03.410
Home Occupation (accessory)	A	ODC Section 5.03.240
Multiple-Family Dwellings	P	
Mixed Uses		
Residential Mixed-Use Developments	P	ODC Section 5.03.285
Non-Residential Uses – Limited to Ground Floor and Euclid Avenue Frontage		
Alcoholic Beverage Sales (off-premise)	C	ODC Section 5.03.025
Art Dealer	P	
Clothing, Shoes and Jewelry Store	P	
Consignment Shop	P	
Convenience Store	P	
Document Preparation Services	P	
Drycleaning and Laundry Services - Limited to Drop-off and Pick-up	P	Drive-thru prohibited
Electronics and Appliance Store	P	ODC Section 5.03.175
Finance and Insurance Services	P	Check Cashing, Advanced Payday, and Pawnshops prohibited

Table 3-1: Permitted Uses		
Land Uses, Activities, and Facilities	Permit Type "P" – Permitted by Right "C" – Conditional Use Permit "A" – Administrative Use Permit	Notes or ODC Regulations
Florist	P	
Furniture and Home Furnishings Store	P	ODC Section 5.03.210
General Merchandise Store	P	
Health and Personal Care Store	P	
Investigative and Security Services	P	
Office Administrative Support Services	P	
Office Supplies, Stationary and Gift Store	P	
Personal and Household Goods Repair	P	
Personal Care Services With Massage Services	P A	 ODC Section 5.03.270
Personal Fitness Training Studio	P	Limited to 10,000 sq. ft.
Pet Supply Store	P	Animal Sales prohibited
Pharmacies and Drug Store	P	Drive-thru prohibited
Police Storefront/Community Services	P	
Private Mail Centers and Postal Supply	P	
Professional and Technical Services	P	Limited to non-medical
Real Estate, Rental, and Leasing Services	P	
Restaurants, Fast Food With Drive-Thru	P P	 ODC Section 5.03.150
Restaurants, Limited Service With Alcoholic Beverage Sales With Live Entertainment	P C C	 ODC Section 5.03.025 ODC Section 5.03.257
Restaurants, Snack and Nonalcoholic Beverage Bar	P	
Specialty Food and/or Beverage Store With Alcoholic Beverage Sales	P C	 ODC Section 5.03.025
Sporting Goods, Hobby, Book, and Music Store	P	
Supermarket and Grocery Store	P	
Travel Arrangement Services	P	

4 Development Regulations

This section sets forth standards that govern the placement, height, and bulk of permitted buildings and other structures; establishes locational criteria for vehicular access to development sites; establishes parking and loading requirements; and specifies minimum requirements for recreational amenities for residential uses. Unless otherwise modified herein, development within this PUD shall comply with the ODC standards and requirements as may apply generally to Multiple-Family Dwellings and Commercial development, as determined appropriate by the Director. Table 4-1: Summary of Development Standards provides an at-a-glance reference to the regulations for the various standards, and is to be used in combination with the descriptions and specific criteria listed for each of the standards.

4.1 Intensity

The intensity of non-residential development shall not exceed a maximum 0.5 floor area ratio (FAR) based upon the net site area. The calculation shall be derived by dividing the gross square footage of the commercial space of the vertical mixed use buildings by the net site area. In determining FAR, this square footage should not include indoor common amenity space or other interior square footage serving the residential land uses.

4.2 Density

The density of residential development shall not exceed a maximum 40 dwelling units per acre based upon the net site area. In no case shall the total number of residential units exceed 369 units upon build-out of Phase 2.

4.3 Building Envelope

a. Non-residential land uses shall be on the ground-floor level of vertical mixed-use buildings.

b. Residential dwelling units may be located on any floor level.

c. The height of four-story buildings shall not exceed 60 feet. The height of three-story buildings shall not exceed 50 feet. Height shall be measured as specified in the ODC and is inclusive of architectural projections.

d. Any rooftop mechanical venting or communications equipment shall be built within or otherwise screened by the roof structure so that they do not project above parapets and are not visible from any public right of way, or neighboring building.

e. The location of vertical mixed-use buildings shall be limited to buildings with frontage along Euclid Avenue.

f. The building edge along Euclid Avenue may vary. It may occur a minimum of 10 feet behind the public right-of-way line or at a point that allows for up to two parking bays served by a drive aisle, up to a maximum building setback of 80 feet.

g. The building edge along Walnut Street shall provide a minimum setback of 10 feet.

h. Building setbacks shall be measured from the ultimate property lines or ultimate right-of-way width, whichever is greater.

i. Placement of buildings and structures shall conform with other specifications of Table 4-1: Summary of Development Standards.

j. Any yard areas provided between the buildings and the right-of-way may be finished with hardscape, including walls/ fences, or landscape.

4.4 Vehicle Access

Vehicular access from any public right-of-way shall be limited to two locations along Euclid Avenue and a maximum of three locations along Walnut Street, as approved by the City Engineer.



4.5 Parking Facilities, Supply, and Design

On-street parking on Euclid Avenue and Walnut Street adjacent to this PUD shall not be allowed.

a. Non-residential uses shall be provided with parking at a minimum ratio of one parking space per 250 gross square feet of building area. Such parking shall be located on site, and shall be accessible during operating hours of the businesses being served.

b. Residential uses shall be provided with parking at a minimum ratio of 1.2 parking spaces per bedroom in each dwelling unit, inclusive of providing guest or unassigned parking spaces. Resident parking shall be located on site, and may have access restricted by gated entrance. Resident parking for each dwelling unit or guests of that dwelling unit may be provided within a garage space, as a tandem space, within a carport, as surface level parking, or in combination. Tandem spaces are restricted to those directly in front of a garage door and shall be assigned to the same dwelling unit as the garage space.

c. A parking management plan shall be submitted for the Planning Director approval prior to the issuance of building permits. The plan shall address the assignment, distribution, and functionality of all parking spaces among the various uses, including the use of non-residential spaces providing overflow resident guest spaces when businesses are closed.

d. Parking spaces shall not obstruct access to building entrances, pedestrian paths, trash storage areas, or loading areas.

e. Parking space dimensions, drive aisles, etc. shall generally conform to the standards set forth in the ODC unless modified herein.

4.6 Residential Open Space and Common Amenities

Open space for the residential component shall be provided at a minimum ratio of 250 square feet per dwelling unit. Such space can be a combination of residential private open space and common amenities, subject to the following:

a. A minimum of 50 square feet of individual private open space, in the form of balcony or patio area directly accessible from the interior of each dwelling unit, shall be provided. Individual balcony or patio areas shall have a minimum dimension for length and width of five feet.

b. Common amenities shall be provided at the minimum ratio of 175 square feet per dwelling unit. This may include a combination of passive and active, indoor and outdoor spaces, roof-top or upper floor decks, as well as landscaped and hardscaped ground surfaces providing paseos between or adjacent to buildings. Up to 15 percent of the overall common amenity square footage may consist of indoor area and be grouped into a single building that is accessible to all residents. Such indoor area shall provide opportunities for fitness, lounge/gathering space, business/mail center, and similar amenities. The remaining common amenities provided shall be in the form of outdoor common areas consisting of both programmed and unprogrammed spaces. Programmed space may provide specific amenities: such as a dog park, seating/conversational areas, outdoor cooking facilities with table seating areas, etc. Unprogrammed space may provide passive use such as landscaped paseos.

4.7 Service Facilities

Service areas and facilities shall comply with the following:

a. Loading and unloading in proximity to both the residential and non-residential uses shall be addressed as part of the parking management plan submitted to the Planning Director to ensure coordination of operational hours and occupancy/vacancy of parking areas.

b. Trash receptacles/recyclable container storage areas shall be provided for all residential and non-residential uses. Such receptacle/storage area may receive trash from commercial and residential sources. Locations, sizes, and design of such areas shall be readily accessible by trash disposal company equipment and work crews, as approved by the Planning and Public Works Directors, in consultation with the trash disposal vendor.

c. Individual storage units shall be provided for the occupants of each dwelling unit, exclusive of any closets in the units. The total amount of cubic feet provided shall average 150 cubic feet per dwelling unit.

4.8 Signs

A Master Sign Program shall be submitted for approval by the Planning Director prior to issuance of a building permit to provide design and standards applicable to both residential and non-residential land uses within this PUD. The program will include specific sign criteria for gated access points. All signs shall comply with standards in the ODC. Any signage within the Euclid Avenue Caltrans right-of-way will require Caltrans review and approval.

4.9 Landscape/Hardscape

a. A detailed plan shall be submitted with the Development Plan specifying all landscape and hardscape elements of the residential open space and common amenities, as well as the perimeter yards abutting the street rights-of-way and all street trees.

b. Water conservation shall be provided through low water using plant materials, hydro zones, water efficient irrigation and weather-based controllers as required by City codes. Landscaped areas may be used for storm water infiltration through vegetated swales, retention basins, or dry wells as needed with the use of appropriate planting materials.

c. The landscape design shall generally satisfy the requirements of the Landscape Development Standards outlined in the ODC and shall create well-functioning spaces within a sustainable design utilizing materials as provided in Table 5-1: Master Plant Palette.

d. Within parking areas, the following landscape areas and standards apply:

1. For each row of parking spaces located within the restricted access (gated) parking areas, planter islands of at least six feet in width that extend the full length of the abutting parking space shall be located at a minimum rate of every 15 spaces. This rate shall be increased to every 10 spaces for parking areas with unrestricted access and/or adjacent to Euclid Avenue.

2. Tree wells, tree diamonds, or center planter strips shall be provided to allow for the planting of shade trees at a minimum ratio of one tree for each five parking spaces. Tree wells shall not have a minimum dimension less than five feet.

3. All landscape planters within parking areas shall be delineated with a six-inch-wide curb regardless of parking space configuration. The use of a 12-inch-wide curb may be provided to allow for a "step area" in circumstances where there is increased frequency of passengers exiting or entering a vehicle.



4. Bordering the Euclid Avenue frontage, a minimum 10 foot in depth planter area shall be provided between the public right-of-way and a parking space oriented perpendicular to the right-of-way.
5. A minimum 20-foot deep planter area shall be provided at a driveway between any public right-of-way to the first parking space to allow for a minimum 20-foot drive aisle throat.

f. Street trees shall comply with the variety, size, and spacing as directed by the City of Ontario Master Street Tree Plan.

4.10 Fences and Walls

a. Fences and walls shall be an integral design or compatible with the building architecture and shall comply with the height and materials shown in Exhibit 5-6: Fence/Wall Concepts.

b. Fences and walls may be setback zero feet from property lines except where such fence or wall is required to comply with Engineering Corner Sight Distance Standards and other applicable standards.

c. Decorative walls, monuments, and/or other similar features shall not encroach into the public right-of-way.

4.11 Public Right-of-Way Improvements

As determined by the City Engineer, design and construction of any street improvements adjacent to the property frontage of Euclid Avenue and Walnut Street shall be conditioned and may include, but not be limited to, concrete curb and gutter, sidewalk, LED street lights, signing and striping, and parkway landscaping. Any improvements within the Euclid Avenue Caltrans right-of-way will require Caltrans review and approval.

4.12 Infrastructure

The parcels within the boundary of this PUD shall be served by existing water lines and wastewater flows and/or upgraded to satisfy the required capacities as determined by the City and its service purveyors/agencies, including the Fire Department.

On-site stormwater drainage facilities shall be provided consistent with the San Bernardino County Stormwater Program's Water Quality Management Plan (WQMP) requirements for new development projects. Stormwater capture and infiltration facilities may include the utilization of vegetated swales, depressed landscaped basins, pervious concrete pavement, and/or underground stormwater retention/infiltration vaults.

The parcels within the boundary of this PUD are considered a Priority Land Use (PLU). A PLU shall comply with the statewide Trash Provisions adopted by the State Water Resources Control Board (SWRCB) and trash requirements in the most current San Bernardino County Area-Wide MS4 Permit. Drainage from the PLU shall be designed with conveyance tributary to a Full Trash Capture System which has been approved by the SWRCB.

4.13 Summary of Development Standards

Table 4-1: Summary of Development Standards provides the quantitative development standards set forth in previous Sections 4.1 through 4.12 and any additional requirements for development within this PUD.

Table 4-1: Summary of Development Standards		
Development Standard	**Requirement**	**Notes**
Maximum Intensity - Floor Area Ratio	0.50 FAR	Gross building square footage of commercial space
Density Range - Minimum and Maximum	20.1 - 40	Up to a maximum of 369 dwelling units
Maximum Building Height by Number of Stories Four Stories Three Stories	 60 ft. 50 ft.	Inclusive of architectural projections and equipment screening
Building Setbacks - From Right-of-Way	10 ft. minimum	
Setbacks - Interior Property Line Buildings Adjacent to Residential Buildings Adjacent to Non-Residential Carport or Trash Enclosure	 50 ft. minimum 5 ft. minimum 5 ft. minimum	
Building Separation Building to Building Building to Drive Aisle or Parking Areas Building to Carport Patio to Patio	 25 ft. minimum 5 ft. minimum 25 ft. minimum 15 ft. minimum	 Individual driveway depth limited to 5 ft. or less, or 18 ft. or more
Minimum Number of Parking Spaces Ratio for Residential Uses Ratio for Non-Residential Uses	 1.2 spaces/bedroom 1 space/250 sq. ft.	 Inclusive of guest spaces
Residential Open Space and Common Amenities - Combined Minimum Ratio Minimum Private Open Space Ratio Minimum Common Amenity Ratio	 250 sq. ft./du 50 sq. ft./du 175 sq. ft./du	 5 ft. minimum width and length 15% maximum indoor
Residential Storage Units	150 cubic feet/du minimum	Does not include closets or cabinets interior to the unit

This page was intentionally left blank.

5 Design Criteria

New development implemented under this PUD will generate new uses and design aesthetics in a way that fulfills many of the design goals and policies discussed previously in Chapter 2. The Community Design Element in TOP 2050 outlines specific "Place Types"; this PUD is categorized under Place Type 8e, which is considered "Neighborhood Center – Infill" type development, where the commercial and residential parcels were largely developed in an incremental manner prior to 2020. Redevelopment could result in either horizontal or vertical mixed use and are envisioned to incorporate site design that prioritizes safe, attractive, and well-shaded pedestrian access from the public rights-of-way and adjacent neighborhoods.

The parcels within this PUD site do not contain significant buildings, structures, or locations subject to historic preservation. While the first phase of development retains an existing fast-food restaurant structure, this building is not considered historic. The new infill development will include architecture that creates a dynamic visual environment and increases the pedestrian experience. The design criteria for the buildings provide articulation, dynamic materials and colors, and avoid bulky and monotonous elevations. Street trees and landscaped street-facing setback areas will provide opportunities to frame the street, create a pleasant pedestrian pathway, and minimize the building bulk from the public right-of-way.

The following sections provide guidance to City staff and private developers in the design of buildings, yards, and streets. Variations from strict interpretation of the standards are permitted, provided that the integrity of the urban design is not compromised. The following criteria shall be incorporated into the Development Plan for each phase of this PUD, subject to final interpretation by the Planning Commission.

5.1 Building Orientation

a. Buildings along Euclid Avenue shall provide storefronts that invite pedestrian activity.

b. Architectural focal treatments such as taller elements, textured surfaces, and unique fenestration shall be provided on frontage facing public streets.

c. Buildings located at the street corner shall be designed to incorporate architectural features that respond to the corner location by having directed entries and/or tower elements.

d. Multiple shop entrances and display windows with clear glazing, shall be provided along Euclid Avenue facades.

5.2 Access and Parking Facilities

a. Vehicular access and on-site parking shall be designed to reduce visual impact along Euclid Avenue and Walnut Street.

b. On-site parking facilities serving non-residential uses shall be readily accessible, screened, and separated from the public right-of-way views with landscaping, including shade trees.

c. On-site parking facilities serving residential uses may be located behind gated ingress/egress points. Gate access points from Euclid Avenue shall be set back to allow stacking of at least two vehicles, with sufficient space configured to allow a vehicle to turn around without backing into the street. The primary entry gate serving residential uses shall be designed to be easily recognizable to visitors.

d. Carports and individual garage entries shall be designed to be compatible with the building architecture and use similar colors, materials, and details.

5.3 Service Facilities

a. Service, loading and, storage facilities shall be located away from public streets, outdoor spaces, and adjacent residential uses.

b. Electrical equipment shall be located on the interior of a building. When interior locations are not practical, electrical equipment shall be enclosed and screened from public streets with walls, fencing, and/or landscaping that allows for sufficient ventilation, or buried in vaults.

c. Service areas shall be screened and gated.

d. All types of loading doors within view of public streets shall be screened with walls, berms, or plant materials.

5.4 Pedestrian Linkages

a. Pedestrian pathways shall be designed and located for clear and comfortable on-site pedestrian circulation. Sidewalks and pedestrian paths shall provide convenient connections between storefronts, outdoor spaces, and parking, as well as portals to adjacent residential uses.

b. Landscape paseos shall be used to reinforce pedestrian connections. For instance, attractive paving and planting design may identify and highlight these connections by establishing a visual separation between vehicular and pedestrian routes and provide passive open space opportunities for residents.

5.5 Architectural Character

a. The architectural character shall reflect the various styles within the City and along Euclid Avenue and shall fit in contextually without matching. The use of complementing proportions, building details, and building materials shall be employed.

b. Compatibility between the vertical and horizontal mixed-use architecture shall be achieved through the use of unifying elements such as similar materials and colors.

c. A schematic illustration of acceptable architectural character is shown in Exhibit 5.1: Architectural Character – Vertical Mixed-Use, Exhibit 5-2: Architectural Character – Three Story Residential, and Exhibit 5-3: – Four Story Residential.

5.6 Massing & Scale

a. Simple, yet varied massing shall be used, with wall openings that create shadow line and provide visual relief.

b. Massing and height of corner elements shall be emphasized by using strong and identifiable building forms such as taller building mass, tower element, or cupola.

c. Building increments shall employ various architectural devices such as changes in colors/finish material, horizontal breaks and offsets, upper building portion reflecting the same increment of articulation as the ground level, and use of trim and moldings at the top of facades that reflect the vertical massing of the building.

d. Where buildings will be of varying heights, they shall be designed to promote transition in massing and avoid abrupt changes in scale within the development.

5.7 Articulation & Fenestration

a. Buildings shall have three-dimensional qualities.

b. The base and upper levels of a vertical mixed use building shall be differentiated with features for storefronts such as a bulkhead, display windows, and/or transom and detailed trim.

c. Buildings shall be articulated on all sides. Fenestration, changes in wall plane, material, texture, color, etc. shall be used to create shadow lines and articulate building walls.

d. Highly visible public entrances shall be provided where buildings are oriented towards Euclid Avenue to provide individual shop entrances featuring recesses, overhangs, special materials, and/or detailing.

Exhibit 5-1: Architectural Character — Vertical Mixed-Use





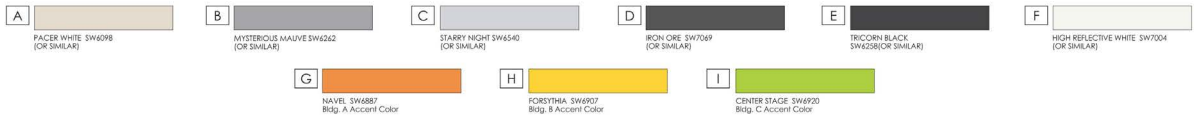




Exhibit 5-2: Architectural Character — Three-Story Residential



Exhibit 5-3: Architectural Character — Four-Story Residential



5.8 Architectural Details

a. Architectural details shall be used to enhance a building's appearance at the base, eaves, parapets, and around entries and windows.

b. Human-scaled details such as canopies and awnings, transparent windows and window displays shall be provided facing Euclid Avenue.

c. Architectural features and details shall be an integral part of the building without an appearance of being "tacked on."

5.9 Storefronts

a. Storefronts for each commercial establishment shall have a unifying architectural aesthetic, but may include alteration of exterior treatments on the individual frontage of the space where such modifications compliment the overall design quality of the development.

b. Storefronts shall incorporate desirable building materials such as brick, stone, tile, exterior cement plaster, or fiber cement siding.

c. Storefront glazing shall be clear glass to permit clear views into the interior space. The amount of such glass shall provide a balance between high visibility into the store interior and architectural quality.

d. Entrance doors shall be of a traditional style and as transparent as possible.

5.10 Material & Colors

a. Materials shall be those of permanence and quality and that unify a building's appearance on all sides.

b. Materials and colors shall accentuate the architectural details of the building and promote visual harmony.

c. To create visual interest, at least three different building materials shall be used.

5.11 Roof/Rooftop Equipment

a. At least one break in roof plane shall be provided on each building

b. Rooftop equipment, including ladders and antenna devices, shall be screened so as not to be visible from streets and adjacent buildings. Methods of rooftop screening should be integral to the building's form.

5.12 Non-Residential Outdoor Dining Areas

Outdoor dining areas adjacent to a ground-level eating or drinking establishment shall be oriented toward Euclid Avenue.

5.13 Residential Outdoor Space, Common Recreational Amenities

a. Private balcony and/or patio enclosures shall consist of materials that are complementary to materials and colors used on the building elevations. Each balcony shall be oriented or enclosed sufficiently to increase privacy between balconies of adjacent units.

b. Common outdoor spaces providing passive recreation shall include either shade elements and/or trees providing shade canopy.

c. Indoor recreation/fitness/community facilities shall be of the same architectural style and materials that match or complement the primary building architecture with a layout as shown in Exhibit 5-4: Typical Common Recreational Amenity.

d. Outdoor seating, tables and umbrellas, gazebos, barbecues, natural or artificial lawn area, and/or other place-making features that are provided shall be compatible with the architectural style of the buildings with a layout as shown in Exhibit 5-5: Typical Courtyard.

Exhibit 5-4: Typical Common Recreational Amenity

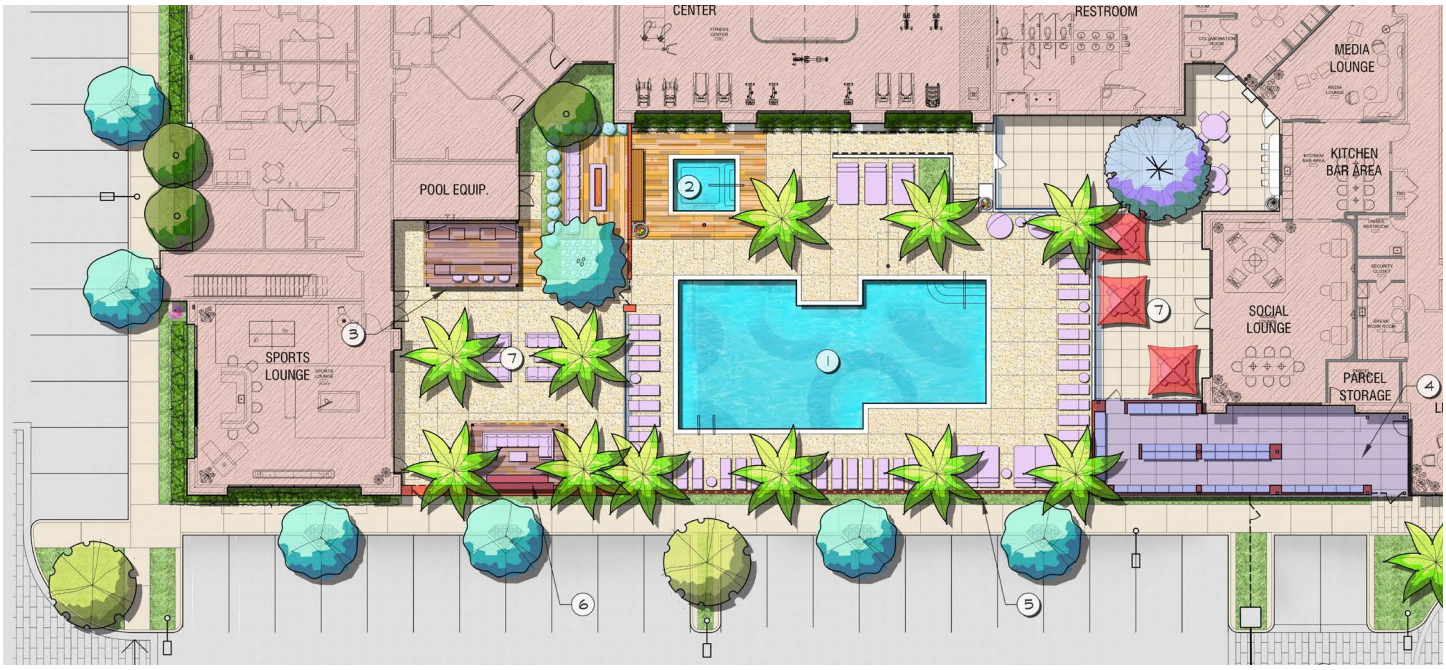
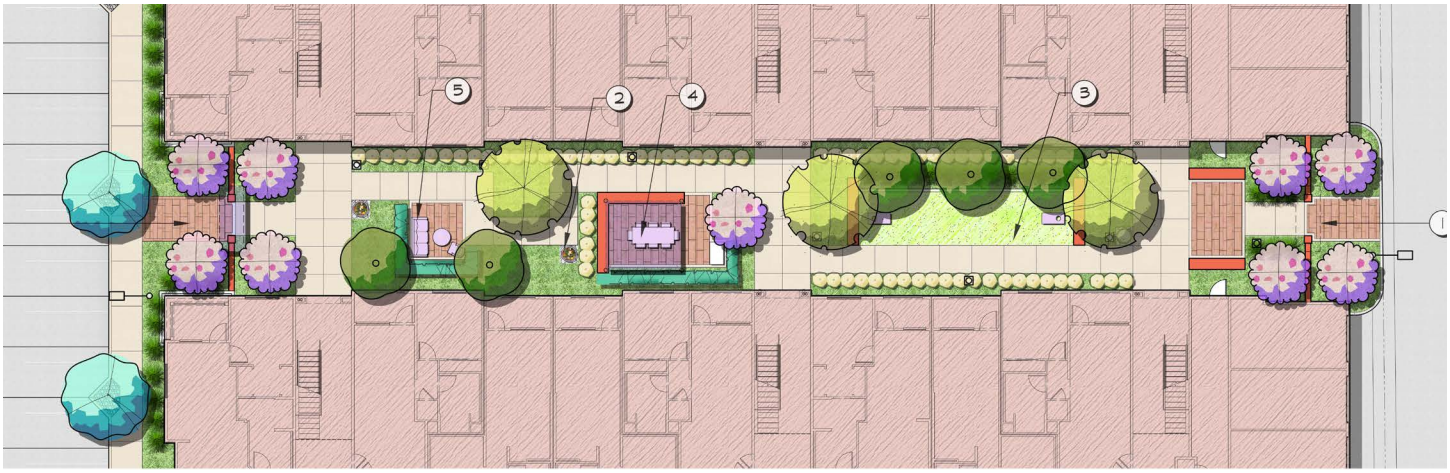


Exhibit 5-5: Typical Courtyard



5.14 Landscape / Hardscape Elements

a. Landscaping elements shall contribute and complement the aesthetic quality and character of the public and private spaces.

b. Table 5-1: Master Plant Palette shall guide the selection of materials for street trees, perimeter trees and shrubs, courtyard and common area trees, vines, screening and hedge plants, and groundcover.

c. Landscaping shall be provided to define and enrich courtyards and walkways and shall include specimen trees of minimum size 24 inch box.

d. Hardscaping shall be composed of decorative paving materials and patterns, rather than a single, continuous surface.

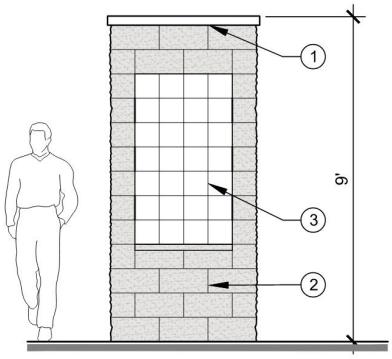
e. Fences/walls shall complement the building materials similar to those depicted in Exhibit 5-6: Fence/Wall Concepts.

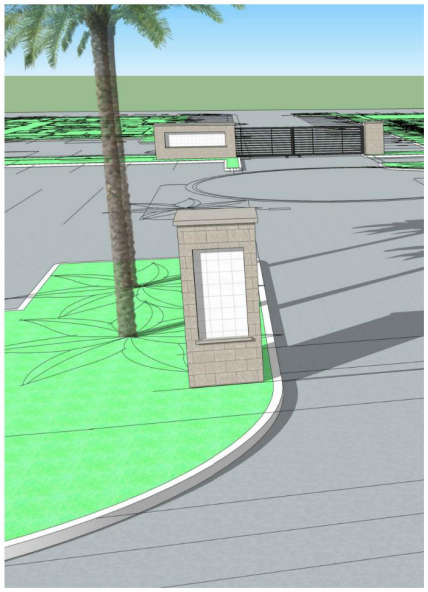
Table 5-1: Master Plant Palette

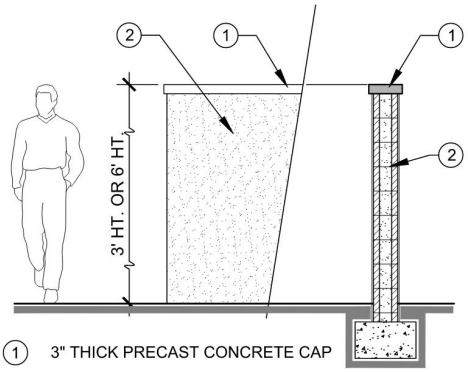
Botanical Name	Common Name	Minimum Size
Street Trees		
Grevillea robusta	Silk Oak (Euclid)	24" Box
Platanus wrightii	Arizona Sycamore	
Site Trees and Palms		
Quercus agrifolia	Coast Live Oak	48" Box
Platanus racemosa	California Sycamore	
Ulmus parvifolia 'True Green'	Evergreen Elm	
Koelreuteria paniculata	Golden Rain Tree	36" Box
Lagerstroemia hybrids 'Muskogee'	Crape Myrtle (Lavender)	
Chilopsis linearis	Desert Willow	
Aloe bainesii	Tree Aloe	24" Box
Arbutus 'Marina'	Strawberry Tree	
Cercis occidentalis	Western Redbud	
Platanus acerifolia 'Bloodgood'	London Plane Tree (anthracnose res.)	
Podocarpus gracilior	Fern Pine	
Quercus wislizeni	Interior Live Oak	
Tristania conferta	Brisbane Box	
Phoenix dactylifera	Date Palm	16' Brown Trunk Height

Table 5-1: Master Plant Palette		
Botanical Name	Common Name	Minimum Size
Shrubs		
Agave 'Blue Flame'	Blue Flame Agave	5 Gallon
Agave desmettiana ' Variegata'	Variegated Dwarf Century Plant	
Alyogne huegelii 'MONleon'	Leon's Purple Delight Lilac Hibiscus	
Arbutus unedo 'Elfin King'	Elfin King Strawberry King	
Buxus microphylla japonica	Japanese Boxwood	1 Gallon
Calandrinia spectabilis	Rock Purslane	
Carex tumulicola	Foothill Sedge	
Carissa grandiflora 'Green Carpet'	Natal Plum	
Dianella revoluta 'DR5000'	Little Rev Flax Lily	
Dianella tasmanica 'Silver Streak'	Silver Streak Flax Lily	
Ilex crenata 'Sky Pencil'	Sky Pencil Ilex	5 Gallon
Juniperus scopulorum 'Skyrocket'	Skyrocket Juniper	
Lantana montevedensis 'Monma'	White Lightin' Lantana	1 Gallon
Ligustrum japonicum 'Texanum'	Wax Leaf Privet	5 Gallon
Lomandra longifolia 'LM300'	Breeze Dwarf Mat Rush	
Muhlenbergia capillaris 'Regal Mist'	Regal Mist Muhly	
Myoporum parvifolium	No Common Name	1 Gallon
Philodendron x 'Xanadu'	Dwarf Philodendron	5 Gallon
Pittosporum tobira	Tobira	
Podocarpus elongatus 'Monmal'	Icee Blue Yellow-Wood	
Prunus caroliniana 'Bright n' Tight'	Carolina Cherry	
Rhaphiolepis indica 'Clara'	Dwarf Indian Hawthorne	
Rhaphiolepis x. 'Montic'	Majestic Beauty Indian Hawthorne	
Rosa 'Flower Carpet var. Noatraum'	Pink Carpet Rose	2 Gallon
Rosa f. 'Ice Berg'	White Shrub Rose	5 Gallon
Trachelospermum asiaticum	Asian Jasmine	1 Gallon
Vines and Espaliers		
Clytostoma callistegioides	Violet Trumpet Vine	5 Gallon
Distictus buccinatoria	Blood Red Trumpet Vine	
Ficus pumila (repens)	Creeping Fig	1 Gallon
Parthenocissus tricuspidata	Boston Ivy	

Exhibit 5-6: Fence/Wall Concepts







1. 3" THICK PRECAST CONCRETE CAP
2. 8x8x16 BURNISHED CMU WALL
   COLOR: TAN
3. PROJECT SIGN TILE INSET

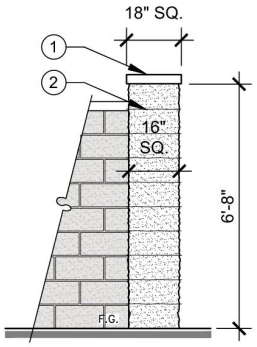
4' SQ. PILASTER

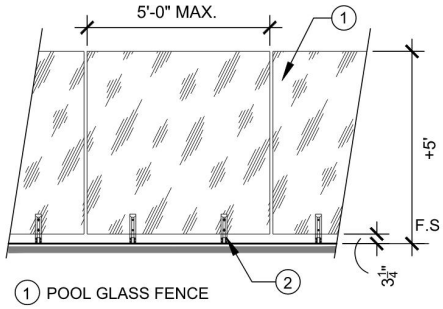
SCALE: N.T.S.

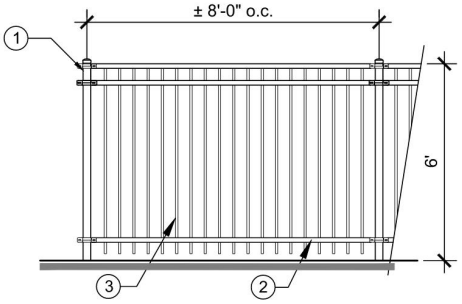
1. 3" THICK PRECAST CONCRETE CAP
2. 8" CMU BLOCK WALL W/ STUCCO FINISH
   COLOR: WHITE

3' HT. OR 6' HT. STUCCO WALL

SCALE: N.T.S.







1. 3" THICK PRECAST
   CONCRETE CAP
2. 6x16x16 SPLIT FACE COLUMN BLOCK
   COLOR: TAN

16" SQ. PILASTER

SCALE: N.T.S.

1. POOL GLASS FENCE
2. DAYTON RICHMOND DOWEL SPLICER SYSTEM

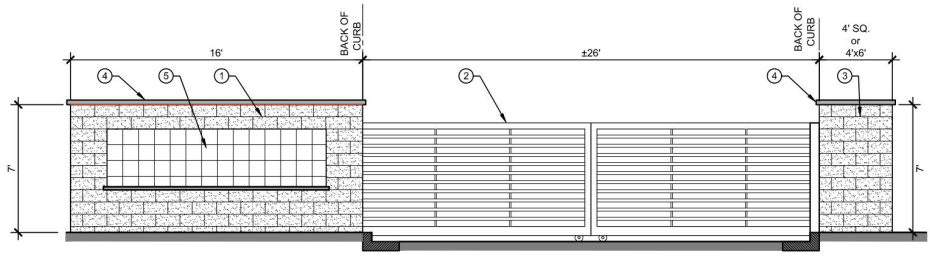
GLASS FENCE

SCALE: N.T.S.

1. 2" SQ. FENCE POST
2. 2" SQ. TOP AND BOTTOM RAIL
3. $\frac{5}{8}$" SQ. PICKETS @ 4" O.C. MAX.
   FENCE COLOR: BLACK

TUBULAR STEEL FENCE

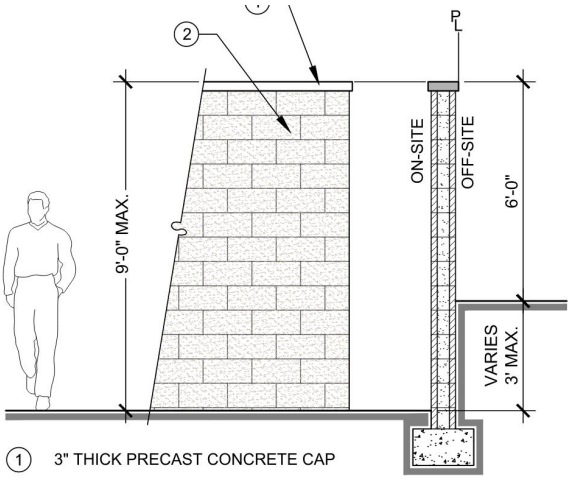
SCALE: N.T.S.



1. BURNISHED BLOCK SIGN WALL, COLOR: TAN
2. SLIDING T.S. VEHICULAR GATE, COLOR: BLACK
3. BURNISHED BLOCK PILASTER, COLOR: TAN
4. 3" THICK PRECAST CAP, COLOR: NATURAL
5. PROJECT SIGN AREA W/ TILE BACKDROP



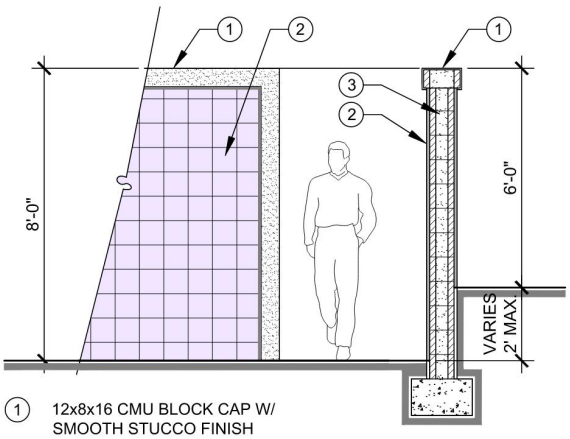
ENTRY GATE



1. 3" THICK PRECAST CONCRETE CAP
2. 8x8x16 SPLIT FACE (2-SIDES) CMU WALL
   COLOR: TAN

PERIMTER WALL

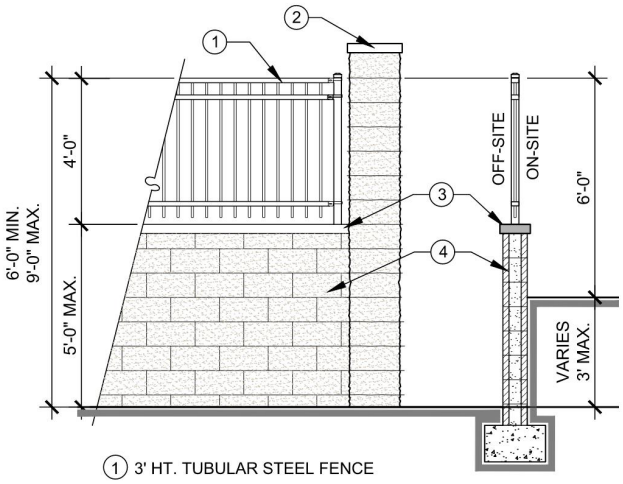
SCALE: N.T.S.



1. 12x8x16 CMU BLOCK CAP W/
   SMOOTH STUCCO FINISH
2. DECORATIVE TILE VENEER
   8" SQ. CEMENTINE TILE
3. 8x8x16 CMU BLOCK WALL W/
   SMOOTH STUCCO FINISH
   COLOR: WHITE

DECORATIVE STUCCO WALL

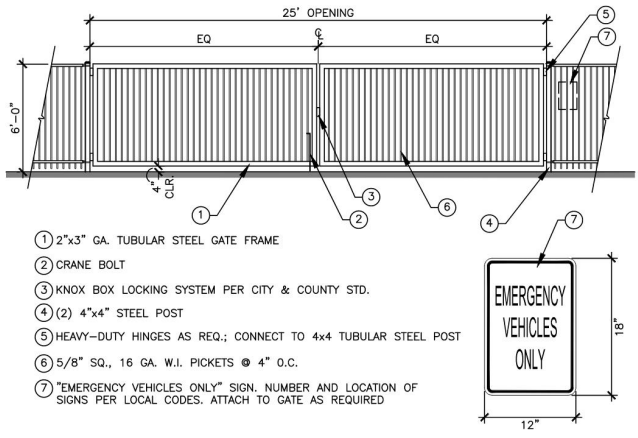
SCALE: N.T.S.



1. 3' HT. TUBULAR STEEL FENCE
2. 8X8X16 SPLIT FACE PILASTER
   COLOR: TAN
3. 3" THICK PRECAST CONCRETE CAP
4. 6X8X16 SPLIT FACE CMU WALL
   COLOR: TAN

SPLIT FACE COMBO WALL

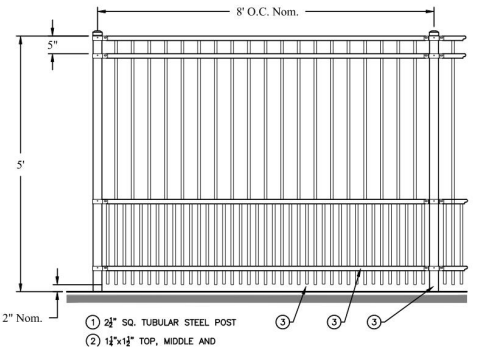
SCALE: N.T.S.



1. 2"x3" GA. TUBULAR STEEL GATE FRAME
2. CRANE BOLT
3. KNOX BOX LOCKING SYSTEM PER CITY & COUNTY STD.
4. (2) 4"x4" STEEL POST
5. HEAVY-DUTY HINGES AS REQ.; CONNECT TO 4x4 TUBULAR STEEL POST
6. 5/8" SQ., 16 GA. W.I. PICKETS @ 4" O.C.
7. "EMERGENCY VEHICLES ONLY" SIGN. NUMBER AND LOCATION OF SIGNS PER LOCAL CODES. ATTACH TO GATE AS REQUIRED

EVA GATE

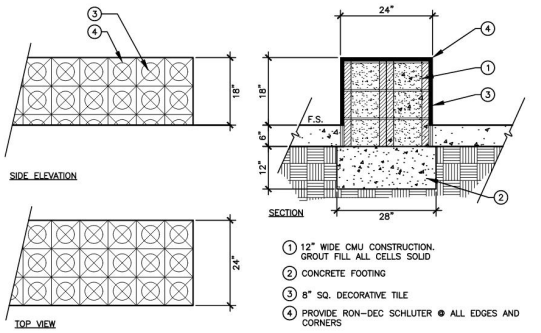
SCALE: N.T.S.



1. 2½" SQ. TUBULAR STEEL POST
2. 1½"x1½" TOP, MIDDLE AND

DOG PARK FENCE

SCALE: N.T.S.



1. 12" WIDE CMU CONSTRUCTION.
   GROUT FILL ALL CELLS SOLID
2. CONCRETE FOOTING
3. 8" SQ. DECORATIVE TILE
4. PROVIDE RON-DEC SCHLUTER @ ALL EDGES AND CORNERS

18" HT. DECORATIVE SEAT WALL

SCALE: N.T.S.

6 Administration

6.1 Items Not Addressed in PUD

Any terms not defined herein and any issues affecting the design and development of the subject project area not specifically addressed in this PUD shall be governed by the provisions of the ODC.

6.2 Development Plan and Other Applications

A Development Plan shall be submitted for each phase of this PUD for approval by the Development Advisory Board and the Ontario Planning Commission, pursuant to the requirements and procedures outlined in the ODC.

To ensure proper implementation of the EA Overlay district, an application for a Certificate of Appropriateness shall be submitted in conjunction with the Development Plan required for each phase of this PUD, pursuant to all requirements and procedures outlined in the ODC.

Lot line adjustments or the combining of parcels within this PUD shall comply with all requirements and procedures outlined in the ODC. Such actions may be conditioned for compliance as part of the Development Plan approval process.

6.3 Administrative Exceptions

Deviation from the development standards set forth in this PUD may be granted up to a maximum of 10 percent by the Zoning Administrator. Any deviation that is greater than 10 percent shall require Variance approval pursuant to the requirements and procedures outlined in the ODC.

This page was intentionally left blank.

LAND DEVELOPMENT DIVISION CONDITIONS OF APPROVAL

303 East B Street, Ontario, California 91764 Phone: 909.395.2036 / Fax: 909.395.2420

Date Prepared: 7/11/2023

File No: PUD22-004

Related Files: PDEV22-027 and PHP22-015

Project Description: A Planned Unit Development ("Euclid Walnut", File No. PUD22-004) to establish development standards and design guidelines for the overall 10.6-acre Project site, in conjunction with a Development Plan (File No. PDEV22-027) to construct 346 apartment units and 5,400 square feet of commercial space on 9.4 acres of the Project site and a Certificate of Appropriateness (File No. PHP22-015) to determine whether the Project site is an historic resource. The Project site is located at the northwest corner of Euclid Avenue and Walnut Street, within the Mixed Use – Neighborhood Hub 8e – Euclid and Walnut (MU-NH 8e) zoning district; (APNs: 1051-271-67, 1051-271-06, and 1051-271-66); **submitted by Legacy/Collier Residential LLC.**

Prepared By: Alexis Vaughn, Associate Planner
Phone: 909.395.2416 (direct)
Email: avaughn@ontarioca.gov

The Planning Department, Land Development Section, conditions of approval applicable to the above-described Project are listed below. The Project shall comply with each condition of approval:

1.0 Standard Conditions of Approval. The Project shall comply with the *Standard Conditions for New Development*, adopted by City Council Resolution No. 2017-027 on April 18, 2017. A copy of the *Standard Conditions for New Development* may be obtained from the Planning Department or City Clerk/Records Management Department.

2.0 Special Conditions of Approval. In addition to the *Standard Conditions for New Development* identified in condition no. 1.0, above, the Project shall comply with the following special conditions of approval:

2.1 Planned Unit Development. The final City Council approval date and ordinance number shall be added to the title page (the October and May dates shall be removed) and the following items submitted to the Planning Department within 30 days following City Council approval of the Planned Unit Development:

(a) Two copies of the final Euclid Walnut Planned Unit Development document – color, double-sided, and bound; and

(b) One CD or flash drive containing a complete copy of the final Planned Unit Development document in Microsoft Word and/or its original and accessible file format, such as InDesign, and a complete PDF copy of the final document, optimized for the web.

2.2 Signs.

(a) All Project signage shall comply with the requirements of Ontario Development Code Division 8.1 (Sign Regulations).

(b) On-site posting of large public notification signs was required for this Project, pursuant to Code Section 2.03.010.C.4. The signs, which were posted no later than ten calendar days prior to the Planning Commission hearing date, shall be removed no later than fourteen calendar days following the City Council hearing date, unless an extension is required by the Planning Director.

(c) Per the provisions of the Euclid Walnut Planned Unit Development, a Master Sign Program shall be submitted for review and approval prior to issuance of building permits for the Project site.

2.3 Sound Attenuation. The Project shall be constructed and operated in a manner so as not to exceed the maximum interior and exterior noise levels set forth in Ontario Municipal Code Title 5 (Public Welfare, Morals, and Conduct), Chapter 29 (Noise).

2.4 Covenants, Conditions and Restrictions (CC&Rs)/Mutual Access and Maintenance Agreements.

(a) CC&Rs shall be updated for the Project site (including, but not limited to, amendment of maps/exhibits to reflect the proposed Project and removal of any items no longer applicable to the site such as leases for K-Mart) and shall be recorded prior to the issuance of a building permit. The CC&Rs shall remain in effect and updated to accommodate Phase 2 development, at such time that entitlement(s) are submitted for review.

(b) The CC&Rs shall be in a form and contain provisions satisfactory to the City. The articles of incorporation for the property owners association and the CC&Rs shall be reviewed and approved by the City The CC&Rs shall include provisions for the following:

(i) Access for residential pass-thru of commercial areas;
(ii) Reciprocal access between residential areas and parcels;
(iii) Clauses prohibiting public nuisances, including but not limited to, excessive noise, parking of vehicles on driveways to garages that are less than 18 feet in length, excessive storage of personal items on balconies, and the hanging of personal items over balcony railing (such as clothes lines, towels, etc.); and
(iv) Personal property storage shall not preclude the intended number of vehicles from being parked within the garage. Carports shall not be used for personal property storage but solely vehicle parking.

(c) CC&Rs shall ensure reciprocal parking and access between land uses and common maintenance of:

(i) Landscaping and irrigation systems within common areas;
(ii) Landscaping and irrigation systems within parkways adjacent to the Project site, including that portion of any public highway right-of-way between the property line

or right-of-way boundary line and the curb line and also the area enclosed within the curb lines of a median divider (Ontario Municipal Code Section 7-3.03), pursuant to Ontario Municipal Code Section 5-22-02;

(iii) Shared parking facilities and access drives; and

(iv) Utility and drainage easements.

(d) CC&Rs shall include authorization for the City's local law enforcement officers to enforce City and State traffic and penal codes within the Project area.

(e) The CC&Rs shall grant the City of Ontario the right of enforcement of the CC&R provisions.

(f) A specific methodology/procedure shall be established within the CC&Rs for enforcement of its provisions by the City of Ontario, if adequate maintenance of the development does not occur, such as, but not limited to, provisions that would grant the City the right of access to correct maintenance issues and assess the property owners association for all costs incurred.

(g) A parking management plan and any lease agreement/terms shall be submitted to the City for review and approval, alongside CC&Rs.

(h) The CC&Rs application and filing fees are available on the City's website. CC&Rs shall be approved prior to issuance of a Building permit.

2.5 Disclosure Statements.

(a) A copy of the Public Report from the Department of Real Estate, prepared for the residential units pursuant to Business and Professions Code Section 11000 et seq., shall be provided to each prospective buyer or renter of the residential units and shall include a statement to the effect that:

(i) This site is subject to noise from the Ontario International Airport and may be more severely impacted in the future.

(ii) Some of the property adjacent to this site is zoned for agricultural uses and there could be fly, odor, or related problems due to the proximity of animals.

(iii) The area south of Riverside Drive lies within the San Bernardino County Agricultural Preserve. Dairies currently existing in that area are likely to remain for the foreseeable future.

2.6 Indemnification. The applicant shall agree to defend, indemnify and hold harmless, the City of Ontario or its agents, officers, and employees from any claim, action or proceeding against the City of Ontario or its agents, officers or employees to attack, set aside, void or annul any approval of the City of Ontario, whether by its City Council, Planning Commission or other authorized board or officer. The City of Ontario shall promptly notify the applicant of any such claim, action or proceeding, and the City of Ontario shall cooperate fully in the defense.

2.7 Additional Fees.

(a) Within 5 days following final application approval, the Notice of Determination ("NOD") filing fee shall be provided to the Planning Department. The fee shall be

paid by check, made payable to the "Clerk of the Board of Supervisors," which shall be forwarded to the San Bernardino County Clerk of the Board of Supervisors, along with all applicable environmental forms/notices, pursuant to the requirements of the California Environmental Quality Act ("CEQA"). Failure to provide said fee within the time specified will result in the extension of the statute of limitations for the filing of a CEQA lawsuit from 30 days to 180 days.

2.8 Related Applications. The Euclid Walnut Planned Unit Development (File No. PUD22-004) approval shall not be final and complete until such time that related File Nos. PHP22-015 and PDEV22-027 have been approved by the Planning Commission. An approved Lot Line Adjustment/Lot Merger is also required prior to issuance of Building Permits, pursuant to Engineering Department conditions of approval.

2.9 Additional Requirements.

(a) In-line tenant spaces shall contain a high-quality, upscale food service establishment.

CITY OF ONTARIO

ENGINEERING DEPARTMENT CONDITIONS OF APPROVAL

(Land Development Division, Environmental Section, Traffic & Transportation Division, Ontario Municipal Utilities Company and Broadband Operations & Investment and Revenue Resources Department Conditions incorporated)

☒ DEVELOPMENT PLAN ☐ OTHER	☐ PARCEL MAP ☐ TRACT MAP ☐ FOR CONDOMINIUM PURPOSES
PROJECT FILE NO. PDEV22-027 **RELATED FILE NO(S). PUD-22-004**	
☒ **ORIGINAL** ☐ REVISED: __/__/__	

CITY PROJECT ENGINEER & PHONE NO:	**Angela Truong**	**(909) 395-2134**
CITY PROJECT PLANNER & PHONE NO:	**Alexis Vaughn**	**(909) 395-2416**
DAB MEETING DATE:	**August 7th, 2023**	
PROJECT NAME / DESCRIPTION:	**PDEV22-027, a Development Plan to construct a mixed use development consisting of 346 multiple-family dwellings with 6,000 square feet of commercial retail space on approximately 10.63 acres of land within the CC zoning district.**	
LOCATION:	**Northwest Corner of Euclid Avenue and Walnut Street**	
APPLICANT:	**Legacy/Collier Residential LLC**	
REVIEWED BY:	Raymond Lee **Raymond Lee, P.E.** **Assistant City Engineer**	7/17/23 **Date**
APPROVED BY:	 **Khoi Do, P.E.** **City Engineer**	7-18-23 **Date**

THIS PROJECT SHALL COMPLY WITH THE REQUIREMENTS SET FORTH IN THE GENERAL STANDARD CONDITIONS OF APPROVAL ADOPTED BY THE CITY COUNCIL (RESOLUTION NO. 2017-027) AND THE PROJECT SPECIFIC CONDITIONS OF APPROVAL SPECIFIED HEREIN. ONLY APPLICABLE CONDITIONS OF APPROVAL ARE CHECKED. THE APPLICANT SHALL BE RESPONSIBLE FOR THE COMPLETION OF ALL APPLICABLE CONDITIONS OF APPROVAL PRIOR TO FINAL MAP OR PARCEL MAP APPROVAL, ISSUANCE OF PERMITS AND/OR OCCUPANCY CLEARANCE, AS SPECIFIED IN THIS REPORT.

1. PRIOR TO FINAL MAP OR PARCEL MAP APPROVAL, APPLICANT SHALL:

			Check When Complete
☐	1.01	Dedicate to the City of Ontario, the right-of-way, described below: _____ feet on _____ Property line corner 'cut-back' required at the intersection of _____ and _____.	☐
☐	1.02	Dedicate to the City of Ontario, the following easement(s): _____ _____	☐
☐	1.03	Restrict vehicular access to the site as follows: _____	☐
☐	1.04	Vacate the following street(s) and/or easement(s): A. All interfering on-site easements shall be quitclaimed, vacated, and/or submit non-interference letter from affected owner/utility company.	☐
☐	1.05	Submit a copy of a recorded private reciprocal use agreement or easement. The agreement or easement shall ensure, at a minimum, common ingress and egress and joint maintenance of all common access areas and drive aisles.	☐
☐	1.06	Provide (original document) Covenants, Conditions and Restrictions (CC&Rs) as applicable to the project and as approved by the City Attorney and the Engineering and Planning Departments, ready for recordation with the County of San Bernardino. The CC&Rs shall provide for, but not be limited to, common ingress and egress, joint maintenance responsibility for all common access improvements, common facilities, parking areas, utilities, median and landscaping improvements and drive approaches, in addition to maintenance requirements established in the Water Quality Management Plan (WQMP), as applicable to the project. The CC&Rs shall also address the maintenance and repair responsibility for public improvements/utilities (sewer, water, storm drain, recycled water, etc.) located within open space/easements. In the event of any maintenance or repair of these facilities, the City shall only restore disturbed areas to current City Standards.	☐
☐	1.07	For all development occurring south of the Pomona Freeway (60-Freeway) and within the specified boundary limits (per Boundary Map found at http://tceplumeclfeanup.com/), the property developer/owner is made aware of the South Archibald Trichloroethylene (TCE) Plume "Disclosure Letter". Property owner may wish to provide this Letter as part of the Real Estate Transfer Disclosure requirements under California Civil Code Section 1102 et seq. This may include notifications in the Covenants, Conditions and Restrictions (CC&Rs) or other documents related to property transfer and disclosures. Additional information on the plume is available from the Santa Ana Regional Water Quality Control Board at http://geotracker.waterboards.ca.gov/profile_report?global_id=T10000004658.	☐
☐	1.08	File an application for Reapportionment of Assessment, together with payment of a reapportionment processing fee, for each existing assessment district listed below. Contact the Financial Services Department at (909) 395-2124 regarding this requirement. (1) _____ (2) _____	☐
☐	1.09	Prepare a fully executed Subdivision Agreement (on City approved format and forms) with accompanying security as required, or complete all public improvements.	☐

☐ 1.10 Provide a monument bond (i.e. cash deposit) in an amount calculated by the City's approved cost estimate spreadsheet (available for download on the City's website: www.ontarioca.gov) or as specified in writing by the applicant's Registered Engineer or Licensed Land Surveyor of Record and approved by the City Engineer, whichever is greater. ☐

☐ 1.11 Provide a preliminary title report current to within 30 days. ☐

☐ 1.12 File an application, together with an initial deposit (if required), to establish a Community Facilities District (CFD) pursuant to the Mello-Roos Community Facilities District Act of 1982. The application and fee shall be submitted a minimum of four (4) months prior to final subdivision map approval, and the CFD shall be established prior to final subdivision map approval or issuance of building permits, whichever occurs first. The CFD shall be established upon the subject property to provide funding for various City services. An annual special tax shall be levied upon each parcel or lot in an amount to be determined. The special tax will be collected along with annual property taxes. The City shall be the sole lead agency in the formation of any CFD. Contact Investment and Revenue Resources at (909) 395-2341 to initiate the CFD application process. ☐

☐ 1.13 Ontario Ranch Developments: ☐

☐ 1) Provide evidence of final cancellation of Williamson Act contracts associated with this tract, prior to approval of any final subdivision map. Cancellation of contracts shall have been approved by the City Council.

☐ 2) Provide evidence of sufficient storm water capacity availability equivalents (Certificate of Storm Water Treatment Equivalents).

☐ 3) Provide evidence of sufficient water availability equivalents (Certificate of Net MDD Availability).

☐ 1.14 Other conditions: _____ ☐

2. PRIOR TO ISSUANCE OF ANY PERMITS, APPLICANT SHALL:

A. GENERAL
(Permits includes Grading, Building, Demolition and Encroachment)

☐ 2.01 Record Parcel Map/Tract Map No. _____ pursuant to the Subdivision Map Act and in accordance with the City of Ontario Municipal Code. ☐

☐ 2.02 Submit a PDF of the recorded map to the City Engineer's office. ☐

☐ 2.03 Note that the subject parcel is a recognized parcel in the City of Ontario per _____. ☐

☐ 2.04 Note that the subject parcel is an 'unrecognized' parcel in the City of Ontario and shall require a Certificate of Compliance to be processed unless a deed is provided confirming the existence of the parcel prior to the date of March 4, 1972. ☐

☒ **2.05 Apply for a:** ☐

☐ Certificate of Compliance with a Record of Survey;

☒ **Lot Line Adjustment (Record a Conforming Deed with the County of San Bernardino within six months of the recordation of the Lot Line Adjustment to conform the new LLA legal description. Submit a copy of the recorded Conforming Deed to the Engineering Department.);**

☐ Make a Dedication of Easement.

☒ **2.06** **Provide (original document) Covenants, Conditions and Restrictions (CC&R's), as applicable to the project, and as approved by the City Attorney and the Engineering and Planning Departments, ready for recordation with the County of San Bernardino. The CC&R's shall provide for, but not be limited to, common ingress and egress, joint maintenance of all common access improvements, common facilities, parking areas, utilities and drive approaches in addition to maintenance requirements established in the Water Quality Management Plan (WQMP), as applicable to the project.** ☐

☐ 2.07 For all development occurring south of the Pomona Freeway (60-Freeway) and within the specified boundary limits (per Boundary Map found at *http://tceplumecleanup.com/*), the property developer/owner is made aware of the South Archibald Trichloroethylene (TCE) Plume "Disclosure Letter". Property owner may wish to provide this Letter as part of the Real Estate Transfer Disclosure requirements under California Civil Code Section 1102 et seq. This may include notifications in the Covenants, Conditions and Restrictions (CC&Rs) or other documents related to property transfer and disclosures. Additional information on the plume is available from the Santa Ana Regional Water Quality Control Board at *http://geotracker.waterboards.ca.gov/profile_report?global_id=T10000004658*. ☐

☒ **2.08** **Submit a soils/geology report.** ☐

☒ **2.09** **Other Agency Permit/Approval: Submit a copy of the approved permit and/or other form of approval of the project from the following agency or agencies:** ☐

- ☒ **State of California Department of Transportation (Caltrans) (for improvements on Euclid Avenue)**
- ☐ San Bernardino County Road Department (SBCRD)
- ☐ San Bernardino County Flood Control District (SBCFCD)
- ☐ Federal Emergency Management Agency (FEMA)
- ☐ Cucamonga Valley Water District (CVWD) for sewer/water service
- ☐ United States Army Corps of Engineers (USACE)
- ☐ California Department of Fish & Game
- ☐ Inland Empire Utilities Agency (IEUA)
- ☐ Other: _____

☐ 2.10 Dedicate to the City of Ontario the right-of-way described below: ☐

_____ feet on _____

Property line corner 'cut-back' required at the intersection of _____ and _____.

☒ **2.11** **Dedicate to the City of Ontario the following easement(s):** ☐

A. For water purposes from the eastern property boundary to 10 feet west of the existing public potable water main (W11492).

☒ **2.12** **Vacate the following street(s) and/or easement(s):** ☐

A. 6-foot SCE easement along western property boundary.
B. 10-foot Chino Water District utility easement along northern property boundary.
C. All interfering on-site easements shall be quitclaimed, vacated, and/or submit non-interference letter from affected owner/utility company.

☐ 2.13 Ontario Ranch Developments: ☐

☐ 1) Submit a copy of the permit from the San Bernardino County Health Department to the Engineering Department and the Ontario Municipal Utilities Company (OMUC) for the destruction/abandonment of the on-site water well. The well shall be destroyed/abandoned in accordance with the San Bernardino County Health Department guidelines.

☐ 2) Make a formal request to the City of Ontario Engineering Department for the proposed temporary use of an existing agricultural water well for purposes other than agriculture, such as grading, dust

control, etc. Upon approval, the Applicant shall enter into an agreement with the City of Ontario and pay any applicable fees as set forth by said agreement.

☐ 3) Design proposed retaining walls to retain up to a maximum of three (3) feet of earth. In no case shall a wall exceed an overall height of nine (9) feet (i.e. maximum 6-foot high wall on top of a maximum 3-foot high retaining wall.

☒ **2.14** **Submit a security deposit to the Engineering Department to guarantee construction of the public improvements required herein valued at 100% of the approved construction cost estimate. Security deposit shall be in accordance with the City of Ontario Municipal Code. Security deposit will be eligible for release, in accordance with City procedure, upon completion and acceptance of said public improvements.** ☐

☒ **2.15** **The applicant/developer shall submit all necessary survey documents prepared by a Licensed Surveyor registered in the State of California detailing all existing survey monuments in and around the project site. These documents are to be reviewed and approved by the City Survey Office.** ☐

☒ **2.16** **Pay all Development Impact Fees (DIF) to the Building Department. Storm Drain Development Impact Fee for the proposed retail space, approximately $17,949.36, shall be paid to the Building Department. Remaining DIF shall be calculated by the Building Department. Final fee shall be determined based on the approved site plan and the DIF rate at the time of payment.** ☐

☒ **2.17** **Other conditions:** ☐

a. **Submit a copy of a recorded private reciprocal use agreement or easement. The agreement or easement shall ensure, at a minimum, common ingress and egress and joint maintenance of all common access areas and drive aisles.**

B. PUBLIC IMPROVEMENTS
(See attached Exhibit 'A' for plan check submittal requirements.)

☒ 2.18 **Design and construct full public improvements in accordance with the City of Ontario Municipal Code, current City standards and specifications, master plans and the adopted specific plan for the area, if any. These public improvements shall include, but not be limited to, the following (checked boxes):**

Improvement	Euclid Avenue	Walnut Street	Street 3	Street 4
Curb and Gutter	☐ New; ___ ft. from C/L ☒ **Replace damaged** ☐ Remove and replace	☐ New; ___ ft. from C/L ☒ **Replace damaged** ☐ Remove and replace	☐ New; ___ ft. from C/L ☐ Replace damaged ☐ Remove and replace	☐ New; ___ ft. from C/L ☐ Replace damaged ☐ Remove and replace
AC Pavement	☐ Replacement ☐ Widen ____ additional feet along frontage, including pavm't transitions	☐ Replacement ☐ Widen ____ additional feet along frontage, including pavm't transitions	☐ Replacement ☐ Widen ____ additional feet along frontage, including pavm't transitions	☐ Replacement ☐ Widen ____ additional feet along frontage, including pavm't transitions
PCC Pavement (Truck Route Only)	☐ New ☐ Modify existing	☐ New ☐ Modify existing	☐ New ☐ Modify existing	☐ New ☐ Modify existing
Drive Approach	☒ **New** ☐ Remove and replace	☒ **New** ☐ Remove and replace	☐ New ☐ Remove and replace	☐ New ☐ Remove and replace
Sidewalk	☐ New ☒ **Replace damaged**	☒ **Widen (a)** ☒ **Replace damaged**	☐ New ☐ Remove and replace	☐ New ☐ Remove and replace
ADA Access Ramp	☐ New ☐ Remove and replace	☐ New ☐ Remove and replace	☐ New ☐ Remove and replace	☐ New ☐ Remove and replace
Parkway	☒ **Trees** ☒ **Landscaping (w/irrigation)**	☒ **Trees** ☒ **Landscaping (w/irrigation)**	☐ Trees ☐ Landscaping (w/irrigation)	☐ Trees ☐ Landscaping (w/irrigation)
Raised Landscaped Median	☐ New ☐ Remove and replace	☐ New ☐ Remove and replace	☐ New ☐ Remove and replace	☐ New ☐ Remove and replace
Fire Hydrant	☒ **New / Upgrade** ☐ Relocation	☒ **New / Upgrade** ☐ Relocation	☐ New / Upgrade ☐ Relocation	☐ New / Upgrade ☐ Relocation

Sewer (see Sec. 2.C)	☐ Main ☒ **Lateral**	☐ Main ☒ **Lateral**	☐ Main ☐ Lateral	☐ Main ☐ Lateral
Water (see Sec. 2.D)	☐ Main ☒ **Service**	☐ Main ☒ **Service**	☐ Main ☐ Service	☐ Main ☐ Service
Recycled Water (see Sec. 2.E)	☐ Main ☐ Service	☐ Main ☐ Service	☐ Main ☐ Service	☐ Main ☐ Service
Traffic Signal System (see Sec. 2.F)	☐ New ☒ **Modify existing**	☐ New ☒ **Modify existing**	☐ New ☐ Modify existing	☐ New ☐ Modify existing
Traffic Signing and Striping (see Sec. 2.F)	☒ **New** ☐ Modify existing	☒ **New** ☐ Modify existing	☐ New ☐ Modify existing	☐ New ☐ Modify existing
Street Light (see Sec. 2.F)	☒ **New / Upgrade** ☐ Relocation	☒ **New / Upgrade** ☐ Relocation	☐ New / Upgrade ☐ Relocation	☐ New / Upgrade ☐ Relocation
Bus Stop Pad or Turn-out (see Sec. 2.F)	☐ New ☐ Modify existing	☐ New ☐ Modify existing	☐ New ☐ Modify existing	☐ New ☐ Modify existing
Storm Drain (see Sec. 2G)	☒ **Main** ☒ **Lateral**	☐ Main ☐ Lateral	☐ Main ☐ Lateral	☐ Main ☐ Lateral
Fiber Optics (see Sec. 2K)	☒ **Conduit / Appurtenances**	☒ **Conduit / Appurtenances**	☐ Conduit / Appurtenances	☐ Conduit / Appurtenances
Overhead Utilities	☐ Underground ☐ Relocate	☒ **Underground, see Sec. 2.22** ☐ Relocate	☐ Underground ☐ Relocate	☐ Underground ☐ Relocate
Removal of Improvements	_____ _____ _____	_____ _____ _____	_____ _____ _____	_____ _____ _____
Other Improvements	_____ _____ _____	_____ _____ _____	_____ _____ _____	_____ _____ _____

Specific notes for improvements listed in item no. 2.18, above:
a. Widen sidewalk to allow ADA clearance around proposed fire hydrants.

☒ **2.19 Construct a 2" asphalt concrete (AC) grind and overlay on the following street(s):** ☐
a. From curb to centerline along project frontage on Walnut Street.

☐ 2.20 Reconstruction of the full pavement structural section, per City of Ontario Standard Drawing number 1011, may be required based on the existing pavement condition and final street design. Minimum limits of reconstruction shall be along property frontage, from street centerline to curb/gutter. ☐

☐ 2.21 Make arrangements with the Cucamonga Valley Water District (CVWD) to provide ☐ water service ☐ sewer service to the site. This property is within the area served by the CVWD and Applicant shall provide documentation to the City verifying that all required CVWD fees have been paid. ☐

☒ **2.22 Overhead utilities shall be under-grounded, in accordance with Title 7 of the City's Municipal Code (Ordinance No. 2804 and 2892). Developer may pay in-lieu fee, approximately $208,792.50 ($350/LF for 596.55 LF on Walnut Street), for undergrounding of utilities in accordance with Section 7-7.302.e of the City's Municipal Code.** ☐

☐ 2.23 Other conditions: _____ ☐

C. SEWER

☒ **2.24 An 8-inch sewer main is available for connection by this project in Euclid Avenue (Ref: Sewer Drawing Number: S11617). An 8-inch sewer main is available for connection by this project in Laurel Avenue (Ref: Sewer Drawing Number: S10550).** ☐

☐ 2.25 Design and construct a sewer main extension. A sewer main is not available for direct connection. The closest main is approximately _____ feet away. ☐

☐ 2.26 Submit documentation that shows expected peak loading values for modeling the impact of the subject project to the existing sewer system. The project site is within a deficient public sewer system area. Applicant shall be responsible for all costs associated with the preparation of the model. Based on the results of the analysis, Applicant may be required to mitigate the project impact to the deficient public sewer system, including, but not limited to, upgrading of existing sewer main(s), construction of new sewer main(s) or diversion of sewer discharge to another sewer. ☐

☒ **2.27 Other conditions:** ☐
a. See Exhibit B for additional Sewer Conditions of Approval from OMUC.

D. WATER

☒ **2.28 A 6-inch water main is available for connection by this project in Euclid Avenue (Ref: Water Drawing Number: W11065). An 8-inch water main is available for connection by this project in Euclid Avenue (Ref: Water Drawing Number: W11492).** ☐

☐ 2.29 Design and construct a water main extension. A water main is not available for direct connection. The closest main is approximately _____ feet away. ☐

☒ **2.30 Other conditions:** ☐
a. See Exhibit B for additional Water Conditions of Approval from OMUC.

E. RECYCLED WATER

☐ 2.31 A _____inch recycled water main is available for connection by this project in _____. (Ref: Recycled Water Drawing Number:_____) ☐

☐ 2.32 Design and construct an on-site recycled water system for this project. A recycled water main does exist in the vicinity of this project. ☐

☐ 2.33 Design and construct an on-site recycled water ready system for this project. A recycled water main does not currently exist in the vicinity of this project but is planned for the near future. If Applicant would like to connect to this recycled water main when it becomes available, the cost for the connection shall be borne solely by the Applicant. ☐

☐ 2.34 Submit one (1) electronic copy, in PDF format, of the Engineering Report (ER), for the use of recycled water to OMUC's Water Quality Programs at OMUCWQPlanCheck@ontarioca.gov for review and subsequent submittal to the California State Water Board (Division of Drinking Water) for final approval. ☐

Note: Review and approval process may take up to three (3) months. Contact the OMUC's Water Quality Programs at (909) 395-2678 or email OMUCWQPlanCheck@ontarioca.gov regarding this requirement.

☐ 2.35 Submit one (1) electronic copy, in PDF format, of the Landscape Plans (on-site & off-site) to OMUC's Water Quality Programs at OMUCWQPlanCheck@ontarioca.gov for review and approval.

☐ 2.36 Other conditions: _____ ☐

F. TRAFFIC / TRANSPORTATION

☐ 2.37 Submit a focused traffic impact study, prepared and signed by a Traffic/Civil Engineer registered in the State of California. The study shall address, but not be limited to, the following issues as required by the City Engineer: ☐

1. On-site and off-site circulation
2. Traffic level of service (LOS) at 'build-out' and future years
3. Impact at specific intersections as selected by the City Engineer

☐ 2.38 New traffic signal installations shall be added to Southern California Edison (SCE) customer account number # 2-20-044-3877. ☐

☒ **2.39 Other conditions:** ☐

1. **The applicant/developer shall be responsible to perform all traffic signal modifications and operational improvements as required by the level of service and eastbound/westbound left turn phasing analysis for the intersection of Euclid Avenue and Walnut Avenue, and to the satisfaction of the City Engineer.**

2. **The applicant/developer shall coordinate any work and improvements on Euclid Avenue (State Route 83) with Caltrans via their encroachment permit process. Staff recommends that the Applicant/developer coordinate the proposed improvements along Euclid Avenue with Caltrans during the entitlement phase.**

3. **The applicant/developer shall be responsible to design and construct street improvements along property frontage of Euclid Avenue and Walnut Street in accordance with conditions issued by City's Land Development Division. These, and all other street improvements required herein, shall include, but not be limited to, concrete curb and gutter, sidewalk, LED street lights, signing and striping, and parkway landscaping.**

4. **Euclid Avenue and Walnut Street shall be signed "No Stopping Anytime" along the property frontage.**

5. **The proposed driveways onto Euclid Avenue shall be restricted to right-in/right-out ingress/egress due to the existing raised median.**

6. **Design and construct proposed driveways in accordance with City of Ontario Standard Drawing No. 1204 for Commercial Driveway.**

7. **The applicant/developer shall be responsible to design and construct 1 in-fill public street light along its project frontage on Walnut Street at the T-intersection with Laurel Avenue. Street lighting shall be LED-type and in accordance with City's Traffic and Transportation Design Guidelines. The applicant/developer shall also install smart nodes on all new street light fixtures along project frontage.**

8. **The applicant/developer shall be responsible to replace any existing street light fixtures along its project frontage of Euclid Avenue and Walnut Avenue with the current City approved LED equivalent fixture per the Traffic and Transportation Design Guidelines. The applicant/developer shall also install smart nodes on all existing street light**

fixtures along project frontage.

9. **All landscaping, block walls, and other obstructions shall be compatible with the stopping sight distance requirements per City of Ontario Standard Drawing No. 1309.**

10. **The applicant/developer's engineer-of-record shall meet with City Engineering staff prior to starting signing/striping and street lighting design plans.**

G. DRAINAGE / HYDROLOGY

☒ **2.40** **A 24-inch storm drain main is available to accept flows from this project in Euclid Avenue (Ref: Storm Drain Drawing Number: unknown)** ☐

☐ 2.41 Submit a hydrology study and drainage analysis, prepared and signed by a Civil Engineer registered in the State of California. The study shall be prepared in accordance with the San Bernardino County Hydrology Manual and City of Ontario standards and guidelines. Additional drainage facilities, including, but not limited to, improvements beyond the project frontage, may be required to be designed and constructed, by Applicant, as a result of the findings of this study. ☐

☐ 2.42 An adequate drainage facility to accept additional runoff from the site does not currently exist downstream of the project. Design and construct a storm water detention facility on the project site. 100-year post-development peak flow shall be attenuated such that it does not exceed 80% of pre-development peak flows, in accordance with the approved hydrology study and improvement plans. ☐

☐ 2.43 Submit a copy of a recorded private drainage easement or drainage acceptance agreement to the Engineering Department for the acceptance of any increase to volume and/or concentration of historical drainage flows onto adjacent property, prior to approval of the grading plan for the project. ☐

☐ 2.44 Comply with the City of Ontario Flood Damage Prevention Ordinance (Ordinance No. 2409). The project site or a portion of the project site is within the Special Flood Hazard Area (SFHA) as indicated on the Flood Insurance Rate Map (FIRM) and is subject to flooding during a 100-year frequency storm. The site plan shall be subject to the provisions of the National Flood Insurance Program. ☐

☒ **2.45** **Other conditions:** ☐

a. **Developer shall construct the proposed 24" storm drain line (EULD-VII-1) in Euclid Avenue along the project frontage.**

H. STORM WATER QUALITY / NATIONAL POLLUTANT DISCHARGE AND ELIMINATION SYSTEM (NPDES)

☐ 2.46 401 Water Quality Certification/404 Permit – Submit a copy of any applicable 401 Certification or 404 Permit for the subject project to the City project engineer. Development that will affect any body of surface water (i.e. lake, creek, open drainage channel, etc.) may require a 401 Water Quality Certification from the California Regional Water Quality Control Board, Santa Ana Region (RWQCB) and a 404 Permit from the United States Army Corps of Engineers (USACE). The groups of water bodies classified in these requirements are perennial (flow year round) and ephemeral (flow during rain conditions, only) and include, but are not limited to, direct connections into San Bernardino County Flood Control District (SBCFCD) channels. ☐
If a 401 Certification and/or a 404 Permit are not required, a letter confirming this from Applicant's engineer shall be submitted.
Contact information: USACE (Los Angeles District) (213) 452-3414; RWQCB (951) 782-4130.

☒ **2.47** **Submit a Water Quality Management Plan (WQMP). This plan shall be approved by the Engineering Department prior to approval of any grading plan. The WQMP shall be submitted, utilizing the current San Bernardino County Stormwater Program template, available at: http://www.sbcounty.gov/dpw/land/npdes.asp.** ☐

☒ **2.48** **Design and construct a Connector Pipe Trash Screen or equivalent Trash Treatment Control Device, per catch basin located within or accepting flows tributary of a Priority Land Use (PLU) area that meets the Full Capture System definition and specifications, and is on the Certified List of the State Water Resources Control Board. The device shall be adequately sized per catch basin and include a deflector screen with vector control access for abatement application, vertical support bars, and removable component to facilitate maintenance and cleaning.** ☐

☐ 2.49 Other conditions: _____ ☐

J. SPECIAL DISTRICTS

☐ 2.50 File an application, together with an initial deposit (if required), to establish a Community Facilities District (CFD) pursuant to the Mello-Roos Community Facilities District Act of 1982. The application and fee shall be submitted a minimum of four (4) months prior to final subdivision map approval, and the CFD shall be established prior to final subdivision map approval or issuance of building permits, whichever occurs first. The CFD shall be established upon the subject property to provide funding for various City services. An annual special tax shall be levied upon each parcel or lot in an amount to be determined. The special tax will be collected along with annual property taxes. The City shall be the sole lead agency in the formation of any CFD. Contact Investment and Revenue Resources at (909) 395-2341 to initiate the CFD application process. ☐

☐ 2.51 Other conditions: _____ ☐

K. FIBER OPTIC

☐ 2.52 A _____ fiber optic line is available for connection by this project in _____. (Ref: Fiber Optic Drawing Number: _____) ☐

☒ **2.53 Design and construct fiber optic system to provide access to the City's conduit and fiber optic system per the City's Fiber Optic Master Plan. Building entrance conduits shall start from the closest OntarioNet hand hole constructed along the project frontage in the ROW and shall terminate in the main telecommunications room for each building. Conduit infrastructure shall interconnect with the primary and/or secondary backbone fiber optic conduit system at the nearest OntarioNet hand hole, to be constructed in the ROW at the extreme NEC and SWC of the property.** ☐

☒ **2.54 Refer to the City's Fiber Optic Master Plan for design and layout guidelines. Contact the Broadband Operations Department at (909) 395-2000, regarding this requirement.** ☐

3. PRIOR TO ISSUANCE OF A CERTIFICATE OF OCCUPANCY, APPLICANT SHALL:

☒ **3.01 Set new monuments in place of any monuments that have been damaged or destroyed as a result of construction of the subject project. Monuments shall be set in accordance with City of Ontario standards and to the satisfaction of the City Engineer.** ☐

☐ 3.02 Complete all requirements for recycled water usage. ☐

☐ 1) Procure from the OMUC a copy of the letter of confirmation from the California Department of Public Health (CDPH) that the Engineering Report (ER) has been reviewed and the subject site is approved for the use of recycled water.

☐ 2) Obtain clearance from the OMUC confirming completion of recycled water improvements and passing of shutdown tests and cross connection inspection, upon availability/usage of recycled water.

☐ 3) Complete education training of on-site personnel in the use of recycled water, in accordance with the ER, upon availability/usage of recycled water.

☒ **3.03 The applicant/developer shall submit all final survey documents prepared by a Licensed Surveyor registered in the State of California detailing all survey monuments that have been preserved, revised, adjusted or set along with any maps, corner records or Records of Survey needed to comply with these Conditions of Approvals and the latest edition of the California Professional Land Survey Act. These documents are to be reviewed and approved by the City Survey Office.** ☐

☐ 3.04 Ontario Ranch Projects: For developments located at an intersection of any two collector or arterial streets, the applicant/developer shall set a monument if one does not already exist at that intersection. Contact the City Survey office for information on reference benchmarks, acceptable methodology and required submittals. ☐

☒	3.05	**Confirm payment of all Development Impact Fees (DIF) to the Building Department.**	☐
☒	3.06	**Submit electronic copies (PDF and Auto CAD format) of all approved improvement plans, studies and reports (i.e. hydrology, traffic, WQMP, etc.).**	☐

4. PRIOR TO FINAL ACCEPTANCE, APPLICANT SHALL:

☒	4.01	**Complete all Conditions of Approval listed under Sections 1-3 above.**	☐
☒	4.02	**Pay all outstanding fees pursuant to the City of Ontario Municipal Code, including but not limited to, plan check fees, inspection fees and Development Impact Fees.**	☐
☒	4.03	**The applicant/developer shall submit a written request for the City's final acceptance of the project addressed to the City Project Engineer. The request shall include a completed Acceptance and Bond Release Checklist, state that all Conditions of Approval have been completed and shall be signed by the applicant/developer. Upon receipt of the request, review of the request shall be a minimum of 10 business days. Conditions of Approval that are deemed incomplete by the City will cause delays in the acceptance process.**	☐
☒	4.04	**Submit record drawings (PDF) for all public improvements identified within Section 2 of these Conditions of Approval.**	☐

EXHIBIT 'A'

ENGINEERING DEPARTMENT
First Plan Check Submittal Checklist

Project Number: PDEV22-027, PUD-22-004

The following items are required to be included with the first plan check submittal:

1. ☒ **A copy of this check list**
2. ☒ **Payment of fee for Plan Checking**
3. ☒ **One (1) copy of Engineering Cost Estimate (on City form) with engineer's wet signature and stamp.**
4. ☒ **One (1) copy of project Conditions of Approval**
5. ☒ **Include a PDF (electronic submittal) of each required improvement plan at every submittal.**
6. ☒ **Two (2) sets of Potable Water demand calculations (include water demand calculations showing low, average and peak water demand in GPM for the proposed development and proposed water meter size).**
7. ☐ Three (3) sets of Public Street improvement plan with street cross-sections
8. ☐ Four (4) sets of Public Water improvement plan (include water demand calculations showing low, average and peak water demand in GPM for the proposed development and proposed water meter size)
9. ☐ Four (4) sets of Recycled Water improvement plan (include recycled water demand calculations showing low, average and peak water demand in GPM for the proposed development and proposed water meter size and an exhibit showing the limits of areas being irrigated by each recycled water meter)
10. ☐ Four (4) sets of Public Sewer improvement plan
11. ☒ **Five (5) sets of Public Storm Drain improvement plan**
12. ☒ **Three (3) sets of Public Street Light improvement plan**
13. ☒ **Three (3) sets of Signing and Striping improvement plan**
14. ☒ **Three (3) sets of Fiber Optic plan (include Auto CAD electronic submittal)**
15. ☐ Three (3) sets of HOA Landscape improvement plans. Show corner sight line distance per engineering standard drawing 1309.
16. ☐ Five (5) sets of CFD Landscape improvement plans. Show corner sight line distance per engineering standard drawing 1309.
17. ☒ **Three (3) sets of Dry Utility plans within public right-of-way (at a minimum the plans must show existing and ultimate right-of-way, curb and gutter, proposed utility location including centerline dimensions, wall to wall clearances between proposed utility and adjacent public line, street work repaired per Standard Drawing No. 1306. Include Auto CAD electronic submittal)**
18. ☒ **Three (3) sets of Traffic Signal improvement plan and One (1) copy of Traffic Signal Specifications with modified Special Provisions. Please contact the Traffic Division at (909) 395-2154 to obtain Traffic Signal Specifications.**
19. ☒ **Two (2) copies of Water Quality Management Plan (WQMP), including one (1) copy of the approved Preliminary WQMP (PWQMP).**

20. ☒ **One (1) copy of Hydrology/Drainage study**

21. ☒ **One (1) copy of Soils/Geology report**

22. ☐ Payment for Final Map/Parcel Map processing fee

23. ☐ Three (3) copies of Final Map/Parcel Map

24. ☐ One (1) copy of approved Tentative Map

25. ☒ **One (1) copy of Preliminary Title Report (current within 30 days)**

26. ☐ One (1) copy of Traverse Closure Calculations

27. ☒ **One (1) set of supporting documents and maps (legible copies): referenced improvement plans (full size), referenced record final maps/parcel maps (full size, 18"x26"), Assessor's Parcel map (full size, 11"x17"), recorded documents such as deeds, lot line adjustments, easements, etc.**

28. ☐ Two (2) copies of Engineering Report and an electronic file (include PDF format electronic submittal) for recycled water use

29. ☒ **Other:**
    a. **Submit a copy of a recorded private reciprocal use agreement or easement. The agreement or easement shall ensure, at a minimum, common ingress and egress and joint maintenance of all common access areas and drive aisles.**

CITY OF ONTARIO

MEMORANDUM

TO: Scott Murphy, Community Development Director (Copy of memo only)
Rudy Zeledon, Planning Director (Copy of memo only)
Diane Ayala, Advanced Planning Division (Copy of memo only)
Charity Hernandez, Economic Development
James Caro, Building Department
Raymond Lee, Engineering Department
Jamie Richardson, Landscape Planning Division
Dennis Mejia, Municipal Utility Company
Heather Lugo, Police Department
Paul Erhman, Deputy Fire Chief/Fire Marshal
Jay Bautista, Traffic/Transportation Manager
Lorena Mejia, Airport Planning
Jeff Tang, Engineering/NPDES
Angela Magana, Community Improvement (Copy of memo only)
Jimmy Chang, IPA Department
Blaine Ishii, Integrated Waste

Revision #2

FROM: Alexis Vaughn, Associate Planner

DATE: May 31, 2023

SUBJECT: FILE #: PUD-22-004 Finance Acct#: PU006

The following project has been resubmitted for review. Please send one (1) copy and email one (1) copy of your DAB report to the Planning Department by .

PROJECT DESCRIPTION: A Planned Unit Development establishing land use designations, and development standards and guidelines, which will govern the development of 10.6 acres of land generally located at the northwest corner of Euclid Avenue and Walnut Street (APNs: 1051-271-67, 1051-271-06, 1051-271-66). Related Files: PDEV22-027, PHP22-015)

☑ The plan does adequately address the departmental concerns at this time.

- ☐ No comments
- ☐ See previous report for Conditions
- ☐ Report attached (1 copy and email 1 copy)
- ☑ Standard Conditions of Approval apply

☐ The plan does not adequately address the departmental concerns.

- ☐ The conditions contained in the attached report must be met prior to scheduling for Development Advisory Board.

OMUC Utilities Engineering | Jeffrey F. Krizek | Associate Engineer | 06/23/2023
Department | Signature | Title | Date

jkrizek@ontarioca.gov

CITY OF ONTARIO
MEMORANDUM

TO: **Alexis Vaughn, Associate Planner**
Planning Department

FROM: **Paul Ehrman, Sr. Deputy Fire Chief/Fire Marshal**
Fire Department

DATE: **November 7, 2022**

SUBJECT: **PUD-22-004 - A Planned Unit Development establishing land use designations, and development standards and guidelines, which will govern the development of 10.6 acres of land generally located at the northwest corner of Euclid Avenue and Walnut Street (APNs: 1051-271-67, 1051-271-06, 1051-271-66). Related Files: PDEV22-027, PHP22-015).**

☒ The plan **does** adequately address Fire Department requirements at this time.

☒ No comments.

CITY OF ONTARIO

MEMORANDUM

TO: Scott Murphy, Community Development Director (Copy of memo only)
Rudy Zeledon, Planning Director (Copy of memo only)
Diane Ayala, Advanced Planning Division (Copy of memo only)
Charity Hernandez, Economic Development
James Caro, Building Department
Raymond Lee, Engineering Department
Jamie Richardson, Landscape Planning Division
Dennis Mejia, Municipal Utility Company
Jeremy Phillips, Police Department
Paul Erhman, Deputy Fire Chief/Fire Marshal
Jay Bautista, Traffic/Transportation Manager
Lorena Mejia, Airport Planning
Tricia Espinoza, Engineering/NPDES
Angela Magana, Community Improvement (Copy of memo only)
Jimmy Chang, IPA Department
Ben Mayorga, Integrated Waste

FROM: Alexis Vaughn, Associate Planner

DATE: October 24, 2022

SUBJECT: FILE #: PUD-22-004 Finance Acct#: PU006

The following project has been submitted for review. Please send one (1) copy and email one (1) copy of your DAB report to the Planning Department by .

Note:
- ☐ Only DAB action is required
- ☐ Both DAB and Planning Commission actions are required
- ☐ Only Planning Commission action is required
- ☐ DAB, Planning Commission and City Council actions are required
- ☐ Only Zoning Administrator action is required

PROJECT DESCRIPTION: PUD associated with PDEV22-027 (description to be revised)

☒ The plan does adequately address the departmental concerns at this time.
- ☐ No comments
- ☐ Report attached (1 copy and email 1 copy)
- ☒ Standard Conditions of Approval apply

☐ The plan does not adequately address the departmental concerns.
- ☐ The conditions contained in the attached report must be met prior to scheduling for Development Advisory Board.

ONTARIO POLICE	ANTONIO GALBAN	POLICE OFFICER	11/2/22
Department	Signature	Title	Date

CITY OF ONTARIO

MEMORANDUM

TO: Scott Murphy, Community Development Director (Copy of memo only)
Rudy Zeledon, Planning Director (Copy of memo only)
Diane Ayala, Advanced Planning Division (Copy of memo only)
Charity Hernandez, Economic Development
James Caro, Building Department
Raymond Lee, Engineering Department
Jamie Richardson, Landscape Planning Division
Dennis Mejia, Municipal Utility Company
Heather Lugo, Police Department
Paul Erhman, Deputy Fire Chief/Fire Marshal
Jay Bautista, Traffic/Transportation Manager
Lorena Mejia, Airport Planning
Jeff Tang, Engineering/NPDES
Angela Magana, Community Improvement (Copy of memo only)
Jimmy Chang, IPA Department
Blaine Ishii, Integrated Waste

Revision #2

FROM: Alexis Vaughn, Associate Planner

DATE: May 31, 2023

SUBJECT: FILE #: PUD-22-004 Finance Acct#: PU006

The following project has been resubmitted for review. Please send one (1) copy and email one (1) copy of your DAB report to the Planning Department by .

PROJECT DESCRIPTION: A Planned Unit Development establishing land use designations, and development standards and guidelines, which will govern the development of 10.6 acres of land generally located at the northwest corner of Euclid Avenue and Walnut Street (APNs: 1051-271-67, 1051-271-06, 1051-271-66). Related Files: PDEV22-027, PHP22-015)

☑ The plan does adequately address the departmental concerns at this time.

- ☐ No comments
- ☐ See previous report for Conditions
- ☑ Report attached (1 copy and email 1 copy)
- ☑ Standard Conditions of Approval apply

☐ The plan does not adequately address the departmental concerns.

- ☐ The conditions contained in the attached report must be met prior to scheduling for Development Advisory Board.

Department	Signature	Title	Date
Landscape Planning Division		Sr. Landscape Architect	6/14/2023

AIRPORT LAND USE COMPATIBILITY PLANNING
CONSISTENCY DETERMINATION REPORT

ONTARIO AIRPORT PLANNING

Project File No.: PDEV22-027 & PUD22-004

Address: NWC of Euclid Ave and Walnut Street

APN: 1051-271-67, 06 & 66

Existing Land Use: Commercial shopping center with vacant/underutilized buildings

Proposed Land Use: Development Plan to construct 346 multi-family units and 6,000 SF of commercial

Site Acreage: 10.63 Proposed Structure Height: 55 FT

ONT-IAC Project Review: N/A

Airport Influence Area: ONT

Reviewed By: Lorena Mejia

Contact Info: 909-395-2276

Project Planner: Alexis Vaugn

Date: 1/30/2023

CD No.: 2022-051

PALU No.: N/A

The project is impacted by the following ONT ALUCP Compatibility Zones:

Safety	Noise Impact	Airspace Protection	Overflight Notification
○ Zone 1	○ 75+ dB CNEL	☐ High Terrain Zone	☐ Avigation Easement Dedication
○ Zone 1A	○ 70 - 75 dB CNEL	☑ FAA Notification Surfaces	☐ Recorded Overflight Notification
☐ Zone 2	☐ 65 - 70 dB CNEL	○ Airspace Obstruction Surfaces	☑ Real Estate Transaction Disclosure
☐ Zone 3	☐ 60 - 65 dB CNEL	☐ Airspace Avigation Easement Area	
☐ Zone 4		Allowable Height: 200 FT+	
○ Zone 5			

The project is impacted by the following Chino ALUCP Safety Zones:

○ Zone 1 ○ Zone 2 ○ Zone 3 ○ Zone 4 ○ Zone 5 ☐ Zone 6

Allowable Height: _____

CONSISTENCY DETERMINATION

This proposed Project is: ○ Exempt from the ALUCP ◉ Consistent ○ Consistent with Conditions ○ Inconsistent

The proposed project is located within the Airport Influence Area of Ontario International Airport (ONT) was evaluated and found to be consistent with the policies and criteria of the Airport Land Use Compatibility Plan (ALUCP) for ONT.

Airport Planner Signature: Lorena Mejia